

# CARPET INSTALLATION AND RESILIENT FLOORING

## APPENDIX A BID SPECIFICATIONS/DRAWINGS

### **Table of Contents**

| BID INFORMATION AND PROJECT PAGE   | 1         |
|--|-----------|
| BID INFORMATION SHEET  | 2         |
| COLOR CLARIFICATION SHEET  | 4         |
| SUPPLEMENTAL LABOR CONDITIONS  | 5         |
| FLOORING SPECIFICATIONS  | 7         |
| HYBRID SOFT SURFACE FLOOR PRODUCTS   | 8         |
| COMMERCIAL VINYL COMPOSITION TILE  | 9         |
| HOMOGENEOUS COMMERCIAL SHEET FLOORING  | 10        |
| COMMERCIAL FELT - BACKED SHEET   | 11        |
| COMMERCIAL LINOLEUM SHEET FLOORING   | 16        |
| GEOMETRIC TILE   | 18        |
| MONDO RUBBER FLOORING SPECIFICATION  | 20        |
| WALL BASE SPECIFICATION  | 22        |
| RESILIENT ATHLETIC FLOORING  | 23        |
| POLISHED CONCRETE  | 30        |
| EPOXY FLOORING - STANDARD, FOOD PREP, AND QUICK  | 42        |
| SITE LOCATIONS & ESTIMATED PROPOSED SCOPE AND MAPS   | 49        |
| SITE LOCATIONS AND ESTIMATED PROPOSED SCOPE  | 50        |
| MAPSERROR! BOOKMARK NOT  | DEFINED.  |
| DISTRICT PROXIMITY AND LOCATIONS   | 53        |
| BID FORMS  | 55        |
| BID FORMS  | 56        |
| SAMPLE OF A SCHOOL BASIS OF AWARD – (EXAMPLE OF SITE CONDITIONS ONLY) BOOKMARK NOT DEFINED.  | ERROR!    |
| PERMANENT MATTING MATERIAL AND INSTALLATION QUOTE SHEET  | 60        |
| RESILIENT FLOORING MATERIAL & INSTALLATION QUOTE SHEET   | 61        |
| WALL BASE AND REDUCER MATERIAL AND INSTALLATION QUOTE SHEET  | 62        |
| INSTALLATION OF POLISHED CONCRETE  | 63        |
| EPOXY FLOORING MATERIAL AND INSTALLATION QUOTE SHEET   | 65        |
| PRICE SCHEDULE – RESILIENT FLOORING MATERIAL AND INSTALLATION  | 66        |
| PRICE SCHEDULE - CARPET CLEANING SERVICE   | 69        |
| ANCILLARY ITEMS 1 – REMOVAL AND DISPOSAL   | 70        |
| ANCILLARY ITEMS <sup>2</sup> – FURNITURE MOVING, FURNITURE STORAGE CONTAINERS, FLAPPREPARATION, AND CONCRETE VAPOR EMISSION RETARDER SEALANT | OOR<br>71 |
| ANCILLARY ITEMS <sup>3</sup> – RUBBER FLOORS, STAIR TREADS AND TRIMS QUOTE SHEET   | 74        |
| ANCILLARY ITEMS 4 – CARPET MATERIAL INSTALLATION QUOTE SHEET   | 75        |

| ANCILLARY ITEMS <sup>5</sup> – HAZARDOUS MATERIAL REPORTS AND AS BUILTS76 |  |
|---|--|
| GENERAL CONDITIONS FOR CONTRACT OF CONSTRUCTION77                         |  |
| EXHIBIT A   |  |
| WORK ORDER79  |  |

# BID INFORMATION AND PROJECT PAGE

### CHAPTER ONE COMPONENTS

- Bid Information Sheet
- Color Clarification Sheet

#### **BID INFORMATION SHEET**

- I. Bid Deadline: 3:00 pm, December 7, 2018. Bids shall be delivered to the Purchasing Department, Corona-Norco Unified School District, 2820 Clark Avenue, Norco, CA, 92860.
- II. Job Conference
  - A. Conference Date: November 15, 2018
  - B. Time: 9:00 am (Bidders required to sign in and out).
  - C. Location: Corona-Norco Unified School District, Business Conference Room, 2820 Clark Avenue, Norco, CA, 92860. District Contact: Peace Aneke, Director, Purchasing Department. 951-736-5050
- III. DIR Requirements:
  - A. Prevailing wages applicable
  - B. Current DIR Registration number
  - C. PWC-100 to be filed by District upon award
  - D. eCertified Payroll Reports to be completed by Contractor
  - E. License classification C-15 (Floor and Floor Covering)
- IV. Sites to receive new flooring
  - A. See Chapter 4, Site Locations & Estimated Proposed Scope and Maps for school site locations.
- V. Description of the project
  - A. The District is seeking bids for the removal and replacement of existing floor covering, in addition to securing VCT, sheet vinyl, wallbase for a complete floor covering installation. See Appendix A for full description of materials, preparation, installation requirements and District provided products.
  - B. Work hours are 6:00 am 9:00 pm
  - C. AHERA / As Builds reports
- VI. Geo Tile (walk-off) Matting (owner supplied or equivalent by Contractor)
  - A. Owner Supplied.
  - B. Delivered to the contractor and/or contractor to will call in La Verne, California.
  - C. Single standard door entryway will have a 6' x 6' installation area.
  - D. Double door entryway will have 8' x 6' installation area.
- VII. Carpet Material (owner supplied)
  - A. Owner Supplied.
  - B. Yardage provided by the contractor.

- C. Delivered to the contractor and/or will called in La Verne, California.
- VIII. Basis of Award The District intends to award a three (3) year contract with two (2) optional one-year terms, for a maximum of five (5) year term to the Contractor offering the lowest responsible bid, meeting District specifications.
  - IX. References to "Owner" and "District" shall be the Corona-Norco Unified School District.

#### **COLOR CLARIFICATION SHEET**

- I. Soft surface flooring 6' Powerbond cushion RS or Carpet Tile Crayon "Outside the Lines" with Antron yarn fibers.
- II. VCT (Vinyl Composition Tile) to be selected from the tile line specified.
- III. Geo Tile Mat System Charcoal
- IV. 4' Burke Rubber Wall Base Black
- V. Transition Strips Black
  - A. Snapdown reducer strips are to be utilized.
  - B. Track system is to be nailed to the substrate.
- VI. Sheet vinyl 6' roll goods To be selected from the tile line specified.
  - A. All sheet vinyl is to have heat welded seams and metal cove caps.
  - B. Cove stick is to be used on all installations where material is to be coved.

## SUPPLEMENTAL LABOR CONDITIONS

- Chapter
- I. Carpet material is to be Tandus "Powerbond." Backing material is to be Mark One with RS adhesive pre-applied to 100% of the backing at the time of manufacture.
- II. Carpet material and geo tile matting are to be supplied by the owner (school district).
- III. Bidding contractors will be responsible for:
  - A. All other items needed for a completed job shall be provided by the contractor such as wall base, reducers, floor sundries, patching material, etc.
  - B. Plan take-off, proper estimates for yardage, material, and labor needed to complete job. Contractor will be held responsible to the original estimate.
  - C. Seam diagrams for all applications except 12' x 12' VAT tile.
  - D. Supplying all materials with the exception of the carpet material and geo tile matting.
  - E. Contractor is required to be certified by Tandus for the installation of Powerbond backing systems. Every installer on the job must carry a current certification card indicating his or her personal name. Also, the contractor must have a letter from Tandus stating that the award winning flooring contractor meets all certification requirements. This letter must be part of the bid submittal package.
  - F. Contractor will be required to receive owner supplied materials at the contractor's warehouse 6-8 weeks prior to the scheduled installation date. Contractor must have adequate warehouse and storage facilities.
  - G. Contractor must provide warehouse facilities that are adequate to store carpet and matting material. Warehouse facilities must be insured and bonded. Certification will be required showing that the carpet material is insured for 100% of its value. Contractor must supply insurance for all district owned stored material.
  - H. The contractor will be responsible for all flooring sundries and floor preparation materials.
  - I. The contractor will be responsible for all flooring preparation labor. Contractor's price is to include two (2) man-hours per hundred square yards for floor prep.
  - J. The contractor will be responsible for all proper equipment to receive and deliver material to the job sites.
  - K. The contractor will be responsible for all deliveries of all district owned and contractor stored materials to all job sites. This includes all projects designated within the bid document.
  - L. The contractor will be responsible for insuring the district owned material when delivering and transporting goods.

- M. The contractor will be responsible for all wall base material and installation.
- N. The contractor will be responsible for providing reducers/transition materials that utilize an aluminum track and snap down system.
- O. The contractor will be responsible for following the manufacturer's installation instructions exactly for all materials utilized.
- IV. Carpet material will have varying dye lots based on project size.
- V. Carpet material will be installed over several different substrates to include: wood, VAT, and concrete. Contractors will be responsible for contacting the manufacturer for the correct installation specifications for each substrate application.
- VI. If applicable, contractor will be responsible for the removal and disposal of existing carpet where new carpet will be installed.
- VII. Contractor must have available resources to meet a minimum of 107 yards of installation per day and a maximum of 1,070 yards per day. Labor requirements vary on a daily basis.
- VIII. In addition to receiving and storing district supplied materials the contractor may be required to pick up owner supplied materials at designated loading docks in La Mirada and/or Chino, California.
  - IX. Contractor will be responsible for storing all owner supplied material for the term of the contract at no charge to the District. All carpet overages or waste exceeding the size of 6' x 10' shall be labeled and stored by the contractor. Remaining materials will be delivered to the District when requested or at termination of contract.
  - X. All warranties must be submitted with payment requests in order to process payment. Warranties shall indicate site, location, room number, purchase order number, contract number, and date of installation.
  - XI. Contractor shall be responsible for the labor and warranty it for ten (10) years non-prorated. The ten (10) year labor warranty is to read as follows: contractor has been responsible for the application of materials, materials have been installed per manufacturer specifications and they meet the integrity level set forth by the manufacturer. This includes proper application of wall base, thresholding, carpet, sheet vinyl, VCT, and any other flooring materials contracted.
- XII. Contractor is responsible for identifying any inherent abnormalities relating to manufacturer supplied products such as carpet, tile, adhesive, etc. The District must be notified prior to installation in the case where materials may compromise the proper application of flooring.
- XIII. Contractor shall ensure that wall base, thresholding, and carpet applications are installed correctly per plan specifications and manufacturer's recommendations.
- XIV. The District may require concrete vapor emission testing. Contractor will utilize calcium chloride tests. The cost of calcium chloride tests shall not exceed \$40.00 per test. Each test must include pH results.
- XV. Contractor will give a minimum of three (3) days notice prior to any installation schedule changes.
- XVI. No change orders or additional payments will be considered.

## **FLOORING SPECIFICATIONS**

# Chapter 3

#### HYBRID SOFT SURFACE FLOOR PRODUCTS

#### **Owner Supplied (Information Only)**

- VCTT (Variable Cushion Tufted Textile) Aragon Blue Shadow 1.1
  - Provide ONLY those products that meet the specification herein. NO SUBSTITUTES. A.
  - В. VCTT Sheet floor covering:
    - Link engineered, heterogeneous closed cell thermoplastic cushion with surface wear layer composed of tufted continuous filament nylon and installed with molecularly bound seams to provide a monolithic appearance.
  - C. Surface Texture: Level or Textured loop, 100% Nylon with modification ration of 1.5 for soil

release capabilities.

0.109 inch - 0.187 inch per ASTM D418, Section 12. Wear Layer Thickness: D.

Sheet Width: 6 feet (1.8 M). Ε.

F. Material Composition: Wear layer and cushion fully fused under heat and pressure and warranted

against delamination. Provides a Radon reduction barrier and meets the EPA

definition of enclosure for asbestos, including molecular bound seams.

G. Delamination: No delamination per ASTM D-3936. Seaming Method: Manufacturing seaming compound. Η.

Seam Integrity: Provide independent test results. Phillips Chair Test; No seam separation after I.

> 50,000 cycles. Moisture Penetration by Impact at SEAMS @ 10 psi; No penetration after 10,000 impacts. The British Spill IS NOT an acceptable

measurement for moisture barrier.

Closed Cell Cushion ONLY; NO LESS than 0.156 inches thick. J. Cushion Type:

K. Compression Set: ASTM D-1667: Max-10%, with Compression Deflection ASTM D-1667;

Min 7 lbs./sq. inch at 25%.

R-Value: ASTM C-177: 0.68 or higher. L.

Static Coefficient M.

> of Friction: ASTM C-1028: Passes ADA requirements.

N. Static Propensity: AATCC 134: 3.5 KV or less.

O. Flooring Radiant Panel: ASTM E-648 or NFPA 253: Class 1.

Acoustic Requirements: Noise Reduction Coefficient (NRC): 0.20 Minimum. Ρ.

Installation System: Adhesive must meet CRI Green Label Plus requirements. A peel & stick Q.

method applied to the back at the time of manufacture is preferred.

R. Antimicrobials: Antimicrobials are EPA registered pesticides. Antimicrobial additives are not

are not allowed during the manufacture of these flooring products.

Provide test results showing NI rating per test ASTM E-2471-05 indicating no efficacy. Installation adhesives are exempt from this section.

S. Indoor Air Quality: Must meet the indoor air quality requirements in California's Section 01350

Specification.

T. All product claims must comply with the US Federal Trade Commissions' Sustainability:

Guides for the Use of Environmental Marketing Claims (CFR Title 16 part 260).

U. Recyclability: VCTT to be 100% recyclable. Company to have an in-place, operational

> recycling program for product (at the end of its useful life). Program shall recycle 100% of the product in the same operation. The program shall not

consist of incineration (including waste-to-energy).

#### **COMMERCIAL VINYL COMPOSITION TILE**

#### Arteffect, Excelon<sup>1</sup> and Standard Excelon<sup>2</sup> or Equal

1.01 GAUGE: 1/8 / 0.125 (3.2 mm)

2.01 TILE SIZE: 12 x 12

3.01 USE: Commercial

4.01 INSTALLATION LOCATION: All grade levels

5.01 SYSTEM: Vinyl Composition Tile

#### **6.01 FEATURE STRIPS**

A. 1

B. 2

C. 6 x 24

#### 7.01 ADHESIVE

- A. S-89
- B. S-515
- C. S-700
- D. S-750

#### 8.01 SPECIAL PRECAUTIONS AND RECOMMENDATIONS

- A. Refer to the Vinyl Composition Tile Installation System in Section V for complete installation recommendations.
- B. For best overall visual, install STONETEX, and ARTEFFECTS with directional arrows pointing in the same direction.
- C. Do not install over existing below-grade tile.
- D. Use only S-515 or S-750 over existing resilient flooring.
- E. Armstrong Commercial Flooring is used in many applications where it is subjected to heavy concentrated static and dynamic loads.
- F. For questions regarding product suitability and detailed instructions for floor preparation and installation in these type of applications, please contact Armstrong.
  - 1. Companion Square, Feature Tile/Feature Strips, and Stonetex
  - 2. Imperial Texture and MultiColor

#### HOMOGENEOUS COMMERCIAL SHEET FLOORING

#### **Meditech and Medipoint**

1.01 GAUGE: 0.080 (2.0 mm)

2.01 MEDINTECH and MEDINPOINT WIDTH: 6' (1.8 m)

3.01 USE: Commercial

4.01 INSTALLATION LOCATION: All grade levels

5.01 SYSTEM: Commercial Vinyl-Backed

<u>6.01 PATTERN MATCH</u>: No, reverse pieces (TM edge to TM edge)

<u>7.01 SEAM METHOD</u>: Recess scribe 8.01 SEAM TREATMENT: Heat weld

9.01 FITTING: All methods

#### 10.01 ADHESIVES

A. S-575

B. S-580 in flash cove areas only

C. S-240 in concentrated static and dynamic load areas

#### 11.01 SPECIAL PRECAUTIONS AND RECOMMENDATIONS

- A. Refer to the Commercial Vinyl-Backed Installation System in Section V for complete installation recommendations.
- B. MEDINTECH and MEDINPOINT may be used in environmental conditioning units. Refer to the Commercial Vinyl-Backed Installation System in Section V.
- C. Do not install over existing on-grade or below-grade tile.
- D. Armstrong Commercial Flooring is used in many applications where it is subjected to heavy concentrated static and dynamic loads. For questions regarding product suitability and detailed instructions for floor preparation and installation in these type of applications, please contact Armstrong.

#### **COMMERCIAL FELT - BACKED SHEET**

#### **Installation System**

| Product                  | Securabond Heat<br>S-235 in field area;<br>5-200 at seams | Weld/Full Spread<br>S-235 full spread |
|--------------------------|---|---------------------------------------|
| MEDINTECH Tandem         |   | X                                     |
| POSSIBILITIES            | X   | X                                     |
| Classic CORLON           | X   | X                                     |
| Sandoval                 |   |                                       |
| Seagate                  |   |                                       |
| Suffield                 |   |                                       |
| <b>Connection CORLON</b> | X   | X                                     |

#### 1.01 SUITABLE SUBSTRATES

- A. All suitable substrates listed below must be properly prepared and meet the requirements discussed in Section IV., Sub floors and Underlayments.
- B. There may be exceptions and special conditions for these substrates to be suitable for the Commercial Felt-Backed Sheet Installation System.
  - 1. Concrete
  - 2. Steel, Stainless Steel, Aluminum
  - 3. Approved Suspended Wood Lead, Copper
  - 4. Brass, Bronze
  - 5. Polymeric Poured (seamless)
  - 6. Ceramic Tile, Terrazzo, Marble Floors
  - 7. Existing Resilient Floors

#### 1.02 JOB CONDITIONS/PREPARATION

- A. Substrates must be dry, clean, smooth, and free from paint, varnish, wax soils, solvents, and other foreign matter.
- B. In renovation or remodel work, remove any existing adhesive residue\* so that 80% of the overall area of the original substrate is exposed.
- C. Allow all flooring materials and adhesives to condition to the room temperature a minimum of 48 hours before starting the installation.
- D. The area to receive resilient flooring should be maintained at a minimum of 65°F (18°C) and a maximum of 100°F (38°C) for 48 hours before, during, and for 48 hours after completion.
- E. During the service life of the floor the temperature should never fall below 55°F (13°C). The performance of the flooring material and adhesives can be adversely affected below this minimum temperature.

F. Conduct calcium chloride tests. Bond Tests should also be conducted for compatibility with the substrate. For removal instructions, refer to the Resilient Floor Covering Institute's publication "Recommended Work Practices for Removal of Resilient Floor Coverings."

#### **1.03 FITTING**

- A. Keep all materials rolled face out until ready to begin the installation.
- B. Do not lay pieces flat for an extended period of time.
- C. All pieces must be adhered within four (4) hours of cutting and fitting.
- D. Before installing the material, plan the layout so seams fall at least 6 inches away from sub floor/underlayment joints.
- E. Do not install over expansion joints.
- F. When installing over an existing resilient floor, plan the layout so the new seams are a minimum of 6 inches away from the original seams.
- G. When going over tile floors, seams should fall in the center of the tile.
- H. Recommended fitting procedures include pattern scribing and straight scribing.

#### 1.04 ABUTTING DIFFERENT GAUGES OF RESILIENT FLOORING

When installing thinner gauge material next to thicker gauge materials, install thicker material first and then butt a 12 inch wide piece of S-153 Scribing Felt against the thicker material. Adhere the Scribing Felt to the sub floor with S-235 Adhesive. Use the fine notching of the Armstrong S891 Trowel over nonporous substrates such as existing resilient flooring, and use the regular notching of the Armstrong S-891 Trowel over porous sub floors such as wood and concrete. Use Armstrong S-184 Fast-Setting cement-Based Patch and Skim Coat or S-194 Patch, Underlayment and Embossing Leveler to feather the edge of the S-153 Scribing Felt to the level of the substrate. Allow the patch to dry completely before installing the flooring. Scribing Felt is not recommended under the entire installation.

#### 1.05 ADHESIVE OPEN TIMES AND TROWEL NOTCHINGS

| Adhesive | Porous   | Nonporous  |
|----------|--|--|
| S-235    | Open Time: 0 - 20 minutes                            | Open Time: 10 - 20 minutes                           |
|          | over wood or concrete                                | over existing resilient flooring or                  |
|          | Regular notch: 1/16" deep, 1/16"                     | other nonporous substrates                           |
|          | wide, 3/32" apart                                    | Fine notch: 1/32" deep, 1/16" wide 5/64"             |
|          | -  | apart  |
| S-200    | Open Time: None Recommended S-50 Notched Spreader or | Open Time: None Recommended S-50 Notched Spreader or |
|          | V-Notch Trowel                                       | V-Notch Trowel                                       |
| S-580    | Open Time: Minimum of 20 - 30 minutes                | Open Time: Minimum of 20 - 30 minutes                |
|          | Brush-On   | Brush -On  |

#### 1.06 PROCEDURE

A. Cut pieces to the proper length, allowing enough material at each end to flash 1 ½ inch up the walls for fitting.

#### 1.07 FULL SPREAD/HEAT WELDED SEAMS

- A. Full-Spread S-235; optional S-580 in flash cove areas.
- B. Recess scribe seams slightly open ( $\frac{1}{64}$  inch) to make guiding the router easier.
- C. Wait a minimum of 10 hours before heat welding.
- D. Fit piece #1 and position in room. Prepare the seam edge by trimming the factory seam edge using the S-33 Edge Trimmer.
- E. Draw a pencil line on the sub floor at the trimmed factory edge. Carefully tube or lap the material back halfway to expose the sub floor.
- F. Starting at the lap point and working toward the end wall, apply the S-235 Adhesive up to the pencil line. Allow the recommended open time before placing the material into the adhesive.
- G. Starting at the center and working toward the edges, roll the material in two (2) directions using a 100-lb roller. Clean adhesive residue from the surface of the flooring using a clean, white cloth dampened with a neutral detergent and water.
- H. Repeat steps C and D for the remaining half of piece #1.
- I. Reverse pieces. Install pieces TM edge to TM edge.
- J. Overlap piece #2 to piece #1 approximately ½ inch to 1 inch. Prepare the seam edge on the opposite side of the sheet by trimming the factory seam edge using the S-33 Edge Trimmer.
- K. Repeat steps B through D.
- L. Starting at the center and working toward the edges, roll the material in two directions (staying 2 inches from the seam) using a 100-lb roller. Clean the adhesive residue from the surface of the flooring using a clean, white cloth dampened with a neutral detergent and water.
- M. Recess scribes the half of the seam that is adhered using an S-83 Recess Scriber. Seams may be recess scribed slightly open ( $\frac{1}{64}$  inch) to make guiding the router easier.
- N. Insert a piece of scrap material beneath the scribe mark. With the scrap on the same side as the cutting hand, cut the seam holding a straight blade knife straight up and down. Roll the seam into place before the adhesive dries using an S-77 Hand Roller and roll again with a 100-lb roller.
- O. Repeat steps C through D and J through K for the remaining half of piece #2.
- P. Remove the burr at the seam by carefully skiving with the back of the S-92 Knife.
- Q. Follow the same procedures for the remaining pieces, completing one (1) piece at a time until the job is finished.
- R. Flooring should not be exposed to rolling load traffic for at least 72 hours after installation to allow setting and drying of the adhesive.

#### 1.08 SECURABOND

A. Apply S-235 in the field areas with S-200 at the seams; optional S-580 in flash cove areas with S-200 at the seams, floor drains, doorways, and field cuts.

- B. Recess scribe seams net.
- C. Before installing the material, plan the layout so seams fall at least 6 inches away from sub floor/underlayment joints. Do not install over expansion joints.
- D. When installing over an existing resilient floor, plan the layout so the new seams are a minimum of 6 inches away from the original seams. When going over existing tile floors, seams should fall in the center of the tile.
- E. Fit piece #1 by pattern scribing or straight scribing methods.
- F. Prepare the seam edge by trimming the factory seam edge using the S-33 Edge Trimmer.
- G. Draw a pencil line on the sub floor along the trimmed factory edge.
- H. Carefully lap the material back halfway to expose the sub floor.
- I. Mix S-200 Part A and Part B together with a stirring motion while at the same time lifting from the bottom. Mix thoroughly for three (3) to five (5) minutes to a uniform color. Do not over mix. Do not leave mixed adhesive in cans as it shortens pot life, working time, and may generate excessive heat.
- J. Apply a 4 inch band of S-200 Adhesive (2 inches on each side of the pencil line) using the S-50 notched spreader of the "L" Disposable Spreader. Working time of the S-200 Adhesive after spreading is approximately three (3) hours.
- K. Starting at the lap point, working toward the end wall, using the proper notching of the S891 trowel, apply the S-235 Adhesive up to the S-200.
- L. Allow the recommended open time before placing the material into the adhesive.
- M. Starting at the center and working toward the edges, roll the material in two (2) directions using a 100-lb roller. Clean adhesive residue from the surface of the flooring using a clean, white cloth dampened with a neutral detergent and water.
- N. Repeat steps H through K for the remaining half of piece #1.
- O. Cut piece #2 to the proper length.
- P. Reverse pieces. Install pieces TM edge to TM edge.
- Q. Overlap piece #2 to piece #1 approximately ½ inch to 1 inch. Prepare the seam edge on the opposite side of the sheet by trimming the factory seam edge using the S-33 Edge Trimmer.
- R. Repeat steps E through K for adhering piece #2.
- S. Starting at the center and working toward the edges, roll the material in two (2) directions (staying 2 inches from the seam) using a 100-lb roller. Clean adhesive residue from the surface of the flooring using a clean, white cloth dampened with neutral detergent and water.
- T. Repeat steps H through K for the remaining half of piece #2.
- U. Recess scribe all seams net, using an S-83 Recess Scriber.
- V. Insert a piece of scrap material beneath the scribe mark. With the scrap on the same side as the cutting hand, cut the seam holding a straight blade knife straight up and down.
- W. Roll the seam into place using an S-77 Hand Roller and roll again with a 100-lb roller.

- X. Remove the burr at the seam by carefully skiving with the back of the S-92 knife.
- Y. Follow the same procedures for the remaining pieces, completing one (1) piece at a time until the job is finished.

#### 1.09 SECURABOND CHECKLIST:

#### A. Handling

- 1. Roll material face out after cutting.
- 2. Do not lay pieces flat for extended time.
- 3. Do not preshrink pieces by rolling face in. Rolling material face in will cause edges to curl.
- 4. When precutting, roll face out.
- 5. Install and adhere material in place immediately after fitting.

#### B. Adhesives

- 1. Do not fold seam edges back sharply when spreading S-200.
- 2. Spread S-235 with recommended notching of the S-891 or S-892 notched steel trowel.
- 3. Too much adhesive can contribute to peaked seams.
- 4. Allow adequate open time for S-235 Adhesive.
- 5. Open times helps prevent bubbles and lessens the chance of peaked seams.
- 6. Roll thoroughly with 100-lb roller.

#### C. Seams

- 1. Recess scribe seams net after applying S-235 Adhesive, with S-200 under all seams, doorways, and field cuts.
- 2. Cut edges vertically, hold knife straight up and down.
- 3. Do not undercut seams or use notched blade knife.

#### COMMERCIAL LINOLEUM SHEET FLOORING

#### Marmorette, Decorette, Granette, Uni Walton, Colorette, Linorette and Linodur

#### **1.01 GAUGE**

- A. ARMORETTE: 0.080 (2.0 mm), 0.100 (2.5 mm), and 0.125 (3.2 mm)
- B. GRANETTE, DECORETTE, COLORETTE, UNI WALTON: 0.100 (2.5 mm), and 0.125 (3.2 mm)
- C. LINORETTE: 0.100 (2.5 mm)
- D. LINODUR: 0.160 (4.0 mm)
- 2.01 WIDTH: 6'7" (2 m)
- 3.01 USE: Commercial
- 4.01 INSTALLATION LOCATION: All grade levels
- 5.01 SYSTEM: Commercial Linoleum Sheet Flooring
- 6.01 PATTERN MATCH: No: Do not reverse pieces (TM edge to non-TM edge)
- 7.01 SEAM METHOD: Recess scribe

#### 8.01 SEAM TREATMENT

- A. Heat weld (recommended) or,
- B. S-761 Seam Adhesive or,
- C. No seam treatment

#### 9.01 FITTING: All methods

#### 10.01 ADHESIVES

- A. S-760 or,
- B. Optional S-580
- C. Flash cove areas only S-240 for LINODUR in industrial areas or in concentrated static and dynamic load areas.

#### 11.01 SPECIAL PRECAUTIONS AND RECOMMENDATIONS

- A. Refer to the Commercial Linoleum Sheet Flooring Installation System in Section V for complete installation recommendations.
- B. When installing several rolls in one (1) area, make certain the batch numbers are the same. Also read the sequence numbers and only install rolls that are within twenty (20) numbers of each other. Install the rolls in sequential order.
- C. The lines on the back of Linoleum represent trademark edges.
- D. Linoleum will grow slightly in the width and shrink slightly in the length of the material when placed into the wet adhesive. Following the recommended installation procedures will help compensate for this movement.

- E. Heat welding is optional, but required in areas exposed to direct sunlight, in areas exposed to topical moisture and/or temperature fluctuations and when installed over radiant heated sub floors.
- F. Do not install Linoleum over existing on-grade or below-grade tile.
- G. When installing LINODUR in industrial areas, use S-240 Epoxy Adhesive Full-Spread and heat weld all seams.
- H. Armstrong Commercial Flooring is used in many applications where it is subjected to heavy concentrated static and dynamic loads. For questions regarding product suitability and detailed instructions for floor preparation and installation in these type of applications, please contact Armstrong.

#### **GEOMETRIC TILE**

#### **TRIAD® Mat Series**

| Face Construction | <u>Imperial</u>                          | <u>Metric</u>     |
|-------------------|--|-------------------|
| Construction      | Molded Reinforced Needlepunch<br>Textile |                   |
| Size              | 18" x 18"                                | 45.7 cm x 45.7 cm |
| Texture / Pattern | Rubber Reinforced Geometric Pattern      |                   |
| Pile Height       | 0.250 inch                               | 6.5 mm            |
| Fiber System      | 100% Premium Polypropylene               |                   |
| Dye Method        | Solution Dyed                            |                   |

#### 1.01 TRIAD BACKING SYSTEM

Backing Special Non-Thermoplastic Tri-Grip<sup>TM</sup> Cleated SBR

Total Product Weight 35.0 oz/sq yd +/- 5% 4576.5 g/sq m

1.02 PRODUCT TESTING/INFORMATION

Surface Flammability Passes CPSC FF 1-70 (ASTM D-2859)

Flooring Radiant Panel Class 2 (mean average CRF: 0.22 w/sq cm to 0.44 w/sq cm)

(ASTM E-648)

Not recommended for use in buildings requiring Class I per ASTM E-648.

#### 1.03 INSTALLATION NOTE

A. Product to be installed using a full-spread solvent-free releasable or permanent adhesive.

#### 1.04 PRODUCT NOTES

- A. Product specifications are derived from averages resulting from normal manufacturing tolerances in yarn, fiber, temperature, humidity, and color, and may vary within normal industry and standardized testing tolerances.
- B. These specifications reflect mean averages based on tests of production runs of this carpet style by independent laboratories. A range of variances is implicit in the testing process.
- C. Furthermore, the standard test methods established to derive the specifications lack a high degree of precision and repeatability; therefore, individual test results on the actual carpet purchased may vary above or below the mean average.
- D. Colors may vary slightly from dye lot to dye lot.

- E. Backing or other materials may be changed without prior notice when shortages occur or when technological advancements become available which provide for improvement of the product's performance.
- F. Not recommended for use in areas exposed to grease or petroleum products.

#### 1.05 ANTI-MICROBIAL / PESTICIDES USAGE

- A. Regarding carpet material and soft-surface floor covering, to include carpet tile and 6' roll goods.
- B. Registered pesticides and/or anti-microbial shall not be used. The district requires that carpet material is free of all migrating pesticides or the use of registered pesticides in carpet material.

#### MONDO RUBBER FLOORING SPECIFICATION

#### 1.01 PRODUCT DESCRIPTION

- A. Prefabricated rubber flooring, calendared and vulcanized with a base of virgin natural and/or synthetic rubber, stabilizing agents, and pigmentation, as manufactured by MONDO AMERICA INC. or approved equal.
- B. Thickness: available in 3mm, 4mm, 5mm, 6mm, 8 mm, 10 mm, 12 mm, and 14mm.
- C. Finish: Slate, Smooth, Sealskin, Hammered, Track Embossing, and Sealskin Embossing.
- D. Available in rolls or tiles.

#### 1.02 PHYSICAL PROPERTIES

A. Physical properties of the prefabricated athletic rubber floor, to conform to the following requirements:

| PHYSICAL PROPERTIES     | STANDARD            | SPECIFICATION                   |
|-------------------------|---------------------|---------------------------------|
| Critical Radiant Flux   | ASTM E648, NFPA 101 | 0.70 W/cm <sup>2</sup> , Type I |
| Optical Smoke Density   | ASTM E662           | < 450, Class I                  |
| Fungal Resistance Test  | ASTM G21            | No growth                       |
| Coefficient of Friction | ASTM D2047          | > 0.45                          |
| V.O.C. Compliance       | ASTM D5116          | Yes                             |
| Color Stability         |                     | Good                            |
| Light Reflection        |                     | Average                         |
| Chemical Resistance     |                     | Good                            |

#### 1.03 MATERIAL

- A. Provide adhesive certified by the manufacturer, P.U. 100 Polyurethane Adhesive, EP 55 Epoxy Adhesive, MP Acrylic Adhesive (refer to Instruction Manual of Adhesives provided by manufacturer).
- B. Patching compound and/or line marking paint, to be supplied or approved/recommended by rubber athletic flooring manufacturer.

#### 1.04 EXAMINATION AND PREPARATION

- A. The procedures listed below must be ensured prior to installation of the primary product.
- B. Concrete or Asphalt substrate to be placed a minimum of thirty (30) days prior to the installation of athletic rubber floor.
- C. No concrete or asphalt sealers or curing compounds are applied or mixed with the sub floors (refer to Section 03050 of Division 3 and/or Section 02065 of Division 2).
- D. The Underlayment is adequate (if installing over wood sub floors). APA Exterior Underlayment Grade Plywood is recommended.
- E. Water vapor membrane complies with specification in ASTM E 1745.

- F. Alkalinity test and moisture test must be preformed. PH level should be in the range of 7 to 8.5. Moisture content must not exceed 3 lbs/1000 ft<sup>2</sup> per 24 hrs (verify using the calcium chloride test as per ASTM F 1869).
- G. Smooth, dense finish, highly compacted with a tolerance of ½ inch in a 10 ft radius (3 mm in 3.05 m radius). Floor Flatness and Floor Levelness (FF and FL) numbers are not recognized.
- H. Concrete or Asphalt sub floor on- or below-grade is installed over a suitable moisture retardant membrane.
- I. Sub floors must be clean, free of paint, dust, sealers, hardeners, grease, oil, solvents, old adhesive, and any other foreign substances that may act as a bond barrier.
- J. Sealing of cracks, holes and, smoothing and leveling of rough, uneven surfaces, must be carried out using a good quality Portland cement based leveling compound (feathering compound), approved by the manufacturer.
- K. The beginning of installation stipulates the acceptance of surface and site conditions.
- L. Installation will not be carried out unless above conditions are satisfied.
- M. Report any discrepancies to the General Contractor for correction.

#### 1.05 INSTALLATION

- A. Review manufacturer's printed instructions prior to installation.
- B. Install flooring in accordance with manufacturer's installation instructions.
- C. Allow relaxation of material.
- D. Inspect sheet for any damages or defects.
- E. Always install the flooring in the same direction.
- F. Cut and adjust roll flooring prior to installation.
- G. All edges on rolls must be straight-edged before adjusting the seams.
- H. Mix adhesive in accordance with manufacturer's instructions.
- I. Apply adhesive and lay sheets in accordance with manufacturer's installation instructions.
- J. Roll flooring in both directions with a 100-lbs (45 kg) sectional floor roller.
- K. Check for air bubbles and continue rolling if needed.
- L. Roll the seam with a hand roller and remove any excess adhesive that may have come through the seam.
- M. Hold all applicable seams in place with suitable weights (concrete utility bricks 2" x 4" x 8") for a minimum of 12 hrs. (see installation manual)
- N. Repeat the same procedure for the rest of the installation.
- O. Lines to be painted as per manufacturer's instructions.
- P. Surface to be protected before, during and after installation until project's acceptance by the owner or his agent.
- Q. Allow adhesive to set 72 hrs before the initial cleaning of the surface.

#### WALL BASE SPECIFICATION

#### CSI Division 9 Part 2 Product Specification

#### 1.01 RUBBER WALL BASE

- A. Specification Insert for BurkeBase® <sup>1</sup>/<sub>8</sub> inch Molded Rubber Wall Base
- B. CSI Division 9, Part 2 Products

#### 2.01 RUBBER WALL BASE

- A. Manufacturer/Product: Burke Mercer Flooring Products; \( \frac{1}{8} \) inch Rubber Wall Base
- B. Product/Description
- C. Vulcanized thermoset rubber; ½ inch (3.175 mm) thickness; satin finish
  - 1. Cove profile:  $[2 \frac{1}{2} \text{ inches } (63.500 \text{ mm})]$ , [4 inches (101.600 mm)], [6 inches (152.400 mm)].
  - 2. Straight profile: [2 ½ inches (63.500 mm)], [4 inches (101.600mm)], [6 inches (152.400mm)], [10 inches (254.000 mm)]
  - 3. Length: 48 inches (1219.200 mm)
  - 4. Color: Selection from manufacturer's standard array
  - 5. Substrate adhesives pursuant to Burke Mercer recommendations
  - 6. Conformance:
    - a. ASTM F1861-98, Type TS, Group 1, Styles A & B
    - b. FS SS-W-40a, Type I, Styles A & B
    - c. ASTM E84 Class B rating with smoke density of 150-200

#### RESILIENT ATHLETIC FLOORING

#### I. KNOWN MANUFACTURER

A. Johnsonite, Inc., 16910 Munn Road, Chagrin Falls, OH, 44023

B. Phone: (800) 899-8916 or (440) 543-8916

C. Technical Assistance: Ext 9297

D. Samples: Ext 9299E. Fax: (440) 543-8920

F. Email: info@johnsonite.com

G. Web: www.johnsonite.com

#### II. ENVIRONMENTAL SUSTAINABILITY NOTES

- A. Johnsonite offers a RESTART reclamation program for returning unused jobsite scrap.
- B. Vinyl Athletic Sheet contains pre and post consumer recycle content.
- C. Rubber Athletic Tile Flooring contains pre consumer recycle content.
- D. Rubber Athletic Sheet Flooring contains post consumer recycle content.
- E. 100% Recyclable.
- F. SCS FloorScore® Certified and meets California Specifications Section 01250.
- G. Johnsonite facilities are ISO 9001 and ISO 14001 Certified.
- H. For all environmental sustainability information visit ecoScorecard on Johnsonite home page at www.johnsonite.com.

#### III. HETEROGENEOUS VINYL RESILIENT ATHLETIC SHEET FLOORING: TRAINING

- A. Specify Heterogeneous Vinyl Resilient Athletic Sheet Flooring with the following physical characteristics:
  - 1. Complies with requirements for ASTM F 1303 Standard Specification for Sheet Vinyl Sheet Floor Covering with Backing, Type I Grade 1, Class C.
  - 2. Constructed with a .028" (0.7 mm) thick urethane coated clear wear layer.
  - 3. Roll/Sheet Width: 6' 6" (2 m).
  - 4. Wear layer/Overall thickness: .197" (5.0 mm).
  - 5. ASTM D 2047, Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring or 0.6 or greater.
  - 6. ASTM F 970, Standard Test Method for Static Load Limit 175 PSI.
  - 7. ASTM E 648, Standard Test method for Critical Radiant Flux of 0.45 watts/cm2 or greater, Class I.
  - 8. TRN R: TRAINING Rolls.

#### IV. RESILIENT RUBBER ATHLETIC SHEET FLOORING: COMMOTION (REPLAY)

A. Resilient Rubber Athletic Sheet Flooring with the following physical characteristics:

- 1. Manufactured from a composition of recycled truck tire crumb rubber encapsulated in a urethane binder.
  - a. Overall thickness:
    - i. 1/4" (6.35 mm)
    - ii. 3/8" (9.5 mm)
  - b. Roll/Sheet Width: 4' (1.22 m).
  - c. ASTM D 2240 Standard Test Method for Rubber Property-Durometer Hardness: 65 Shore A.
  - d. ASTM D 2047, Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring or 0.6 or greater.
  - e. ASTM F 970, Standard Test Method for Static Load Limit passes 250 PSI.
  - f. ASTM D 3389 Standard Test Method for Coated Fabrics Abrasion Resistance: < 1.00 gram weight loss.
  - g. ASTM D 2859 Standard Test Method for Ignition Characteristics of Finished Floor Covering Materials (Pill Test): passes with greater than 1" of un-charred area.
  - h. COMR: COMMOTION (Replay) Rolls.

#### V. RESILIENT RUBBER ATHLETIC TILE FLOORING: COMMOTION (REPLAY)

- A. Resilient Rubber Athletic Tile Flooring with the following physical characteristics:
  - 1. Manufactured from a composition of recycled truck tire crumb rubber encapsulated in a urethane binder.
    - a. Overall thickness: 3/8" (9.5 mm).
    - b. Tile texture and color:
      - i. Hammered Textured Speckled Color.
      - ii. Hammered Textured Solid Color.
    - c. Tile style and size:
      - i. Square Edge (glue down) 24" x 24" (61 cm x 61 cm).
      - ii. Interlocking (loose lay) 23" x 23" (58.42 cm x 58.42 cm).
    - d. ASTM D 2240 Standard Test Method for Rubber Property Durometer Hardness: 65 Shore A.
    - e. ASTM D 2047, Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring or 0.6 or greater.
    - f. ASTM F 970, Standard Test Method for Static Load Limit passes 250 PSI.
    - g. ASTM D 3389 Standard Test Method for Coated Fabrics Abrasion Resistance: < 1.00 gram weight loss.
    - h. ASTM D 2859 Standard Test Method for Ignition Characteristics of Finished Floor Covering Materials (Pill Test): passes with greater than 1" of un-charred area.
    - i. COMT: COMMOTION (REPLAY) SQUARE EDGE Tile

#### j. COMI: COMMOTION (REPLAY) INTERLOCKING Tile

#### VI. INERTIA RUBBER ATHLETIC TILE

- A. Resilient Rubber Athletic Tile Flooring with the following physical characteristics:
  - 1. Complies with requirements for ASTM F 1344 Standard Specification for Rubber Floor Tile Class 1-A and 1-B.
  - 2. Tile manufactured of dual durometer layers composed of 100% synthetic and natural rubber.
  - 3. Tile is two-ply vulcanized construction which incorporates a rubber wear layer and an elastic cushioned performance layer.
    - a. Wear layer thickness: .090" (2.3 mm).
    - b. Overall thickness:
      - i. 1/4" [.250" (6.4 mm)].
      - ii. 3/8" [.375" (9.53 mm)].
    - c. Square Edge (glue down) Tile Size: 24" x 24" (61 cm x 61 cm).
    - d. UnderLock (loose lay) Tile Size: 24" x 24" (61 cm x 61 cm).
    - e. ASTM D 2047, Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring: .6 or greater.
    - f. ASTM F 970, Standard Test Method for Static Load Limit passes 250 PSI.
    - g. ASTM D 3389 Standard Test Method for Coated Fabrics Abrasion Resistance: < 1.00 gram weight loss.
    - h. ASTM E 648, Standard Test method for Critical Radiant Flux of 0.45 watts/cm<sup>2</sup> or greater, Class I.
  - 4. Tile design, texture, and color:
    - a. Square Edge (glue down) Hammered Texture Overall thickness: ¼ inch [.250" (6.4 mm)], Solid and Speckled Colors.
    - b. UnderLock (loose lay) Hammered Texture Overall thickness: ½ inch [.250" (6.4 mm)], Solid Color and Speckled Color.
    - c. UnderLock (loose lay) Fast Lane Texture Overall thickness <sup>3</sup>/<sub>8</sub> inch [.0375 (9.53 mm)], Solid Color.
  - 5. INRH: Inertia Hammered Texture, Glue-down Installation Tile
  - 6. INRHU: Inertia Underlock Loose Lay
  - 7. INRCFLU: Inertia Fast Lane Underlock Loose Lay

#### VII. TRIUMPH RUBBER ATHLETIC TILE

- A. Resilient Rubber Athletic Tile Flooring with the following physical characteristics:
  - 1. Complies with requirements for ASTM F 1344 Standard Specification for Rubber Floor Tile Class 1-A and 1-B.
  - 2. Tile manufactured of dual durometer layers composed of 100% synthetic and natural rubber.

- 3. Tile is two-ply vulcanized construction which incorporates a rubber wear layer and an elastic cushioned performance layer.
  - a. Spike and Skate resistant.
  - b. Wear layer thickness: .090" (2.3 mm).
  - c. Overall thickness:  $\frac{3}{8}$ " [.375" (9.5 mm)].
  - d. Square Edge (glue down) Tile size: 24" x 24" (61 cm x 61 cm).
  - e. UnderLock (loose lay) Tile size: 24" x 24" (61 cm x 61 cm).
  - f. Interlocking (loose lay) Tile size: 23.5" x 23.5" (59.7 cm x 59.7 cm).
  - g. ASTM D 2047, Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring of 0.6 or greater.
  - h. ASTM F 970, Standard Test Method for Static Load Limit passes 250 PSI.
  - i. ASTM D 3389 Standard Test Method for Coated Fabrics Abrasion Resistance: < 1.00 gram weight loss.
  - j. ASTM E 648, Standard Test method for Critical Radiant Flux of 0.45 watts/cm<sup>2</sup> or greater, Class I.
- 4. Tile design, texture, and color:
  - a. Square Edge (glue down) Hammered Texture: Solid Color and Speckled Color.
  - b. UnderLock (loose lay) Hammered Texture: Solid Color and Speckled Color.
  - c. Interlocking (loose lay) Hammered Texture: Speckled Color.
- 5. SMH: Triumph Hammered Texture, Glue-down Installation Tile.
- 6. SMHU: Triumph Underlock Loose Lay.
- 7. SMHI: Triumph Interlocking Loose Lay.

#### VIII. INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation.
- B. Adhesives: As recommended by Manufacturer to meet site conditions.
- C. Heterogeneous Vinyl Resilient Athletic Sheet Flooring.
- D. Johnsonite #925 Resilient Flooring Adhesive.
- E. Johnsonite #975 Two-Part Urethane Adhesive.
- F. Resilient Rubber Athletic Flooring.
- G. Johnsonite #965 Flooring and Tread Adhesive.
- H. Johnsonite #975 Two-Part Urethane Adhesive.

#### IX. EXAMINATION

A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the work.

- B. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

#### X. PREPARATION

- A. Prepare substrates according to Manufacturer written instructions to ensure adhesion [or acceptance] of Resilient Athletic Flooring.
- B. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
- C. Remove substrate paint, coatings and other substances that are incompatible with adhesives or contain soap, wax, oil, solvents, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
- D. Mechanically remove contamination on the substrate that may cause damage to the resilient athletic flooring material. Permanent and non-permanent markers, pens, crayons, paint, etc., must not be used to write on the back of the flooring material or used to mark the substrate as they could bleed through and stain the flooring material.
- E. Prepare Substrates according to ASTM F 710 including the following:
  - 1. For glue down tile:
    - a. Moisture Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
      - i. Perform anhydrous calcium chloride test, ASTM F 1869. Results must not exceed 5 lbs. Moisture Vapor Emission Rate per 1,000 sq. ft. in 24 hours. or –
      - ii. Perform relative humidity test using in situ probes, ASTM F 2170. Must not exceed 80%.
      - iii. A pH test for alkalinity must be conducted. Results should range between 7 and 9. If the test results are not within the acceptable range of 7 to 9, the installation must not proceed until the problem has been corrected.
    - b. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer.
  - 2. For loose lay (UnderLock, Interlocking) Tile:
    - a. The Moisture Vapor Emission Rate (MVER) of the concrete will have no measurable effect on the UnderLock or Interlocking Tile as they are not adhered to the concrete substrate.
    - b. Moisture testing must be conducted to identify if the MVER of the concrete is within the approved limits of the patching compound manufacturers specifications. (Follow patching compound manufactures instructions for proper selection and use.)
  - 3. Wood subfloors must have a minimum 19" (47 cm) of cross-ventilated space beneath the bottom of the joist.
    - a. The floor must be rigid, free of movement.
    - b. Single wood and tongue and groove subfloors should be covered with ½" (6.4 mm) or ½" (13 mm) APA approved underlayment plywood.

- c. Use ½" (6.4 mm) thick underlayment panels for boards with a face width of 3" (76 mm) or less.
- d. Use ½" (76 mm) thick underlayment panels for boards with a face width wider than 3" (76 mm).
- e. Do not install over OSB (Oriented Strand Board), particle board, chipboard, lauan, or composite type underlayments.
- f. Fill cracks, holes, depressions, and irregularities in the substrate with good quality Portland cement based underlayment leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.
- g. Floor covering shall not be installed over expansion joints.
- h. Do not install resilient products until they are same temperature as the space where they are to be installed.
- i. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
- j. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

#### XI. RESILIENT ATHLETIC FLOORING INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient athletic flooring.
- B. Resilient Athletic Vinyl and Rubber Sheet Flooring:
  - 1. Install with Manufacturer adhesive specified for the site conditions and follow adhesive label for proper use.
  - 2. Install rolls in sequential order following roll numbers on the labels.
  - 3. Reverse sheets unless instructed otherwise in Manufacturer Installation Instructions.
  - 4. Roll the flooring in both directions using a 100 lb. three-section roller.
  - 5. Resilient Athletic Vinyl Sheet Flooring must be heat welded.
  - 6. Manufacturer Resilient Vinyl Sheet Flooring may be flash coved.
  - 7. Use Johnsonite CFS-00-A Cove Filler Strip.
  - 8. Net fit flooring material into the appropriate Manufacturer cove cap.
- C. Resilient Athletic Vinyl and Rubber Tile Flooring:
  - 1. Install with Manufacturer adhesive specified for the site conditions and follow adhesive label for proper use.
  - 2. Do not Quarter Turn tile.
  - 3. Roll the flooring in both directions using a 100 lb. three-section roller.
  - 4. Resilient Athletic Loose Lay UnderLock and Interlocking Tile Flooring:
  - 5. Do not adhere Loose Lay tile to substrate.
  - 6. Roll the flooring tabs with a hand roller.

#### XII. CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protection of resilient products.
- B. Perform the following operations immediately after completing resilient product installation:
  - 1. Remove adhesive and other blemishes from exposed surfaces.
  - 2. Sweep and vacuum surfaces thoroughly.
  - 3. Damp-mop surfaces to remove marks and soil.
- C. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. No traffic for 24 hours after installation.
- E. No heavy traffic, rolling loads, or furniture placement for 72 hours after installation.
- F. Cover resilient products until Substantial Completion.
- G. Wait 72 hours after installation before performing initial cleaning.
- H. A regular maintenance program must be started after the initial cleaning.

#### POLISHED CONCRETE

#### I. RELATED DOCUMENTS

A. Drawings, general provisions of the Contract, and other related construction documents such as Division 01 specifications apply to this Section.

#### II. SUMMARY

- A. This section includes products and procedures for the installation of the ULTRAFLOR® Polished Concrete System using a multi-step dry mechanical process and accessories specified to achieve specified Level (A, B, or C) gloss finish:
  - 1. DIAMATIC Mechanical Diamond Grinding and Polishing Equipment
  - 2. ARDEX Concrete Repair Materials
  - 3. ARDEX Concrete Topping Treatment Chemicals
- B. Related Sections include the following:
  - 1. Section 03 30 00, Cast-In-Place Concrete
  - 2. Section 07 26 19, Topical Moisture Vapor Mitigation

#### III. SUBMITTALS

#### A. Product Data

- 1. Submit manufacturer's product data and installation instructions for each material and product used.
- 2. Include manufacturer's Material Safety Data Sheets.

#### B. Oualification Data

1. Provide written documentation from the manufacturer confirming that installer meets the qualifications as specified and is eligible for manufacturer's warranty.

#### C. Maintenance Data

- 1. Provide manufacturer's instructions for maintenance of installed work, including methods and frequency recommended for maintaining optimum condition under intended use.
- 2. These instructions should contain precautions against cleaning products and methods that may be detrimental to finishes and performance.

#### IV. MANUFACTURER QUALIFICATIONS

- A. The ULTRAFLOR® ARDEX® DIAMATIC® Polished Concrete System consists of a process and products engineered and manufactured by ARDEX and DIAMATIC.
- B. Any substitutions are not permitted and void warranty.

#### V. INSTALLER QUALIFICATIONS

A. Product(s) for the ULTRAFLOR® ARDEX® DIAMATIC® Polished Concrete System must be installed by an ARDEX DIAMATIC factory trained or approved

- installer either as a single source or through a joint venture, including the use of DIAMATIC equipment and diamond abrasives, and ARDEX DIAMATIC concrete preparation, toppings, joint treatment and chemical hardening and finishing materials.
- B. Qualified installers may include an ARDEX LevelMaster Elite<sup>TM</sup> who specializes in the installation of ARDEX products, a DIAMATIC Elite<sup>TM</sup> who specializes in the use of DIAMATIC polishing equipment or an ULTRAFLOR ELITE<sup>TM</sup> who has specific experience with the installation of ARDEX DIAMATIC products and systems.
- C. Installer must be approved in writing by ARDEX or DIAMATIC and experienced in performing specified work similar in design, products and scope of this project, with a documented track record of successful, in-service performance and with sufficient production capabilities, facilities and personnel to produce specified work.
- D. A factory-trained, competent supervisor must be maintained on site during all times during which specified work is performed.
- E. For national brand specific projects, Diamatic Management Services (DMS) may be considered for installation management, contractor assistance and advanced project support.
- F. DMS: 5220 Gaines Street, San Diego, CA 92110, 866-295-5512, www.diamaticmanagementservices.com.

#### VI. MOCK-UP

- A. Before performing the work in this section, an on-site mock-up representative of specified process, surface, finish, color, and joint design/treatments must be installed for review and approval.
- B. These mock-ups should be installed using the same Installer personnel who will perform work. Approved mock-ups may become part of completed work, if undisturbed at time of substantial completion.

#### VII. PRE-INSTALLATION CONFERENCE

- A. Prior to the installation of the ULTRAFLOR Polished Concrete System, an on-site conference shall be conducted to review specification requirements.
- B. Required attendees include the Owner, Architect, General Contractor, Subcontractor, ARDEX Representative, and/or DIAMATIC Representative.
- C. The minimum agenda shall include a review of the site conditions, construction documents, schedule, installation procedures, protection procedures and submittals.

#### VIII. WARRANTY

A. Provide manufacturer's 10 year ULTRAFLOR System Warranty.

#### IX. DELIVERY, STORAGE AND HANDLING

- A. Deliver all materials in original containers, bearing manufacturer's labels indicating brand name and directions for storage, factory numbered and sealed until ready for installation.
- B. Store all materials in a dry, climate-controlled environment at a minimum of 50°F (10°C) and maximum of 85°F (29°C).

C. Handle products in accordance with manufacturer's printed recommendations.

#### X. SITE CONDITIONS

- A. Inspect the existing substrate and document unsatisfactory conditions in writing. Verify that surfaces and site conditions are ready to receive work.
- B. Correct unacceptable conditions prior to installation of System.
- C. Commencement of work constitutes acceptance of substrate conditions.
- D. Close areas to traffic during and after application for a time period recommended by the manufacturer.

#### XI. REPAIR MATERIALS

- A. Where spalls, repair, or minor patchwork is necessary apply ARDEX PC-R<sup>TM</sup> as necessary and in accordance with recommendations, applied at the appropriate time during the polishing process.
- B. If necessary, correct excessive pinholes with ARDEX PC-M<sup>TM</sup>.
- C. Contact the ARDEX Technical Services department for recommendations.

#### XII. CONCRETE POLISH EQUIPMENT & TOOLING

- A. Equipment and Tooling for use as part of the multi-step dry mechanical process and accessories.
- B. Acceptable products include:
  - 1. DIAMATIC BMG-780 or BMG-735 Planetary Grinder and Polisher.
  - 2. DIAMATIC USA: 5220 Gaines Street, San Diego, CA 92110, 1-866-295-5512, www.diamaticusa.com.
  - 3. Features: Large Platform: 32" planetary floor polisher. Head pressure of 600 lbs.
  - 4. Or equal as recommended by DIAMATIC USA.
- C. Required Tooling: DIAMATIC Diamond Abrasives
  - 1. Metal Bonded Diamonds 60/80 Grit of medium and hard bonded metal.
  - 2. Transitional Diamonds Ceramic Bonded #1 Grit.
  - 3. Resin Bonded Diamonds 200, 400, 800, 1500 Grit.
  - 4. DIAMATIC Micro Polisher Burnishers
  - 5. DIAMATIC USA: 5220 Gaines Street, San Diego, CA 92110, 1-866-295-5512, www.diamaticusa.com.
- D. Specific weight and RPM are required to reach temperature of 100°F for application of PC FINISH<sup>TM</sup>.
- E. Required Tooling: DIAMATIC FLOR-GRIT® Diamond Impregnated Pads 800, 1500, 3000 Grit.
- F. Other equipment as necessary for small areas and edge work as recommended by DIAMATIC USA.
- G. Power generator capable of supplying a minimum output of 30kw and up, and 480 Volt three (3) phase power.

- H. All grinding and polishing completed with grinder/polisher equipment should be connected to a dust collector.
- I. Note: In some cases, and only with DIAMATIC's approval, burnishing, grinding, and polishing machines may be substituted, provided that the specified DIAMATIC abrasives and blades can still be used.

#### XIII. CONCRETE TREATMENT CHEMICALS

- A. Concrete treatments designed for use in conjunction with the installation of the ULTRAFLOR® Polish Concrete System.
- B. Acceptable products include:
  - 1. Treatment Chemicals; ARDEX Engineered Cements: 400 ARDEX Park Drive Aliquippa, PA 15001, 1-888-512-7339, www.ardexamericas.com; DIAMATIC USA: 5220 Gaines Street, San Diego, CA 92110, 1-866-295-5512, www.diamaticusa.com.
  - 2. Densifier: ARDEX PC 50<sup>TM</sup> or DIAMATIC FLOR-SIL<sup>TM</sup> Lithium Hardener Densifier for Standard Concrete.
  - 3. Finish Treatment: ARDEX PC FINISH™ or DIAMATIC FLOR-FINISH™ Stain and Wear Protection Treatment (high or low gloss).
  - 4. Maintenance Treatment: DIAMATIC FLOR Maintainer<sup>TM</sup> Gloss, Stain, and Wear Protectant.

#### XIV. EXAMINATION

- A. Inspect all concrete substrates and conditions under which the ULTRAFLOR® Polished Concrete System is to be installed.
- B. Verify that existing concrete has cured a minimum of 28 days before installing the ULTRAFLOR® Polished Concrete and meets the requirement of 3000 psi and 100 pcf.
- C. Conduct pre-installation conference, per Section 1.05 C.

#### XV. PREPARATION / DEMOLITION

- A. Clear surfaces of any debris and construction materials.
- B. If a generator is not provided by the Installer, power connections for the equipment of the ULTRAFLOR® ARDEX DIAMATIC Polished Concrete System shall be located and prepared by general contractor.
- C. Using the appropriate mechanical means and methods, remove existing floor coverings and coatings, including but not limited to carpet VCT, ceramic tile, and grout, wood, epoxy/ urethane, quartz, mastic, adhesives, paint, or other non-concrete floor materials.
- D. Adhesives must be removed to their penetrated depth.
- E. Note: The mechanical removal of resilient flooring, backing, lining felt, cutback, and other adhesives can be hazardous, as certain materials may contain asbestos or crystalline silica.
- F. Do not sand, dry sweep, dry scrape, drill, saw, bead blast, grind, mechanically chip, or pulverize these materials, as harmful dust may result.
- G. Inhalation of this dust may cause asbestosis or other bodily harm. Please consult the adhesive manufacturer, the Resilient Floor Covering Institute (www.rfci.com) and all

- applicable government agencies for rules and regulations concerning the handling and removal asbestos-containing materials.
- H. Prevent any damage to concrete slab surface during demolition from chipping hammers.
- I. Existing flooring should be removed mechanically with walk-behind or ride-on scraping equipment.
- J. Prepare the existing concrete mechanically by diamond grinding using aggressive, metal bonded DIAMATIC Polycrystalline diamonds (18/20 Grit or 30/40 Grit), to remove all contaminants and provide a sound concrete surface free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, and other contaminants.
- K. Chemical preparation of the substrate is NOT acceptable, including but not limited to acid etching, sweeping compounds, solvents, and adhesive removers.
- L. Suppress dust during demolition with the use of dust collection equipment to reduce or eliminate airborne concrete and substrate dust.
- M. Where existing concrete is cracked, damaged, spalled, not within specified tolerance, or contains unacceptable levels of contaminates or moisture vapor, the Installer of the ULTRAFLOR®ARDEX DIAMATIC Polished Concrete System will evaluate conditions and proceed with appropriate ULTRAFLOR® System components.

# XVI. CRACK REPAIRS (Indoor/Outdoor)

- A. Crack repair shall be completed after the first metal bond diamond grind and floor cleaning.
- B. Cracks to be repaired in the concrete surface shall be crack chased out on a highspeed angle grinder to a minimum depth of 3/8° and made to eliminate any feathered edges.
- C. The edges of the crack may be taped to eliminate possible staining from repair material.
- D. Clean out any dust or debris and then apply ARDEX ARDIBOND AP<sup>TM</sup> or ARDEX ARDIFIX<sup>TM</sup> to fill the crack chased areas. Read and follow ARDEX ARDIBOND AP or ARDEX ARDIFIX detailed instructions as outlined in the Technical Data Sheet.
- E. All crack filling material shall be overfilled. Immediately after application of ARDEX ARDIBOND AP or ARDEX ARDIFIX, silica sand or the concrete grindings may be broadcast to rejection over the crack repair material.
- F. The silica or floor grindings will reduce the visibility of the repaired crack and take on a similar color and appearance to surrounding concrete when stained.
- G. Cracks smaller than 1/8" can be left as a part of the finished concrete, unless otherwise specified.
- H. Cracks shall be vacuumed to remove all loose debris and contaminates.
- I. Cracks smaller than  $\frac{1}{8}$ " can be filled with ARDEX ARDIFIX.
- J. Cracks greater than  $\frac{1}{8}$ " shall be filled with ARDEX ARDIBOND AP.
- K. Cracks shall be overfilled and broadcast to refusal with play sand or concrete shavings, and shall be subsequently ground down to the level of the concrete surface.

L. All crack filling material shall be installed and allowed to cure in strict accordance with the manufacturer's recommendations before proceeding with the next step in the ULTRAFLOR® process.

# XVII. SPALL REPAIRS (Indoor/Outdoor)

- A. Spall repair to be completed after the first metal bond diamond grind and floor cleaning, or prior to the beginning of the ULTRAFLOR® process installation.
- B. For complete installation details for spall repair materials, please refer to the ARDEX Technical Brochure.
- C. For polishing instructions, please refer to the individual ULTRAFLOR® ARDEX DIAMATIC specifications for each component.
- D. Spalls up to 4" (10 cm) wide and 1" (2.5 cm) deep shall be filled with ARDEX PC-R<sup>TM</sup>.
- E. Allow a minimum of 16 to 24 hours drying time prior to beginning the ULTRAFLOR® polishing process. OR -
- F. Spalls up to 4" (10 cm) wide and 1" (2.5 cm) deep can be filled with ARDEX ARDIBOND AP or ARDEX ARDIFIX.
- G. Overfill all applications and broadcast sand or concrete grindings to refusal so that they may be ground down to match the level of the concrete surface after dry time.
- H. Spalls greater than 4" (10 cm) wide and 1" (2.5 cm) deep shall be filled with ARDEX PC-R.
- I. Allow a minimum of 16 to 24 hours drying time prior to beginning the ULTRAFLOR polishing process.

# XVIII. LARGE AREA CONCRETE REPAIR (Indoor)

- A. Where large area concrete repair is needed, ARDEX PC-T<sup>TM</sup> shall be used in accordance with the information presented in the ARDEX Technical Brochure.
- B. For polishing instructions, please refer to the ARDEX PC-T component specification.

# XIX. JOINT FILL REPAIRS (Indoor/Outdoor)

- A. All joint fill materials shall be installed in accordance with the written recommendations provided in the ARDEX Technical Brochures.
- B. For the best results all joints should be filled after the first pass of metal bonded diamonds, but before any further grinding continues.
- C. If the joint filling will occur after the polishing process, apply ARDEX PC 50 or DIAMATIC FLOR- SIL tape, or soap to the edge of the concrete to keep the joint filler from staining the concrete.
- D. Prior to filling joints, repair badly spalled joint edges per ACI 302.1R-04.
- E. Grind the outside edges of all spalls to eliminate any feathered edges and make sure that the minimum depth of the spall is  $\frac{1}{2}$ ".
- F. Mechanically prepare the joint area, and chip out any concrete less than ½" in depth.
- G. Apply ARDEX ARDIBOND AP or ARDEX ARDIFIX to the spalled area using a putty knife to reform the edges and surface to the original shape.

- H. Once the spalled areas are repaired, the entire joint and spall areas shall be filled with ARDEX ARDIBOND AP.
- I. Once cured, saw cut the joint to the original dimensions, and then clean the joint and fill with ARDEX ARDISEAL<sup>TM</sup> RAPID PLUS.
- J. Slightly overfill the joint with enough material to shave flush with the concrete.
- K. If the level of the joint filler sinks down, immediately add enough material to over fill the joint.
- L. Shave the joint filler flush with the concrete with a shaving tool with a sharp blade.
- M. ARDISEAL RAPID PLUS can be shaved in 30 to 40 minutes at 70°F (21°C).
- N. Remove all tape and/or soap from the surface around the joint.
- O. Micro-Polish the surface with appropriate grit DIAMATIC FLOR-GRIT pad.

# XX. GLOSS ATTAINMENT (ASTM E430)

- A. Gloss readings are not to be obtained through the use of any microfilming products, sealers, coatings, enhancers, or as the result of resin transfer from resin bond abrasives.
- B. Readings shall be taken not less than 10' (3 m) on center in field areas and within 1' (0.3 m) of floor area perimeters.
- C. In no case shall a reading be below 2% of specified minimum sheen:
  - 1. Level A Sheen Low Gloss reading of 30 to 40. 400 grit diamond finish.
  - 2. Level B Sheen Medium Gloss reading of 41 to 55. 800 grit diamond finish.
  - 3. Level C Sheen High Gloss reading of 56 or higher. 1500 grit or higher.
- D. For instructions on achieving gloss levels, refer to the appropriate sub-section below.

# XXI. POLISHING

- A. Use the grinding and polishing steps outlines below to achieve the desired level of cut and level of gloss.
- B. Please note that when grinding and polishing a cross hatch pattern should be used.

# XXII. CUT LEVEL 1

- A. A light cut that removes the surface paste exposing the fine aggregates near the surface. Also referred to as a cream finish.
- B. Note that a Level 1 cut will require high F-numbers to achieve, Min FF 50.

### XXIII. CUT LEVEL 2

- A. A slightly deeper cut exposes the fine aggregates and begins to expose the coarse aggregates.
- B. This is also referred to as a salt and pepper finish.

# XXIV. CUT LEVEL 3

A. A deep cut that exposes the coarse aggregates in the surface.

# XXV. LEVEL A-LOW GLOSS - GRIND/POLISH #1

A. 60/80 Grit Metal Bonded Diamonds.

- B. Broom and vacuum the floor to remove all residual dust.
- C. If required, apply ARDEX PC-R to fill areas in need of minor repair.
- D. Locate areas and remove any loose decries from inside.
- E. Prepare all spall areas by cutting the edges of the spall to have a 90 degree edge.
- F. Chip, cut, or grind interior walls of spall to provide a clean surface free of contaminants that could act as a bond breaker.
- G. Mix and apply ARDEX PC-R per manufacturer recommendations and overfill spalls slightly higher than surrounding surface.
- H. Allow to dry two (2) to three (3) hours prior to proceeding with the next step.

# XXVI. LEVEL A-LOW GLOSS - GRIND/POLISH #2

- A. #1 Grit High Performance Transitional Diamonds, Ceramic Bonded.
- B. Broom and vacuum floor to remove dust.
- C. Apply ARDEX PC 50 or DIAMATIC FLOR-SIL, per application instructions at a rate of 400 square feet per gallon.
- D. Allow ARDEX PC 50 or DIAMATIC FLOR-SIL to dry for one (1) hour before continuing onto the next step.

# XXVII. LEVEL A-LOW GLOSS - GRIND/HONING #3

A. 200 grit Resin Bonded Diamond.

# XXVIII. LEVEL A-LOW GLOSS - GRIND/POLISHING #4

- A. 400 grit Resin Bonded Diamond.
- B. Broom and vacuum to remove dust.

# XXIX. MICROPOLISH/BURNISH #1

- A. FLOR-GRIT® 200 Grit Diamond Impregnated Pad.
- B. Apply PC-FINISH<sup>TM</sup> Low Gloss per application instructions at a rate of 2,500 square feet per gallon.
- C. Allow to dry a minimum of 15 to 30 minutes.

# XXX. MICROPOLISH/BURNISH #2

- A. FLOR-GRIT® 200 Grit Diamond Impregnated Pad.
- B. Dry mop the floor clean to remove all debris.
- C. Apply ARDEX PC FINISH Low Gloss or DIAMATIC FLOR-FINISH per application instructions at a rate of 3,000 square feet per gallon.
- D. Allow to dry a minimum of 15 to 30 minutes.

# XXXI. MICROPOLISH/BURNISH #3

A. FLOR-GRIT® 200 Grit Diamond Impregnated Pad.

# XXXII. LEVEL B-MEDIUM GLOSS - GRIND/POLISH #1

- A. 60/80 Grit Metal Bonded Diamonds.
- B. Broom and vacuum the floor to remove all residual dust.

- C. If required, apply ARDEX PC-R to fill areas in need of minor repair.
- D. Locate areas and remove any loose decries from inside.
- E. Prepare all spall areas by cutting the edges of the spall to have a 90 degree edge.
- F. Chip, cut, or grind interior walls of spall to provide a clean surface free of contaminants that could act as a bond breaker.
- G. Mix and apply ARDEX PC-R per manufacturer recommendations and overfill spalls slightly higher than surrounding surface.
- H. Allow to dry two (2) to three (3) hours prior to proceeding with the next step.

# XXXIII. LEVEL B-MEDIUM GLOSS - GRIND/POLISH #2

- A. #1 Transitional Diamonds, Ceramic Bonded.
- B. Broom and vacuum the floor to remove all residual dust.

# XXXIV. LEVEL B-MEDIUM GLOSS - GRIND/POLISH #3

- A. 200 Grit Resin Bonded Diamonds.
- B. Broom and vacuum the floor to remove all residual dust.
- C. Apply ARDEX PC 50 or DIAMATIC FLOR- SIL per application instructions at a rate of 400 square feet per gallon (actual rates may vary due to concrete porosity).
- D. Allow ARDEX PC 50 or DIAMATIC FLOR- SIL, to dry before continuing on to the next step.

# XXXV. LEVEL B- MEDIUM GLOSS - GRIND/POLISH #4

- A. 400 Resin Bonded Diamonds.
- B. Broom and vacuum the floor to remove all residual dust.

### XXXVI. LEVEL B- MEDIUM GLOSS - GRIND/POLISH #5

- A. 800 Resin Bonded Diamonds.
- B. Broom and vacuum the floor to remove all residual dust.

# XXXVII. LEVEL B- MEDIUM GLOSS - MICROPOLISH/BURNISH #1

- A. FLOR-GRIT 400 Diamond Impregnated Pad.
- B. Dry mop the floor clean to remove all debris.
- C. Apply ARDEX PC FINISH Low Gloss or DIAMATIC FLOR-FINISH per application instructions at a rate of 2,500 square feet per gallon (actual rates may vary due to concrete porosity).
- D. Allow to dry a minimum of 15 minutes.

# XXXVIII. MICROPOLISH/BURNISH #2: FLOR-GRIT 400 Diamond Impregnated Pad.

- A. Dry mop the floor clean to remove all debris.
- B. Apply ARDEX PC FINISH Low Gloss or DIAMATIC FLOR-FINISH per application instructions at a rate of 3,000 square feet per gallon (actual rates may vary due to concrete porosity).

C. Allow to dry a minimum of 15 minutes.

# XXXIX. MICROPOLISH/BURNISH #3

A. FLOR-GRIT 800 Diamond Impregnated Pad.

# XL. LEVEL C-High Gloss - GRIND/POLISH #1

- A. 60/80 Grit Metal Bonded Diamonds.
- B. Broom and vacuum the floor to remove all residual dust.
- C. Concrete Repair Installation, as necessary.
- D. Locate areas and remove any loose decries from inside.
- E. Prepare all spall areas by cutting the edges of the spall to have a 90 degree edge.
- F. Chip, cut, or grind interior walls of spall to provide a clean surface free of contaminants that could act as a bond breaker.
- G. Mix and apply ARDEX PC-R per manufacturer recommendations and overfill spalls slightly higher than surrounding surface.
- H. Allow to dry two (2) to three (3) hours prior to proceeding with the next step.

# XLI. LEVEL C-HIGH GLOSS - GRIND/POLISH #2

- A. #1 Transitional Diamonds, Ceramic Bonded.
- B. Broom and vacuum the floor to remove all residual dust.

### XLII. LEVEL C- HIGH GLOSS - GRIND/POLISH #3

- A. 200 Grit Resin Bonded Diamonds
- B. Broom and vacuum the floor to remove all residual dust.
- C. Apply ARDEX PC 50 or DIAMATIC FLOR- SIL per application instructions at a rate of 400 square feet per gallon (actual rates may vary due to concrete porosity).
- D. Allow ARDEX PC 50 or DIAMATIC FLOR- SIL to dry before continuing on to the next step.

# XLIII. LEVEL C- HIGH GLOSS - GRIND/POLISH #4

- A. 400 Resin Bonded Diamonds.
- B. Broom and vacuum the floor to remove all residual dust.

### XLIV. LEVEL C- HIGH GLOSS - GRIND/POLISH #5

- A. 800 Resin Bonded Diamonds.
- B. Broom and vacuum the floor to remove all residual dust.

# XLV. LEVEL C- HIGH GLOSS - GRIND/POLISH #6

- A. 1500 Resin Bonded Diamonds.
- B. Broom and vacuum the floor to remove all residual dust.

# XLVI. MICROPOLISH/BURNISH #1

- A. FLOR-GRIT 800 Diamond Impregnated Pad.
- B. Dry mop the floor clean to remove all debris.

- C. Apply ARDEX PC FINISH High Gloss or DIAMATIC FLOR-FINISH per application instructions at a rate of 2,500 square feet per gallon (actual rates may vary due to concrete porosity).
- D. Allow to dry a minimum of 15 minutes.

# XLVII. MICROPOLISH/BURNISH #2

- A. FLOR-GRIT 1500 Diamond Impregnated Pad.
- B. Dry mop the floor clean to remove all debris.
- C. Apply ARDEX PC-FINISH High Gloss or DIAMATIC FLOR-FINISH per application instructions at a rate of 3,000 square feet per gallon (actual rates may vary due to concrete porosity).
- D. Allow to dry a minimum of 15 minutes.

### XLVIII. MICROPOLISH/BURNISH #3

A. FLOR-GRIT 3000 Diamond Impregnated Pad.

# XLIX. EDGES

- A. Where desired, polished edge work of all areas shall be done with a 5" or 7" DIAMATIC Hand Held or Walk Behind polishing tool.
- B. The edge polishing process will match the corresponding steps outlined above for the desired gloss level, and each edge polishing step shall be done immediately after the matching main polishing step.
- C. NOTE: All grinding and polishing completed with grinder/polisher equipment connected to a dust collector.

# L. ACCEPTANCE

- A. Remove all installation materials and any foreign materials resulting from the installation, from the site.
- B. Clean adjacent surfaces and materials.
- C. Perform post job walk to ensure that the ULTRAFLOR® Polished Concrete System has been completed per the process spec.
- D. Take pictures of final product for documentation and submittal, if requested or required.

# LI. JOINT PREPARATION

- A. All moving joints shall be filled with ARDEX ARDISEAL<sup>TM</sup> RAPID PLUS.
- B. All non-moving joints shall be filled with ARDEX ARDIBOND APTM, ARDEX ARDIFIXTM, or ARDEX ARDISEALTM RAPID PLUS.
- C. For joints to be filled after the polish process, contact manufacturer for specific recommendations.

# LII. PROTECTION

A. Protect the finish from spills and contamination by petroleum, oil, hydraulic fluid, acid and acidic detergents, paint, and other liquid dripping from trades and equipment working over these substrates.

- B. If construction equipment must be used on these substrates, diaper all components that may drip fluids.
- C. Protect surface by installing the DIAMATIC PRIMO-COVER Protective Floor Covering, DIAMATIC ECONO-COVER Protective Floor Covering, or similar.
- D. Avoid moisture for 72 hours after installation.
- E. Do not permit standing water for this period or place any protective plastic sheeting, rubber matting, rugs, or furniture that can prevent proper drying, thereby trapping moisture, which can result in a cloudy effect on the floor.
- F. Light pedestrian use only in the 24 hours after installation.
- G. Normal traffic recommended seven (7) days after completion of the ULTRAFLOR® Concrete Topping System.

### LIII. MAINTENANCE

- A. IMPORTANT NOTICE: Maintaining the ULTRAFLOR® Polished Concrete System and adherence to a recommended cleaning schedule will help the floor hold its mechanically polished gloss longer and greatly reduce the absorption of spilled liquids.
- B. The treated concrete floor is easily maintained by regular cleaning with the Maintenance/Post Cleaning procedure, accompanied by Micro Polishing.
- C. Specific maintenance recommendations shall be provided by the certified ULTRAFLOR® installer.
- D. Newly Installed ULTRAFLOR® Polished Concrete System:
  - 1. Restrict water cleaning for 72 hours after installation of ULTRAFLOR. Use only a dry mop to clean.
  - 2. Avoid putting mats or covering treated surface to allow coating to fully cure out.
  - 3. DO NOT USE cleaners that are acidic or that have citrus (de-limonene) or Butyl compounds.

# LIV. FIELD QUALITY CONTROL

- A. Test Reports: Provide field quality control sheen gloss reading and static coefficient of friction test results conducted as specified and recorded on floor plan diagram confirming compliance with specified performance criteria.
- B. Static Coefficient of Friction: A reading of not less than 0.5 for level floor surfaces shall be achieved and documented, as determined by a certified NFSI walkway auditor using the NFSI 101-A quality control test.
- C. Gloss readings should be obtained in accordance with ASTM E430, Standard Test Method for Measurement of Gloss of High-Gloss Surfaces by Abridged Goniophotometry.
- D. Readings shall be taken not less than 10' (3 m) on center in field areas and within 1' (0.3 m) of floor area perimeters.
- E. In no case shall a reading be below 2% of the specified minimum sheen.

# EPOXY FLOORING - STANDARD, FOOD PREP, AND QUICK

# I. GENERAL REQUIREMENTS

A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

# II. WORK INCLUDED

A. Work of this Section includes all labor, materials, equipment, and services necessary to complete the urethane cement composition flooring and integral base as scheduled on the drawings and/or specified herein.

# III. RELATED WORK - Concrete - Section 03300

- A. Concrete should be either water cured or cured using sodium silicate curing compounds only.
- B. Other types of curing compounds are generally not acceptable.
- C. Concrete should be cured for a minimum of 28 days.
- D. On grade floors should have functioning vapor retarder beneath slab.

# IV. RELATED WORK - Floor drains - Division 15

A. Floor drains, clean-outs, etc. should be of the "floor-flange" type as manufactured for use with composition floors by most major drain manufacturers.

# V. SUBMITTALS

- A. Should be in accordance with Conditions of Contract and Division 1 Specification Sections.
- B. Product Data: Submit manufacturer's technical data, application instructions, and general recommendations for the urethane cement composition flooring specified herein.

### C. LEED Submittals:

- 1. Product Data for Credit MR 4.1 and Credit MR 4.2: For products having recycled content, submit documentation indicating percentages by weight of postconsumer and pre-consumer recycled content.
- 2. Include statement indicating costs for each product having recycled content.
- 3. Include LEED Product Information Form for LEED Credits MR 4.1 and 4.2. 2.
- 4. Product Data for Credit EQ 4.2: For field applied, interior, paints coatings, and primers, include printed statement of VOC content indicating compliance with Credit requirements.
- 5. Include LEED Product Information Form for LEED Credit EQ 4.2.
- 6. Provide additional documentation for products as required to achieve each Credit(s).
- D. Samples for initial selection purposes in form of sample of red, gray, or natural pigmented Tek-Crete.

- E. Dex-O-Tex Colorflake L has a manufacturer's color chart available with a full range of colors including white and off white.
- F. Submit 2 ½" x 4" Tek-Crete samples in color (red or gray) the selection shall be designated by the Architect.
- G. Samples for Verification: For each resinous flooring system or color specified, Provide 2 each, 6" (150mm) square samples in the selected color and texture, applied to a ridged backing by the installing contractor for this project.
- H. Material certificates signed by manufacturer certifying that the urethane cement composition flooring supplied for the project complies with requirements specified herein.
- I. Maintenance Instructions: Submit manufacturer's written instructions for recommended maintenance practices.
- J. Contractor Certification: Submit a letter from the primary materials manufacturer certifying that the installing contractor has been properly trained in the application of the materials being installed, is acceptable to the materials manufacturer, with a record of successful in-service performance.
- K. Engage an installer who employs only persons trained and approved by the resinous flooring manufacturer for applying resinous flooring systems specified.
- L. Engage an installer who is certified in writing by the resinous flooring manufacturer as a factory trained applicator qualified to apply the specified resinous flooring system.

# VI. QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer or applicator who has specialized in installing resinous flooring types similar to that required for this Project and who is acceptable to manufacturer of primary materials.
- B. Single-Source Responsibility: Obtain urethane cement composition flooring materials, including primers, resins, hardening agents, and finish or sealing coats, from a single manufacturer.
- C. Provide secondary materials, including patching and fill materials, joint sealant, accessory items, and repair materials, of a type and from a source recommended by the manufacturer of the primary materials.

# D. Qualified Materials

- 1. Request for material approvals for any products other than the specified products must be submitted to the architect two (2) weeks prior to the bid, including complete application specification, physical characteristics, and chemical resistance data.
- 2. Any request after this date will not be accepted.
- E. Failure of performance requires immediate removal and replacement of unapproved substituted material with those originally specified at no cost to the owner, architect, construction manager, or general contractor.
- F. Mockups: Apply mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set the standard of quality for materials and installation.

- G. Apply all components of the specified resinous flooring system at the specified thickness and finished in the texture and color as selected.
- H. Apply a minimum 100 square feet area to simulate the actual installation characteristics.
- I. Include areas that demonstrate the finished cove base, joint detailing, terminations, or any other special conditions.
- J. Simulate finished lighting conditions for Architects review of mockups.
- K. Approved mockups may become part of the completed work if undisturbed at the time of substantial completion.

# VII. DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original packages and containers with seals unbroken and bearing manufacturer's labels containing brand name and directions for storage and mixing with other components.
- B. Store materials to comply with manufacturer's directions to prevent deterioration from moisture, heat, cold, direct sunlight, or other detrimental effects.
- C. Lighting: Permanent lighting will be in place and working before installing polymeric floor coating.

# VIII. PROJECT CONDITIONS

- A. Environmental Conditions: Comply with urethane cement composition flooring manufacturer's directions for maintenance of ambient and substrate temperature, moisture, humidity, ventilation, and other conditions required to execute and protect Work.
- B. Lighting: Permanent lighting will be in place and working before installing resinous flooring.
- C. Moisture Vapor Transmission: Perform Calcium Chloride test in conformance to ASTM F 1869-09 or in-situ relative humidity test conforming to ASTM F 2170 to determine moisture vapor emission levels prior to application of any component of the flooring system.
- D. Do not install flooring over substrate with MVT emission levels in excess of 14 lbs. per 24 hour period over a 1000 square foot area or with a relivative humidity in excess of 88%.
- E. Notify the architect immediately if MVT or rH levels exceed these levels.

### IX. MATERIALS

- A. Troweled urethane cement composition flooring shall be Dex-O-Tex Tek-Crete SL-CF Urethane Cement Composition Flooring.
- B. Monolithic applications for quick installation turn around shall be Tek-Crete SL Urethane Mortar with Optional Integral Cove Base.
- C. Decorative flake polymeric floor coating shall be Dex-O-Tex Colorflake L.
- D. Known manufacturer: Crossfield Products Corp. in Rancho Dominguez, California and Roselle Park, New Jersey.

# X. DEX-O-TEX TEK-CRETE SL-CF PROPERTIES

- A. Colors: As indicated, or if not otherwise indicated, as selected by Architect from manufacturer's standard colors.
- B. Physical Properties: Provide flooring system that meet or exceed the listed minimum physical property requirements when tested according to the referenced standard test method in parentheses.
- C. Compressive Strength (ASTM C579): 8,100 psi
- D. Thermal Distortion (250OF Emersion): Passes
- E. Tensile Strength (ASTM C 307): 1,000 psi
- F. Flexural Strength (ASTM C 580): 2,000 psi
- G. Thermal Co-Efficient of Thermal Expansion (ASTM C 531): 1.4 x 105
- H. Density (ASTM C905): 130 lbs/ft3
- I. Water Absorption (MIL PRF-3134): 0.64%
- J. Surface Hardness (ASTM D2240): 85 90
- K. Durometer "D" Abrasion Resistance (ASTM D1044): 0.0 gr.
- L. Adhesion (ASTM D4541): >400 psi (100% failure in concrete)
- M. Flammability-Critical Radiant Flux (ASTM E648): Greater than 1.07 watts/cm<sup>2</sup>
- N. Resistance to Fungal Growth (ASTM G21): Passes Rating 1

# XI. TEK-CRETE SL URETHAN MORTAR PHYSICAL PROPERTIES

- A. Compressive Strength (ASTM C579): 8,100 psi
- B. Tensile Strength (ASTM C307): 1,000 psi
- C. Flexural Strength (ASTM C580): 2,000 psi
- D. Hardness (ASTM D2240): Shore D 85 90
- E. Thermal Coefficient of Linear Expansion (ASTM C531 (in/in/0F): 1.5 x 105
- F. Density (ASTM C905): 130 lbs/ft.3
- G. Water Absorption (MIL-D-3134 Para. 4.6.5): 0.64%
- H. Flammability (ASTM E648): >1.07 watts/cm<sup>2</sup>
- I. Adhesion (ASTM D4541): >400 psi (100% failure in concrete substrate)
- J. Temperature Distortion Crossfield Lab: Passes (dry, wet, and oil at 350°F or 121°C)
- K. Microbial Resistance (ASTM G21): Passes Rating 1

# XII. DEX-O-TEX COLORFLAKE L DECORATIVE FLAKE POLYMERIC FLOOR COATING PHYSICAL PROPERTIES

- A. Thickness: 15 21 mils
- B. Pencil Hardness (ASTM D3363): 3H
- C. Impact Resistance (ASTM D2794): Direct 50 in. lbs. / Reverse 10 in. lbs.
- D. Thermal Shock (ASTM D1211): Complies

E. Flexibility (ASTM D1737): 180° Bend (1/2" Mandrel) Passes

# XIII. INSPECTION

- A. Examine the areas and conditions where the flooring is to be installed and notify the Architect of conditions detrimental to the proper and timely completion of the work.
- B. Do not proceed with the work until unsatisfactory conditions have been corrected by the Contractor in a manner acceptable to the Architect.
- C. Moisture Test: Perform moisture test in conformance with ASTM F 1869 and ASTM F 2170 3.02

# XIV. PREPARATION: DEX-O-TEX TEK-CRETE SL-CF

- A. Substrate: Perform preparation and cleaning procedures according to flooring manufacturer's instructions for particular substrate conditions involved, and as specified. Provide clean, dry, and neutral substrate for flooring application.
- B. Concrete Surfaces: Shot-blast, or power scarify as required to obtain optimum bond of flooring to concrete. Remove sufficient material to provide a sound surface free of laitance, glaze, efflorescence, and any bond-inhibiting curing compounds or form release agents. Remove grease, oil, and other penetrating contaminates. Prepare substrate in accordance with SSPC SP 13. Repair damaged and deteriorated concrete to acceptable condition. Leave surface free of dust, dirt, laitance, and efflorescence.
- C. Materials: Mix resin hardener and aggregate as required, and prepare materials according to flooring system manufacturer's instructions.

# XV. PREPARATION: TEK-CRETE SL URETHANE MORTAR

- A. Prepare substrate surface by careful and thorough removal of all laitance, greases, and other foreign matter that may interfere with bond.
- B. Prepare concrete surfaces in accordance with SSPC SP 13.
- C. Optional Primer: Use an optional primer over porous substrate surfaces. Consult manufacturer when required.
- D. Screed Tek-Crete Self Leveling to the specified thickness  $\frac{3}{16}$ " (4.7mm)  $\frac{1}{4}$ " (6.3mm).

### XVI. PREPARATION: DEX-O-TEX COLORFLAKE L

- A. Perform preparation and cleaning procedures according to the flooring manufacturer's instructions for the particular substrate conditions involved.
- B. Provide clean, dry, and neutral substrate for flooring application.
- C. Shot-blast, acid etch, or power scarify as required to obtain optimum bond of flooring to concrete.
- D. Remove sufficient material to provide a sound surface free of laitance, glaze, efflorescence, and any bond inhibiting curing compounds or form release agents.
- E. Remove grease, oil, and other penetrating contaminates.
- F. Repair damaged and deteriorated concrete to acceptable condition.
- G. Leave surface free of dust, dirt, laitance, and efflorescence.

# XVII. APPLICATION

- A. General: Apply each component of flooring system according to manufacturer's directions to produce a uniform monolithic flooring surface of thickness indicated.
- B. Urethane Body Coat: Over prepared surface, Screed mortar mix at nominal  $^{3}/_{16}$ "  $^{1}/_{4}$ " thickness as specified. Allow material flow out and begin to settle. Back roll with a spike roller or looped roller as appropriate to distribute material to a smooth even finish.
- C. Color Flake Chip Broadcast: Broadcast selected colored flake chip aggregate blend into the wet Body Coat. Apply to an even distribution and texture, allow to cure.
- D. Remove Excess Chip Aggregate: Remove all loose or unsound colored flake chip aggregate from the cured surface. Vacuum up all dust and fine particles from the surface, remove any ridge lines and detail all imperfection in the textured surface.
- E. Apply the selected clear seal coats as recommended to produce a surface matching the submittal sample and project mock-up samples.
- F. Cove Base: Apply cove base mix to wall surfaces at locations shown to form cove base height of 4" unless otherwise indicated. Follow manufacturer's printed instructions and details including taping, mixing, troweling, and sanding, of cove base.

# G. DEX-O-TEX Colorflake L:

- 1. Apply each component of decorative flake polymeric floor coating system according to manufacturer's directions to produce a uniform monolithic flooring surface.
- 2. Apply epoxy bond coat over prepared substrate at manufacturer's recommended spreading rate.
- 3. Over bond coat apply nominal 8-12 DFT thickness Colorflake L Color Coating by roller in two (2) coats at manufacturer's recommended spreading rate.
- 4. Broadcast PVC color ship into the wet resin to the desired density and color combination as selected and approved.
- 5. Apply two (2) coats of clear polymeric enamel over the cured color and PVC broadcast.
- 6. Lightly sand between coats.

# XVIII. CURING, PROTECTION AND CLEANING: DEX-O-TEX TEK-CRETE SL-CF

- A. Cure urethane cement composition flooring materials according to manufacturer's directions, taking care to prevent contamination during application stages and before completing curing process.
- B. Close application area for a minimum of 24 hours.

# XIX. CURING, PROTECTION, AND CLEANING: TEK-CRETE SL URETHANE MORTAR

- A. Tek-Crete Self Leveling is rapidly cured allowing for quick return to service, including use of forklifts within 24 hours of work completion.
- B. Tek-Crete Self Leveling can be applied at temperatures ranging between 45°F (7°C) and 85°F (29°C).
- C. In general, the more aggressive the finished surface the greater the coefficient of friction and corresponding skid resistance, but the more difficult to clean.

- D. The smoother the finished texture the easier the surface is to clean, but there is a loss of skid resistant properties.
- E. Cleaning and disinfecting compounds and cleaning techniques can affect the color, gloss, texture, and performance of the system.
- F. As a precautionary step, manufacturer recommends that the end-users test their cleaning and disinfecting compounds on a sample or on a small, out of the way finished area, utilizing the intended cleaning technique prior to cleaning the entire surface area. If no deleterious effects are observed, the procedure can be continued. If the cleaning and disinfecting compounds or cleaning techniques damage the system, modification of the cleaning materials or techniques will be required.

# XX. CURING, PROTECTION, AND CLEANING: DEX-O-TEX COLORFLAKE L

- A. Cure polymeric floor coating materials according to manufacturer's directions, taking care to prevent contamination during application stages and before completing curing process.
- B. Close application area for a minimum of 24 hours.

# SITE LOCATIONS & ESTIMATED PROPOSED SCOPE AND MAPS

# Chapter

# CHAPTER FIVE COMPONENTS

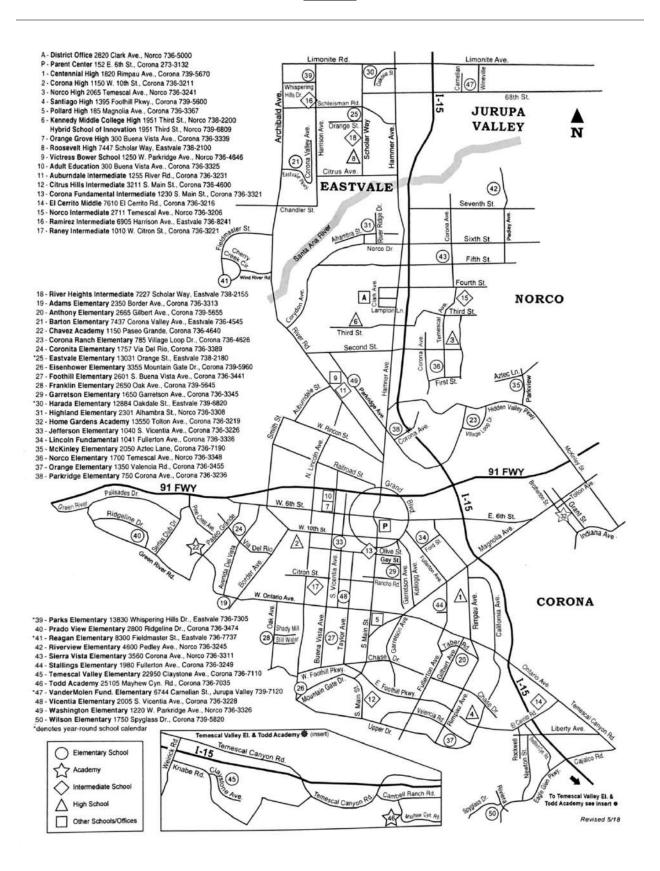
- F Site Locations and Estimated Proposed Scope
- Maps
- District Proximity and Locations

| SITE LOCATIONS AND ESTIMATED PROPOSED SCOPE (# OF ROOMS) |                     |                     |                     |  |
|--|---------------------|---------------------|---------------------|--|
| SCHOOL NAME  | YEAR 1<br>(2018/19) | YEAR 2<br>(2019/20) | YEAR 3<br>(2020/21) |  |
| Adams Elementary   | 5                   | 5                   | 5                   |  |
| Anthony Elementary                                       | 3                   | 3                   | 10                  |  |
| Barton Elementary  | 2                   | 0                   | 0                   |  |
| Cesar Chavez Academy                                     | 3                   | 0                   | 0                   |  |
| Corona Ranch Elementary                                  | 0                   | 6                   | 0                   |  |
| Coronita Elementary                                      | 3                   | 5                   | 2                   |  |
| Eastvale Elementary                                      | 0                   | 0                   | 0                   |  |
| Eisenhower Elementary                                    | 5                   | 5                   | 30                  |  |
| Foothill Elementary                                      | 3                   | 3                   | 3                   |  |
| Franklin Elementary                                      | 0                   | 0                   | 0                   |  |
| Garretson Elementary                                     | 0                   | 0                   | 0                   |  |
| Harada Elementary  | 0                   | 0                   | 6                   |  |
| Highland Elementary                                      | 5                   | 20                  | 10                  |  |
| Home Gardens Academy                                     | 0                   | 0                   | 0                   |  |
| Jefferson Elementary                                     | 0                   | 0                   | 0                   |  |
| Lincoln Elementary                                       | 0                   | 0                   | 2                   |  |
| McKinley Elementary                                      | 8                   | 8                   | 3                   |  |
| Norco Elementary   | 0                   | 0                   | 10                  |  |
| Orange Elementary  | 0                   | 0                   | 0                   |  |
| Parkridge Elementary                                     | 3                   | 2                   | 3                   |  |
| Rosa Parks Elementary                                    | 0                   | 0                   | 0                   |  |
| Prado View Elementary                                    | 0                   | 0                   | 6                   |  |
| Reagan Elementary  | 0                   | 0                   | 0                   |  |
| Riverview Elementary                                     | 0                   | 0                   | 0                   |  |
| Sierra Vista Elementary                                  | 5                   | 2                   | 5                   |  |
| Stallings Elementary                                     | 0                   | 0                   | 0                   |  |
| Temescal Valley  | 0                   | 0                   | 0                   |  |
| Todd Elementary  | 0                   | 0                   | 0                   |  |
| Vandermolen Elementary                                   | 0                   | 0                   | 0                   |  |
| Vicentia Elementary                                      | 0                   | 3                   | 0                   |  |
| Washington Elementary                                    | 8                   | 2                   | 3                   |  |
| Wilson Elementary  | 6                   | 3                   | 3                   |  |
| Auburndale Intermediate                                  | 0                   | 0                   | 0                   |  |
| Citrus Hills Intermediate                                | 15                  | 0                   | 0                   |  |
| Corona Fundamental Intermediate                          | 0                   | 0                   | 0                   |  |

SITE LOCATIONS AND ESTIMATED PROPOSED SCOPE (# OF ROOMS)

| SCHOOL NAME                | YEAR 1<br>(2018/19) | YEAR 2<br>(2019/20) | YEAR 3<br>(2020/21) |
|----------------------------|---------------------|---------------------|---------------------|
| El Cerrito Intermediate    | 3                   | 5                   | 5                   |
| Norco Intermediate         | 5                   | 2                   | 2                   |
| Ramirez Intermediate       | 0                   | 0                   | 0                   |
| Raney Intermediate         | 10                  | 5                   | 3                   |
| River Heights Intermediate | 0                   | 0                   | 0                   |
| Centennial High            | 0                   | 20                  | 0                   |
| Corona High                | 10                  | 10                  | 10                  |
| John F Kennedy High        | 6                   | 0                   | 0                   |
| Norco High                 | 5                   | 5                   | 30                  |
| Orange Grove High          | 3                   | 3                   | 0                   |
| Pollard High               | 0                   | 15                  | 0                   |
| Roosevelt High             | 7                   | 7                   | 7                   |
| Santiago High              | 4                   | 4                   | 15                  |
| Victress Bower             | 3                   | 2                   | 0                   |

# **MAPS**



# **DISTRICT PROXIMITY AND LOCATIONS**

# **Elementary Schools**

| Adams  | Anthony   | Barton   | Chávez  |
|--|---|--|---|
| 2350 Border Avenue   | 2665 Gilbert Avenue   | 7437 Corona Valley                                 | 1150 Paseo Grande                                       |
| Corona CA 92882  | Corona CA 92881   | Eastvale CA 92880                                  | Corona CA 92882   |
| Corona Ranch   | Coronita  | Eastvale   | Eisenhower  |
| 785 Village Loop Drive   | 1757 via Del Rio  | 13031 Orange Street                                | 3355 Mountain Gate                                      |
| Corona CA 92879  | Corona CA 92882   | Eastvale CA 92880                                  | Corona CA 92882   |
| Foothill   | Franklin  | Garretson  | Harada  |
| 2601 South Buena Vista   | 2650 Oak Avenue   | 1650 Garretson Avenue                              | 12884 Oakdale Street                                    |
| Corona CA 92882  | Corona CA 92880   | Corona CA 92879                                    | Eastvale CA 92880                                       |
| Highland   | Home Gardens  | Jefferson  | Lincoln Alternative                                     |
| 2301 Alhambra Street   | 13550 Tolton Avenue   | 1040 South Vicentia                                | 1041 Fullerton Avenue                                   |
| Norco CA 92860   | Corona CA 92879   | Corona CA 92882                                    | Corona CA 92879   |
| McKinley   | Norco   | Orange   | Parkridge   |
| 2050 Aztec Lane  | 1700 Temescal Avenue  | 1350 Valencia Road                                 | 750 Corona Avenue                                       |
| Corona CA 92879  | Norco CA 92860  | Corona CA 92881                                    | Corona CA 92879   |
| Parks  | Prado View  | Regan  | Riverview   |
| 13830 Whispering Hills   | 2800 Ridgeline Drive  | 8300 Fieldmaster St                                | 4600 Pedley Avenue                                      |
| Eastvale CA 92880  | Corona CA 92882   | Eastvale, CA 92880                                 | Norco CA 92860  |
| Rondo  | Sierra Vista  | Stallings  | Temescal Valley   |
| 7620 Hellman Ave,  | 3560 Corona Avenue  | 1980 Fullerton Avenue                              | 2290 Claystone Avenue                                   |
| Corona, CA 92880   | Norco CA 92860  | Corona CA 92881                                    | Corona CA 92883   |
| Todd<br>25105 Mayhew Canyon<br>Corona CA 92883<br>Washington<br>1220 West Parkridge<br>Corona CA 92860 | VanderMolen<br>6744 Carnelian<br>Jurupa Valley CA 91752<br>Wilson<br>1750 Spyglass Drive<br>Corona CA 92883 | Vicentia<br>2005 South Vicenita<br>Corona CA 92882 | Victress Bower<br>1250 West Parkridge<br>Norco CA 92860 |

# **Intermediate Schools**

| Auburndale                | Citrus Hills         | Corona                 | El Cerrito           |
|---------------------------|----------------------|------------------------|----------------------|
| 1255 River Road           | 3211 South Main      | 1230 South Main Street | 7610 El Cerrito Road |
| Corona CA 92880           | Corona CA 92882      | Corona CA 92882        | Corona CA 92881      |
|                           |                      |                        |                      |
| Norco                     | Ramirez              | Raney                  | River Heights        |
| 2711 Temescal Avenue      | 600 F TT '           | 1010 111               |                      |
| 2/11 Tellieseal / Ivellac | 6905 Harrison Avenue | 1010 West Citron       | 7227 Scholar Way     |

# **High Schools**

| Centennial  | Corona              | Kennedy           | Norco                |
|---|---------------------|-------------------|----------------------|
| 1820 Rimpau Avenue  | 1150 West Tenth     | 1951 Third Street | 2065 Temescal Avenue |
| Corona CA 92881   | Corona CA 92882     | Norco CA 92860    | Norco CA 92860       |
| Orange Grove 300 Buena Vista Corona CA 92882 Santiago 1395 Foothill Parkway Corona CA 92881 | Pollard             | Roosevelt         | eSTEM - Roosevelt    |
|   | 185 Magnolia Avenue | 7447 Scholar Way  | 7447 Scholar Way     |
|   | Corona CA 92882     | Eastvale CA 92880 | Eastvale CA 92880    |

# **District Office**

2820 Clark Avenue Norco CA 92860

# $\frac{\textbf{Maintenance and Operations Office, Child Nutrition, Warehouse and Printshop}}{300 \ \text{Buena Vista}}$

Corona CA 92882

# **BID FORMS**

# 

# **BID FORMS**

- I. Project Description: Installation of carpet and/or tile at the locations listed under Site Locations & Estimated Proposed Scope and Maps (Chapter 4, Page 52). Due to possible budgetary restraints, the Corona-Norco USD may add or remove a number of rooms at each location during each of the contract terms.
- II. Notice to Contractor: All materials to be installed are to be received as a completed project. All sundry items, adhesives, seam welds, seam sealers, and any associated item necessary for a completed project is to be included in the prices below.
- III. School district will supply carpet material and permanent Geo Tile matting material only. All other items needed for a complete job will be the responsibility of the contractor.
- IV. Carpet and Geo Tile matting materials will be delivered to the contractor's designated receipt location within six (6) to eight (8) weeks prior to the scheduled installation date.
- V. Contractor will be responsible for delivering, storing, and warehousing materials for the term of the contract. All cost associated with delivery and pick up of carpet and Geo Tile matting (other than the original delivery) will be the sole responsibility of the contractor.
- VI. Term: The District intends to award a three (3) year contract with two (2) optional one-year terms for a maximum of five (5) years to the Contractor offering the lowest responsible bid, meeting District specifications. Contract terms include the sites listed under Site Locations & Estimated Proposed Scope and Maps (Chapter 4, Page 52).
  - Year 1: January 23, 2019 through December 31, 2019.
  - Year 2: January 1, 2020 through December 31, 2020.
  - Year 3: January 1, 2021 through December 31, 2021.

### **Extensions:**

Optional 1-year term: January 1, 2022 through December 31, 2022

Optional 1-year term: January 1, 2023 through December 31, 2023

# ESTIMATE OF QUANTITIES REQUIRED FOR BASIS OF AWARD

# **BID FORM**

I. This Bid form must be included with your bid submittal. All listed materials shown herein may be substituted by an equivalent product which must be pre-approved by the District.

| Description Soft Surface Flooring Material (Powerbond)                 | <u>Unit</u> square yards | <b>Quantity</b> 4,280 | Unit Cost Supplied by district. | Total 0 |
|--|--------------------------|-----------------------|---------------------------------|---------|
| Soft Surface Flooring<br>Installation (Powerbond or equal)             | square yards             | 5,000                 |                                 |         |
| Removal of existing carpet (ActionBac)                                 | square yards             | 4,280                 |                                 |         |
| Standard carpet floor preparation                                      | manhours                 | 100                   |                                 |         |
| 4" Burke wall base (commercial colors)                                 | linear feet              | 5,000                 |                                 |         |
| Snap down reducer strip (furnish and install)                          | linear feet              | 3,000                 |                                 |         |
| Furniture moving – standard classroom                                  | 4 manhours per room      | 40 rooms              | per<br>4 hours                  |         |
| Material – Mondo Zeus 3 mm 24"x24" or equal                            | square feet              | 3,000                 |                                 |         |
| Installation – Mondo Zeus 3 mm 24"x24" or equal                        | square feet              | 3,000                 |                                 |         |
| Geo Tile Mat System Installation                                       | square yards             | 100                   |                                 |         |
| Sheet Vinyl (material)<br>Armstrong Connection Corlon or equal         | square yards             | 100                   |                                 |         |
| Sheet Vinyl Installation   | square yards             | 100                   |                                 |         |
| Sheet Vinyl Demolition   | square yards             | 100                   |                                 |         |
| Self Cove (Includes cove stick and cap metal)                          | linear feet              | 200                   |                                 |         |
| VCT Material – 12x12 Standard Excelon                                  | square feet              | 1,000                 |                                 |         |
| VCT Installation – Standard Excelon                                    | square feet              | 1,000                 |                                 |         |
| Polished Concrete (Level B) Medium Gloss (Gloss Attainment):           | square feet              | 1,000                 |                                 |         |
| Standard Epoxy Coating Material<br>Standard Epoxy Coating Installation | square feet square feet  | 1,000<br>1,000        |                                 |         |

| Kitchen / Food Prep Epox                                    | •                                   | square feet | 1,000 |    |          |                     |
|---|-------------------------------------|-------------|-------|----|----------|---------------------|
| Kitchen / Food Prep Epo:<br>Installation                    | xy Coating                          | square feet | 1,000 |    |          |                     |
| 10 -12 lbs MVER (Koest<br>(Concrete Vapor Emi.<br>Proofing) | er or equal):<br>ssion and Moisture | square feet | 1,000 |    |          |                     |
| <b>Sports Floors</b> <i>Commotion or eq</i>                 | nal                                 |             |       |    |          |                     |
| Material  | Sheet flooring                      | square yard | 200   | \$ | \$       |                     |
| Material  | Tile                                | carton      | 25    | \$ | \$<br>\$ |                     |
|   | Interlocking tile                   | carton      | 25    | \$ | \$       |                     |
| Installation  | Sheet flooring                      | square yard | 200   | \$ | \$       |                     |
| motanation  | Tile                                | carton      | 25    | \$ | \$       |                     |
|   | Interlocking tile                   | carton      | 25    | \$ | \$       |                     |
| Training or equal   | •                                   | carton      | 23    | Ψ  | Ψ        | I                   |
| Material  | V                                   | square yard | 200   | \$ | \$       |                     |
| Installation  |                                     | square yard | 200   | \$ | \$       |                     |
| Triumph or equal  | 1                                   | square yara | 200   | Ψ  | Ψ        | ı                   |
| Material  | Square tile                         | carton      | 25    | \$ | \$       |                     |
| 1/14/01141  | Interlocking tile                   | carton      | 25    | \$ | \$       |                     |
|   | Underlock tile                      | carton      | 25    | \$ | \$       |                     |
| Installation  | Square tile                         | carton      | 25    | \$ | \$       |                     |
| 11150411401611  | Interlocking tile                   | carton      | 25    | \$ | \$       |                     |
|   | Underlock tile                      | carton      | 25    | \$ | \$<br>\$ |                     |
| Inertia or equal  | Chachook the                        | curton      | 23    | Ψ  | Ψ        | I                   |
| Material  | Square tile                         | carton      | 25    | \$ | \$       |                     |
| Material  | Interlocking tile                   | carton      | 25    | \$ | \$       |                     |
|   | Underlock tile                      | carton      | 25    | \$ | \$       |                     |
|   | Slidelock tile                      | carton      | 25    | \$ | <u> </u> |                     |
| Installation  | Square tile                         | carton      | 25    | \$ | \$       |                     |
| mstanation  | Interlocking tile                   | carton      | 25    | \$ | \$<br>\$ |                     |
|   | Underlock tile                      | carton      | 25    | \$ | \$<br>\$ |                     |
|   | Slidelock tile                      | carton      | 25    | \$ | <u> </u> |                     |
| Heat weld seam a  | and rod (material & labor)          |             | 100   | \$ | \$       | <mark> </mark>      |
|   | ` '                                 |             |       |    |          | l<br><mark>-</mark> |
| 6" Self cove and  | cap (rubber)                        | linear feet | 100   | \$ | \$       | l                   |
| Grand Total:  | \$                                  |             |       |    |          |                     |

### NOTE:

Grand Total Written Out:

This form must be completed in its entirety as it will be used for the Basis of Award.

# EPOXY FLOORING MATERIAL AND INSTALLATION QUOTE SHEET

- I. This must be included with your bid submittal.
- II. Price shall include all delivery and storage costs.
- III. Price shall include all things necessary for a professional job, including concrete scraping, sanding, bead blasting, etc.
- IV. Substrate is to be on-grade concrete and lightweight concrete.
- V. There is a nine (9) square yard minimum purchase requirement.
- VI. The standard work week shall be from 6:00 am 9:00 pm, Monday through Saturday.

| Product Description                               | Unit Price of Material and Installation | <u>Unit</u><br><u>Measurement</u> |
|---|---|-----------------------------------|
| Standard Epoxy Coating Material                   | \$                                      | per square foot                   |
| Standard Epoxy Coating Installation               | \$                                      | per square foot                   |
| Kitchen / Food Prep Epoxy Coating<br>Material     | \$                                      | per square foot                   |
| Kitchen / Food Prep Epoxy Coating<br>Installation | \$                                      | per square foot                   |
| Quick Epoxy Coating Material                      | \$                                      | per square foot                   |
| Quick Epoxy Coating Installation                  | \$                                      | per square foot                   |

# PERMANENT MATTING MATERIAL AND INSTALLATION QUOTE SHEET

- I. This must be included with your bid submittal.
- II. Price must include delivery and storage cost.
- III. Geo Tile has a minimum purchase order requirement of three (3) yards.
- IV. Installation shall include receiving materials, delivery of materials, installation of materials, disposal of scraps, primers, sealers, sundry items, and any labor related items that are associated with installation.
- V. Installation <u>shall not include</u> the following: demo of existing floor, disposal of existing materials, floor preparation, wall base, and furniture moving.
- VI. Abrasive Action has a five (5) yard minimum purchase order requirement.
- VII. Standard work week shall be 6:00 am 9:00 pm, Monday through Saturday.

| Product Description   | Price per Unit | <b>Unit Measurement</b> |
|---|----------------|-------------------------|
| Material - Geo Tile Matting 18"x18" dry back modular tile     | \$             | per yard                |
| Installation - Geo Tile Matting 18"x18" dry back modular tile | \$             | per yard                |
| Material - Abrasive Action 6' dry back roll goods             | \$             | per yard                |
| Installation - Abrasive Action 6' dry back roll goods         | \$             | per yard                |
| Material – Triad Mat (water hog) with trim 3'x4'              | \$             | per yard                |
| Material – Triad Mat (water hog) with trim 4'x6'              | \$             | per yard                |

# RESILIENT FLOORING MATERIAL & INSTALLATION QUOTE SHEET

- I. This must be included with your bid submittal.
- II. Price shall include all delivery and storage costs.
- III. There is a 20 square yard minimum purchase requirement.
- IV. Installation shall include receiving materials, delivery of materials, installation of materials, disposal of scraps, primers, sealers, sundry items, and any labor related items that are associated with installation.
- V. Installation <u>shall not include</u> the following: demo of existing floor, disposal of existing materials, floor preparation, wall base, furniture moving, and matting material
- VI. The standard work week shall be from 6:00 am 9:00 pm, Monday through Saturday.

| <b>Product Description or equal</b>           | Price of Material per Unit | Price of<br>Labor per<br>Unit | <u>Unit Measurement</u>                     |
|---|----------------------------|-------------------------------|---|
| Armstrong Connection Corlon – 6' or equal     | \$                         | \$                            | per yard                                    |
| Armstrong Medintech – 6' or equal             | \$                         | \$                            | per yard                                    |
| Armstrong Medintech Tandum – 6' or equal      | \$                         | \$                            | per yard                                    |
| Armstrong Marmorette – 6' or equal            | \$                         | \$                            | per yard                                    |
| Armstrong Linorette – 6' or equal             | \$                         | \$                            | per yard                                    |
| Armstrong Linodur – 6' or equal               | \$                         | \$                            | per yard                                    |
| Armstrong Standard Excelon – 12"x12" or equal | \$                         | \$                            | per foot with a 6 carton minimum purchase   |
| Armstrong Standard Excelon – 12"x12" or equal | \$                         | \$                            | per foot with a 27 carton minimum purchase  |
| Armstrong Standard Excelon – 12"x12" or equal | \$                         | \$                            | per foot with a 100 carton minimum purchase |
| Armstrong Standard Excelon – 12"x12" or equal | \$                         | \$                            | per foot with a 318 carton minimum purchase |
| Heat weld seam and rod                        | \$                         | \$                            | per linear foot                             |
| 6" self cove with cap metal                   | \$                         | \$                            | per linear foot                             |

# $\frac{\text{WALL BASE AND REDUCER MATERIAL AND INSTALLATION}}{\text{QUOTE SHEET}}$

- I. This must be included with your bid submittal.
- II. Price shall include all delivery and storage costs.
- III. There is a 20 square yard minimum purchase requirement.
- IV. The standard work week shall be from 6:00 am 9:00 pm, Monday through Saturday.

| Product Description or equal   | Price of Material and Installation per Unit | <u>Unit Measurement</u> |
|--------------------------------|---|-------------------------|
| Burke Commercial Colors – 2 ½" | \$  | per linear foot         |
| Burke Commercial Colors – 4"   | \$  | per linear foot         |
| Burke Commercial Colors – 6"   | \$  | per linear foot         |
| Burke Decorator Colors – 2 ½"  | \$  | per linear foot         |
| Burke Decorator Colors – 4"    | \$  | per linear foot         |
| Burke Decorator Colors – 6"    | \$  | per linear foot         |
| Burke Snap Down Reducer        | \$  | per linear foot         |
| Nail and Clamp Down Reducer    | \$  | per linear foot         |
| 2 Plate Reducer                | \$  | per linear foot         |

# **INSTALLATION OF POLISHED CONCRETE**

# I. GENERAL

- A. This must be included with your bid submittal.
- B. This work is for installation of district provided carpet material, if applicable.
- C. Materials price must include shipment and delivery costs.
- D. Material and installation price categories may be listed separately.

### II. MINIMUMS

A. Polished concrete has a minimum of 65 yards.

### III. PRICING

A. NOTE - PRICING MUST BE THE SAME AS QUOTED ON THE BASIS OF AWARD.

### IV. MATERIAL

- A. Include the following:
  - 1. Shipment
  - 2. Delivery
  - 3. Material packaging
  - 4. 24 hour delivery notice

# V. INSTALLATION

- A. Include the following:
  - 1. Installation of materials
  - 2. Removal of surface paste exposing fine aggregates near the surface of the concrete based on the level desired
  - 3. Adhesives
  - 4. Specialty tools
  - 5. Equipment
  - 6. Primers
  - 7. Sealers
  - 8. Sundry items
  - 9. Material handling and inspection
  - 10. Project management
  - 11. Manufacturer's installation guidelines
  - 12. Any labor related items that are associated with installation
- B. Installation shall not include the following:

- 1. Wall base and trim pieces
- 2. Demo of existing flooring and wall base
- 3. Disposal of existing materials
- 4. Furniture moving
- 5. Moisture mitigation

# VI. STANDARD WORK WEEK

- A. Shall be from 6:00 am 9:00 pm
- B. Monday through Saturday

# VII. Unit Price Chart for Polished Concrete Material and Installation

| <u>Description</u> |                 | <u>Price</u> | <b><u>Unit of Measure</u></b> |
|--------------------|-----------------|--------------|-------------------------------|
| Gloss Attainment   |                 |              |                               |
| (1) Level A        | Low Gloss       | \$           | square foot                   |
| (2) Level B        | Medium Gloss    | \$           | square foot                   |
| (3) Level C        | High Gloss      | \$           | square foot                   |
| Cut Levels         |                 |              |                               |
| (1) Level 1        | Light           | \$           | square foot                   |
| (2) Level 2        | Slightly Deeper | \$           | square foot                   |
| (3) Level 3        | Deep            | \$           | square foot                   |

# **EPOXY FLOORING MATERIAL AND INSTALLATION QUOTE SHEET**

- VII. This must be included with your bid submittal.
- VIII. Price shall include all delivery and storage costs.
  - IX. Price shall include all things necessary for a professional job, including concrete scraping, sanding, bead blasting, etc.
  - X. Substrate is to be on-grade concrete and lightweight concrete.
  - XI. There is a nine (9) square yard minimum purchase requirement.
- XII. The standard work week shall be from 6:00 am 9:00 pm, Monday through Saturday.

| Product Description                               | Unit Price of Material and Installation | <u>Unit</u><br><u>Measurement</u> |
|---|---|-----------------------------------|
| Standard Epoxy Coating Material                   | \$                                      | per square foot                   |
| Standard Epoxy Coating Installation               | \$                                      | per square foot                   |
| Kitchen / Food Prep Epoxy Coating<br>Material     | \$                                      | per square foot                   |
| Kitchen / Food Prep Epoxy Coating<br>Installation | \$                                      | per square foot                   |
| Quick Epoxy Coating Material                      | \$                                      | per square foot                   |
| Quick Epoxy Coating Installation                  | \$                                      | per square foot                   |

# PRICE SCHEDULE – RESILIENT FLOORING MATERIAL AND INSTALLATION

# I. GENERAL

- A. This must be included with your bid submittal. Listed materials have "or equal" clause in all instances.
- B. Materials price must include shipment and delivery costs.
- C. Material and installation price categories may be listed separately.

# II. MINIMUMS

- A. Roll goods have a 65 yard minimum purchase requirement
- B. Tile has a one (1) carton minimum purchase order requirement.

# III. PRICING - MATERIAL

- A. Include the following:
  - 1. Shipment
  - 2. Delivery
  - 3. Material packaging
  - 4. 24 hour delivery notice

# IV. PRICING - INSTALLATION

- A. Include the following:
  - 1. Installation of materials
  - 2. Adhesives
  - 3. Specialty tools
  - 4. Primers
  - 5. Sealers
  - 6. Sundry items
  - 7. Material handling and inspection
  - 8. Project management
  - 9. Manufacturer's installation guidelines
  - 10. Any labor related items that are associated with installation
- B. Installation shall not include the following:
  - 1. Demo of existing flooring and wall base
  - 2. Disposal of existing materials
  - 3. Floor preparation

- 4. Equipment moving
- 5. Furniture moving
- 6. Moisture mitigation

# V. STANDARD WORK WEEK

- A. Shall be from 6:00 am 9:00 pm
- B. Monday through Saturday

# VI. UNIT PRICE CHART FOR SPORTS FLOORING MATERIALS

| <u>Product</u>                                   | Material Type                | Size  | Price of Material Per Unit | <u>Unit</u><br>Measurement |
|--|------------------------------|---|----------------------------|----------------------------|
| Replay <sup>TM</sup> Commotion                   | Multi-functional and         | Sport Rubber Floorin                        | g                          |                            |
| Commotion or equal                               | Sheet Flooring               | 1/4, 4' x 75' rolls                         | \$                         | per square yard            |
|  | Tile                         | <sup>3</sup> / <sub>8</sub> ", 24"x24" tile | \$                         | per carton                 |
|  | Interlocking Tile            | <sup>3</sup> / <sub>8</sub> ", 24"x24" tile | \$                         | per carton                 |
| Training Recreational                            | Sheet Flooring               |   |                            |                            |
| *Training or equal                               | Rolls                        | 5.0 mm, 6'6" x<br>67'                       | \$                         | per square yard            |
| Triumph Multi-Functional and Sports Rubber Tiles |                              |   |                            |                            |
| *Triumph or equal                                | *Square Tile                 | 24"x24"                                     | \$                         | per carton                 |
|  | Interlocking Tile            | 24"x24"                                     | \$                         | per carton                 |
|  | UnderLock Tile™              | 24"x24"                                     | \$                         | per carton                 |
| Inertia <sup>TM</sup> Multi-Funct                | ional and Sports Rubbo       | er Tiles                                    |                            |                            |
| Inertia or equal                                 | Square Tile                  | 24"x24"                                     | \$                         | per carton                 |
|  | Interlocking Tile            | 24"x24"                                     | \$                         | per carton                 |
|  | UnderLock Tile <sup>TM</sup> | 24"x24"                                     | \$                         | per carton                 |
|  | SlideLock <sup>TM</sup> Tile | 24"x24"                                     | \$                         | per carton                 |
| Heat weld seam and re                            | Heat weld seam and rod       |   | \$                         | per linear foot            |
| 6" self cove with cap metal                      |                              | \$  | per linear foot            |                            |

<sup>\*</sup>Indicate the exact price in the Bid Form (Basis of Award).

# VII. Unit Price Chart Sports Flooring Installation

| <u>Product</u>            | Material Type                   | <u>Installation</u><br><u>Unit</u> | Price of Installation Per Unit | <u>Unit</u><br><u>Measurement</u> |
|---------------------------|---------------------------------|------------------------------------|--------------------------------|-----------------------------------|
| Replay <sup>TM</sup> Con  | mmotion Multi-func              | tional and Sport Ru                | bber Flooring                  |                                   |
| Commotion                 | Sheet Flooring                  | Square yard                        | \$                             | per yard                          |
| Or equal                  | Tile                            | Per foot                           | \$                             | per foot                          |
|                           | Interlocking Tile               | Per foot                           | \$                             | per foot                          |
| Training Rec              | reational Sheet Floor           | ring                               |                                |                                   |
| *Training Or equal        | Rolls                           | Square yard                        | \$                             | per yard                          |
| Triumph Mul               | ti-Functional and Sp            | orts Rubber Tiles                  |                                |                                   |
| *Triumph                  | *Square Tile                    | Per foot                           | \$                             | per foot                          |
| Or equal                  | Interlocking Tile               | Per foot                           | \$                             | per foot                          |
|                           | UnderLock<br>Tile <sup>TM</sup> | Per foot                           | \$                             | per foot                          |
| Inertia <sup>TM</sup> Mul | lti-Functional and Sp           | orts Rubber Tiles                  |                                |                                   |
| Inertia                   | Square Tile                     | Per foot                           | \$                             | per foot                          |
| Or equal                  | Interlocking Tile               | Per foot                           | \$                             | per foot                          |
|                           | UnderLock<br>Tile <sup>TM</sup> | Per foot                           | \$                             | per foot                          |
|                           | SlideLock <sup>TM</sup> Tile    | Per foot                           | \$                             | per foot                          |
| Heat weld sea             | am and rod                      |                                    | \$                             | per linear foot                   |
| 6" self cove v            | 6" self cove with cap metal     |                                    | \$                             | per linear foot                   |

<sup>\*</sup>Indicate the exact price in the Bid Form (Basis of Award).

# PRICE SCHEDULE - CARPET CLEANING SERVICE

# I. GENERAL

- A. This must be included with your bid submittal.
- B. Materials price must include shipment and delivery costs.
- C. Material and installation price categories may be listed separately.

# II. REQUIREMENT

A. Invista Corporation is to approve carpet cleaning chemistry.

# III. PRICING - SERVICE

- A. Service includes all necessary items for a completed project.
- B. Price includes all services and chemistry listed in the specifications
- C. Work is to be non-prevailing rates.
- D. Work is to be performed during non-regular hours (shift work).

# IV. STANDARD WORK WEEK

- A. Shall be 6:00 am 9:00 pm
- B. Monday through Saturday
- C. Work is to be performed during non-regular hours (shift work)

# V. Unit Price Chart for Cleaning Service

| Service Description            | Price of Cleaning Service per Unit | Unit Measurement |
|--------------------------------|------------------------------------|------------------|
| Five (5) step cleaning process | \$                                 | per square foot  |
| Above grade areas (additional) | \$                                 | per square foot  |
| Furniture moving               | \$                                 | per manhour      |
| Ozone air cleansing            | \$                                 | per hour         |

# ANCILLARY ITEMS <sup>1</sup> – REMOVAL AND DISPOSAL

- I. This must be included with your bid submittal.
- II. Removal and disposal shall include all associated costs such as trash bags, dumpsters, transportation, tipping fees, etc.
- III. Substrates include lightweight concrete, standard cast in place concrete and wood.
- IV. Recycling process shall follow all legal and local requirements.
- V. All tile and hard surface material, including adhesives, shall be 100% free of any asbestos containing materials.
- VI. The standard work week shall be from 6:00 am 9:00 pm, Monday through Saturday.

| Product Description         | Price of Removal and Disposal per Unit | <b>Unit Measurement</b> |
|-----------------------------|--|-------------------------|
| Existing Flooring Materials | \$                                     | per yard                |
| Latex Backed Carpet         | \$                                     | per yard                |
| Hot Melt Backed Carpet      | \$                                     | per yard                |
| Unitary Backed Carpet       | \$                                     | per yard                |
| Rubber Backed Carpet        | \$                                     | per yard                |
| Vinyl Backed Carpet         | \$                                     | per yard                |
| VCT                         | \$                                     | per linear foot         |
| Sheet Vinyl                 | \$                                     | per yard                |
| Linoleum Vinyl              | \$                                     | per yard                |
| Wood Panel Sub Flooring     | \$                                     | per linear foot         |

# ANCILLARY ITEMS <sup>2</sup> – FURNITURE MOVING, CONTAINERS, FLOOR PREPARATION, AND CONCRETE VAPOR EMISSION RETARDER SEALANT

# I. This must be included with your bid submittal.

- II. Standard work week shall be from 6:00 am 9:00 pm, Monday through Saturday.
- III. Furniture Moving in a Standard Classroom
  - A. 32 student desks
  - B. 1 teacher's desk
  - C. 4 bookcases
  - D. 25 boxes
  - E. 3 rolling cabinets
  - F. No loose items

| <u>Description</u>                         | Price or Amount | <b>Unit Measurement</b> |
|--|-----------------|-------------------------|
| Amount of Man Hours                        |                 | n/a                     |
| Charge per Man Hour                        | \$              | per man hour            |
| Standard Man Hour Rate for Regular<br>Time | \$              | per man hour            |
| Man Hour Rate for Saturday                 | \$              | per man hour            |
| Man Hour Rate for Sunday                   | \$              | per man hour            |

# IV. Furniture Moving in a Modular Classroom

- A. The modular lift is to include carpet tile installation and demo of existing flooring with no loose items.
- B. Cost is per desk section with a minimum of four (4).

| <u>Price</u> | <b>Unit Measurement</b> |
|--------------|-------------------------|
| \$           | per yard                |

# V. Floor Preparation for Carpet in a Standard Classroom

| <u>Description</u>                            | Price or Amount | <b>Unit Measurement</b> |
|---|-----------------|-------------------------|
| 960 square feet of concrete with no anomalies |                 | amount of man hours     |
| 960 square feet of concrete with no anomalies | \$              | per man hour            |
| Standard Man Hour Rate for Regular Time       | \$              | per man hour            |
| Man Hour Rate for Saturday                    | \$              | per man hour            |
| Man Hour Rate for Sunday                      | \$              | per man hour            |

# VI. Floor Preparation for VCT and Sheet Vinyl in a Standard Classroom

| <u>Description</u>                            | Price or Amount | <b>Unit Measurement</b> |
|---|-----------------|-------------------------|
| 960 square feet of concrete with no anomalies |                 | amount of man hours     |
| 960 square feet of concrete with no anomalies | \$              | per man hour            |
| Standard Man Hour Rate for Regular Time       | \$              | per man hour            |
| Man Hour Rate for Saturday                    | \$              | per man hour            |
| Man Hour Rate for Sunday                      | \$              | per man hour            |

# VII. Wood Panel Floor Re-Sheeting, With a Minimum of 320 Square Feet

| <u>Price</u> | <b>Unit Measurement</b> |
|--------------|-------------------------|
| \$           | per foot                |

# VIII. Concrete Vapor Emission and Moisture Proofing

- A. Price shall be based on pounds of vapor emission per 1,000 square feet of concrete.
- B. Price shall represent the cost of material, the application of material, bonding, insurance, and any other necessary items that may not be listed.
- C. If bead blasting is required the price shall reflect that costing.

| <u>Description</u>            | Price or Amount of Material & Labor | <b>Unit Measurement</b> |
|-------------------------------|-------------------------------------|-------------------------|
| 5 – 8 pounds MVER             | \$                                  | per square foot         |
| 8 – 10 pounds MVER            | \$                                  | per square foot         |
| 10 – 12 pounds MVER (Koester) | \$                                  | per square foot         |
| Plastic Protection            | \$                                  | per square yard         |

# IX. Concrete Vapor Emission Chemicals and Application

- A. Contractor will be responsible for the listed items:
  - 1. Warranties
  - 2. Sundries, equipment, applicators, and tools
  - 3. Chemicals, delivery, and disposal
  - 4. Compatibility issues
  - 5. Substrate preparation
  - 6. Bead blasting
  - 7. Protection
  - 8. Plastic coverings
  - 9. Concrete vapor emission testing
- B. Contractor will be responsible for any other related items that may not be listed.

# X. Carpet Manufacturer Approved Carpet Protection

| <u>Description</u> | Price of Application and Disposal | <b>Unit Measurement</b> |
|--------------------|-----------------------------------|-------------------------|
| Paper              | \$                                | per square foot         |
| Plastic            | \$                                | per square foot         |

# ANCILLARY ITEMS <sup>3</sup> – RUBBER FLOORS, STAIR TREADS AND TRIMS QUOTE SHEET

- I. This must be included with your bid submittal.
- II. Minimum installation area shall be 500 square feet.
- III. Installation shall include adhesives, labor, storage, and delivery.
- IV. The standard work week shall be from 6:00 am 9:00 pm, Monday through Saturday.

| Product Description                                   | Price of Material & Installation per Unit | <u>Unit</u><br><u>Measurement</u> |
|---|---|-----------------------------------|
| Mondo Zeus Rubber Floors – $39^{3}/8$ "x $39^{3}/8$ " | \$  | per linear foot                   |
| Mondo Advance 6' Rubber Roll – 8 mm                   | \$  | per linear foot                   |
| Mondo Advance 6' Rubber Roll – 10 mm                  | \$  | per linear foot                   |
| Mondo Ram Flex Weight Room 36"x36" Tile – 10 mm       | \$  | per linear foot                   |
| Mondo Zeus 24"x24" Tile – 3 mm                        | \$  | per linear foot                   |
| Raised Rubber Coin Stair Tread – 4'                   | \$  | per tread                         |
| Raised Rubber Coin Stair Tread – 6'                   | \$  | per tread                         |
| Raised Rubber Coin Stair Tread – 8'                   | \$  | per tread                         |
| 10" Rubber Stringer with a 10' Minimum Purchase       | \$  | per linear foot                   |

# ANCILLARY ITEMS <sup>4</sup> – CARPET MATERIAL INSTALLATION QUOTE SHEET

# I. This must be included with your bid submittal.

- II. The installation price shall include all sundry items necessary to install the flooring material, which includes primers, adhesives, sealers, and welding agents.
- III. The price does not include demolition of existing floor, floor preparation, wall base, etc.
- IV. The standard work week shall be from 6:00 am 9:00 pm, Monday through Saturday.

| Product Description                      | Price of Installation per Unit | <u>Unit</u><br><u>Measurement</u> |
|--|--------------------------------|-----------------------------------|
| Powerbond Cushion RS 6' Roll Goods       | \$                             | per yard                          |
| Powerbond Cushion Dry Back 6' Roll Goods | \$                             | per yard                          |
| ER3 Carpet Tile with RS Backing          | \$                             | per yard                          |
| ER3 Dry Back Carpet Tile                 | \$                             | per yard                          |

# ANCILLARY ITEMS <sup>5</sup> – HAZARDOUS MATERIAL REPORTS AND AS BUILTS

- I. Approximate budget for year 1: \$200,000.00
- II. Approximate budget for year 2: \$200,000.00.
- III. Approximate budget for year 3: \$200,000.00.
- IV. Actual budget for this contract may vary due to budgetary allocations.
- V. As built plans and hazardous material reports are available at the Maintenance and Support Services Office located at 300 Buena Vista, Corona, CA, 92882.
- VI. District contacts for this contract are:

Peace Aneke, Purchasing, 2820 Clark Avenue, Norco, CA, 9286, 951-736-5050 Andrew Sterner, Support Services, 300 Buena Vista, Corona, CA, 92882, 951-736-3316 Ernie Marez, Operations, 300 Buena Vista, Corona, CA, 92882, 951-736-3316

# General Conditions for Contract of Construction



General Conditions Distributed Separately

# WORK ORDER



# SAMPLE WORKORDER

| herein  |  | o thisday of by and between, and CORONA-NORCO UNIFIED SCHOOL ".      |  |  |  |
|---|--|--|--|--|--|
| WITNESSETH: The parties do hereby contract and agree as follows:  |  |  |  |  |  |
| 1.  | complete work at the following District  a.  | (flooring contractor's name) agrees to expedite and tocations:    b. |  |  |  |
| 2.  | Pricing, material usage, and approval v  (contractor) on (date).                       | will be based on the agreed proposals provided by                    |  |  |  |
| 3.  | 3. Services shall commence on (date) and be completed by (date).                       |  |  |  |  |
| 4.  | 4. Hours available to work are as follows: 6:00 am - 9:00 pm, Monday through Saturday. |  |  |  |  |
| 5. District contacts for work under this Agreement: Andrew Sterner, Director, Support Services and Ernie Marez, Supervisor, Support Services. Phone: 951-736-3316 |  |  |  |  |  |
| 6.  | 6. Requirements:   |  |  |  |  |
| Purchase Order to Execute   |  |  |  |  |  |
| 7. Contractor's Warehouse Location (address):   |  |  |  |  |  |
| Acknowledgements to Requirements Above:   |  |  |  |  |  |
|   |  | Corona-Norco Unified School District                                 |  |  |  |
|   | <mark>pany Street Address</mark><br>pany City, State, Zip                              | 2820 Clark Avenue<br>Norco, California, 92860                        |  |  |  |
|   | pany City, State, Zip<br>pany Telephone Number   | Phone (951) 736-3316   |  |  |  |
| _   | pany Fax Number  | Fax (951) 736-7199   |  |  |  |
| By:   |  | By:  |  |  |  |
|   | Signature  | Acknowledged   |  |  |  |
|   |  | District Contact:  |  |  |  |
|   | Printed Name and Title   |  |  |  |  |
| Date  |  | Date   |  |  |  |
|   |  |  |  |  |  |