SECTION 09681 - CARPET TILE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes carpet removal, new carpet tile and accessories for direct glue down installation.
- B. Related Sections include the following:
 - 1. Division 9 Section "Resilient Wall Base and Accessories" for resilient wall base and accessories installed with carpet tile.
 - 2. Division 9 Section "Carpet."
- C. Substitutions: Approval of substitute products will be considered only under the terms and conditions as outlined below:
 - 1. Whenever a particular make of material or trade name is specified herein, it shall be regarded as being indicative of the standards required. Regardless of format or specifications, any product other than those named in Part 2 Products, item number 2.1, must proceed as a substitute. A bidder who proposes to quote on the basis of a substitute material or system shall submit to the Owner, at least ten (10) days prior to the scheduled bid date, the following information:
 - a. Written application for approval of substitute to include specifications of substitute carpet on company letterhead and signed by company officer.
 - b. Include completed and signed checklist from Section 2.3.
 - c. Sixteen (16) 24" x 24" samples of the proposed substitute with recommended backing technology to provide a mock-up of the pattern.
 - d. A complete sample representation of colors available.
 - e. Copies of warranties for proposed substitute.
 - f. List of a minimum of three (3) jobs, one of which must be in use for at least ten (10) years, where substitute is/was used under similar conditions. These jobs shall be located within fifty (50) miles of the Owner's office. Each job shall be available for inspection by the Owner's Representative.
 - g. Consideration will be given to only those substitutes that are approved prior to scheduled bid opening date.
 - h. List of approved substitutes will be issued to all bidders in the form of an addendum prior to bid opening.

- D. General: The following publications of the issues listed below, but referred to hereinafter by basic designation, form a part of this specification to the extent as if bound herein:
 - 1. American Society for Testing and Materials (ASTM):
 - a. E84 Test method for Surface Burning Characteristics of Building Materials.
 - b. E648 Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include manufacturer's written data on physical characteristics, durability, and fade resistance. Include installation recommendations for each type of substrate.
- B. Shop Drawings: Show the following:
 - 1. Columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in carpet tiles.
 - 2. Existing flooring materials to be removed.
 - 3. Existing flooring materials to remain.
 - 4. Carpet tile type, color, and dye lot.
 - 5. Type of sub-floor.
 - 6. Type of installation.
 - 7. Pattern of installation.
 - 8. Pattern type, location, and direction.
 - 9. Pile direction.
 - 10. Type, color, and location of insets and borders.
 - 11. Type, color, and location of edge, transition, and other accessory strips.
 - 12. Transition details to other flooring materials.
- C. Samples: For each of the following products and for each color and texture required. Label each Sample with manufacturer's name, material description, color, pattern, and designation indicated on Drawings and in schedules.
 - 1. Carpet Tile: Full-size Sample.
 - 2. Exposed Edge, Transition, and other Accessory Stripping: 12-inch-long Samples.
- D. Product Schedule: For carpet tile. Use same designations indicated on Drawings.
- E. Qualification Data: For Installer.
- F. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency.
- G. Maintenance Data: For carpet tiles to include in maintenance manuals. Include the following:

- 1. Methods for maintaining carpet tile, including cleaning and stain-removal products and procedures and manufacturer's recommended maintenance schedule including detailed instructions pertaining to hot water extraction methods.
- 2. Precautions for cleaning materials and methods that could be detrimental to carpet tile.
- H. Warranty: Special warranty specified in this Section.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer with not less than 5 consecutive years of experience in installation of commercial carpeting of type, quantity and installation methods similar to work of this section. <u>FLOORING CONTRACTOR SHALL SUBMIT WITH BID PROPOSAL WRITTEN CERTIFICATION FROM CARPET MANUFACTURER THAT CERTIFIES FIRM IS AN APPROVED INSTALLER FOR THIS PROJECT.</u>
- B. Manufacturer's Qualifications: Firm (carpet mill) with not less than 5 consecutive years of production experience with carpet similar to type specified in this section; whose published product literature clearly indicates general compliance of products with requirements of this section.
- C. Measurement Verification: Dimensions shown on drawings are approximate. It is the Flooring Contractor's responsibility to verify all dimensions and job site conditions; order sufficient yardage to fully carpet areas as indicated and to fill overage requirements as specified. No substitutions shall be permitted to make up for any shortage of material in overage or in carpet to be installed.
- D. Flooring Contractor shall be totally responsible for the accuracy of his measurements of total yardage, individual floor yardage, and dye lot yardage requirements, extra yardage for pattern match, and roll length requirements; no additional compensation shall be allowed for shortage of materials.
- E. Dye Lots: All carpet of the same type in continuous areas shall be from the same dye lots.
- F. Fire-Test-Response Characteristics: Provide products with the critical radiant flux classification indicated in Part 2, as determined by testing identical products per ASTM E 648 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.
- G. Owner reserves the right to test carpet at their expense to verify that the delivered carpet is as specified. If carpet does not meet specifications, manufacturer will reimburse owner the testing expense and the carpet may be rejected.
- H. Pre-installation Conference: Conduct conference at Project site. Review methods and procedures related to demolition and carpet tile installation including, but not limited to, the following:
 - 1. Review delivery, storage, and handling procedures.
 - 2. Review ambient conditions and ventilation procedures.
 - 3. Review dust control procedures.

4. Review requirements/procedures for protecting items to remain. i.e.: furnishings, equipment, etc.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Comply with CRI 104, Section 5, "Storage and Handling."
- B. Deliver carpeting materials in original mill protective package with mill register numbers and tags attached. Maintain wrappers and protective covers in place until carpet is ready for installation. Store inside, in well ventilated area, protected from weather, moisture and soiling.
- C. Cutting: Before beginning installation, it shall be inspected for defects, color variations or shipping damage and be immediately replaced if any of these conditions exist at no additional cost to the Owner. Carpet tiles shall be inspected to insure that carpet is from the same dye lot.
- D. Deliver all required overages and maintenance stock to Owner's specified location prior to beginning installation.

1.6 PROJECT CONDITIONS

- A. Comply with CRI 104, Section 7.2, "Site Conditions; Temperature and Humidity" and Section 7.12, "Ventilation."
- B. Environmental Limitations: Maintain temperatures in space in accordance with carpet manufacturer's recommendations, but in no case less than 60 degrees F for 24 hours prior to, during and after installation. Sub-floor temperature should be a minimum of 60 degrees F for 24 hours prior to and after installation.
- C. Precondition: All of the carpet shall be stored in a room on site 24 hours prior to actual installation with the room preconditioned at a minimum of 60 degrees F with humidity between 35% to 65%.

1.7 SEAMING REQUIREMENTS

- A. General: In addition to the requirements and recommendations of the Carpet Manufacturer, the following criteria shall be adhered to:
 - 1. Installation layout shall enable future replacement, especially in large open areas and traffic paths, unless specifically indicated in writing by Owner or Owner's Representative.
 - 2. No carpet tile pieces smaller than 6" in width or length shall be used.
 - 3. Seams occurring at doors of different types of carpet shall be parallel to closed door, and be centered directly under the closed door.
 - 4. Flooring Contractor is responsible for trimming all loose yarn and fuzzy edges of carpet tiles
 - 5. All cutting of carpet for telephone and electrical outlets shall be the responsibility of the Flooring Contractor.

1.8 WARRANTY

- A. Special Warranty for Carpet Tiles: Manufacturer's standard form in which manufacturer agrees to repair or replace components of carpet tile installation that fail in materials or workmanship within specified warranty period.
 - 1. Provide special warranty, signed by Flooring Contractor and Carpet Manufacturer, agreeing to repair or replace defective materials and workmanship of carpeting work during a 10 year warranty period following date of Substantial Completion. Attached copies of product warranties as required in Part 2, item 2.1 of this specification section for warranties required.

1.9 EXTRA MATERIALS

- A. Furnish extra materials described below, before installation begins, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. Deliver to the Owner uncut in clearly marked dust-proof packages <u>prior to</u> commencement of work; store where directed.
 - 1. Carpet Tile: Full-size units equal to 15 percent of amount installed for each type indicated, but not less than 10 sq. yd.

PART 2 - PRODUCTS

2.1 CARPET TILE (CPT1)

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following. Carpet shall meet the following minimum requirements:
 - 1. Lees Integrated Cushion Thermobond Carpet Tile (CPT1)
 - a. Color: As selected by Owner from manufacturer's full range.
 - b. Pattern: Notion (6563)
 - c. Source: Lees Carpet

Manufacturer's Representative: Cole Cayce, 214-926-3419

- d. Understanding the importance of pattern and color for aesthetics, as well as appearance retention and maintainability, the Owner reserves the right to reject any product or manufacturer based solely on pattern and color considerations.
- 2. Lees Integrated Cushion Thermobond Carpet Tile (CPT2) ALTERNATE NO. 1
 - a. Color: As selected by Owner from manufacturer's full range.
 - b. Pattern: Aspire (D6373)
 - c. Source: Lees Carpet

Manufacturer's Representative: Cole Cayce, 214-926-3419

- d. Understanding the importance of pattern and color for aesthetics, as well as appearance retention and maintainability, the Owner reserves the right to reject any product or manufacturer based solely on pattern and color considerations.
- B. Construction: Tufted
- C. Surface Texture: Textured loop pile
- D. Pile Thickness: .094" average
- E. Gauge: 5/64"
- F. Yarn Weight: 22 oz. per sq. yd. minimum
- G. Face Yarn: Type 6,6 Environmentally Preferred Product Antron Legacy Nylon by Invista
- H. Dye System: Duracolor® by Lees Patented Permanent Stain and Fade Resistant Technology
- I. Dry Soil Retardant: DuraTech by Invista
- J. Primary Backing: Reinforced synthetic
- K. Secondary Backing: Fiberglass reinforced thermoplastic composite
- L. Bonding Agent: Premium vinyl
- M. Size: 24" x 24"
- N. Sq. Yards per Carton: 6.22 sq. yd.
- O. Static Control: 3.0 KV when tested under Standard Shuffle test (70 degrees, 20% RH)
- P. Flammability:
 - 1. DOC-FF-1-70 Pill Test: Passes
 - 2. Floor Radiant Panel: Meets NFPA Class 1 when tested per ASTM-E-648 glue down
- Q. NBS Smoke Chamber NFPA 258: Less than 450 Flaming Mode
- R. Color Fastness:
 - 1. Lightfastness: AATCC 16E-1982 Dark Color: Gray scale rating of 4 or better after 160 standard fading hours as compared to AATCC Gray Scale for evaluation change in color.
 - 2. Ozone and Gas: AATCC 129-1981 Rating 3 or better per color AATCC transference scale.

S. Warranties

- 1. Definition of Lifetime: Lifetime is defined as the period from which materials are installed until the date in which the Owner removes them from service.
- 2. Lees Carpets manufacturer's Lifetime Warranty, non-prorated against product failure covering all costs including freight, labor, and material for the following:
 - a. Edge Ravel/Tuft Bind
 - b. Back lamination
 - c. Static protection as stated above
 - d. Wear No more than 10% face yarn loss
 - e. Cup, Dome, Dish
 - f. Dimensional stability
 - g. Adhesive bond to floor
 - n. Permanent stain resistance to acid-type spills
- 3. Installation Warranty: Lifetime Warranty, non-prorated against any installation related failure covering all costs including freight, labor and material co-signed by the flooring contractor and the manufacturer.

T. Duracolor® by Lees Permanent Stain Resistance

1. Stain resistant properties must be <u>permanent</u> and not removable by commercial cleanings or abrasive wear. Under GSA requirements stain resistant carpets must score no less than 8.0 (10.0 is the best) on the AATCC Red 40 Stain Scale. Test sample must first be exposed to 100 revolutions on the Taber Abrader (1,000-gram weight per H-18 wheel) and then abraded area must be stain tested using AATCC test method 175. Topical stain resistant treatments will not be acceptable. Stain resistant properties must be inherent.

2.2 INSTALLATION ACCESSORIES

- A. Adhesives: Water-resistant, mildew-resistant, nonstaining, pressure-sensitive type to suit products and sub-floor conditions indicated, that complies with flammability requirements for installed carpet tile and is recommended by carpet tile manufacturer for releasable installation. All floor sealers, seam sealers and adhesives shall contain no calculated solvents per OSHA Regulation 29 CFRE 1910.1200, have no calculated VOC's and be non-flammable. MSDS and samples required on products used.
- B. Miscellaneous Materials: As recommended and approved in writing by manufacturer of carpet, and selected by Flooring Contractor to meet project circumstances and requirements.
- C. Protection Paper: Fortifiber Corporation "Seekure 892", or approved heavy, reinforced, non-staining kraft laminated paper.

2.3 SUBMITTAL CHECKLIST

A. Checklist Instructions: For all submittals for substitutions, submitter must include the checklist at the end of this section, completely filled out and signed by an officer of the company. Failure to provide this documentation will result in rejection of submittal.

- 1. Fill in the left column with the actual data as it pertains to your substitute. If more room is required, attach additional pages.
- 2. Circle either yes or no indicating whether or not the submitted product meets or exceeds the specification requirements for each checklist item.
- B. Checklist Form: See end of this section.

PART 3 - EXECUTION

3.1 CARPET REMOVAL

A. Remove and dispose of all existing carpet and materials to make sub-floor acceptable for installation if applicable.

3.2 EXAMINATION

- A. Examine substrates, areas, and conditions for compliance with requirements for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting carpet tile performance. Examine carpet tile for type, color, pattern, and potential defects against the approved samples prior to installation.
- B. Concrete Sub-floors: Verify that concrete slabs comply with ASTM F 710 and the following:
 - 1. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by carpet tile manufacturer.
 - 2. Sub-floors are free of cracks, ridges, depressions, scale, and foreign deposits.
- C. In the event of discrepancy, notify Owner. Do not proceed with installation in areas of discrepancy until all such unsatisfactory conditions have been corrected. Start of carpet installation indicates acceptance of sub-floor conditions and full responsibility for completed work.

3.3 CARPET RECLAMATION – ALTERNATE NO. 3

A. Submittals

- 1. Proposed dust control measures.
- 2. Proposed packing and transportation measures.
- 3. Schedule of carpet reclamation activities indicating the following:
 - a. Detailed sequence of removal work.
 - b. Inventory of items to be removed and recycled.
- 4. Reclamation agency records indicating receipt and disposition of used carpet.

B. Quality Assurance

- 1. Reclamation Agency: Firm (or designated agent firm) providing used carpet recycling program.
- 2. Carpet Remover: Firm (or designated agent firm) providing carpet removal services for recycling purposes.
- 3. Regulatory Requirements: Comply with governing regulations. Comply with hauling and disposal regulations of authorities having jurisdiction.
- 4. Record off-site removal of debris and materials and provide the following information regarding the removed materials. Time and Date of Removal; Type of Material; Weight and Quantity of Materials and Final Destination of Materials.
- 5. Certification: Reclamation Agency and Carpet Remover shall certify in writing that used carpet was removed and recycled to assure carpet is not landfilled.
- 6. Removed carpet and associated materials shall not be removed and placed in a landfill.

C. Preparation

1. Vacuum used carpet before removal.

D. Carpet Removal

- 1. Remove used carpet in large pieces, roll tightly and pack neatly in a container (include carpet scrap and waste from new installation). Immediately remove from the site and place in container or trailer.
- 2. Deposit only clean, dry used carpets in containers. Clean shall be defined as carpet free from demolition debris or asbestos contamination, garbage and tack strips.

E. Container Disposal

- 1. Place used carpet in 40-yd³ container supplied by reclamation agency. Containers are fully enclosed, front (end) loading. Place only used commercial carpeting in collection container. Container shall be kept locked or supervised.
- 2. Use effective packing techniques to maximize the amount of material in the container. On average, container holds 2,000 to 3,000 yd².
- 3. Neatly stack carpet tiles or repack in cardboard boxes prior to placing in container. Do not stack higher than 6 feet.
- 4. When container is full, contact reclamation agency to coordinate pick-up and drop-off of replacement container. If container is locked for security purposes, remove the lock prior to pick-up.

3.4. PREPARATION, GENERAL

A. General: Comply with CRI 104, Section 6.2, "Site Conditions; Floor Preparation," and with carpet tile manufacturer's written installation instructions for preparing substrates indicated to receive carpet tile installation.

- B. Remove coatings, including curing compounds, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by carpet tile manufacturer.
- C. Prepare the sub-floor to insure a successful installation. Utilize a floor sealer such as Lees Everseal where needed or recommended by Manufacturer.
- D. Broom and vacuum clean substrates to be covered immediately before installing carpet tile.

3.5. INSTALLATION, GENERAL

- A. General: Comply with CRI 104, Section 14, "Carpet Modules," and with carpet tile manufacturer's written installation instructions.
- B. Installation Method: As recommended in writing by carpet tile manufacturer.
- C. Maintain dye lot integrity. Do not mix dye lots in same area.
- D. Cut and fit carpet tile to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet tile manufacturer.
- E. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.
- F. Carpet shall be installed with pile lying in the same direction. Cut carpet evenly and accurately to fit neatly at walls, columns and projections.
- G. Installed carpet shall be free from ripples, ravels, frays, puckers and raw exposed edges. All loop pile carpets will demonstrate some fuzzy edges due to normal manufacturing conditions. It is the carpet installer's responsibility to trim all edges to eliminate fuzzy seams.
- H. Expansion Joints: Do not bridge building expansion joints with continuous carpeting, provide for movement.

3.6. CLEANING AND PROTECTION

- A. Remove and dispose of debris and unusable scraps.
- B. Perform the following operations immediately after installing carpet tile:
 - 1. Remove excess adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet tile manufacturer. Replace carpet where spots cannot be removed.
 - 2. Remove yarns that protrude from carpet tile surface using sharp scissors. Be certain to trim any loose yarns or fibers at all seams.
 - 3. Vacuum carpet tile using two motor, top loading, upright commercial machine with brush only element, utilizing a high filtration dust bag.

- C. Following cleaning and vacuum carefully protect the carpeting from soiling and damage until final acceptance.
- D. Maintenance Materials: Deliver usable, uncut carpet tiles to Owner's designated storage space, properly packaged and identified. Dispose of smaller pieces as construction waste.

END OF SECTION 09681

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U.	Checklist Form:

1.	Submitting company's name:
2.	Checklist preparer's name:
3.	Submitted product manufacturer:

4. Submitted product style name:

5. Checklist:

Specifi	Circle Answer			
Section 09681, Part 2.1.A-T:				
1.	Construction:	YES / NO		
2.	Surface Texture:	YES / NO		
3.	Pile Thickness:	YES / NO		
4.	Gauge:	YES / NO		
5.	Stitches:	YES / NO		
6.	Yarn Weight:	YES / NO		
7.	Density:	YES / NO		
8.	Face Yarn:	YES / NO		
9.	Dye System:	YES / NO		
10.	Dry Soil Retardant:	YES / NO		
11.	Primary Backing:	YES / NO		
12.	Secondary Backing:	YES / NO		
13.	Bonding Agent:	YES / NO		
14.	Size:	YES / NO		
15.	Sq. Yds. Per Carton:	YES / NO		
16.	Static Control:	YES / NO		
17.	Flammability:	YES / NO		
18.	NBS Smoke Chamber:	YES / NO		
19.	Color Fastness:	YES / NO		
20.	Indoor Air Quality:	YES / NO		
21.	Carpet Lifetime Warranty (Part S, Item 1 & 2)	YES / NO		
22.	Installation Lifetime Warranty (Part S, Item 3):	YES / NO		
23.	Cationic Stain Resistance (Part T, Item 1):	YES / NO		
24.	Environmental Attributes (Not Used)	YES / NO		

Preparer's Signature and Date:	

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