

**DIVISION 8 OPENINGS**

<u>Section No.</u>	<u>Title</u>	<u>Comments</u>
08 11 00	METAL DOORS AND FRAMES	<ol style="list-style-type: none"> <li>1. Exterior Doors           <ol style="list-style-type: none"> <li>a. Doors shall meet the requirements of ANSI A250.4</li> <li>b. 16-gauge min. face sheets with internal reinforcement.</li> <li>c. 1-3/4" thickness.</li> <li>d. Level 3, physical performance A, Model 1.</li> <li>e. Factory prime painted</li> <li>f. Full Flush</li> <li>g. Polyurethane insulated core.</li> <li>h. Beveled edge profile.</li> <li>i. Provide closure strip at head of all exterior doors exposed to weather.</li> <li>j. Galvannealed finish if in wet areas.</li> <li>k. Vision Panels: Non-removable stops on secure side</li> <li>l. Approved Manufacture's: Ceco /Assa Abloy, Curries / Assa Abloy, Door Components, Inc., Steelcraft, Stiles, and Republic.</li> </ol> </li> <li>2. Interior Doors           <ol style="list-style-type: none"> <li>a. Fire-Rated &amp; Non-Fire-Rated               <ul style="list-style-type: none"> <li>▪ Doors shall meet the requirements of ANSI A250.8</li> <li>▪ 18-gauge min. face sheets with 16 gauge stile and rails.</li> <li>▪ 1-3/4" thickness</li> <li>▪ Level 2, Model 1</li> <li>▪ Factory prime painted</li> <li>▪ Full Flush</li> <li>▪ Beveled edge profile</li> <li>▪ If required to be fire-rated: provide units listed and labeled by UL, attach fire rating label to each unit</li> <li>▪ Polystyrene core, 25 STC for acoustic doors, Kraft honeycomb core otherwise</li> <li>▪ Galvannealed finish if in wet areas</li> <li>▪ Vision Panels: Non-removable stops on secure side</li> <li>▪ Approved Manufacture's per exterior doors noted above</li> </ul> </li> </ol> </li> <li>3. Door Frames           <ol style="list-style-type: none"> <li>a. Comply with the requirements of grade specified for corresponding door</li> </ol> </li> </ol>

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		<ul style="list-style-type: none"> <li>b. Factory prime painted</li> <li>c. Welded corners.</li> <li>d. Grouted frame as required by Owner, structo-lite is acceptable alternate to grout.</li> <li>e. Galvannealed finish if in wet areas.</li> <li>f. Frames wider than 48-inches shall be reinforced with steel channel fitted tightly into frame head, flush with top.</li> <li>g. Frames installed back-to-back shall be reinforced with steel channels anchored to floor and overhead structure.</li> <li>h. Fire rating to be same as door.</li> <li>i. Approved Manufactures: Same as Exterior Doors above.</li> </ul> <p>4. Door and Frame Finish</p> <ul style="list-style-type: none"> <li>a. 1<sup>st</sup> Coat: High Build Epoxy, MPI #108</li> <li>b. 2<sup>nd</sup> Coat: Polyurethane, MPI #72</li> <li>c. 3<sup>rd</sup> Coat: Polyurethane, MPI #72</li> <li>d. MPI Gloss Level 5</li> <li>e. Minimum Pencil Hardness of 4H</li> </ul>
08 14 00	FLUSH WOOD DOORS	<ul style="list-style-type: none"> <li>1. All interior locations unless noted otherwise.</li> <li>2. Weyerhaeuser, Vancouver, Eggers or VT Industries products preferred.</li> <li>3. AWI "Premium Grade" minimum.</li> <li>4. Solid core: Particleboard.</li> <li>5. Hardwood lumber stiles and rails and reinforcing where required for hardware.</li> <li>6. Veneer maple finish</li> <li>7. Beveled and stained hardwood vertical edges..</li> <li>8. Vision Panels: Non-removable stops on secure side.</li> </ul>
08 16 13	FIBERGLASS DOORS	<ul style="list-style-type: none"> <li>1. Super-insulating fiberglass doors shall be considered at exterior openings.</li> <li>2. Factory painted finish.</li> <li>3. Special-Lite Model AF-100, or as approved by Owner.</li> <li>4. Closed-cell polyurethane insulated core.</li> <li>5. 1-3/4" thickness.</li> <li>6. Use with Special-Lite Model AF-150 door frame; painted to match door.</li> <li>7. 10-year warranty for door and frame.</li> </ul>
08 31 13	ACCESS DOORS & FRAMES (Walls & Ceilings)	<ul style="list-style-type: none"> <li>1. Doors and frames: formed steel.</li> <li>2. Provide keyed camlock at public places.</li> <li>3. Provide twist turn handle at emergency shut-off</li> </ul>

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		<p>locations.</p> <ol style="list-style-type: none"> <li>4. Stainless steel in public spaces.</li> <li>5. Painted finish in maintenance locations.</li> <li>6. Factory coated white in hard-lid ceilings.</li> </ol>
08 33 23	OVERHEAD COILING DOORS	<ol style="list-style-type: none"> <li>1. 20-gauge min. steel door slats, aluminum or stainless steel, guides and housing to match door construction. Stainless construction in Kitchen areas.</li> <li>2. Larger openings to be chain operated. Provide pull down handle elsewhere. No finger holes.</li> <li>3. Motor operator at vehicle entries with manual override. Three button control.</li> <li>4. Overhead Door Co. door and operator preferred.</li> <li>5. Lock cylinders to accept large format interchangeable cores by Assa.</li> </ol>
08 33 26	OVERHEAD COILING GRILLES	<ol style="list-style-type: none"> <li>1. Powder coated expanded aluminum grille.</li> <li>2. Manual operation.</li> <li>3. Lock cylinders to accept large format interchangeable cores by Assa.</li> </ol>
08 43 00	STOREFRONT SYSTEMS	<ol style="list-style-type: none"> <li>1. Not preferred for exterior walls.</li> <li>2. Allowed at interior installations. <ol style="list-style-type: none"> <li>a. Use Kawneer, EFCO, CRL / US Aluminum, or Oldcastle Building Envelope. Use Kawneer Trifab VersaGlaze 450 as standard example.</li> <li>b. Factory fabricated, factory finished framing members with infill and related flashings.</li> <li>c. Glazing position: Centered (front to back)</li> <li>d. Vertical Mullion: 2-inches wide x 4-1/2" deep.</li> <li>e. Sections and Stops to accept 1/4" glazing units.</li> <li>f. Internal weep drainage system.</li> </ol> </li> <li>3. Doors: <ol style="list-style-type: none"> <li>a. Glazed aluminum frame</li> <li>b. Match Kawneer Trifab VersaGlaze 450</li> <li>c. Finish to match fixed Storefront</li> </ol> </li> <li>4. Brake Metal: <ol style="list-style-type: none"> <li>a. Match Storefront</li> <li>b. 8 and 16 gauge material</li> </ol> </li> <li>5. Flashings (aluminum): <ol style="list-style-type: none"> <li>a. 20 gauge where exposed, match Storefront finish</li> <li>b. 25 gauge where concealed</li> </ol> </li> <li>6. Fasteners: <ol style="list-style-type: none"> <li>a. Stainless Steel</li> <li>b. Color and finish to match framing members</li> </ol> </li> </ol>

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08 44 00	CURTAIN WALL & GLAZED ASSEMBLIES	1. Maybe allowed depending on type of project. Check with Owner.
08 51 00	METAL WINDOWS	1. Not allowed at exterior openings. 2. Use as interior relites or sidelights.
08 51 13	ALUMIMNUM. WINDOWS	1. Not preferred.
08 52 13	METAL CLAD WOOD WINDOWS	1. Not allowed.
08 53 13	VINYL WINDOWS	1. Not preferred. 2. See Fiberglass windows below.
08 54 13	FIBERGLASS WINDOWS	1. Preferred over other windows. Milgard or College approved. 2. Powder coated exterior finish. 3. Must use the most technologically advanced insulating frame and glazing. 4. Minimize number of different sizes.
08 56 19	PASS-THRU WINDOWS	1. Tempered glass with stainless rollers and guides. 2. National or Olympus locks – small pin tumbler D4292 keyway.
08 62 00	UNIT SKYLIGHTS	1. Kalwall Standard , or CrystaLite layer plastic dome skylights.
08 71 00	DOOR HARDWARE	1. <b><u>College standard products only. Substitutions only as noted.</u></b> 2. All items, except as noted below, shall be warranted in writing by the manufacturer against failure due to defective materials and workmanship for a minimum of one (1) year commencing on the date of final completion. 3. Hinges: Hagar, also: McKinney and Bommer. One (1) hinge for every 30” of door height. a. Minimum size: 4-1/2” x 4” wide. b. Use piano hinges on all major exterior doors. c. Finish: stainless steel 4. Keying: a. All locks and cylinders shall be provided with construction cores for use during the construction phase. b. All permanent cores shall be keyed to the existing

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		<p>Assa Twin Exclusive key system (2BA131) per approved key schedule. Provide College with the permanent cores in which staff will remove and replace construction cores with permanent ones. Construction cores will be returned to the contractor so they may be returned to the supplier</p> <ul style="list-style-type: none"> <li>c. Provide three (3) keys minimum per lock, unless otherwise noted by owner.</li> </ul> <p>5. Cylinder cores:</p> <ul style="list-style-type: none"> <li>a. ASSA Twin Exclusive with large format interchangeable cores.</li> <li>b. Substitutions are not allowed.</li> </ul> <p>6. Locksets (mortise):</p> <ul style="list-style-type: none"> <li>a. Corbin Russwin ML 2000 series preferred.</li> <li>b. Sargent 8200 also acceptable</li> <li>c. Five year warranty required</li> <li>d. Field-adjustable, beveled armored front, .125” thickness.</li> <li>e. 2-3/4” backset with a one-piece 3/4” anti-friction stainless steel latchbolt.</li> <li>f. Deadbolt: Full 1” throw made of stainless steel with two hardened steel roller inserts.</li> <li>g. Strike: Shall be non-handed with a curved lip.</li> </ul> <p>7. Pivott Sets: Dorma or Rixson, models as required to meet door weights.</p> <p>8. Exit Devices and Mullions:</p> <ul style="list-style-type: none"> <li>a. Sargent 80 Series and Von Duprin 98 Series</li> <li>b. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar.</li> <li>c. Provide with key cylinder to allow dogging of device, not to be dogged with hex key; do not provide at locations electrical hardware is installed.</li> <li>d. Push rail mounting rails to be formed from a solid piece of stainless steel no less than .072” thick</li> <li>e. Push rails shall be constructed of .062” thick stainless steel.</li> <li>f. Lever trim shall be in finishes and designs to match that of the specified locksets</li> </ul>

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		<p>g. Removable mullions with malleable-iron top and bottom retainers. Fit with standard stabilizers and imbedded weatherstripping</p> <p>9. Electrified Devices:</p> <p>a. Manufacturer: Von Duprin. Sargent an approved substitution</p> <p>b. Power for devices shall utilize a continuous electric hinge for a clean design and no visible means of interrupting power to the device</p> <p>c. Exit devices, both fire and non-fire doors, requiring electrical dogging shall be held in the dogged or retracted position</p> <p>d. All exit devices with electric latch retraction shall provide for a remote means of unlocking the momentary or maintained periods of time</p> <p>e. Refer to Section 281300 – Access Control for Electronic Access Control products</p> <p>10. Door Closures:</p> <p>a. Manufacturer: Norton 7500. LCN 4041 Series also approved.</p> <p>b. Ten year warranty required</p> <p>11. Heavy-Duty Automatic Door Operators:</p> <p>a. Manufacturer: Horton 4000/7000 Series. Norton 6900 an approved substitution</p> <p>b. 4"x4" press to operate face plate with ADA international symbol</p> <p>12. Door and wall stops and holders:</p> <p>a. Basis of design: Rockwood.</p> <p>b. Also approved: Trimco and Hager</p> <p>c. Model preferred: 445, 462, 494R and 402</p> <p>13. Overhead stops / holders:</p> <p>a. Basis of design: Rixson</p> <p>b. Also approved: Sargent</p> <p>c. Model preferred: Concealed Mount 1ADJ Series</p> <p>14. Protection Plates, Push Plates and Pulls:</p> <p>a. Basis of design: Rockwood Standard Line</p> <p>b. Also approved: Sargent, Trimco and Hager</p> <p>c. Do not specify any hardware trim that could compromise the security of the locking</p>

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		<p>mechanism</p> <p>15. Gaskets, Bottoms and Thresholds:</p> <ul style="list-style-type: none"> <li>a. Basis of design: Pemko,</li> <li>b. Also approved: McKinney Manufacturing and Reese Enterprises.</li> <li>c. Use only non-adhesive applied gaskets</li> <li>d. Do not use threshold mounted gaskets or seals</li> </ul> <p>16. Silencers: Trimco or Rockwood.</p> <p>17. <b><u>Door &amp; Hardware submittals are required to be reviewed by the College.</u></b></p>
08 80 00	GLAZING	<ul style="list-style-type: none"> <li>1. Float Glass Manufacturer's:             <ul style="list-style-type: none"> <li>a. Cardinal Glass Industries</li> <li>b. AGC Flat Glass North America</li> <li>c. Guardian Industries</li> <li>d. Pilkington</li> <li>e. Vitro</li> <li>f. Schott North America</li> </ul> </li> <li>2. Types of float glass:             <ul style="list-style-type: none"> <li>a. S-1: Single Vision Glazing:                 <ul style="list-style-type: none"> <li>▪ ¼" thickness</li> <li>▪ Clear</li> <li>▪ Annealed float glass</li> <li>▪ Use typically at all interior locations unless required by code</li> </ul> </li> <li>b. S-2: Single Safety Glazing:                 <ul style="list-style-type: none"> <li>▪ ¼" thickness</li> <li>▪ Clear</li> <li>▪ Fully tempered float glass</li> <li>▪ Use as required by code</li> </ul> </li> <li>c. S-3: Anti-reflective Glazing                 <ul style="list-style-type: none"> <li>▪ ¼" thickness</li> <li>▪ Clear</li> <li>▪ Anti-reflective coating on float glass</li> <li>▪ Use as directed</li> </ul> </li> </ul> </li> <li>3. General:             <ul style="list-style-type: none"> <li>a. Insulated units – 1" minimum thickness.</li> <li>b. When feasible minimize use of large units.</li> </ul> </li> <li>4. Glazing Compounds:             <ul style="list-style-type: none"> <li>a. Bostik Pure Silicone sealant</li> <li>b. GE RGS7700 RapidStrength</li> </ul> </li> </ul>

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		<ul style="list-style-type: none"> <li>c. Pecora 860</li> <li>d. Dow Corning 983 sealant at Curtain Walls</li> </ul> 5. Glazing Tape: <ul style="list-style-type: none"> <li>a. Saint Gobain V2200</li> <li>b. Tremco Commercial Sealants ET 675</li> </ul> 6. Accessories: <ul style="list-style-type: none"> <li>a. Neoprene setting blocks to suit glazing method, weight and area.</li> <li>b. Neoprene spacer shims to suit application; self-adhesive on one face.</li> <li>c. Glazing gaskets as required at interior applications.</li> </ul>
08 84 00	PLASTIC GLAZING	1. Not allowed unless prior approval from Owner.

**NOTES:**

1. All permanent door cores and keys will be supplied by the contractor and installed by the College
2. All double doors to have keyed removable mullions keyed to College cylinders.
3. Contractor shall provide and install temporary construction cores and supply College with (5) construction keys and (2) control keys.
4. A door hardware meeting with the hardware consultant, the College Locksmith, Project Manager, and Electrical Engineer should take place during the design development stage.
5. Before door hardware is ordered there shall be a keying meeting the includes members of the College (Campus Locksmith, Project Manager, and user representative) along with the Hardware Supplier and General Contractor. This should be clearly noted in the Hardware Specification.
6. All closers to be through bolted.