SECTION 11 52 13.50

FRONT PROJECTION SCREENS

Display hidden notes to specifier. (Don't know how? [Click Here](https://www.arcat.com/sd/display_hidden_notes.shtml))

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\*\* NOTE TO SPECIFIER \*\* Draper Inc.; Wall and ceiling surface mounted, recess mounted and suspended front projection screens.  
This section is based on the products of Draper Inc., which is located at:411 S. Pearl Street, P. O. Box 425Spiceland, IN 47385-0425Toll Free Tel: 800-238-7999Tel: 765-987-7999Fax: 866-637-5611Email: [request info (drapercontract@draperinc.com)](https://arcat.com/rfi?action=email&company=Draper%252BInc.&message=RE%253A%2520Spec%2520Question%2520(11132dra)%253A%2520&coid=32063&spec=11132dra&rep=&fax=866-637-5611)  
Web: <http://www.draperinc.com>   
  
 [ [Click Here](https://arcat.com/company/draper-inc-32063) ] for additional information.  
  
Draper manufactures the best and most complete line of projection screens in the world. We want to help you incorporate these screens into the most effective presentation systems. Planning a projection system involves several steps: choosing the screen size, viewing surface, screen model and control system if required. For additional information, go to [www.draperinc.com](http://www.draperinc.com) .

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Electrically operated, surface mounted, front projection screens.
    2. Electrically operated, ceiling recessed, front projection screens.
    3. Electrically operated, suspended from high ceilings, front projection screens.
    4. Front projection screen controls.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Division 5 - Metal Fabrications: Suspension systems for projection screens.
    2. Section 06 40 23 - Interior Architectural Woodwork: Wood trim for recessed screen installation.
    3. Section 09 22 26 - Ceiling Suspension System: Supports and trim for suspended ceilings.
    4. Section 09 23 13 - Gypsum Plaster: Ceiling for recessed screen installation.
    5. Section 09 21 16.33 - Gypsum Board Assemblies: Ceiling for recessed screen installation.
    6. Section 09 51 23- Acoustical Tile Ceilings: Ceiling for recessed screen installation.
    7. Division 26 for electrical wiring, connections, and installation of remote control switches for electrically operated projection screens.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. NFPA 70 - National Electrical Code.
    2. NFPA 701-99 - Fire Tests for Flame-Resistant Textiles and Films.
    3. GREENGUARD Environmental Institute Gold.
    4. US Green Building Council.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00.
     2. Product Data: Manufacturer's data sheets on each product to be used, including:
        1. Preparation instructions and recommendations.
        2. Storage and handling requirements and recommendations.
        3. Installation methods.
     3. Wiring diagram for electrically operated units.

\*\* NOTE TO SPECIFIER \*\* Retain below for front projection screens where shop drawings are needed to understand relationships with adjoining work.

* + 1. Shop Drawings: Shop drawings showing layout and types of projection screens. Show the following:

\*\* NOTE TO SPECIFIER \*\* Edit below to suit screens specified and project conditions.

* + - 1. Location of screen centerline.
      2. Location of wiring connections.
      3. Seams in viewing surfaces.
      4. Detailed drawings for concealed mounting.
      5. Connections to suspension systems.
      6. Anchorage details.
      7. Accessories.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
    2. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
  1. QUALITY ASSURANCE
     1. Single Source Responsibility: Obtain each type of projection screen required from a single manufacturer as a complete unit, including necessary mounting hardware and accessories.
     2. Coordination of Work: Coordinate layout and installation of projection screens with other construction supported by, or penetrating through, ceilings, including light fixtures, HVAC equipment, fire-suppression system, and partitions.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Do not deliver projection screens until building is enclosed and other construction where screens will be installed is substantially complete.
     2. Store products in manufacturer's unopened packaging until ready for installation.
     3. Protect screens from damage during delivery, handling, storage, and installation.
  3. COORDINATION
     1. Coordinate work with installation of ceilings, walls, electric service power characteristics, and location.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Draper Inc., which is located at:411 S. Pearl Street, P. O. Box 425Spiceland, IN 47385-0425Toll Free Tel: 800-238-7999Tel: 765-987-7999Fax: 866-637-5611Email: [request info (drapercontract@draperinc.com)](https://arcat.com/rfi?action=email&company=Draper%252BInc.&message=RE%253A%2520Spec%2520Question%2520(11132dra)%253A%2520&coid=32063&spec=11132dra&rep=&fax=866-637-5611);Web: <http://www.draperinc.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

\*\* NOTE TO SPECIFIER \*\* Delete from the following lists the types of front projection screens not used on the project.

* 1. MOTORIZED, SURFACE MOUNTED, FRONT PROJECTION SCREENS

\*\* NOTE TO SPECIFIER \*\* Acumen® V is available in image widths up to 10 feet (305 cm) wide. Contact manufacturer for additional information.

* + 1. Acumen V: Electric motor operated, tab tensioned, wall or ceiling mounted projection screen. Low voltage control built into endcap. Contoured case of 0.156 inch (3.9624 mm) thick, 9-gauge extruded aluminum. Removable front fascia conceals viewing surface that retracts completely inside the case. Case Dimensions (HxD): 7-1/8 x 5-7/8 inches (181 x 149 mm).

\*\* NOTE TO SPECIFIER \*\* Delete motor paragraph and related control options not required. Note there are size limitations with quiet motors. Contact manufacturer for additional information.

* + - 1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor shall be left mounted. Low voltage controller built into the endcap.
      2. Quiet Motor mounted inside screen roller on rubber isolation insulators. Operates at 44db. UL certified. Rated: 110-120 VAC, 60 Hz. 3-wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor to be left mounted. Low voltage controller built into the endcap.
      3. System Options:

\*\* NOTE TO SPECIFIER \*\* Delete case finish option not required.

* + - * 1. Contoured aluminum case finished in a white color is standard.
        2. Contoured aluminum case finished in a black color.

\*\* NOTE TO SPECIFIER \*\* Delete brackets paragraph not required. Wall mount is standard.

* + - * 1. Wall Mount "Floating" Steel Brackets. Finished to match screen case.
        2. Ceiling Mount "Floating" Steel Brackets. Finished to match screen case.
      1. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types from the following paragraphs not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. TecVision XH700X Grey - On Axis gain of 0.7. 180 degree viewing cone. Designed for blending applications on curved or flat screens where ambient light is present. Provides very good contrast and color reproduction. Imaging Science Foundation certified and 8K ready. Dark backing.
        2. TecVision XH800X ALR - On Axis gain of 0.8. Rejects 57% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        3. TecVision XH900X ALR - On Axis gain of 0.9. Rejects 60% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        4. TecVision CS1000X ALR - On Axis gain of 1.0. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        5. TecVision MS1000X ALR - Rejects 73% of ambient light. On Axis gain of 1.0. 70 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        6. TecVision XT1000X White - On Axis gain of 1.0. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready reference screen surface for blending applications, precise resolution, and color accuracy. Dark backing.
        7. TecVision XT1100X White - On-Axis gain of 1.1. 180 degree viewing cone. Designed for use when the projector brightness and size of screen require a minimal increase in gain. Imaging Science Foundation certified and 8K ready. Dark backing.
        8. TecVision CS1200X ALR - On Axis gain of 1.2. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        9. TecVision XH900X Grey - On Axis gain of 0.9. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        10. TecVision MS1000X Grey - On Axis gain of 1.0. 70 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        11. TecVision XT1300X White - On Axis gain of 1.3. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        12. TecVision XT1600X White - On Axis gain of 1.6. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        13. TecVision XT1800X White - On Axis gain of 1.8. 180 degree viewing cone. Imaging Science Foundation certified. Suited for active 3D or color combining passive 3D systems. 8K ready. Dark backing.
        14. Matt White XT1000VB - On Axis gain of 1.0. 180 degree viewing cone. GREENGUARD Gold certified. Black backing. 4K ready.

\*\* NOTE TO SPECIFIER \*\* Grey XH600V maximum size available is 9 feet by 12 feet (274 cm x 366 cm).

* + - * 1. Grey XH600V - On Axis gain of 0.6. Provides excellent contrast and color reproduction. GREENGUARD Gold certified. Available with or without black backing. 4K ready.

\*\* NOTE TO SPECIFIER \*\* ClearSound NanoPerf XT1000V is not recommended for use in sizes less than 80 inches (203 cm) wide or for viewing less than 10 feet (305 cm) from screen.

* + - * 1. ClearSound NanoPerf XT1000V - On Axis gain of 1.0. 180 degree viewing cone. Acoustically transparent white PVC fabric with microscopic perforations. 4K ready.
        2. CineFlex CH1200V - On Axis gain of 1.2. 60 degree viewing cone. Neutral grey rear projection diffusing surface. Provides high resolution and excellent contrast, even in lighted rooms. Recommended for use with low to medium output projectors. 4K ready.
        3. CineFlex White XT700V - On Axis gain of 0.7. 180 degree viewing cone. White rear projection surface works well for edge matching or edge blending applications, and for short throw rear projection. Reasonable control of ambient light is recommended. 4K ready.
      1. Tab-Tensioning System:
         1. Viewing surface with integrated tabs and cable on each side of fabric to provide tension and ensure flat viewing surface. Viewing surface and tabs CNC cut as a single piece. Tabs RF welded to the back of viewing surface to prevent tab separation. Tab adhesives are not acceptable. Viewing surface inserted into aluminum bottom dowel. Warranted for 5 years against tab separation.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W. Black masking borders standard. 12 inch (305 mm) black drop standard.
         1. Custom Size: \_\_\_\_\_\_\_\_ H x \_\_\_\_\_\_\_\_\_\_\_\_ W.
         2. 16:10 Format:

94 inch (2438 mm) diagonal, 50 x 80 inches (1270 x 2032 mm).

109 inch (2769 mm) diagonal, 57-1/2 x 92 inches (1461 x 2337 mm).

113 inch (2870 mm) diagonal, 60 x 96 inches (1524 x 2438 mm).

123 inch (3124 mm) diagonal, 65 x 104 inches (1351 x 2642 mm).

137 inch (3480) diagonal, 72-1/2 x 116 inches (1842 by 2946 mm).

* + - * 1. HDTV Format (16:9):

92 inch (2337 mm) diagonal, 45 x 80 inches (1143 x 2032 mm).

100 inch (2540 mm) diagonal, 49 x 87 inches (1245 x 2210 mm)

106 inch (2692 mm) diagonal, 52 x 92 inches (1321 x 2337 mm).

110 inch (2794 mm) diagonal, 54 x 96 inches (1372 x 2438 mm)

119 inch (3023 mm) diagonal, 58 x 104 inches (1473 x 2642 mm).

133 inch (3378 mm) diagonal, 65 x 116 inches (1651 x 2947 mm).

* + - * 1. 2:39:1 CinemaScope Format:

117 inch (2972 mm) diagonal, 45 x 107-1/2 inches (1143 x 2731 mm).

* + - * 1. 1.9:1 2K/4K Full:

96 inch (2438 mm) diagonal, 45 x 85-1/2 inches (1143 x 2172 mm).

118 inch (2998 mm) diagonal, 55 x 104-1/2 inches (1397 x 2654 mm.

* + - * 1. 21:9 2K/4K Scope:

104-1/4 inch (2648 mm) diagonal, 40-1/2 x 96 inches (1029 x 2438 mm).

126 inch (3200 mm) diagonal, 49 x 116 inches (1245 x 2947 mm.

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop exceeding the standard 12 inches (305 mm) is required, fill in the drop height and delete the paragraph not required. Total screen height cannot exceed 14 feet (4.27 m). Black masking is standard. If extra screen drop is not required, delete both paragraphs.

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.

\*\* NOTE TO SPECIFIER \*\* Acumen XL V available in image width up to 18 feet (5.5 m) wide. Contact manufacturer for additional information.

* + 1. Acumen XL V: Electric motor operated, tab tensioned, wall or ceiling mounted projection screen. Low voltage control built into endcap. Contoured case of 0.156 inch (3.9624 mm) thick, 9-gauge extruded aluminum. 5 inch (127 mm) diameter metal roller mounted on rubber insulated supports. Removable front fascia conceals viewing surface that retracts completely inside the case. Case Dimensions (HxD): 9-1/4 x 8-1/8 inches (235 x 206 mm).

\*\* NOTE TO SPECIFIER \*\* Select one of the following motor paragraphs and delete the paragraph not required. Note that there are size limitations with quiet motors. Contact manufacturer for additional information.

* + - 1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor shall be left mounted. Low voltage controller built into the endcap.
      2. Quiet Motor mounted inside screen roller on rubber isolation insulators. Operates at 44 db. UL certified. Rated 110-120 VAC, 60 Hz. 3-wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor to be left mounted. Low voltage controller built into the endcap.
      3. System Options:

\*\* NOTE TO SPECIFIER \*\* Delete case finish option not required.

* + - * 1. Contoured aluminum case finished in a white color is standard.
        2. Contoured aluminum case finished in a black color.

\*\* NOTE TO SPECIFIER \*\* Delete brackets paragraph not required. Wall mount is standard.

* + - * 1. Wall Mount "Floating" Steel Brackets. Finished to match screen case.
        2. Ceiling Mount "Floating" Steel Brackets. Finished to match screen case.
      1. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types from the following paragraphs not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. TecVision XH700X Grey - On Axis gain of 0.7. 180 degree viewing cone. Designed for blending applications on curved or flat screens where ambient light is present. Provides very good contrast and color reproduction. Imaging Science Foundation certified and 4K ready.
        2. TecVision XH800X ALR - On Axis gain of 0.8. Rejects 57% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 4K ready. Dark backing.
        3. TecVision XH900X ALR - On Axis gain of 0.9. Rejects 60% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 4K ready. Dark backing.
        4. TecVision MS1000X ALR - Rejects 73% of ambient light. On Axis gain of 1.0. 70 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 4K ready. Dark backing.
        5. TecVision CS1000X ALR - On Axis gain of 1.0. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 4K ready. Dark backing.
        6. TecVision CS1200X ALR - On Axis gain of 1.2. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 4K ready. Dark backing.
        7. TecVision XT1000X White - On Axis gain of 1.0. 180 degree viewing cone. Imaging Science Foundation certified. 4K ready reference screen surface for blending applications, precise resolution, and color accuracy. Dark backing.
        8. TecVision XT1100X White - On-Axis gain of 1.1. 180 degree viewing cone. Designed for use when the projector brightness and size of screen require a minimal increase in gain. Imaging Science Foundation certified and 4K ready.
        9. TecVision XT1300X White - On Axis gain of 1.3. 180 degree viewing cone. Imaging Science Foundation certified. 4K ready. Dark backing.
        10. TecVision XT1600X White - On Axis gain of 1.6. 180 degree viewing cone. Imaging Science Foundation certified. 4K ready. Dark backing.
        11. TecVision XT1800X White - On Axis gain of 1.8. 180 degree viewing cone. Imaging Science Foundation certified. Suited for active 3D or color combining passive 3D systems. 4K ready. Dark backing.
        12. Matt White XT1000VB - On Axis gain of 1.0. 180 degree viewing cone. GREENGUARD Gold certified. Black backing.

\*\* NOTE TO SPECIFIER \*\* Grey XH600V maximum size available is 9 feet by 12 feet (274 cm x 366 cm).

* + - * 1. Grey XH600V - On Axis gain of 0.6. Provides excellent contrast and color reproduction. GREENGUARD Gold certified. Available with or without black backing.

\*\* NOTE TO SPECIFIER \*\* ClearSound NanoPerf XT1000V is not recommended for viewing less than 10 feet (305 cm) from screen.

* + - * 1. ClearSound NanoPerf XT1000V - On Axis gain of 1.0. 180 degree viewing cone. Acoustically transparent white PVC fabric with microscopic perforations.
        2. CineFlex CH1200V - On Axis gain of 1.2. 60 degree viewing cone. Neutral grey rear projection diffusing surface. Provides high resolution and excellent contrast, even in lighted rooms. Recommended for use with low to medium output projectors.
        3. CineFlex White XT700V - On Axis gain of 0.7. 180 degree viewing cone. White rear projection surface works well for edge matching or edge blending applications, and for short throw rear projection. Reasonable control of ambient light is recommended.
      1. Tab-Tensioning System:
         1. Viewing surface with integrated tabs and cable on each side of fabric to provide tension and ensure flat viewing surface. Viewing surface and tabs CNC cut as a single piece. Tabs RF welded to the back of viewing surface to prevent tab separation. Tab adhesives are not acceptable. Viewing surface inserted into aluminum bottom dowel.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. Custom Size: \_\_\_\_\_\_\_\_ H x \_\_\_\_\_\_\_\_\_\_\_\_ W.
         2. 16:10 Format. Black masking borders standard.

165 inch (419 cm) diagonal, 87-1/2 x 140 inches (222 x 356 cm).

189 inch (480 mm) diagonal, 100 x 160 inches (254 x 406 cm).

198 inch (503 cm) diagonal, 105 x 168 inches (267 x 427 cm).

226 inch (574 cm) diagonal, 120 x 192 inches (305 x 488 cm).

255 inch (648 cm) diagonal, 135 x 216 inches (343 by 549 cm).

* + - * 1. HDTV Format (16:9). Black masking borders standard.

161 inch (409 cm) diagonal, 79 x 140 inches (201 x 356 cm).

184 inch (468 cm) diagonal, 90 x 160 inches (229 x 406 cm).

193 inch (490 cm) diagonal, 94-1/2 x 168 inches (240 x 427 cm).

220 inch (559 cm) diagonal, 108 x 192 inches (274 x 488 cm).

248 inch (630 cm) diagonal, 121-1/2 x 216 inches (309 x 549 cm).

* + - * 1. 2:39:1 CinemaScope Format

135 inch (343 cm) diagonal, 52 x 124-1/4 inches (132 x 316 cm).

150 inch (381 cm) diagonal, 58 x 138-1/4 inches (147 x 351 cm).

169 inch (429 cm) diagonal, 65 x 155-1/4 inches (165 x 394 cm).

208 inch (528 cm) diagonal, 80 x 191-1/4 inches (203 x 486 cm).

* + - * 1. 1.9:1 2K/4K Full

139 inch (353 cm) diagonal, 65 x 123-1/2 inches (165 x 314 cm).

161 inch (409 cm) diagonal, 75 x 142-1/2 inches (191 x 362 cm).

182 inch (462 cm) diagonal, 85 x 161-1/2 inches (216 x 410 cm).

204 inch (518 cm) diagonal, 95 x 180-1/2 inches (241 x 459 cm).

* + - * 1. 21:9 2K/4K Scope:

152 inch (3861 mm) diagonal, 59 x 140 inches (1499 x 3556 mm).

182-3/8 inch (4632 mm) diagonal, 71 x 168 inches (1803 x 4267 mm).

208-3/8 (5293 mm) diagonal, 81 x 192 inches (2057 x 4877 mm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop is required, fill in the drop height and delete the paragraph not required. Total screen height cannot exceed 18 feet (5.49 m). Extra drop cannot exceed 84 inches (213 cm). Black is standard. If extra screen drop is not required, delete both paragraphs.

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.

\*\* NOTE TO SPECIFIER \*\* Premier is available in image width up to 12 feet (366 cm) wide, depending on surface selection. Contact manufacturer for details.

* + 1. Premier: Electric motor operated, pentagonal-shaped steel case, tab tensioned. Metal roller mounted on rubber isolation mounts. Case is 5-7/8 inches x 5-1/4 inches (150 mm high x 134 mm deep), one piece 22 gauge steel with end caps forming universal wall or ceiling hanging bracket. Case and tensioning dowel finished in flat black.

\*\* NOTE TO SPECIFIER \*\* Delete motor paragraph and related control options not required. Note there are size limitations with quiet motors. Contact manufacturer for additional information.

* + - 1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor shall be left mounted.
      2. Quiet Motor mounted inside screen roller on rubber isolation insulators. Operates at 44db. UL certified. Rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor to be left mounted.
      3. System Options:

\*\* NOTE TO SPECIFIER \*\* Delete case finish option not required. Black is standard.

* + - * 1. Case finished black.
        2. Case finished white.

\*\* NOTE TO SPECIFIER \*\* Delete the bracket paragraph not required.

* + - * 1. Projected Mounting Brackets: 6 inch (152 mm) clearance from wall. Finished black.
        2. Floating Mounting Brackets: For mounting screen to wall or ceiling.

\*\* NOTE TO SPECIFIER \*\* Delete following paragraph if recessed ceiling installation is not required.

* + - * 1. Ceiling Trim Kit for recessing above acoustical tile ceiling grid.
      1. Projection Viewing Surface: Mildew resistant 100 percent vinyl with black masking borders and 12 inch (305 mm) black drop.

\*\* NOTE TO SPECIFIER \*\* Select the screen type from the following paragraphs and delete those not required. Note that there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000VB - On Axis gain of 1.0. 180 degree viewing cone. GREENGUARD Gold certified. Black backing. 4K ready.

\*\* NOTE TO SPECIFIER \*\* Grey XH600V maximum size available is 9 feet by 12 feet (274 cm x 366 cm).

* + - * 1. Grey XH600V - On Axis gain of 0.6. Provides excellent contrast and color reproduction. GREENGUARD Gold certified. Available with or without black backing. 4K ready.

\*\* NOTE TO SPECIFIER \*\* ClearSound NanoPerf XT1000V is not recommended for use in sizes less than 80 inches (203 cm) wide or for viewing less than 10 feet (305 cm) from screen.

* + - * 1. ClearSound NanoPerf XT1000V - On Axis gain of 1.0. 180 degree viewing cone. Acoustically transparent white PVC fabric with microscopic perforations. 4K ready.
        2. TecVision XH700X Grey - On Axis gain of 0.7. 180 degree viewing cone. Designed for blending applications on curved or flat screens where ambient light is present. Provides very good contrast and color reproduction. Imaging Science Foundation certified and 8K ready. Dark backing.
        3. TecVision XH800X ALR - On Axis gain of 0.8. Rejects 57% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        4. TecVision XH900X ALR - On Axis gain of 0.9. Rejects 60% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        5. TecVision CS1000X ALR - On Axis gain of 1.0. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        6. TecVision MS1000X ALR - Rejects 73% of ambient light. On Axis gain of 1.0. 70 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        7. TecVision XT1000X White - On Axis gain of 1.0. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready reference screen surface for blending applications, precise resolution, and color accuracy. Dark backing.
        8. TecVision XT1100X White - On-Axis gain of 1.1. 180 degree viewing cone. Designed for use when the projector brightness and size of screen require a minimal increase in gain. Imaging Science Foundation certified and 8K ready. Dark backing.
        9. TecVision CS1200X ALR - On Axis gain of 1.2. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        10. TecVision XH900X Grey - On Axis gain of 0.9. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        11. TecVision MS1000X Grey - On Axis gain of 1.0. 70 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        12. TecVision XT1300X White - On Axis gain of 1.3. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        13. TecVision XT1600X White - On Axis gain of 1.6. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        14. TecVision XT1800X White - On Axis gain of 1.8. 180 degree viewing cone. Imaging Science Foundation certified. Suited for active 3D or color combining passive 3D systems. 8K ready. Dark backing.
        15. CineFlex CH1200V - On Axis gain of 1.2. 60 degree viewing cone. Neutral grey rear projection diffusing surface. Provides high resolution and excellent contrast, even in lighted rooms. Recommended for use with low to medium output projectors. 4K ready.
        16. CineFlex White XT700V - On Axis gain of 0.7. 180 degree viewing cone. White rear projection surface works well for edge matching or edge blending applications, and for short throw rear projection. Reasonable control of ambient light is recommended. 4K ready.
      1. Tab-Tensioning System:
         1. Viewing surface with integrated tabs and cable on each side of fabric to provide tension and ensure flat viewing surface. Viewing surface and tabs CNC cut as a single piece. Tabs RF welded to the back of viewing surface to prevent tab separation. Tab adhesives are not acceptable. Viewing surface inserted into aluminum bottom dowel. Warranted for 5 years against tab separation.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes required for the project.

* + - 1. Viewing Area H x W. Black masking borders standard. 12 inch (305 mm) black drop standard.
         1. Custom Size: \_\_\_\_\_\_\_\_ H x \_\_\_\_\_\_\_\_\_\_\_\_ W.
         2. NTSC Format (4:3):

6 foot (1.83 m) diagonal, 42-1/2 x 56-1/2 inches (1080 x 1435 mm).

7 foot (2.13 m) diagonal, 50 x 66-1/2 inches (1270 x 1689 mm).

100 inch (2540 mm) diagonal, 60 x 80 inches (1524 x 2032 mm).

10 foot (3.05 m) diagonal, 72 x 96 inches (1829 x 2438 mm).

11 foot (3.35 m) diagonal, 78 x 104 inches (1981 x 2642 mm).

150 inch (3810 mm) diagonal, 87 x 116 inches (2210 x 3658 mm).

15 foot (4.572 m) diagonal, 108 x 144 inches (2743 x 3658 mm).

* + - * 1. HDTV Format (16:9):

65 inch (1651 mm) diagonal, 31-3/4 x 56-1/2 inches (806 x 1435 mm).

73 inch (1854 mm) diagonal, 36 x 64 inches (914 x 1626 mm).

82 inch (2083 mm) diagonal, 40-1/2 x 42 inches (1029 x 1067 mm).

92 inch (2337 mm) diagonal, 45 x 80 inches (1143 x 2032 mm).

100 inch (2540 mm) diagonal, 49 x 87 inches (1245 x 2210 mm)

106 inch (2692 mm) diagonal, 52 x 92 inches (1321 x 2337 mm).

110 inch (2794 mm) diagonal, 54 x 96 inches (1372 x 2438 mm)

119 inch (3023 mm) diagonal, 58 x 104 inches (1473 x 2642 mm).

133 inch (3378 mm) diagonal, 65 x 116 inches (1651 x 2947 mm).

161 inch (4089 mm) diagonal, 79 x 140 inches (2007 x 3556 mm).

* + - * 1. 16:10 Format:

67 inch (1702 mm) diagonal, 35-1/4 x 56-1/2 inches (895 x 1435 mm).

76 inch (1930 mm) diagonal, 40 x 64 inches (1016 x 1626 mm)

85 inch (2159 mm) diagonal, 45 x 72 inches (1143 x 1829 mm).

94 inch (2438 mm) diagonal, 50 x 80 inches (1270 x 2032 mm).

109 inch (2769 mm) diagonal, 57-1/2 x 92 inches (1461 x 2337 mm).

113 inch (2870 mm) diagonal, 60 x 96 inches (1524 x 2438 mm).

123 inch (3124 mm) diagonal, 65 x 104 inches (1351 x 2642 mm).

137 inch (3480) diagonal, 72-1/2 x 116 inches (1842 x 2946 mm).

165 inch (4191 mm) diagonal, 87-1/2 x 140 inches (2223 x 3556 mm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop exceeding the standard 12 inches (305 mm) is required, fill in the drop height and delete the paragraph not required. Total screen height cannot exceed 14 feet (4.27 m). Black masking is standard. If extra screen drop is not required, delete both paragraphs.

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.

\*\* NOTE TO SPECIFIER \*\* Premier XL is available in image width up to 16 feet (388 cm) wide, depending on surface selection. Contact manufacturer for details.

* + 1. Premier XL: Electric motor operated, metal case, tab tensioned. Metal roller mounted on rubber isolation mounts. Case consists of a curved front and L-shaped back/top cover fabricated of extruded aluminum, with endcaps forming ceiling hanging brackets. Case 6-3/4 inches high x 6-3/4 inches deep (172 mm high x 172 mm deep). Case and tensioning dowel finished in flat black.
       1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor shall be left mounted.
       2. System Options:

\*\* NOTE TO SPECIFIER \*\* Delete case finish option not required. Black is standard.

* + - * 1. Case finished black.
        2. Case finished white.
      1. Projection Viewing Surface: Mildew resistant 100 percent vinyl with black masking borders and 12 inch (305 mm) black drop.

\*\* NOTE TO SPECIFIER \*\* Select the screen type from the following paragraphs and delete those not required. Note that there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000VB - On Axis gain of 1.0. 180 degree viewing cone. GREENGUARD Gold certified. Black backing. 4K ready.

\*\* NOTE TO SPECIFIER \*\* Grey XH600V maximum size available is 9 feet by 12 feet (274 cm x 366 cm).

* + - * 1. Grey XH600V - On Axis gain of 0.6. Provides excellent contrast and color reproduction. GREENGUARD Gold certified. Available with or without black backing. 4K ready.

\*\* NOTE TO SPECIFIER \*\* ClearSound NanoPerf XT1000V is not recommended for use in sizes less than 80 inches (203 cm) wide or for viewing less than 10 feet (305 cm) from screen.

* + - * 1. ClearSound NanoPerf XT1000V - On Axis gain of 1.0. 180 degree viewing cone. Acoustically transparent white PVC fabric with microscopic perforations. 4K ready.
        2. TecVision XH700X Grey - On Axis gain of 0.7. 180 degree viewing cone. Designed for blending applications on curved or flat screens where ambient light is present. Provides very good contrast and color reproduction. Imaging Science Foundation certified and 8K ready. Dark backing.
        3. TecVision XH800X ALR - On Axis gain of 0.8. Rejects 57% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        4. TecVision XH900X ALR - On Axis gain of 0.9. Rejects 60% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        5. TecVision CS1000X ALR - On Axis gain of 1.0. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        6. TecVision MS1000X ALR - Rejects 73% of ambient light. On Axis gain of 1.0. 70 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        7. TecVision XT1000X White - On Axis gain of 1.0. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready reference screen surface for blending applications, precise resolution, and color accuracy. Dark backing.
        8. TecVision XT1100X White - On-Axis gain of 1.1. 180 degree viewing cone. Designed for use when the projector brightness and size of screen require a minimal increase in gain. Imaging Science Foundation certified and 8K ready. Dark backing.
        9. TecVision CS1200X ALR - On Axis gain of 1.2. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        10. TecVision XH900X Grey - On Axis gain of 0.9. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        11. TecVision MS1000X Grey - On Axis gain of 1.0. 70 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        12. TecVision XT1300X White - On Axis gain of 1.3. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        13. TecVision XT1600X White - On Axis gain of 1.6. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        14. TecVision XT1800X White - On Axis gain of 1.8. 180 degree viewing cone. Imaging Science Foundation certified. Suited for active 3D or color combining passive 3D systems. 8K ready. Dark backing.
        15. CineFlex CH1200V - On Axis gain of 1.2. 60 degree viewing cone. Neutral grey rear projection diffusing surface. Provides high resolution and excellent contrast, even in lighted rooms. Recommended for use with low to medium output projectors. 4K ready.
        16. CineFlex White XT700V - On Axis gain of 0.7. 180 degree viewing cone. White rear projection surface works well for edge matching or edge blending applications, and for short throw rear projection. Reasonable control of ambient light is recommended. 4K ready.
      1. Tab-Tensioning System:
         1. Viewing surface with integrated tabs and cable on each side of fabric to provide tension and ensure flat viewing surface. Viewing surface and tabs CNC cut as a single piece. Tabs RF welded to the back of viewing surface to prevent tab separation. Tab adhesives are not acceptable. Viewing surface inserted into aluminum bottom dowel. Warranted for 5 years against tab separation.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W. Black masking borders standard. 12 inch (305 mm) black drop standard.
         1. Custom Size: \_\_\_\_\_\_\_\_ H x \_\_\_\_\_\_\_\_\_\_\_\_ W.
         2. NTSC Format (4:3):

200 inch (508 mm) diagonal, 118 x 158 inches (2997 x 4013 mm).

210 inch (5.33 m) diagonal, 126 x 168 inches (3200 x 4267 mm).

220 inch (5.59 m) diagonal, 132 x 176 inches (3353 x 4470 mm).

230 inch (5.84 m) diagonal, 138 x 184 inches (3505 x 4674 mm).

20 foot (6.10 m) diagonal, 144 x 192 inches (3658 x 4877 mm).

* + - * 1. HDTV Format (16:9):

184 inch (4673 mm) diagonal, 90 x 160 inches (2286 x 4064 mm).

193 inch (4.90 m) diagonal, 94-1/2 x 168 inches (2400 x 4267 mm).

220 inch (5.59 m) diagonal, 108 x 192 inches (2743 x 4877 mm).

* + - * 1. 16:10 Format:

189 inch (4800 mm) diagonal, 100 x 160 inches (2540 x 4064 mm).

198 inch (5029 mm) diagonal, 105 x 168 inches (2667 x 4267 mm).

226 inch (5740 mm) diagonal, 120 x 192 inches (3048 x 4877 mm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop exceeding the standard 12 inches (305 mm) is required, fill in the drop height and delete the paragraph not required. Total screen height cannot exceed 14 feet (4.27 m). Black masking is standard. If extra screen drop is not required, delete both paragraphs.

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.

\*\* NOTE TO SPECIFIER \*\* Acumen E is available in image width up to 10 feet (305 cm) wide, depending on surface selection. Contact manufacturer for details.

* + 1. Acumen E: Electric motor operated, wall or ceiling mounted projection screen. Low voltage control built into endcap. Contoured case of 0.156 inch (3.9624 mm) thick, 9-gauge extruded aluminum. Removable front fascia conceals viewing surface that retracts completely inside the case. Case Dimensions (HxD): 7-1/8 x 5-7/8 inches (181 x 149 mm).

\*\* NOTE TO SPECIFIER \*\* Delete motor paragraph and associated control options not required. Note there are size limitations with quiet motors. Contact manufacturer for additional information.

* + - 1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor shall be left mounted. Low voltage controller built into the endcap.
      2. Quiet Motor mounted inside screen roller on rubber isolation insulators. Operates at 44db. UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor to be left mounted. Low voltage controller built into the endcap.
      3. System Options:

\*\* NOTE TO SPECIFIER \*\* Delete case finish option not required. White is standard.

* + - * 1. Contoured aluminum case finished in a white color.
        2. Contoured aluminum case finished in a black color.

\*\* NOTE TO SPECIFIER \*\* Delete brackets paragraph not required. Wall mount is standard.

* + - * 1. Wall Mount "Floating" Steel Brackets. Finished to match screen case.
        2. Ceiling Mount "Floating" Steel Brackets. Finished to match screen case.
      1. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000E - On Axis gain of 1.0. 180 degree viewing cone. Washable surface. GREENGUARD Gold certified. 4K ready.
        2. Contrast Grey XH800E - 0.8 On Axis gain. Smooth grey surface provides excellent resolution and enhances color contrast. 180 degree viewing cone. GREENGUARD Gold certified. 4K ready.

\*\* NOTE TO SPECIFIER \*\* ClearSound White Weave XT900E is not recommended for viewing less than 10 feet (305 cm) from screen.

* + - * 1. ClearSound White Weave XT900E - On Axis gain of 0.9. 180 degree viewing cone. Acoustically transparent woven blend of fiberglass and PVC. Acoustical properties are comparable to the highest quality speaker grille cloth. Some control of ambient light is recommended. Flame and mildew resistant. 4K ready.
        2. Chroma Key Green - Green flexible PVC surface for video production where you need the background to "disappear." Matte finish. Flame retardant, tear resistant, and wrinkle resistant. Offers excellent uniformity and consistent surface color edge to edge. Works effectively throughout 180 degree viewable range.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. Custom Size: \_\_\_\_\_\_\_\_ H x \_\_\_\_\_\_\_\_\_\_\_\_ W.
         2. 16:10 Format. Black masking borders standard.

94 inch (2438 mm) diagonal, 50 x 80 inches (1270 x 2032 mm).

109 inch (2769 mm) diagonal, 57-1/2 x 92 inches (1461 x 2337 mm).

113 inch (2870 mm) diagonal, 60 x 96 inches (1524 x 2438 mm).

123 inch (3124 mm) diagonal, 65 x 104 inches (1351 x 2642 mm).

137 inch (3480) diagonal, 72-1/2 x 116 inches (1842 by 2946 mm).

* + - * 1. HDTV Format (16:9). Black masking borders standard.

92 inch (2337 mm) diagonal, 45 x 80 inches (1143 x 2032 mm).

100 inch (2540 mm) diagonal, 49 x 87 inches (1245 x 2210 mm).

106 inch (2692 mm) diagonal, 52 x 92 inches (1321 x 2337 mm).

110 inch (2794 mm) diagonal, 54 x 96 inches (1372 x 2438 mm).

119 inch (3023 mm) diagonal, 58 x 104 inches (1473 x 2642 mm).

133 inch (3378 mm) diagonal, 65 x 116 inches (1651 x 2947 mm).

* + - * 1. 2:39:1 CinemaScope Format

117 inch (2972 mm) diagonal, 45 x 107-1/2 inches (1143 x 2731 mm).

* + - * 1. 1.9:1 2K/4K Full

96 inch (2438 mm) diagonal, 45 x 85-1/2 inches (1143 x 2172 mm).

118 inch (2998 mm) diagonal, 55 x 104-1/2 inches (1397 x 2654 mm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop is required, fill in the drop height and delete the paragraph not required. Total screen height cannot exceed 10 feet (3.05 m). Extra drop cannot exceed 84 inches (213 cm). Black masking is standard. If extra screen drop is not required, delete both paragraphs.

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.

\*\* NOTE TO SPECIFIER \*\* Acumen XL E is available in image width up to 18 feet (5.5 cm) wide, depending on surface selection. Contact manufacturer for details.

* + 1. Acumen XL E: Electric motor operated, wall or ceiling mounted projection screen. Low voltage control built into endcap. Contoured case of 0.156 inch (3.9624 mm) thick, 9-gauge extruded aluminum. 5-inch (127 mm) diameter metal roller mounted on rubber insulated supports. Removable front fascia conceals viewing surface that retracts completely inside the case. Case Dimensions (HxD): 9-1/4 x 8-1/8 inches (235 x 206 mm).

\*\* NOTE TO SPECIFIER \*\* Delete motor paragraph and associated control options not required. Note there are size limitations with quiet motors. Contact manufacturer for additional information.

* + - 1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor shall be left mounted. Low voltage controller built into the endcap.
      2. Quiet Motor mounted inside screen roller on rubber isolation insulators. Operates at 44db. UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor to be left mounted. Low voltage controller built into the endcap.
      3. System Options:

\*\* NOTE TO SPECIFIER \*\* Select the required case finish. White is standard.

* + - * 1. Contoured aluminum case finished in a white color.
        2. Contoured aluminum case finished in a black color.

\*\* NOTE TO SPECIFIER \*\* Delete brackets paragraph not required. Wall mount is standard.

* + - * 1. Wall Mount "Floating" Steel Brackets. Finished to match screen case.
        2. Ceiling Mount "Floating" Steel Brackets. Finished to match screen case.
      1. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000E - On Axis gain of 1.0. 180 degree viewing cone. Washable surface. GREENGUARD Gold certified. 4K ready.
        2. Contrast Grey XH800E - 0.8 On Axis gain. Smooth grey surface provides excellent resolution and enhances color contrast. 180 degree viewing cone. GREENGUARD Gold certified. 4K ready.
        3. Chroma Key Green - Green flexible PVC surface for video production where you need the background to "disappear." Matte finish. Flame retardant, tear resistant, and wrinkle resistant. Offers excellent uniformity and consistent surface color edge to edge. Works effectively throughout 180 degree viewable range.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W:
         1. Custom Size: \_\_\_\_\_\_\_\_ H x \_\_\_\_\_\_\_\_\_\_\_\_ W.
         2. 16:10 Format: Black masking borders standard.

165 inch (419 cm) diagonal, 87-1/2 x 140 inches (222 x 356 cm).

189 inch (480 mm) diagonal, 100 x 160 inches (254 x 406 cm).

198 inch (503 cm) diagonal, 105 x 168 inches (267 x 427 cm).

226 inch (574 cm) diagonal, 120 x 192 inches (305 x 488 cm).

255 inch (648 cm) diagonal, 135 x 216 inches (343 by 549 cm).

* + - * 1. HDTV Format (16:9): Black masking borders standard.

161 inch (409 cm) diagonal, 79 x 140 inches (201 x 356 cm).

184 inch (468 cm) diagonal, 90 x 160 inches (229 x 406 cm).

193 inch (490 cm) diagonal, 94-1/2 x 168 inches (240 x 427 cm).

220 inch (559 cm) diagonal, 108 x 192 inches (274 x 488 cm).

248 inch (630 cm) diagonal, 121-1/2 x 216 inches (309 x 549 cm).

* + - * 1. 2:39:1 CinemaScope Format:

135 inch (343 cm) diagonal, 52 x 124-1/4 inches (132 x 316 cm).

150 inch (381 cm) diagonal, 58 x 138-1/4 inches (147 x 351 cm).

169 inch (429 cm) diagonal, 65 x 155-1/4 inches (165 x 394 cm).

208 inch (528 cm) diagonal, 80 x 191-1/4 inches (203 x 486 cm).

* + - * 1. 1.9:1 2K/4K Full:

139 inch (353 cm) diagonal, 65 x 123-1/2 inches (165 x 314 cm).

161 inch (409 cm) diagonal, 75 x 142-1/2 inches (191 x 362 cm).

182 inch (462 cm) diagonal, 85 x 161-1/2 inches (216 x 410 cm).

204 inch (518 cm) diagonal, 95 x 180-1/2 inches (241 x 459 cm).

\*\* NOTE TO SPECIFIER \*\* Fill in drop height. Total screen height cannot exceed 14 feet (4.27 m).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop is required for the project, fill in the drop height and select one of the following paragraphs. Total screen height cannot exceed 18 feet (5.49 m). Extra drop cannot exceed 84 inches (213 cm). Select viewing surface color or black. If not required, delete both paragraphs.

* + - 1. Provide an extra screen drop with an overall screen drop of \_\_\_ inches (\_\_\_ mm) with top border matching the viewing surface.
      2. Provide an extra screen drop with an overall screen drop of \_\_\_ inches (\_\_\_ mm) with a black masking top border.

\*\* NOTE TO SPECIFIER \*\* Targa is available in image width up to 12 feet (366 cm) wide, depending on surface selection. Contact manufacturer for details.

* + 1. Targa: Electric motor operated, steel case. Cases are one piece 22 gauge steel with end caps forming universal wall or ceiling hanging bracket. Case size 5-7/8 inches high. x 5-1/4 inches deep (150 mm high x 134 mm deep).

\*\* NOTE TO SPECIFIER \*\* Delete motor paragraph and associated control options not required. Note there are size limitations with quiet motors. Contact manufacturer for additional information.

* + - 1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor shall be left mounted
      2. Quiet Motor mounted inside screen roller on rubber isolation insulators. Operates at 44db. UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor to be left mounted
      3. System Options:

\*\* NOTE TO SPECIFIER \*\* Delete case finish option not required. White is standard.

* + - * 1. Case finished white.
        2. Case finished black.

\*\* NOTE TO SPECIFIER \*\* Delete one of the following bracket paragraphs as required.

* + - * 1. Projected Mounting Brackets: 6 inch (152 mm) clearance from wall. Finished white or black.
        2. Floating Mounting Brackets for mounting screen to wall or ceiling

\*\* NOTE TO SPECIFIER \*\* Delete following paragraph if recessed ceiling installation is not required.

* + - * 1. Ceiling Trim Kit for recessing above acoustical tile ceiling grid.
      1. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000E - On Axis gain of 1.0. 180 degree viewing cone. Washable surface. GREENGUARD Gold certified. 4K ready.
        2. Contrast Grey XH800E - 0.8 On Axis gain. Smooth grey surface provides excellent resolution and enhances color contrast. 180 degree viewing cone. GREENGUARD Gold certified. 4K ready.

\*\* NOTE TO SPECIFIER \*\* ClearSound White Weave XT900E is not recommended for use in sizes less than 80 inches (203 cm) wide or for viewing less than 10 feet (305 cm) from screen.

* + - * 1. ClearSound White Weave XT900E - On Axis gain of 0.9. 180 degree viewing cone. Acoustically transparent woven blend of fiberglass and PVC. Acoustical properties are comparable to the highest quality speaker grille cloth. Some control of ambient light is recommended. Flame and mildew resistant. 4K ready.
        2. Chroma Key Green - Green flexible PVC surface for video production where you need the background to "disappear." Matte finish. Flame retardant, tear resistant, and wrinkle resistant. Offers excellent uniformity and consistent surface color edge to edge. Works effectively throughout 180 degree viewable range.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. Custom Size: \_\_\_\_\_\_\_\_ H x \_\_\_\_\_\_\_\_\_\_\_\_ W.
         2. NTSC Format (4:3): Black masking borders standard.

6 foot (1.83 m) diagonal, 42-1/2 x 56-1/2 inches (1080 x 1435 mm).

7 foot (2.13 m) diagonal, 50 x 66-1/2 inches (1270 x 1689 mm).

100 inch (2540 mm) diagonal, 60 x 80 inches (1524 x 2032 mm).

10 foot (3.05 m) diagonal, 69 x 92 inches (1753 x 2337 mm).

11 foot (3.35 m) diagonal, 78 x 104 inches (1981 x 2642 mm).

150 inch (3810 mm) diagonal, 87 x 116 inches (2210 x 3658 mm).

15 foot (4.57 m) diagonal, 105 x 140 inches (2667 x 3556 mm).

200 inch (5080 mm) diagonal, 118 x 158 inches (2997 x 4013 mm).

* + - * 1. HDTV Format (16:9): Black masking borders standard.

65 inch (1651 mm) diagonal, 31-3/4 x 56-1/2 inch (781 x 1435 mm).

73 inch (1854 mm) diagonal, 36 x 64 inches (914 x 1626 mm).

82 inch (2083 mm) diagonal, 40-1/2 x 72 inches (1029 x mm).

92 inch (2337 mm) diagonal, 45 x 80 inches (1143 x 2032 mm).

100 inch (2540 mm) diagonal, 49 x 87 inches (1245 x 2210 mm).

106 inch (2692 mm) diagonal, 52 x 92 inches (1321 x 2337 mm).

110 inch (2794 mm) diagonal, 54 x 96 inches (1372 x 2438 mm).

119 inch (3023 mm) diagonal, 58 x 104 inches (1473 x 2642 mm).

133 inch (3378 mm) diagonal, 65 x 116 inches (1651 x 2947 mm).

161 inch (4089 mm) diagonal, 79 x 140 inches (2007 x 3556 mm).

184 inch (4674 mm) diagonal, 90 x 160 inches (2286 x 4064 mm).

* + - * 1. 16:10 Format: Black masking borders standard.

67 inch (1702 mm) diagonal, 35-1/4 x 56-1/2 inches (895 x 1435 mm).

76 inch (1930 mm) diagonal, 40 x 64 inches (1016 x 1626 mm).

85 inch (2159 mm) diagonal, 45 x 72 inches (1143 x 1829 mm).

94 inch (2438 mm) diagonal, 50 x 80 inches (1270 x 2032 mm).

109 inch (2769 mm) diagonal, 57-1/2 x 92 inches (1461 x 2337 mm).

113 inch (2870 mm) diagonal, 60 x 96 inches (1524 x 2438 mm).

123 inch (3124 mm) diagonal, 65 x 104 inches (1651 x 2642 mm).

137 inch (3480) diagonal, 72-1/2 x 116 inches (1842 x 2946 mm).

165 inch (4191 mm) diagonal, 87-1/2 x 140 inches (2223 x 3556 mm).

189 inch (4800 mm) diagonal, 100 x 160 inches (2540 x 4064 mm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop is required, fill in the drop height and delete the paragraph not required. Total screen height cannot exceed 18 feet (5.49 m). Extra drop cannot exceed 84 inches (213 cm). Black is standard. If extra screen drop is not required, delete both paragraphs.

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.

\*\* NOTE TO SPECIFIER \*\* Targa XL is available in image width up to 16 feet (488 cm) wide, depending on surface selection. Contact manufacturer for details.

* + 1. Targa XL: Electric motor operated, metal case. Cases consist of a curved front and L-shaped back/top cover fabricated of extruded aluminum, with endcaps forming ceiling hanging brackets. Case size 6-3/4 inches high x 6-3/4 inches deep (172 mm high x 172 mm deep). White scratch resistant textured finish.
       1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches.
       2. System Options:

\*\* NOTE TO SPECIFIER \*\* Delete case finish option not required. White is standard.

* + - * 1. Case finished textured white.
        2. Case finished black.
      1. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000E - On Axis gain of 1.0. 180 degree viewing cone. Washable surface. GREENGUARD Gold certified. 4K ready.
        2. Contrast Grey XH800E - 0.8 On Axis gain. Smooth grey surface provides excellent resolution and enhances color contrast. 180 degree viewing cone. GREENGUARD Gold certified. 4K ready.

\*\* NOTE TO SPECIFIER \*\* ClearSound White Weave XT900E is not recommended for use in sizes less than 80 inches (203 cm) wide or for viewing less than 10 feet (305 cm) from screen.

* + - * 1. ClearSound White Weave XT900E - On Axis gain of 0.9. 180 degree viewing cone. Acoustically transparent woven blend of fiberglass and PVC. Acoustical properties are comparable to the highest quality speaker grille cloth. Some control of ambient light is recommended. Flame and mildew resistant. 4K ready.
        2. Chroma Key Green - Green flexible PVC surface for video production where you need the background to "disappear." Matte finish. Flame retardant, tear resistant, and wrinkle resistant. Offers excellent uniformity and consistent surface color edge to edge. Works effectively throughout 180 degree viewable range.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. NTSC Format (4:3). Black masking borders standard.

210 inch (5.33 m) diagonal, 126 x 168 inches (3200 x 4268 mm).

240 inch (6.10 m) diagonal, 141 x 188 inches (3581 x 4776 mm).

* + - * 1. HDTV Format (16:9). Black masking borders standard.

193 inch (4.90 m) diagonal, 94-1/2 x 168 inches (2400 x 4268 mm).

220 inch (5.59 m) diagonal, 106 x 188 inches (2692 x 4776 mm).

* + - * 1. 16:10 Format. Black masking borders standard.

198 inch (5029 mm) diagonal, 105 x 168 inches (2667 x 4267 mm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop is required, fill in the drop height and delete the paragraph not required. Total screen height cannot exceed 18 feet (5.49 m). Extra drop cannot exceed 84 inches (213 cm). Black is standard. If extra screen drop is not required, delete both paragraphs.

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.
  1. MOTORIZED, SUSPENDED FROM HIGH CEILINGS, FRONT PROJECTION SCREENS
     1. Ropewalker V: Electrically operated, ceiling-recessed, tab-tensioned projection screen for use in high ceilings without black drop between the screen and ceiling.
        1. Motor UL certified, rated 110-120V AC, 60 Hz (220V AC, 50 Hz), 5-wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor shall be left mounted.
           1. Ropewalker Controls.

Single Station Control: 3-position 110-120V maintained rocker switch with:

\*\* NOTE TO SPECIFIER \*\* Select one of the following cover plate paragraphs and delete the one not required.

stainless steel cover plate and black rocker.

stainless steel cover plate and white switches.

EZ-Power Wireless Remote Receiver/Operator is a commercial type 110-120V AC receiver with a coding switch for individual operation by portable transmitter. Receiver shall be factory-wired and installed in an (6 x 4 x 2-1/2 inch ) (152 x 102 x 64 mm) enclosure with a 6 foot (1.8 m) long power cord with a four-prong NEMA style twist lock grounded plug. Receiver includes a contact closure terminal block mounted on the enclosure. Receiver comes with a matching flange-type receptacle, cover for 4 inch (102 mm) box and plug. All wiring and electrical components are to be in accordance with local codes and as per manufacturer's installation instructions. All conduits, wiring, and electrical components not specified herein, shall be supplied by the electrical contractor.

EZ-Power Hand Held Remote Control Transmitter can operate up to 99 individual electric receivers. Power supply for hand held transmitter shall be a standard 9-volt battery. Operating range for hand held transmitter approximately 100 feet (30.48 m)

* + - 1. External recessed case: 18-gauge steel, 14-1/2 inches deep x 16-3/4 inches high (including mounting brackets and bottom perimeter flange to provide support and trim for acoustical ceiling panels and trim for gypsum board ceiling).
         1. Internal screen housing: 18-gauge steel.
         2. Maximum drop from recessed housing: 34 feet (1,067 cm)
         3. Approximate travel speed: 20 feet (6 m) per minute (120V) or 17 feet (5 m) per minute (220V).
         4. Voltage: (110V AC) (220V AC)
         5. Operation: Roller with external drive mechanism engages the end of the fabric roller and lowers the viewing surface. Once the fabric is unrolled the mechanism disengages and then the inner case assembly is lowered into the room by a 5-inch (127 mm) OD roller tube via galvanized steel aircraft cables.
         6. Safety Mechanism: Built-in fall arrester prevents screen case from falling in the event of a failure.
      2. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000VB - On Axis gain of 1.0. 180 degree viewing cone. GREENGUARD Gold certified. Black backing.
        2. Grey XH600V - On Axis gain of 0.6. Provides excellent contrast and color reproduction. GREENGUARD Gold certified. Maximum size 9 feet by 12 feet (275 cm x 366 cm). Available with or without black backing.
        3. TecVision XH700X Grey - On Axis gain of 0.7. 180 degree viewing cone. Designed for blending applications on curved or flat screens where ambient light is present. Provides very good contrast and color reproduction. Imaging Science Foundation certified and 4K ready. Dark backing.
        4. TecVision XT1100X White - On-Axis gain of 1.1. 180 degree viewing cone. Designed for use when the projector brightness and size of screen require a minimal increase in gain. Imaging Science Foundation certified and 4K ready. Dark backing.
        5. TecVision XH800X ALR - On Axis gain of 0.8. Rejects 57% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 4K ready. Dark backing.
        6. TecVision XH900X ALR - On Axis gain of 0.9. Rejects 60% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 4K ready. Dark backing.
        7. TecVision MS1000X ALR - Rejects 73% of ambient light. On Axis gain of 1.0. 70 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 4K ready. Dark backing.
        8. TecVision CS1000X ALR - On Axis gain of 1.0. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 4K ready. Dark backing.
        9. TecVision CS1200X ALR - On Axis gain of 1.2. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 4K ready. Dark backing.
        10. TecVision XT1000X White - On Axis gain of 1.0. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready reference screen surface for blending applications, precise resolution, and color accuracy. Dark backing.
        11. TecVision XT1300X White - On Axis gain of 1.3. 180 degree viewing cone. Imaging Science Foundation certified. 4K ready. Dark backing.
        12. TecVision XT1600X White - On Axis gain of 1.6. 180 degree viewing cone. Imaging Science Foundation certified. 4K ready. Dark backing.
        13. TecVision XT1800X White - On Axis gain of 1.8. 180 degree viewing cone. Imaging Science Foundation certified. Suited for active 3D or color combining passive 3D systems. 4K ready. Dark backing.
      1. Tab-Tensioning System:
         1. Viewing surface with integrated tabs and cable on each side of fabric to provide tension and ensure flat viewing surface. Viewing surface and tabs CNC cut as a single piece. Tabs RF welded to the back of viewing surface to prevent tab separation. Tab adhesives are not acceptable. Viewing surface inserted into aluminum bottom dowel. Warranted for 5 years against tab separation.
      2. Viewing Area H x W.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - * 1. NTSC Format (4:3). Black masking borders standard.

7 foot diagonal, 50 x 66-1/2 inches (127 x 169 cm).

100 inch diagonal, 60 x 80 inches (152 x 203 cm).

10 foot diagonal, 69 x 92 inches (175 x 234 cm).

11 foot diagonal, 78 x 104 inches (198 x 264 cm).

150 inch diagonal, 87 x 116 inches (221 x 295 cm).

15 foot diagonal, 105 x 140 inches (267 x 356 cm).

200 inch diagonal, 118 x 158 inches (300 x 401 cm).

210 inch diagonal, 126 x 168 inches (320 x 427 cm).

220 inch diagonal, 138 x 184 inches (351 x 467 cm).

230 inch diagonal, 141 x 188 inches (358 x 478 cm).

240 inch diagonal, 144 x 192 inches (366 x 488 cm).

250 inch diagonal, 148 x 198 inches (376 x 503 cm).

270 inch diagonal, 162 x 216 inches (411 x 549 cm).

* + - * 1. HDTV Format (16:10). Black masking borders standard.

76 inch diagonal, 40 x 64 inches (102 x 163 cm).

85 inch diagonal, 45 x 64 inches (114 x 163 cm).

94 inch diagonal, 50 x 80 inches (127 x 203 cm).

109 inch diagonal, 57-1/2 x 92 inches (146 x 234 cm).

113 inch diagonal, 60 x 96 inches (152 x 244 cm).

123 inch diagonal, 65 x 104 inches (165 x 265 cm).

137 inch diagonal, 72-1/2 x 116 inches (184 x 295 cm).

165 inch diagonal, 87-1/2 x 140 inches (222 x 356 cm).

189 inch diagonal, 100 x 160 inches (254 x 406 cm).

198 inch diagonal, 105 x 168 inches (267 x 427 cm).

226 inch diagonal, 120 x 192 inches (305 x 488 cm).

255 inch diagonal, 135 x 216 inches (343 x 549 cm).

* + - * 1. 16:9 Format. Black masking borders standard.

73 inch diagonal, 36 x 64 inches (91 x 163 cm).

82 inch diagonal, 40-1/2 x 72 inches (103 x 183 cm).

92 inch diagonal, 45 x 80 degrees (114 x 203 cm).

100 inch diagonal, 49 x 87 inches (124 x 221 cm).

106 inch diagonal, 52 x 92 inches (132 x 234 cm).

110 inch diagonal, 54 x 96 inches (137 x 244 cm).

119 inch diagonal, 58 x 104 inches (147 x 264 cm).

133 inch diagonal, 65 x 116 inches (165 x 295 cm).

161 inch diagonal, 79 x 140 inches (201 x 356 cm).

184 inch diagonal, 90 x 160 inches (229 x 406 cm).

193 inch diagonal, 94-1/2 x 168 inches (240 x 427 cm).

220 inch diagonal, 108 x 192 inches (274 x 488 cm).

248 inch diagonal, 121-1/2 x 216 inches (309 x 549 cm).

* + 1. Ropewalker E: Electrically operated, ceiling-recessed, free-hanging projection screen for use in high ceilings without black drop between the screen and ceiling.
       1. Motor UL certified, rated (110-120V AC, 60 Hz) (220V AC, 50 Hz), 5-wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor shall be left mounted.
          1. Ropewalker Controls

Single Station Control: 3-position 110-120V maintained rocker switch with:

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required.

Stainless steel cover plate and black rocker switches.

Stainless steel cover plate and white switches.

EZ-Power Wireless Remote Receiver/Operator is a commercial type 110-120V AC receiver with a coding switch for individual operation by portable transmitter. Receiver shall be factory-wired and installed in an (6 inches x 4 inches x 2-1/2 inches) (152 mm x 102 mm x 64 mm) enclosure with a 6 foot (1.8 m) long power cord with a four-prong NEMA style twist lock grounded plug. Receiver includes a contact closure terminal block mounted on the enclosure. Receiver comes with a matching flange-type receptacle, cover for 4 inch (102 mm) box and plug. All wiring and electrical components are to be in accordance with local codes and as per manufacturer's installation instructions. All conduits, wiring, and electrical components not specified herein, shall be supplied by the electrical contractor

EZ-Power Hand Held Remote Control Transmitter can operate up to 99 individual electric receivers. Power supply for hand held shall be a standard 9-volt battery. Operating range for hand held transmitter approximately 100 feet (30.48 m).

* + - * 1. External recessed case: 18-gauge steel, 14-1/2 inches deep x 16-3/4 inches high (including mounting brackets and bottom perimeter flange to provide support and trim for acoustical ceiling panels and trim for gypsum board ceiling).

Internal screen housing: 18-gauge steel.

Maximum drop from recessed housing: 34 feet (1,067 cm)

Approximate travel speed: 20 feet (6 m) per minute (120V) or 17 feet (5 m) per minute (220V).

Voltage: (110V AC) (220V AC)

Operation: Roller with external drive mechanism engages the end of the fabric roller and lowers the viewing surface. Once the fabric is unrolled the mechanism disengages and then the inner case assembly is lowered into the room by a 5-inch (127 mm) OD roller tube via galvanized steel aircraft cables.

Safety Mechanism: Built-in fall arrester prevents screen case from falling in the event of a failure.

* + - * 1. Projection Viewing Surface

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

Matt White XT1000E - On Axis gain of 1.0. 180 degree viewing cone. Washable surface. GREENGUARD Gold certified.

Contrast Grey XH800E - 0.8 On Axis gain. Smooth grey surface provides excellent resolution and enhances color contrast. 180 degree viewing cone. GREENGUARD Gold certified.

* + - * 1. Viewing Area H x W.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

NTSC Format (4:3). Black masking borders standard

7 foot diagonal, 50 x 66-1/2 inches (127 x 169 cm).

100 inch diagonal, 60 x 80 inches (152 x 203 cm).

10 foot diagonal, 69 x 92 inches (175 x 234 cm).

11 foot diagonal, 78 x 104 inches (198 x 264 cm).

150 inch diagonal, 87 x 116 inches (221 x 295 cm).

15 foot diagonal, 105 x 140 inches (267 x 356 cm).

200 inch diagonal, 118 x 158 inches (300 x 401 cm).

210 inch diagonal, 126 x 168 inches (320 x 427 cm).

220 inch diagonal, 138 x 184 inches (351 x 467 cm).

230 inch diagonal, 141 x 188 inches (358 x 478 cm).

240 inch diagonal, 144 x 192 inches (366 x 488 cm).

250 inch diagonal, 148 x 198 inches (376 x 503 cm).

270 inch diagonal, 162 x 216 inches (411 x 549 cm).

HDTV Format (16:10). Black masking borders standard.

76 inch diagonal, 40 x 64 inches (102 x 163 cm).

85 inch diagonal, 45 x 64 inches (114 x 163 cm).

94 inch diagonal, 50 x 80 inches (127 x 203 cm).

109 inch diagonal, 57-1/2 x 92 inches (146 x 234 cm).

113 inch diagonal, 60 x 96 inches (152 x 244 cm).

123 inch diagonal, 65 x 104 inches (165 x 265 cm).

137 inch diagonal, 72-1/2 x 116 inches (184 x 295 cm).

165 inch diagonal, 87-1/2 x 140 inches (222 x 356 cm).

189 inch diagonal, 100 x 160 inches (254 x 406 cm).

198 inch diagonal, 105 x 168 inches (267 x 427 cm).

226 inch diagonal, 120 x 192 inches (305 x 488 cm).

255 inch diagonal, 135 x 216 inches (343 x 549 cm).

16:9 Format. Black masking borders standard.

73 inch diagonal, 36 x 64 inches (91 x 163 cm).

82 inch diagonal, 40-1/2 x 72 inches (103 x 183 cm).

92 inch diagonal, 45 x 80 degrees (114 x 203 cm).

100 inch diagonal, 49 x 87 inches (124 x 221 cm).

106 inch diagonal, 52 x 92 inches (132 x 234 cm).

110 inch diagonal, 54 x 96 inches (137 x 244 cm).

119 inch diagonal, 58 x 104 inches (147 x 264 cm).

133 inch diagonal, 65 x 116 inches (165 x 295 cm).

161 inch diagonal, 79 x 140 inches (201 x 356 cm).

184 inch diagonal, 90 x 160 inches (229 x 406 cm).

193 inch diagonal, 94-1/2 x 168 inches (240 x 427 cm).

220 inch diagonal, 108 x 192 inches (274 x 488 cm).

248 inch diagonal, 121-1/2 x 216 inches (309 x 549 cm).

* 1. MOTORIZED, CEILING RECESSED, FRONT PROJECTION SCREENS
     1. Access XL E: Electric motor operated, steel case. Case size 10-7/16 inches (265 mm) high and 9 inches (229 mm) deep. Steel housing with white paint finish and stamped steel end caps. UL approved "Suitable for use in environmental air space." Bottom closure panel forms slot for passage of viewing surface and can be released to hang down or be removed for access to operating mechanism and viewing surface. Bottom perimeter flange provides support and trim for acoustical ceiling panels and trim for gypsum board ceiling. Housing is symmetrical allowing for left or right hand motor locations and for viewing surface to unroll off front or back of roller. Provided with internal junction box and plug-in wiring connections.

\*\* NOTE TO SPECIFIER \*\* Available with IR and/or RF remote control.

* + - 1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor with overload protection and electric brake.

\*\* NOTE TO SPECIFIER \*\* Delete motor location not required. Left is standard.

* + - 1. Motor Location: Left.
      2. Motor Location: Right.
      3. Projection Viewing Surface:
         1. Matt White XT1000E - On Axis gain of 1.0. 180 degree viewing cone. Washable surface. GREENGUARD Gold certified.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. NTSC Format (4:3). Black masking borders standard.

250 inches (635 cm) diagonal, 148 x 198 inches (376 x 503 cm).

270 inches (686 cm) diagonal, 162 x 216 inches (411 x 549 cm).

295 inches (749 cm) diagonal, 177 x 236 inches (450 x 599 cm).

* + - * 1. HDTV Format (16:9). Black masking borders standard.

248 inches (630 cm) diagonal, 121-1/2 x 216 inches (309 x 549 cm).

270 inches (686 cm) diagonal, 133 x 236 inches (338 x 599 cm).

* + - * 1. 16:10 Format. Black masking borders standard.

255 inches (648 cm) diagonal, 135 x 216 inches (343 x 549 cm).

278 inches (706 cm) diagonal, 147-1/2 x 236 inches (375 x 599 cm).

\*\* NOTE TO SPECIFIER \*\* Edit the following if an extra screen drop is required for the project. Black drop is standard for all formats. Fill in the drop height from one of the following paragraphs and delete the other. Total screen height cannot exceed 12 feet (3.66 m). If extra screen drop is not required, delete both paragraphs.

* + - 1. Provide an extra screen drop with an overall screen drop of \_\_\_ inches (\_\_\_ mm) with top border matching the viewing surface.
      2. Provide an extra screen drop with an overall screen drop of \_\_\_ inches (\_\_\_ mm) with a black masking top border.
    1. Access XL V: Electric motor operated, steel housing, tab tensioned. Case size 10-7/16 inches (265 mm) high and 9 inches (229 mm) deep. Steel housing with white paint finish and stamped steel end caps. UL approved "Suitable for use in environmental air space." Bottom closure panel forms slot for passage of viewing surface and can be released to hang down or be removed for access to operating mechanism and viewing surface. Bottom perimeter flange provides support and trim for acoustical ceiling panels or for trim for gypsum board ceilings. Housing is symmetrical allowing for left and right hand motor locations and for viewing surface to unroll off front or back of roller. Provided with internal junction box and plug-in wiring connections to allow housing.
       1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor with overload protection and electric brake.

\*\* NOTE TO SPECIFIER \*\* Delete motor location not required. Left is standard.

* + - 1. Motor Location: Left.
      2. Motor Location: Right.
      3. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000VB - On Axis gain of 1.0. 180 degree viewing cone. GREENGUARD Gold certified. Black backing. 4K ready.
        2. Grey XH600V - On Axis gain of 0.6. Provides excellent contrast and color reproduction. GREENGUARD Gold certified. Maximum size 9 feet x 12 feet (275 cm x 366 cm). Available with or without black backing. 4K ready.
        3. ClearSound NanoPerf XT1000V - On Axis gain of 1.0. 180 degree viewing cone. Acoustically transparent white PVC fabric with microscopic perforations. Not recommended for use in sizes less than 80 inches (203 cm) wide. Not recommended for viewing less than 10 feet (305 cm) from screen. 4K ready.
        4. TecVision XH700X Grey - On Axis gain of 0.7. 180 degree viewing cone. Designed for blending applications on curved or flat screens where ambient light is present. Provides very good contrast and color reproduction. Imaging Science Foundation certified and 8K ready. Dark backing.
        5. TecVision XH800X ALR - On Axis gain of 0.8. Rejects 57% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        6. TecVision XH900X ALR - On Axis gain of 0.9. Rejects 60% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        7. TecVision CS1000X ALR - On Axis gain of 1.0. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        8. TecVision MS1000X ALR - Rejects 73% of ambient light. On Axis gain of 1.0. 70 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        9. TecVision XT1000X White - On Axis gain of 1.0. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready reference screen surface for blending applications, precise resolution, and color accuracy. Dark backing.
        10. TecVision XT1100X White - On-Axis gain of 1.1. 180 degree viewing cone. Designed for use when the projector brightness and size of screen require a minimal increase in gain. Imaging Science Foundation certified and 8K ready. Dark backing.
        11. TecVision CS1200X ALR - On Axis gain of 1.2. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        12. TecVision XT1300X White - On Axis gain of 1.3. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        13. TecVision XT1600X White - On Axis gain of 1.6. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        14. TecVision XT1800X White - On Axis gain of 1.8. 180 degree viewing cone. Imaging Science Foundation certified. Suited for active 3D or color combining passive 3D systems. 8K ready. Dark backing.
        15. CineFlex CH1200V - On Axis gain of 1.2. 60 degree viewing cone. Neutral grey rear projection diffusing surface. Provides high resolution and excellent contrast, even in lighted rooms. Recommended for use with low to medium output projectors. 4K ready.
        16. CineFlex White XT700V - On Axis gain of 0.7. 180 degree viewing cone. White rear projection surface works well for edge matching or edge blending applications, and for short throw rear projection. Reasonable control of ambient light is recommended. 4K ready.
      1. Tab-Tensioning System.
         1. Viewing surface with integrated tabs and cable on each side of fabric to provide tension and ensure flat viewing surface. Viewing surface and tabs CNC cut as a single piece. Tabs RF welded to the back of viewing surface to prevent tab separation. Tab adhesives are not acceptable. Warranted for 5 years against tab separation. Viewing surface inserted into aluminum bottom dowel.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. NTSC Format (4:3). Black masking borders standard.

250 inches (635 cm) diagonal, 148 x 198 inches (376 x 503 cm).

270 inches (686 cm) diagonal, 162 x 216 inches (411 x 549 cm).

* + - * 1. HDTV Format (16:9). Black masking borders standard.

248 inches (630 cm) diagonal, 121-1/2 x 216 inches (309 x 549 cm).

* + - * 1. 16:10. Black masking borders standard.

255 inches (648 cm) diagonal, 135 x 216 inches (343 x 549 cm).

* + - * 1. 21:9 2K/4K Scope:

208-3/8 (5293 mm) diagonal, 81 x 192 inches (2057 x 4877 mm)

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop exceeding 12 inches (305 mm) is required, fill in the drop height and delete the paragraph not required. Black is standard for all formats. Extra drop will increase the overall length of the case. Total screen height cannot exceed 12 feet (3.66 m). If extra screen drop is not required, delete both paragraphs

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.
    1. Paragon V: Large electrically operated, tab tensioned, extruded aluminum case. Projection screen with motor in roller. 13-1/4 inches high x 12 inches deep (337 mm high x 305 mm deep) case fully enclosed except for slot allowing viewing surface passage. Roller: 6 inches (152 mm) diameter steel tube. Viewing surface securely attached to roller at top and at bottom to weighted dowel. Provided with universal mounting brackets for ceiling or above ceiling mounting.
       1. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches.

\*\* NOTE TO SPECIFIER \*\* Delete motor location not required. Left is standard.

* + - 1. Motor Location: Left.
      2. Motor Location: Right.

\*\* NOTE TO SPECIFIER \*\* If wall mounting this screen, optional wall mounting brackets are available. Delete the following paragraph if wall mounting brackets are not required.

* + - 1. Wall Mounting Bracket Kit: Kit includes two structural steel brackets and hardware to attach brackets to case. Hardware for mounting to wall structure by others.
      2. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000VB - On Axis gain of 1.0. 180 degree viewing cone. GREENGUARD Gold certified. Black backing. 13-1/4 inches high x 12 inches deep. 4K ready.
        2. TecVision XH700X Grey - On Axis gain of 0.7. 180 degree viewing cone. Designed for blending applications on curved or flat screens where ambient light is present. Provides very good contrast and color reproduction. Imaging Science Foundation certified and 8K ready. Dark backing.
        3. TecVision XH800X ALR - On Axis gain of 0.8. Rejects 57% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        4. TecVision XH900X ALR - On Axis gain of 0.9. Rejects 60% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        5. TecVision CS1000X ALR - On Axis gain of 1.0. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        6. TecVision MS1000X ALR - Rejects 73% of ambient light. On Axis gain of 1.0. 70 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        7. TecVision XT1000X White - On Axis gain of 1.0. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready reference screen surface for blending applications, precise resolution, and color accuracy. Dark backing.
        8. TecVision XT1100X White - On-Axis gain of 1.1. 180 degree viewing cone. Designed for use when the projector brightness and size of screen require a minimal increase in gain. Imaging Science Foundation certified and 8K ready. Dark backing.
        9. TecVision CS1200X ALR - On Axis gain of 1.2. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        10. TecVision XT1300X White - On Axis gain of 1.3. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        11. TecVision XT1600X White - On Axis gain of 1.6. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        12. TecVision XT1800X White - On Axis gain of 1.8. 180 degree viewing cone. Imaging Science Foundation certified. Suited for active 3D or color combining passive 3D systems. 8K ready. Dark backing.
        13. CineFlex White XT700V - On Axis gain of 0.7. 180 degree viewing cone. White rear projection surface works well for edge matching or edge blending applications, and for short throw rear projection. Reasonable control of ambient light is recommended. 4K ready.
        14. CineFlex CH1200V - On Axis gain of 1.2. 60 degree viewing cone. Neutral grey rear projection diffusing surface. Provides high resolution and excellent contrast, even in lighted rooms. Recommended for use with low to medium output projectors. 4K ready.
      1. Tab-Tensioning System.
         1. Viewing surface with integrated tabs and cable on each side of fabric to provide tension and ensure flat viewing surface. Viewing surface and tabs CNC cut as a single piece. Tabs RF welded to the back of viewing surface to prevent tab separation. Tab adhesives are not acceptable. Warranted for 5 years against tab separation. Viewing surface inserted into aluminum bottom dowel.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. NTSC Format (4:3). Black masking borders standard.

250 inch (6.35 m) diagonal, 148 x 198 inches (3759 x 5029 mm).

30 foot (9.14 m) diagonal, 212 x 284 inches (5385 x 7214 mm).

* + - * 1. HDTV Format (16:9). Black masking borders standard.

324 inch (8230 mm) diagonal, 160 x 284 inches (4064 x 5994 mm).

* + - * 1. 16:10 Format. Black masking borders standard.

335 inch (8230 mm) diagonal, 177 x 284 inches (4496 x 5994 mm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop is required, fill in the drop height and delete the paragraph not required. Total screen height cannot exceed 24 feet (7.31 m). If not required, delete both paragraphs.

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.
    1. Access V: Electric motor operated, steel case. Ceiling-recessed, 18-gauge steel headbox, 7-3/8 inches high x 8-1/16 inches deep (188 mm high x 205 mm deep), including trim flanges with white paint finish and stamped 13 gauge steel end caps. UL approved "Suitable for use in environmental air space." Bottom closure panel forms slot for passage of viewing surface and can be released to hang down or be removed for access to operating mechanism and viewing surface. Bottom perimeter flange provides support and trim for acoustical ceiling panels and trim for gypsum board ceiling. Access case may be ordered in advance and the screen installed later to eliminate field damage. Screen installs in minutes. Housing is symmetrical allowing for left or right hand motor locations and for viewing surface to unroll off front or back of roller. Steel mounting brackets slide in extruded aluminum mounting system along top of case. Brackets supporting roller/fabric assembly slide in tracks inside top of the case, allowing viewing surface to be centered in case. Steel leveling brackets are attached to case to prevent deflection. Housing designed with internal junction box and plug-in wiring connections to allow housing to be installed and connected to building power supply separately from motor and viewing surface.

\*\* NOTE TO SPECIFIER \*\* Select one of the following motor paragraphs and delete the paragraphs not required. Note that there are size limitations with quiet motors. Contact manufacturer for additional information.

* + - 1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches.
      2. Quiet Motor mounted inside screen roller on rubber isolation insulators. Motor operates at 44db and is UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches.

\*\* NOTE TO SPECIFIER \*\* Delete motor location not required. Left is standard.

* + - 1. Motor Location: Left.
      2. Motor Location: Right.
      3. System Options:

\*\* NOTE TO SPECIFIER \*\* Delete case finish option not required. White is standard.

* + - * 1. Case finished textured white.
        2. Case finished black.
      1. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000VB - On Axis gain of 1.0. 180 degree viewing cone. GREENGUARD Gold certified. Black backing. 4K ready.
        2. Grey XH600V - On Axis gain of 0.6. Provides excellent contrast and color reproduction. GREENGUARD Gold certified. Maximum size 9 feet x 12 feet (275 cm x 366 cm). Available with or without black backing. 4K ready.
        3. ClearSound NanoPerf XT1000V - On Axis gain of 1.0. 180 degree viewing cone. Acoustically transparent white PVC fabric with microscopic perforations. Not recommended for use in sizes less than 80 inches (203 cm) wide. Not recommended for viewing less than 10 feet (305 cm) from screen. 4K ready.
        4. TecVision XH700X Grey - On Axis gain of 0.7. 180 degree viewing cone. Designed for blending applications on curved or flat screens where ambient light is present. Provides very good contrast and color reproduction. Imaging Science Foundation certified and 8K ready. Dark backing.
        5. TecVision XH800X ALR - On Axis gain of 0.8. Rejects 57% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        6. TecVision XH900X ALR - On Axis gain of 0.9. Rejects 60% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        7. TecVision CS1000X ALR - On Axis gain of 1.0. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        8. TecVision MS1000X ALR - Rejects 73% of ambient light. On Axis gain of 1.0. 70 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        9. TecVision XT1000X White - On Axis gain of 1.0. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready reference screen surface for blending applications, precise resolution, and color accuracy. Dark backing.
        10. TecVision XT1100X White - On-Axis gain of 1.1. 180 degree viewing cone. Designed for use when the projector brightness and size of screen require a minimal increase in gain. Imaging Science Foundation certified and 8K ready. Dark backing.
        11. TecVision CS1200X ALR - On Axis gain of 1.2. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        12. TecVision XT1300X White - On Axis gain of 1.3. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        13. TecVision XT1600X White - On Axis gain of 1.6. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        14. TecVision XT1800X White - On Axis gain of 1.8. 180 degree viewing cone. Imaging Science Foundation certified. Suited for active 3D or color combining passive 3D systems. 8K ready. Dark backing.
        15. CineFlex CH1200V - On Axis gain of 1.2. 60 degree viewing cone. Neutral grey rear projection diffusing surface. Provides high resolution and excellent contrast, even in lighted rooms. Recommended for use with low to medium output projectors. 4K ready.
        16. CineFlex White XT700V - On Axis gain of 0.7. 180 degree viewing cone. White rear projection surface works well for edge matching or edge blending applications, and for short throw rear projection. Reasonable control of ambient light is recommended. 4K ready.
      1. Tab-Tensioning System:
         1. Viewing surface with integrated tabs and cable on each side of fabric to provide tension and ensure flat viewing surface. Viewing surface and tabs CNC cut as a single piece. Tabs RF welded to the back of viewing surface to prevent tab separation. Tab adhesives are not acceptable. Viewing surface inserted into aluminum bottom dowel. Warranted for 5 years against tab separation.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. NTSC Format (4:3). Black masking borders standard.

6 foot (1.83 m) diagonal, 42-1/2 x 56-1/2 inches (1080 x 1435 mm).

7 foot (2.13 m) diagonal, 50 x 66-1/2 inches (1270 x 1689 mm).

100 inch (2540 mm) diagonal, 60 x 80 inches (1524 x 2032 mm).

10 foot (3.05 m) diagonal, 69 x 92 inches (1753 x 2337 mm).

11 foot (3.35 m) diagonal, 78 x 104 inches (1981 x 2642 mm).

150 inch (3810 mm) diagonal, 87 x 116 inches (2210 x 3658 mm).

15 foot (4.57 m) diagonal, 108 x 144 inches (2743 x 3658 mm).

200 inch (5.08 m) diagonal, 118 x 158 inches (2997 x 4013 mm).

210 inches (534 cm) diagonal, 126 x 168 inches (300 x 427 cm).

220 inches (559 cm) diagonal, 132 x 176 inches (335 x 447 cm).

240 inches (610 cm) diagonal, 144 x 192 inches (366 x 488 cm).

* + - * 1. HDTV Format (16:9). Black masking borders standard.

92 inch (2337 mm) diagonal, 45 x 80 inches (1143 x 2032 mm).

100 inch (2540 mm) diagonal, 49 x 87 inches (1245 x 2210 mm)

106 inch (2692 mm) diagonal, 52 x 92 inches (1321 x 2337 mm).

110 inch (2794 mm) diagonal, 54 x 96 inches (1372 x 2438 mm)

119 inch (3023 mm) diagonal, 58 x 104 inches (1473 x 2642 mm).

133 inch (3378 mm) diagonal, 65 x 116 inches (1651 x 2947 mm).

161 inch (4089 mm) diagonal, 80 x 140 inches (2032 x 3556 mm).

184 inch (4674 mm) diagonal, 90 x 160 inches (2286 x 4064 mm).

193 inches (490 cm diagonal, 94-1/2 x 168 inches (240 x 427 cm).

220 inches (559 cm) diagonal, 108 x 192 inches (274 x 488 cm).

* + - * 1. 16:10 Format. Black masking borders standard.

94 inch (2388 mm) diagonal, 50 x 80 inches (12070 x (2032 mm).

109 inch (2769 mm) diagonal, 57-1/2 x 92 inches (1461 x 2337 mm).

113 inch (2870 mm) diagonal, 60 x 96 inches (1524 x 2438 mm).

123 inch (3124 mm) diagonal, 65 x 104 inches (1351 x 2642 mm).

137 inch (3480) diagonal, 72-1/2 x 116 inches (1842 x 2946 mm).

165 inch (4191 mm) diagonal, 87-1/2 x 140 inches (2223 x 3556 mm).

189 inch (4800 mm) diagonal, 100 x 160 inches (2540 x 4064 mm).

198 inches (503 cm) diagonal, 105 x 168 inches (267 x 427 cm).

226 inches (574 cm) diagonal, 120 x 192 inches (305 x 488 cm).

* + - * 1. 21:9 2K/4K Scope:

104-1/4 inch (2648 mm) diagonal, 40-1/2 x 96 inches (1029 x 2438 mm).

126 inch (3200 mm) diagonal, 49 x 116 inches (1245 x 2947 mm).

152 inch (3861 mm) diagonal, 59 x 140 inches (1499 x 3556 mm).

182-3/8 inch (4632 mm) diagonal, 71 x 168 inches (1803 x 4267 mm).

208-3/8 (5293 mm) diagonal, 81 x 192 inches (2057 x 4877 mm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop exceeding 12 inches (305 mm) is required, fill in the drop height and delete the paragraph not required. Black is standard for all formats. Extra drop will increase the overall length of the case. Total screen height cannot exceed 12 feet (3.66 m). If extra screen drop is not required, delete both paragraphs

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.
    1. Ultimate Access V: Electric motor operated, metal case, independently motorized closure, tab tensioned. Ceiling-recessed, metal headbox, 9-7/8 inches high x 8 inches deep (251 mm high x 204 mm deep) including trim flanges. UL approved "Suitable for use in environmental air space." Case finished white. Bottom of case consists of an independently motorized trap door that opens inside the screen case. Trap door and access door both hinge downward to allow access to inside of screen case. Doors remain attached to screen case via a concealed full-length hinge. Releasing one latch at each end of screen case allows doors to hinge downward and a prop arm at each end may be pivoted to engage with endcaps, keeping door assembly in its fully open position. Symmetrical case allows for viewing surface to unroll from the back or front of the roller. Screen is attached to roller with roller brackets. Ultimate Access case may be ordered in advance and the screen installed later to eliminate field damage. Metal roller mounted on rubber isolation mounts.

\*\* NOTE TO SPECIFIER \*\* Delete the motor paragraph not required. Note there are size limitations with quiet motors. Contact manufacturer for additional information.

* + - 1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, five wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor with overload protection and electric brake. Motor shall be left mounted.
      2. Quiet Motor mounted inside screen roller on rubber isolation insulators. Motor operates at 44db and is UL certified, rated 110-120V AC, 60 Hz, five wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor with overload protection and electric brake. Motor shall be left mounted.

\*\* NOTE TO SPECIFIER \*\* Delete motor location not required. Left is standard.

* + - 1. Motor Location: Left.
      2. Motor Location: Right.
      3. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000VB - On Axis gain of 1.0. 180 degree viewing cone. GREENGUARD Gold certified. Black backing. 4K ready.
        2. ClearSound NanoPerf XT1000V - On Axis gain of 1.0. 180 degree viewing cone. Acoustically transparent white PVC fabric with microscopic perforations. Not recommended for use in sizes less than 80 inches (203 cm) wide or for viewing less than 10 feet (305 cm) from screen. 4K ready.
        3. TecVision XH700X Grey - On Axis gain of 0.7. 180 degree viewing cone. Designed for blending applications on curved or flat screens where ambient light is present. Provides very good contrast and color reproduction. Imaging Science Foundation certified and 8K ready. Dark backing.
        4. TecVision XH800X ALR - On Axis gain of 0.8. Rejects 57% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        5. TecVision XH900X ALR - On Axis gain of 0.9. Rejects 60% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        6. TecVision CS1000X ALR - On Axis gain of 1.0. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        7. TecVision MS1000X ALR - Rejects 73% of ambient light. On Axis gain of 1.0. 70 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        8. TecVision XT1000X White - On Axis gain of 1.0. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready reference screen surface for blending applications, precise resolution, and color accuracy. Dark backing.
        9. TecVision XT1100X White - On-Axis gain of 1.1. 180 degree viewing cone. Designed for use when the projector brightness and size of screen require a minimal increase in gain. Imaging Science Foundation certified and 8K ready. Dark backing.
        10. TecVision CS1200X ALR - On Axis gain of 1.2. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        11. TecVision XT1300X White - On Axis gain of 1.3. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        12. TecVision XT1600X White - On Axis gain of 1.6. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        13. TecVision XT1800X White - On Axis gain of 1.8. 180 degree viewing cone. Imaging Science Foundation certified. Suited for active 3D or color combining passive 3D systems. 8K ready. Dark backing.
        14. CineFlex CH1200V - On Axis gain of 1.2. 60 degree viewing cone. Neutral grey rear projection diffusing surface. Provides high resolution and excellent contrast, even in lighted rooms. Recommended for use with low to medium output projectors. 4K ready.
        15. CineFlex White XT700V - On Axis gain of 0.7. 180 degree viewing cone. White rear projection surface works well for edge matching or edge blending applications, and for short throw rear projection. Reasonable control of ambient light is recommended. 4K ready.
      1. Tab-Tensioning System:
         1. Viewing surface with integrated tabs and cable on each side of fabric to provide tension and ensure flat viewing surface. Viewing surface and tabs CNC cut as a single piece. Tabs RF welded to the back of viewing surface to prevent tab separation. Tab adhesives are not acceptable. Viewing surface inserted into aluminum bottom dowel. Warranted for 5 years against tab separation.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. Custom Size: \_\_\_\_\_\_\_\_ H x \_\_\_\_\_\_\_\_\_\_\_\_ W.
         2. NTSC Format (4:3). Black masking borders and 12 inches (305 mm) extra black drop are standard.

6 foot (1.83 m) diagonal, 42-1/2 x 56-1/2 inches (1080 x 1435 mm).

7 foot (2.13 m) diagonal, 50 x 66-1/2 inches (1270 x 1689 mm).

100 inch (2540 mm) diagonal, 60 x 80 inches (1524 x 2032 mm).

10 foot (3.05 m) diagonal, 72 x 96 inches (1829 x 2438 mm).

11 foot (3.35 m) diagonal, 78 inches x 104 inches (1981 x 2642 mm).

150 inch (3810 mm) diagonal, 87 x 116 inches (2210 x 3658 mm).

15 foot (4.57 m) diagonal, 108 x 144 inches (2743 x 3658 mm).

* + - * 1. HDTV Format (16:9). Black masking borders and 12 inches (305 mm) extra black drop are standard.

92 inch (2337 mm) diagonal, 45 x 80 inches (1143 x 2032 mm).

100 inch (2540 mm) diagonal, 49 x 87 inches (1245 x 2210 mm)

106 inch (2692 mm) diagonal, 52 x 92 inches (1321 x 2337 mm).

110 inch (2794 mm) diagonal, 54 x 96 inches (1372 x 2438 mm)

119 inch (3023 mm) diagonal, 58 x 104 inches (1473 x 2642 mm).

133 inch (3378 mm) diagonal, 65 x 116 inches (1651 x 2947 mm).

161 inch (4089 mm) diagonal, 79 x 140 inches (2007x 3556 mm).

* + - * 1. 16:10 Format. Black masking borders standard.

94 inch (2438 mm) diagonal, 50 x 80 inches (1270 x 2032 mm).

109 inch (2769 mm) diagonal, 57-1/2 x 92 inches (1461 x 2337 mm).

113 inch (2870 mm) diagonal, 60 x 96 inches (1524 x 2438 mm).

123 inch (3124 mm) diagonal, 65 x 104 inches (1351 x 2642 mm).

137 inch (3480) diagonal, 72-1/2 x 116 inches (1842 x 2946 mm).

165 inch (4191 mm) diagonal, 87-1/2 x 140 inches (2223 x 3556 mm).

* + - * 1. 21:9 2K/4K Scope:

104-1/4 inch (2648 mm) diagonal, 40-1/2 x 96 inches (1029 x 2438 mm).

126 inch (3200 mm) diagonal, 49 x 116 inches (1245 x 2947 mm).

152 inch (3861 mm) diagonal, 59 x 140 inches (1499 x 3556 mm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop exceeding 12 inches (305 mm) is required, fill in the drop height and delete the paragraph not required. Black is standard for all formats. Extra drop will increase the overall length of the case. Total screen height cannot exceed 12 feet (3.66 m). If extra screen drop is not required, delete both paragraphs

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.
    1. Ultimate Access XL V: Electric motor operated, metal case, independently motorized closure, tab tensioned. Ceiling-recessed, metal headbox, 14-11/16 inches (373 mm) high x 11 inches (279 mm) deep. UL approved "Suitable for use in environmental air space." Case finished white. Bottom of case consists of an independently motorized trap door that opens inside screen case. Trap door and access door both hinge downward to allow access to inside of screen case. Doors remain attached to the screen case via a concealed full-length hinge. Releasing one latch at each end of screen case allows doors to hinge downward and a prop arm at each end may be pivoted to engage with endcaps, keeping door assembly in its fully open position. Symmetrical case allows for viewing surface to unroll from the back or front of the roller. Screen case is attached to roller with roller brackets. Metal roller mounted on rubber isolation mounts

\*\* NOTE TO SPECIFIER \*\* Delete the motor paragraph not required. Note there are size limitations with quiet motors. Contact manufacturer for additional information.

* + - 1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, five wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor with overload protection and electric brake. Motor shall be left mounted.
      2. Quiet Motor mounted inside screen roller on rubber isolation insulators. Motor operates at 44db and is UL certified, rated 110-120V AC, 60 Hz, five wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor with overload protection and electric brake. Motor shall be left mounted.
      3. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000VB - On Axis gain of 1.0. 180 degree viewing cone. GREENGUARD Gold certified. Black backing. 4K ready.
        2. ClearSound NanoPerf XT1000V - On Axis gain of 1.0. 180 degree viewing cone. Acoustically transparent white PVC fabric with microscopic perforations. Not recommended for use in sizes less than 80 inches (203 cm) wide or for viewing less than 10 feet (305 cm) from screen. 4K ready.
        3. TecVision XH700X Grey - On Axis gain of 0.7. 180 degree viewing cone. Designed for blending applications on curved or flat screens where ambient light is present. Provides very good contrast and color reproduction. Imaging Science Foundation certified and 8K ready. Dark backing.
        4. TecVision XH800X ALR - On Axis gain of 0.8. Rejects 57% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        5. TecVision XH900X ALR - On Axis gain of 0.9. Rejects 60% of ambient light. 180 degree viewing cone. Provides very good contrast and color reproduction. Imaging Science Foundation certified. 8K ready. Dark backing.
        6. TecVision CS1000X ALR - On Axis gain of 1.0. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        7. TecVision MS1000X ALR - Rejects 73% of ambient light. On Axis gain of 1.0. 70 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        8. TecVision XT1000X White - On Axis gain of 1.0. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready reference screen surface for blending applications, precise resolution, and color accuracy. Dark backing.
        9. TecVision XT1100X White - On-Axis gain of 1.1. 180 degree viewing cone. Designed for use when the projector brightness and size of screen require a minimal increase in gain. Imaging Science Foundation certified and 8K ready. Dark backing.
        10. TecVision CS1200X ALR - On Axis gain of 1.2. Rejects 82% of ambient light. 40 degree viewing cone. Provides excellent contrast and color reproduction. Performs well in ambient light. Imaging Science Foundation certified. 8K ready. Dark backing.
        11. TecVision XT1300X White - On Axis gain of 1.3. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        12. TecVision XT1600X White - On Axis gain of 1.6. 180 degree viewing cone. Imaging Science Foundation certified. 8K ready. Dark backing.
        13. TecVision XT1800X White - On Axis gain of 1.8. 180 degree viewing cone. Imaging Science Foundation certified. Suited for active 3D or color combining passive 3D systems. 8K ready. Dark backing.
        14. CineFlex CH1200V - On Axis gain of 1.2. 60 degree viewing cone. Neutral grey rear projection diffusing surface. Provides high resolution and excellent contrast, even in lighted rooms. Recommended for use with low to medium output projectors. 4K ready.
        15. CineFlex White XT700V - On Axis gain of 0.7. 180 degree viewing cone. White rear projection surface works well for edge matching or edge blending applications, and for short throw rear projection. Reasonable control of ambient light is recommended. 4K ready.
      1. Tab-Tensioning System:
         1. Viewing surface with integrated tabs and cable on each side of fabric to provide tension and ensure flat viewing surface. Viewing surface and tabs CNC cut as a single piece. Tabs RF welded to the back of viewing surface to prevent tab separation. Tab adhesives are not acceptable. Viewing surface inserted into aluminum bottom dowel. Warranted for 5 years against tab separation.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. Custom Size: \_\_\_\_\_\_\_\_ H x \_\_\_\_\_\_\_\_\_\_\_\_ W.
         2. NTSC Format (4:3). Black masking borders and 12 inches (305 mm) extra black drop are standard.

200 inches (5.08 m) diagonal, 118 x 158 inches (2997 x 4013 mm).

210 inches (5.33 m) diagonal, 126 x 168 inches (3200 x 4267 mm).

220 inches (5.59 m) diagonal, 132 x 176 inches (3353 x 4470 mm).

230 inches (5.84 m) diagonal, 138 x 184 inches (3505 x 4674 mm).

240 inches (6.10 m) diagonal, 144 x 192 inches (3658 x 4877 mm).

25 foot (7.62 m) diagonal, 177 x 236 inches (4496 x 5994 mm).

27-1/2 foot (8.38 m) diagonal, 199 x 264 inches (5054 x 6706 mm).

* + - * 1. HDTV Format (16:9). Black masking borders and 12 inches (305 mm) extra black drop are standard.

184 inches (4.67 m) diagonal, 90 x 160 inches (2286 x 4064 mm).

193 inches (4.90 m) diagonal, 94-1/2 x 168 inches (2400 x 4267 mm).

220 inches (5.59 m) diagonal, 108 x 192 inches (2743 x 4877 mm).

227 inch (5766 mm) diagonal, 111 x 198 inches (2819 x 5029 mm).

248 inches (630 cm) diagonal, 121-1/2 x 216 inches (309 x 549 cm).

270 inch (6858 mm) diagonal, 133 x 236 inches (3378 x 5994 mm).

300 inch (7620 mm) diagonal, 146 x 260 inches (3708 x 6604 mm).

* + - * 1. 16:10 Format. Black masking borders standard.

189 inch (4800 mm) diagonal, 100 x 160 inches (2540 x 4064 mm).

198 inch (5029 mm) diagonal, 105 x 168 inches (2667 x 4267 mm).

226 inch (5740 mm) diagonal, 120 x 192 inches (3048 x 4877 mm).

234 inch (5944 mm) diagonal, 124 x 198 inches (3150 x 5029 mm).

255 inches (648 cm) diagonal, 135 x 216 inches (343 x 549 cm).

278 inch diagonal (7061 mm), 147 x 236 inches (3734 x 5994 mm).

307 inch (7798 mm) diagonal, 162 x 260 inches (4115 x 6604 mm).

* + - * 1. 21:9 2K/4K Scope:

182-3/8 inch (4632 mm) diagonal, 71 x 168 inches (1803 x 4267 mm).

208-3/8 (5293 mm) diagonal, 81 x 192 inches (2057 x 4877 mm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop exceeding 12 inches (305 mm) is required, fill in the drop height and delete the paragraph not required. Black is standard for all formats. Extra drop will increase the overall length of the case. Total screen height cannot exceed 12 feet (3.66 m). If extra screen drop is not required, delete both paragraphs

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.
    1. Access E: Electric motor operated, steel case. Ceiling-recessed, 18-gauge steel headbox, 7-3/8 inches high x 8-1/16 inches deep (188 mm high x 205 mm wide) including trim flanges with white paint finish and stamped 13-gauge steel end caps. UL approved "Suitable for use in environmental air space." Bottom closure panel forms slot for passage of viewing surface and can be released to hang down or be removed for access to operating mechanism and viewing surface. Bottom perimeter flange provides support and trim for acoustical ceiling panels and trim for gypsum board ceiling. Access case may be ordered in advance and the screen installed later to eliminate field damage. Housing is symmetrical allowing for left (standard) and right (optional) hand motor locations and for viewing surface to unroll off front or back of roller. Steel mounting brackets slide in extruded aluminum mounting system along top of case. Brackets supporting roller/fabric assembly slide in tracks inside top of case, allowing viewing surface to be centered in case. Steel leveling brackets are attached to case to prevent deflection. Housing designed with internal junction box and plug-in wiring connections to allow housing to be installed and connected to building power supply separately from motor and viewing surface.

\*\* NOTE TO SPECIFIER \*\* Delete motor paragraph and the associated control paragraph not required Note there are size limitations with quiet motors. Contact manufacturer for additional information.

* + - 1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches.
      2. Quiet Motor mounted inside screen roller on rubber isolation insulators. Operates at 44db. UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches.

\*\* NOTE TO SPECIFIER \*\* Delete motor location not required. Left is standard.

* + - 1. Motor Location: Left.
      2. Motor Location: Right.
      3. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000E - On Axis gain of 1.0. 180 degree viewing cone. Washable surface. GREENGUARD Gold certified. 4K ready.
        2. Contrast Grey XH800E - 0.8 On Axis gain. Smooth grey surface provides excellent resolution and enhances color contrast. 180 degree viewing cone. GREENGUARD Gold certified. Maximum size available is 12 feet x 12 feet (366 cm x 366 cm). 4K ready.
        3. ClearSound White Weave XT900E - On Axis gain of 0.9. 180 degree viewing cone. Acoustically transparent woven blend of fiberglass and PVC. Acoustical properties are comparable to the highest quality speaker grille cloth. Some control of ambient light is recommended. Flame and mildew resistant. Not recommended for use in sizes less than 80 inches (203 cm) wide. Not recommended for viewing less than 10 feet (305 cm) from screen. 4K ready.
        4. Chroma Key Green - Green flexible PVC surface for video production where you need the background to "disappear." Matte finish. Flame retardant, tear resistant, and wrinkle resistant. Offers excellent uniformity and consistent surface color edge to edge. Works effectively throughout 180 degree viewable range.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. NTSC Format (4:3). Black masking borders standard.

6 foot (1.83 m) diagonal, 42-1/2 x 56-1/2 inches (1080 x 1435 mm).

7 foot (2.13 m) diagonal, 50 x 66-1/2 inches (1270 x 1689 mm).

100 inch (2540 mm) diagonal, 60 x 80 inches (1524 x 2032 mm).

10 foot (3.05 m) diagonal, 69 x 92 inches (1753 x 2337 mm).

11 foot (3.35 m) diagonal, 78 x 104 inches (1981 x 2642 mm).

150 inch (3810 mm) diagonal, 87 x 116 inches (2210 x 3658 mm).

15 foot (4.57 m) diagonal, 105 x 140 inches (2667 x 3556 mm).

200 inch (5080 mm) diagonal, 118 x 158 inches (2997 x 4013 mm).

210 inches (534 cm) diagonal, 126 x 168 inches (320 x 427 cm).

220 inches (559 cm) diagonal, 132 x 176 inches (335 x 447 cm).

240 inches (610 cm) diagonal, 141 x 188 inches (358 x 478 cm).

* + - * 1. HDTV Format (16:9). Black masking borders standard.

92 inch (2337 mm) diagonal, 45 x 80 inches (1143 x 2032 mm).

100 inch (2540 mm) diagonal, 49 x 87 inches (1245 x 2210 mm)

106 inch (2692 mm) diagonal, 52 x 92 inches (1321 x 2337 mm).

110 inch (2794 mm) diagonal, 54 x 96 inches (1372 x 2438 mm)

119 inch (3023 mm) diagonal, 58 x 104 inches (1473 x 2642 mm).

133 inch (3378 mm) diagonal, 65 x 116 inches (1651 x 2947 mm).

161 inch (4089 mm) diagonal, 79 x 140 inches (2007 x 3556 mm).

184 inch (4674 mm) diagonal, 90 x 160 inches (2286 x 4064 mm).

193 inches (490 cm) diagonal, 94-1/2 x 168 inches (240 x 427 cm).

220 inches (559 cm) diagonal, 106 x 188 inches (269 x 478 cm).

* + - * 1. 16:10 Format. Black masking borders standard.

94 inch (2438 mm) diagonal, 50 x 80 inches (1270 x 2032 mm).

109 inch (2769 mm) diagonal, 57-1/2 x 92 inches (1461 x 2337 mm).

113 inch (2870 mm) diagonal, 60 x 96 inches (1524 x 2438 mm).

123 inch (3124 mm) diagonal, 65 x 104 inches (1351 x 2642 mm).

137 inch (3480) diagonal, 72-1/2 x 116 inches (1842 x 2946 mm).

165 inch (4191 mm) diagonal, 87-1/2 x 140 inches (2223 x 3556 mm).

189 inch (4800 mm) diagonal, 100 x 160 inches (2540 x 4064 mm).

198 inches (503 cm) diagonal, 105 x 168 inches (267 x 427 cm).

222 inches (564 cm) diagonal, 117-1/2 x 188 inches (298 x 478 cm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop is required, fill in the drop height and delete the paragraph not required. Black is standard for all formats. Total screen height cannot exceed 12 feet (3.66 m). If extra screen drop is not required, delete both paragraphs

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.
    1. Ultimate Access E: Electric motor operated, metal case, independently motorized closure. Ceiling-recessed, metal headbox, 9-7/8 inches high x 8 inches deep (251 mm high x 204 mm deep) including trim flanges. UL approved "Suitable for use in environmental air space." Case finished white. Bottom of case consists of an independently motorized trap door that opens inside screen case. Trap door and access door both hinge downward to allow access to inside of screen case. Doors remain attached to screen case via a concealed full-length hinge. Releasing one latch at each end of screen case allows doors to hinge downward and a prop arm at each end may be pivoted to engage with endcaps, keeping door assembly in its fully open position. Symmetrical case allows for viewing surface to unroll from the back or front of the roller. Screen is attached to roller with roller brackets. Ultimate Access case may be ordered in advance and screen installed later to eliminate field damage. Metal roller mounted on rubber isolation mounts.

\*\* NOTE TO SPECIFIER \*\* Select one of the following two motor paragraphs and delete the paragraph not required. Note that there are size limitations with quiet motors. Contact manufacturer for additional information.

* + - 1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, five wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor with overload protection and electric brake.
      2. Quiet Motor mounted inside screen roller on rubber isolation insulators. Motor operates at 44db and is UL certified, rated 110-120V AC, 60 Hz, five wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor with overload protection and electric brake. Motor shall be left mounted.

\*\* NOTE TO SPECIFIER \*\* Delete motor location not required. Left is standard.

* + - 1. Motor Location: Left.
      2. Motor Location: Right.
      3. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000E - On Axis gain of 1.0. 180 degree viewing cone. Washable surface. GREENGUARD Gold certified. 4K ready.
        2. Contrast Grey XH800E - 0.8 On Axis gain. Smooth grey surface provides excellent resolution and enhances color contrast. 180 degree viewing cone. GREENGUARD Gold certified. 4K ready.
        3. ClearSound White Weave XT900E - On Axis gain of 0.9. 180 degree viewing cone. Acoustically transparent woven blend of fiberglass and PVC. Acoustical properties are comparable to the highest quality speaker grille cloth. Some control of ambient light is recommended. Flame and mildew resistant. Not recommended for use in sizes less than 80 inches (203 cm) wide. Not recommended for viewing less than 10 feet (305 cm) from screen. 4K ready.
        4. Chroma Key Green - Green flexible PVC surface for video production where you need the background to "disappear." Matte finish. Flame retardant, tear resistant, and wrinkle resistant. Offers excellent uniformity and consistent surface color edge to edge. Works effectively throughout 180 degree viewable range.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. NTSC Format (4:3). Black masking borders and 12 inches (305 mm) extra black drop are standard.

6 foot (1.83 m) diagonal, 42-1/2 x 56-1/2 inches (1080 x 1435 mm).

7 foot (2.13 m) diagonal, 50 x 66-1/2 inches (1270 x 1689 mm).

100 inch (2540 mm) diagonal, 60 x 80 inches (1524 x 2032 mm).

10 foot (3.05 m) diagonal, 72 x 96 inches (1829 x 2438 mm).

11 foot (3.35 m) diagonal, 78 x 104 inches (1981 x 2642 mm).

150 inch (3810 mm) diagonal, 87 x 116 inches (2210 x 3658 mm).

15 foot (4.57 m) diagonal, 108 x 144 inches (2743 x 3658 mm).

* + - * 1. HDTV Format (16:9). Black masking borders and 12 inches (305 mm) extra black drop are standard.

92 inch (2337 mm) diagonal, 45 x 80 inches (1143 x 2032 mm).

100 inch (2540 mm) diagonal, 49 x 87 inches (1245 x 2210 mm)

106 inch (2692 mm) diagonal, 52 x 92 inches (1321 x 2337 mm).

110 inch (2794 mm) diagonal, 54 x 96 inches (1372 x 2438 mm)

119 inch (3023 mm) diagonal, 58 x 104 inches (1473 x 2642 mm).

133 inch (3378 mm) diagonal, 65 x 116 inches (1651 x 2947 mm).

161 inch (4089 mm) diagonal, 79 x 140 inches (2007 x 3556 mm).

* + - * 1. 16:10 Format. Black masking borders standard.

94 inch (2438 mm) diagonal, 50 x 80 inches (1270 x 2032 mm).

109 inch (2769 mm) diagonal, 57-1/2 x 92 inches (1461 x 2337 mm).

113 inch (2870 mm) diagonal, 60 x 96 inches (1524 x 2438 mm).

123 inch (3124 mm) diagonal, 65 x 104 inches (1351 x 2642 mm).

137 inch (3480) diagonal, 72-1/2 x 116 inches (1842 x 2946 mm).

165 inch (4191 mm) diagonal, 87-1/2 x 140 inches (2223 x 3556 mm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop exceeding 12 inches (305 mm) is required, fill in the drop height and delete the paragraph not required. Black is standard for all formats. Extra drop will increase the overall length of the case. Total screen height cannot exceed 12 feet (3.66 m). If extra screen drop is not required, delete both paragraphs

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.
    1. Ultimate Access XL E: Electric motor operated, metal case, independently motorized closure. Ceiling-recessed, metal headbox, 14-11/16 inches (373 mm) high x 11 inches (279 mm) deep. UL approved "Suitable for use in environmental air space." Case finished white. Bottom of case consists of an independently motorized trap door that opens up inside the screen case. Trap door and access door both hinge downward to allow access to inside of screen case. Doors remain attached to the screen case via a concealed full-length hinge. Releasing one latch at each end of screen case allows doors to hinge downward and a prop arm at each end may be pivoted to engage with endcaps, keeping the door assembly in its fully open position. Symmetrical case allows for viewing surface to unroll from the back or front of the roller. Screen is attached to roller with roller brackets. Metal roller mounted on rubber isolation mounts.

\*\* NOTE TO SPECIFIER \*\* Select one of the following two motor paragraphs and delete the paragraph not required. Note that there are size limitations with quiet motors. Contact manufacturer for additional information.

* + - 1. Motor mounted inside screen roller on rubber isolation insulators. Motor UL certified, rated 110-120V AC, 60 Hz, five wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor with overload protection and electric brake. Motor shall be left mounted.
      2. Quiet Motor mounted inside screen roller on rubber isolation insulators. Motor operates at 44db and is UL certified, rated 110-120V AC, 60 Hz, five wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches. Motor with overload protection and electric brake. Motor shall be left mounted.
      3. Projection Viewing Surface:

\*\* NOTE TO SPECIFIER \*\* Delete screen types not required. Note there are size limitations with some viewing surfaces. Contact manufacturer for additional information.

* + - * 1. Matt White XT1000E - On Axis gain of 1.0. 180 degree viewing cone. Washable surface. GREENGUARD Gold certified. 4K ready.
        2. Contrast Grey XH800E - 0.8 On Axis gain. Smooth grey surface provides excellent resolution and enhances color contrast. 180 degree viewing cone. GREENGUARD Gold certified. 4K ready.
        3. ClearSound White Weave XT900E - On Axis gain of 0.9. 180 degree viewing cone. Acoustically transparent woven blend of fiberglass and PVC. Acoustical properties are comparable to the highest quality speaker grille cloth. Some control of ambient light is recommended. Flame and mildew resistant. Not recommended for use in sizes less than 80 inches (203 cm) wide. Not recommended for viewing less than 10 feet (305 cm) from screen. 4K ready.
        4. Chroma Key Green - Green flexible PVC surface for video production where you need the background to "disappear." Matte finish. Flame retardant, tear resistant, and wrinkle resistant. Offers excellent uniformity and consistent surface color edge to edge. Works effectively throughout 180 degree viewable range.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. NTSC Format (4:3). Black masking borders and 12 inches (305 mm) extra black drop are standard.

200 inch (5.08 m) diagonal, 118 x 158 inches (2997 x 4013 mm).

210 inch (5.33 m) diagonal, 126 x 168 inches (3200 x 4267 mm).

220 inch (5.59 m) diagonal, 132 x 176 inches (3353 x 4470 mm).

230 inch (5.84 m) diagonal, 138 x 184 inches (3505 x 4674 mm).

240 inch (6.10 m) diagonal, 141 x 188 inches (3581 x 4775 mm).

250 inch (6.35 m) diagonal, 148 x 198 inches (3759 x 5029 mm).

270 inch (686 cm) diagonal, 162 x 216 inches (411 x 549 cm).

295 inch (7.62 m) diagonal, 177 x 236 inches (4496 x 5994 mm).

27-1/2 foot (8.38 m) diagonal, 194 x 260 inches (4928 x 6604 mm).

* + - * 1. HDTV Format (16:9). Black masking borders and 12 inches (305 mm) extra black drop are standard.

184 inches (4.67 m) diagonal, 90 x 160 inches (2286 x 4064 mm).

193 inches (4.90 m) diagonal, 94-1/2 x 168 inches (2400 x 4267 mm).

220 inches (5.59 m) diagonal, 106 x 188 inches (2692 x 4775 mm).

248 inches (630 cm) diagonal, 121 1/2 x 216 inches (309 x 549 cm).

270 inch (6858 mm) diagonal, 133 x 236 inches (3378 x 5994 mm).

300 inch (7620 mm) diagonal, 146 x 260 inches (3708 x 6604 mm).

* + - * 1. 16:10 Format. Black masking borders standard.

189 inch (4800 mm) diagonal, 100 x 160 inches (2540 x 4064 mm).

198 inch (5029 mm) diagonal, 105 x 168 inches (2667 x 4267 mm).

222 inch (5638 mm) diagonal, 117-1/2 x 188 inches (2985 x 4775 mm).

255 inches (648 cm) diagonal, 135 x 216 inches (343 x 549 cm).

278 inch diagonal (7061 mm), 147-1/2 x 236 inches (3747 x 5994 mm).

307 inch (7798 mm) diagonal, 162-1/2 x 260 inches (4128 x 6604 mm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop exceeding 12 inches (305 mm) is required, fill in the drop height and delete the paragraph not required. Black is standard for all formats. Extra drop will increase the overall length of the case. Total screen height cannot exceed 12 feet (3.66 m). If extra screen drop is not required, delete both paragraphs

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.
    1. Paragon E: Large electrically operated, extruded aluminum case. Projection screen with motor in roller. 13-1/4 inches high x 12 inches deep (337 mm high x 305 mm deep) case fully enclosed except for slot allowing viewing surface passage. Roller: 6 inches (152 mm) diameter steel tube. Viewing surface securely attached to roller at top and at bottom to weighted dowel. Provided with universal mounting brackets for wall, ceiling, or above ceiling mounting. Viewing surface is concealed when not in use; lower it to any position at the touch of a switch.
       1. Motor UL certified, rated 110-120V AC, 60 Hz, three wire, instantly reversible, lifetime lubricated with pre-set accessible limit switches.

\*\* NOTE TO SPECIFIER \*\* Delete motor location not required. Left is standard.

* + - 1. Motor Location: Left.
      2. Motor Location: Right.

\*\* NOTE TO SPECIFIER \*\* If wall mounting this screen, optional wall mounting brackets are available. Delete the following paragraph if wall mounting brackets are not required.

* + - 1. Wall Mounting Bracket Kit: Kit includes two structural steel brackets and hardware to attach brackets to case. Hardware for mounting to wall structure by others
      2. Projection Viewing Surface:
         1. Matt White XT1000E - On Axis gain of 1.0. 180 degree viewing cone. Washable surface. GREENGUARD Gold certified. 4K ready.

\*\* NOTE TO SPECIFIER \*\* Delete screen formats and sizes not required for the project.

* + - 1. Viewing Area H x W.
         1. NTSC Format (4:3). Black masking borders standard.

25 foot (7.62 m) diagonal, 177 x 236 inches (4496 x 5994 mm).

30 foot (9.14 m) diagonal, 212 x 284 inches (5385 x 7214 mm).

32-1/2 foot (991 m) diagonal, 230 x 308 inches (5842 x 7823 mm).

35 foot (10.67 m) diagonal, 248 x 332 inches (6299 x 8433 mm).

* + - * 1. HDTV Format (16:9). Black masking borders standard.

270 inch (6858 mm) diagonal, 133 x 236 inches (3378 x 5994 mm).

324 inch (8230 mm) diagonal, 160 x 284 inches (4216 x 7214 mm).

354 inch (8992 mm) diagonal, 173 x 308 inches (4392 x 7823 mm).

384 inch (9754 mm) diagonal, 187 x 332 inches (4750 x 8433 mm).

* + - * 1. 16:10 Format. Black masking borders standard.

278 inch (7061mm) diagonal, 147-1/2 x 236 inches (3747 x 5994 mm).

335 inch (2159 mm) diagonal, 177-1/2 x 284 inches (4508 x 7214 mm).

363 inch (2769 mm) diagonal, 192-1/2 x 308 inches (4890 x 7823 mm).

392 inch (3480) diagonal, 207-1/2 x 332 inches (5270 x 8433 mm).

\*\* NOTE TO SPECIFIER \*\* If an extra screen drop is required, fill in the drop height and delete the paragraph not required. Total screen height cannot exceed 24 feet (7.31 m). If extra screen drop is not required, delete both paragraphs

* + - 1. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Top border matching the viewing surface.
      2. Extra Screen Drop: Overall screen drop of \_\_\_ inches (\_\_\_ mm). Black masking top border.

\*\* NOTE TO SPECIFIER \*\* Select controls and wall and/or remote-control switches required for project. Delete the types of controls and switches not used on the project. Coordinate the compatibility of multiple control selections.  
When specifying Acumen E, Acumen V, Acumen XLE, and Acumen XLV screens, a low voltage controller, built into the case, is the standard. If you wish to use another option, choose from below.

* 1. FRONT PROJECTION SCREEN CONTROLS
     1. General: All controls are UL Certified.

\*\* NOTE TO SPECIFIER \*\* Not compatible with options 2, 3, 4, 5, 8, or 9

* + - 1. Single station control rated 115V AC, 60 Hz with 3-position rocker switch with cover plate to stop or reverse screen at any point.

\*\* NOTE TO SPECIFIER \*\* Not compatible with options 1, 3, 4, 5, 8, or 9.

* + - 1. Multiple station control rated 115V AC, 60 Hz with 3-position rocker switches with cover plates to stop or reverse screen at any point. Automatic override allows only one signal to reach the motor when operated simultaneously.

\*\* NOTE TO SPECIFIER \*\* Not compatible with options 1, 2, 7, or 8.

* + - 1. Low voltage control unit with three button 24V switches and cover plate to stop or reverse screen at any point, built-in RF receiver, built-in Video Interface Control trigger for 3V-28V, RS232, and dry contact relays.

\*\* NOTE TO SPECIFIER \*\* . Not compatible with options 1, 2, 7, or 8.

* + - 1. Low voltage 24V control unit with hand held RF remote three button control switch to stop or reverse screen at any point, built-in RF receiver, built-in Video Interface Control trigger for 3V-28V, RS232, and dry contact relays.

\*\* NOTE TO SPECIFIER \*\* Not compatible with options 1, 2, 7, or 8.

* + - 1. Low voltage 24V control unit with hand held IR remote three button control switch to stop or reverse screen at any point, built-in RF receiver, built-in Video Interface Control trigger for 3V-28V, RS232, and dry contact relays.

\*\* NOTE TO SPECIFIER \*\* Not compatible with options 7, 8, or 9.

* + - 1. Key Operated power supply switch to control power to control system.

\*\* NOTE TO SPECIFIER \*\* Not compatible with options 3, 4, 5, 6, 8, or 9.

* + - 1. Locking switch cover plate for limited access to three position switch.

\*\* NOTE TO SPECIFIER \*\* . Not compatible with options 1, 2, 3, 4, 5, 6, 7, or 9.

* + - 1. Key operated 3-position control switch rated 115V AC, 60 Hz to stop or reverse screen at any point.

\*\* NOTE TO SPECIFIER \*\* Not compatible with options 1, 2, 6, 7, or 8.

* + - 1. 3-position low voltage control switch with key locking cover plate rated 24V to stop or reverse screen at any point.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly prepared.
      2. Verify rough-in openings are properly prepared.
      3. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
   3. INSTALLATION
      1. Install in accordance with manufacturer's instructions.
      2. Install front projection screens with screen cases in position and relationship to adjoining construction as indicated, securely anchored to supporting substrate, and in manner that produces a smoothly operating screen with plumb and straight vertical edges and plumb and flat viewing surfaces when screen is lowered.
      3. Test electrically operated units to verify that screen, controls, limit switches, closure and other operating components are in optimum functioning condition.
   4. PROTECTION
      1. Protect installed products until completion of project.
      2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION