

# ADDENDUM NO. ONE

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DATE: March 26, 2019  
FROM: Lavin Architects  
TO: Plan Holders of Record  
PROJECT: Toot' N Totum  
31 Hunsley Rd.  
Amarillo, Texas 79015



This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated March 4, 2019. Work not specifically deleted, modified, changed or altered by the Addendum should remain in effect as part of the Contract Documents. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

## IN THE SPECIFICATIONS:

**03354** Bonded Abrasive Polished Concrete Floors – See attached specification.

## ON THE DRAWINGS:

- Sheet A1.1** 1. Note 10 & Note 13: Pipe bollards to be 6" as detailed.
- Sheet A2.1** 1. Crossville glass tile #G060 Dazzle Red – glass box series to be ½ x 6
- Sheet A3.4** 1. Kiosk Floor Plan 12/A3.4: millwork section will be similar to 17/A6.2 18" deep.
- Sheet A6.1** 1. Interior Elevation 15/A6.1: Revise height of sitting area from 3'-4" to 2'-10" and respace supports as shown. See attached sheet.
- Sheet A6.2** 1. Millwork Section 12/A6.2: Revise height of top from 3'-4" to 2'-10". See attached sheet.
- Sheet S2.1** 1. Ridge Beam at entrance will be W12x14 also shown at Details SR12, SR13, & SR15  
2. TS 12x4x1/4 (I) and TS 12x4x1/4 (B) that runs between column C22 and C23 should be TS 12x6x1/4 (I) & TS 12x6x1/4 (B) as shown on details SR14 and SR15.
- Sheet SW3.1** 1. Beam along column line J between column line 2 and column line 5 will be W12x14G also shown in detail LWR 33 & LWR 36.
- Mechanical** 1. See attached 8.5x11 sheet.
- Electrical** 1. See attached 8.5x11 sheet.

END OF ADDENDUM NO. 1

## SECTION 03354 - BONDED ABRASIVE POLISHED CONCRETE FLOORS

### PART 1 – GENERAL

#### 1.1 SUMMARY

- A. Section Includes: Products and procedures for bonded abrasive polished concrete floors using multi-step wet/dry mechanical process, and accessories indicated, specified, or required to complete polishing.

#### 1.2 DEFINITIONS

- A. Terminology: As defined by Concrete Polishing Council(CPC) glossary.
- B. Polished Concrete: The act of changing a concrete floor surface, with or without surface exposure of aggregate, to achieve a specified level of appearance.
- C. Bonded Abrasive Polished Concrete: The multi-step operation of mechanically grinding, honing, and polishing a concrete floor surface with bonded abrasives to cut a concrete floor surface and to refine each cut to the maximum potential to achieve a specified level of appearance as defined by the CPC.

#### 1.3 SUBMITTALS

- A. Product Data: Manufacturer's technical literature for each product indicated, specified, or required. Include manufacturer's technical data, application instructions, and recommendations.
- B. Installer Qualifications: Data for company, principal personnel, experience, and training specified in PART 1 "Quality Assurance" Article.
- C. Maintenance Data: For inclusion in maintenance manual required by Division 01.
  - 1. Include instructions for maintenance of installed work, including methods and frequency recommended for maintaining optimum condition under anticipated use.
  - 2. Include precautions against cleaning products and methods which may be detrimental to finishes and performance.

## 1.4 QUALITY ASSURANCE

### A. Polisher Qualifications:

1. Experience: Company that has successfully completed five projects similar in design, products, and extent to scope of this Project; with a record of successful in-service performance; and with sufficient production capability, facilities, and personnel to produce specified work.
2. Supervision: Maintain a competent supervisor who is at Project during times specified work is in progress, and is currently certified as Craftsman - Level I or higher by CPAA, CPC Craftsman, or equivalent.
3. Manufacturer Qualification: Approved by manufacturer to apply liquid applied products.

### B. Field Mock-up: Before performing work of this Section, provide following field mock-up to verify selections made under submittals and to demonstrate aesthetic effects of polishing. Approval does not constitute approval of deviations from Contract Documents, unless Architect specifically approves deviations in writing.

1. Form, reinforce, and cast concrete slab for 10 foot square field mock-up.
2. Concrete shall be same mix design as scheduled for Project.
3. Placement and finishing work shall be performed by same personnel as will place and finish concrete for Project.
4. Mock-up shall be representative of work to be expected.
5. Perform grinding, honing, and polishing work as scheduled for Project using same personnel as will perform work for Project.
6. Approval is for following aesthetic qualities:
  - a. Compliance with approved submittals.
  - b. Compliance with specified aggregate exposure class.

- c. Compliance with specified appearance level.
  - d. Compliance with specified color.
7. Obtain Architect's approval before starting work on Project.
8. Protect and maintain approved field mock-ups during construction in an undisturbed condition as a standard for judging completed work.
- C. Pre-Installation of Concrete Conference: Prior to placing concrete for areas scheduled for polishing, conduct conference at Project to comply with requirements of applicable Division 01 Sections.
1. Required Attendees:
- a. Owner
  - b. Architect
  - c. Contractor, including supervisor.
  - d. Concrete finisher, including supervisor.
  - e. Concrete polisher, including supervisor.
  - f. Technical representative of liquid applied product manufacturers.
2. Minimum Agenda: Polisher shall demonstrate understanding of work required by reviewing and discussing procedures for, but not limited to, following:
- a. Tour field mock-up and representative areas of required work, discuss and evaluate for compliance with Contract Documents, including substrate conditions, surface preparations, sequence of procedures, and other preparatory work performed by other installers.
  - b. Review Contract Document requirements.

- c. Review approved submittals and field mock-up.
- d. Review procedures, including, but not limited to:
  - i. Applicable Division 03 Section on cast-in-place concrete
    - 1 Specific mix design.
    - 2 Specified curing methods/procedures.
    - 3 Projected 3, 14, and 28 day compressive strength test for finished floor and project phasing.
    - 4 Protection of concrete substrate during construction and prior to polishing process.
    - 5 Project phasing and scheduling for each step of grinding, honing and polishing operations including, but not limited to:
      - 1) Quality of qualified personnel committed to project.
      - 2) Quality and size of grinders committed to project.
      - 3) Proper disposal of concrete slurry and/or concrete dust.
    - 6 Details of each step of grinding, honing, and polishing operations.
      - 1) Application of liquid applied products.
      - 2) Protecting polished concrete floors after polishing work is complete.
- 3. Reports: Record discussions, including decisions and agreements reached, and furnish copy of record to each party attending

## 1.5 FIELD CONDITIONS

- A. Damage and Stain Prevention: It is the responsibility of others to prevent damage and staining of concrete surfaces to be polished.
1. Prohibit use of markers, spray paint, and soapstone.
  2. Prohibit improper application of liquid membrane film forming curing compounds.
  3. Prohibit vehicle parking over concrete surfaces.
  4. Prohibit pipe-cutting operations over concrete surfaces.
  5. Prohibit storage of any items over concrete surfaces for not less than 28 days after concrete placement.
  6. Prohibit ferrous metals storage over concrete surfaces.
  7. Protect from petroleum, oil, hydraulic fluid, or other liquid dripping from equipment working over concrete surfaces.
  8. Protect from acids and acidic detergents contacting concrete surfaces.
  9. Protect from painting activities over concrete surfaces.
- B. Environmental Limitations: Comply with manufacturer's written instructions for substrate temperature, ambient temperature, moisture, ventilation, and other conditions affecting liquid applied product application.

## PART 2 –PRODUCTS

### 2.1 LIQUID APPLIED PRODUCTS

- A. Liquid Densifier: An aqueous solution of silicon dioxide dissolved in one of the following hydroxides that penetrates into the concrete surface and reacts with the calcium hydroxide to provide a permanent chemical reaction that hardens and densifies the wear surface of the cementitious portion of the concrete.

#### 1.Sodium Silicate

2. Potassium Silicate

3. Lithium Silicate

4. Alkali solution of Colloidal Silicates or Silica

## 2.2 ACCESSORIES

- A. Repair Material: A product that is designed to repair cracks and surface imperfections. The specified material must have sufficient bonding capabilities to adhere after the polishing to the concrete surface and provide abrasion resistance equal to or greater than the surrounding concrete substrate.
- B. Grout Material: A thin mortar used for filling spaces. Acceptable products shall be:
1. Epoxy, urethane, polyurea, or polyaspartic resins.
  2. Latex or acrylic binders mixed with cement dust from previous grinding steps.
  3. Silicate binders mixed with cement dust from previous grinding steps.

## 2.3 POLISHING EQUIPMENT

- A. Field Grinding and Polishing Equipment:
1. A multiple head, counter rotating, walk behind or ride on machine, of various size and weights, with diamond tooling affixed to the head for the purpose of grinding concrete. Excludes janitorial maintenance equipment.
  2. If dry grinding, honing, or polishing, use dust extraction equipment with flow rate suitable for dust generated, with squeegee attachments to meet OSHA requirements.
  3. If wet grinding, honing, or polishing, use slurry extraction equipment suitable for slurry removal and containment prior to proper disposal.
- B. Edge Grinding and Polishing Equipment: Hand-held or walk-behind machines which produces the same results, without noticeable differences, as field grinding and polishing equipment.

- C. Burnishing Equipment: High speed walk-behind or ride-on machines capable of generating 1000 to 2000 revolutions per minute and with sufficient head pressure of not less than 20 pounds to raise floor temperature by 20 degrees F.
- D. Diamond Tooling: Abrasive tools that contain industrial grade diamonds within a bonded matrix (such as metallic, resinous, ceramic, etc) that are attached to rotating heads to refine the concrete substrate.
1. Bonded Abrasive: Abrasive medium that is held within a bonding that erodes away to expose new abrasive medium as it is used.
  2. Metal Bond Tooling: Diamond tooling that contains industrial grade diamonds with a metallic bonded matrix that is attached to rotating heads to refine the concrete substrate. These tools are available in levels of soft, medium, and hard metallic matrices that are matched with contrasting concrete substrates (i.e. hard matrix/soft concrete, medium matrix/medium concrete, soft matrix/hard concrete) and are typically used in the grinding and early honing stages of the polishing process.
  3. Resin Bond Tooling: Diamond tooling that contains industrial grade diamonds within a resinous bonded matrix (poly-phenolic, ester-phenolic, and thermoplastic-phenolic) that is attached to rotating heads to refine the concrete substrate. Resin bond tooling does not have the soft/medium/hard characteristics of metal bond tooling and are typically used for the later honing and polishing stages of the polishing process.
  4. Hybrid Tooling: Diamond tooling that combines metal bond and resin bond that has the characteristics of both types of tooling. These types of tools are typically used as either transitional tooling from metal bond tools to resin bond tools or as a first cut tool on smooth concrete surfaces.
  5. Transitional Tooling: Diamond tooling that is used to refine the scratch pattern of metal bond tooling prior to the application of resin bond tooling in an effort to extend the life of resin bond tooling and to create a better foundation for the polishing process.
  6. Abrasive Pad: An abrasive pad, resembling a typical floor maintenance burnishing pad that has the capability of refining the concrete surface on a microscopic level that may or may not contain industrial grade diamonds. These pads are typically used for the maintenance and/or restoration of previously installed polished concrete flooring.

## PART 3 –EXECUTION

### 3.1 EXAMINATION



A. Acceptance of Surfaces and Conditions:

1. Examine substrates to be polished for compliance with requirements and other conditions affecting performance.
  - a. Concrete finished floor flatness according to applicable Division 03 Section on cast-in-place concrete.
  - b. Concrete curing methods according to applicable Division 03 Section on cast-in-place concrete.
  - c. Concrete compressive strength according to applicable Division 03 Section on cast-in-place concrete.

B. Proceed only when unsatisfactory conditions have been corrected in a manner complying with Contract Documents.

C. Starting work within a particular area will be construed as acceptance of surface conditions.

### 3.2 PREPARATION

A. Cleaning New Concrete Surfaces:

1. Prepare and clean concrete surfaces.
2. Provide sound concrete surfaces free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, paint splatter, and other contaminants incompatible with liquid applied products and polishing.

### 3.3 POLISHING CONCRETE FLOORS

A. Perform all polishing procedures to ensure a consistent visual appearance from wall to wall.

B. Initial Grinding:

1. Use grinding equipment with metal or semi-metal bonded tooling.

2. Begin grinding in one direction using sufficient size equipment and diamond tooling to meet specified aggregate exposure class.
3. Make sequential passes with each pass perpendicular to previous pass using finer grit tool with each pass, up to 100 grit metal bonded tooling.
4. Achieve maximum refinement with each pass before proceeding to finer grit tools.
5. Clean floor thoroughly after each pass using dust extraction equipment properly fitted with squeegee attachment or walk behind auto scrubber suitable to remove all visible loose debris and dust.
6. Continue grinding until aggregate surface exposure matches approved field mock-up.

C. Treating Surface Imperfections:

1. Mix patching compound or grout material with dust created by grinding operations, manufacturer's tint, or sand to match color of adjacent concrete surfaces.
2. Fill surface imperfections including, but not limited to, holes, surface damage, small and micro cracks, air holes, pop-outs, and voids with grout to eliminate micro pitting in finished work.
3. Work compound and treatment until color differences between concrete surface and filled surface imperfections, compared to mockup, are not reasonably noticeable when viewed from 20feet away under lighting conditions that will be present after construction.

D. Liquid Densifier Application: Apply undiluted to point of rejection, remove excess liquid, and allow curing according to manufacturer's instructions.

E. Grout Grinding:

1. Use grinding equipment and appropriate grit and bond diamond tooling.
2. Apply grout, forced into the pore structure of the concrete substrate, to fill surface imperfections.

3. Clean floor thoroughly after each pass using dust extraction equipment properly fitted with squeegee attachment or walk behind auto scrubber suitable to remove all visible loose debris and dust.

#### F. Honing:

1. Use grinding equipment with hybrid or resin bonded tooling.
2. Hone concrete in one direction starting with 100 grit tooling and make as many sequential passes as required to remove scratches, each pass perpendicular to previous pass, up to 400 grit tooling reaching maximum refinement with each pass before proceeding to finer grit tooling.
3. Clean floor thoroughly after each pass using dust extraction equipment properly fitted with squeegee attachment or walk behind auto scrubber suitable to remove all visible loose debris and dust.

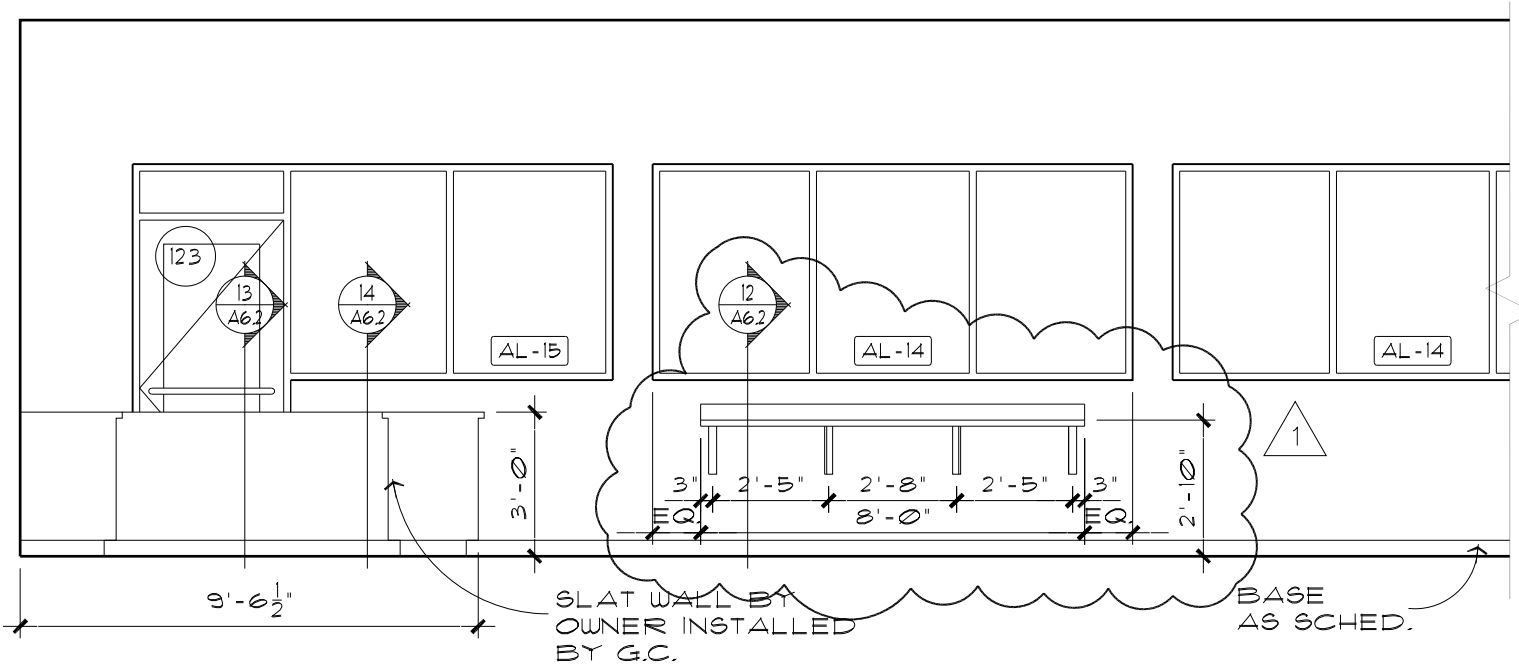
#### G. Polishing:

1. Use polishing equipment with resin-bonded tooling.
2. Begin polishing in one direction starting with 800 grit tooling.
3. Make sequential passes with each pass perpendicular to previous pass using finer grit tooling with each pass until the specified level of appearance has been achieved.
4. Achieve maximum refinement with each pass before proceeding to finer grit pads.
5. Clean floor thoroughly after each pass using dust extraction equipment properly fitted with squeegee attachment or walk behind auto scrubber suitable to remove all visible loose debris and dust.
6. Stain Protection: Uniformly apply and remove excessive liquid according to manufacturer's instructions. Final film thickness should be less than .05 mils after cure.
7. Final Polish: Using burnishing equipment and finest grit abrasive pads, burnish to uniform reflective sheen matching approved field mock-up.

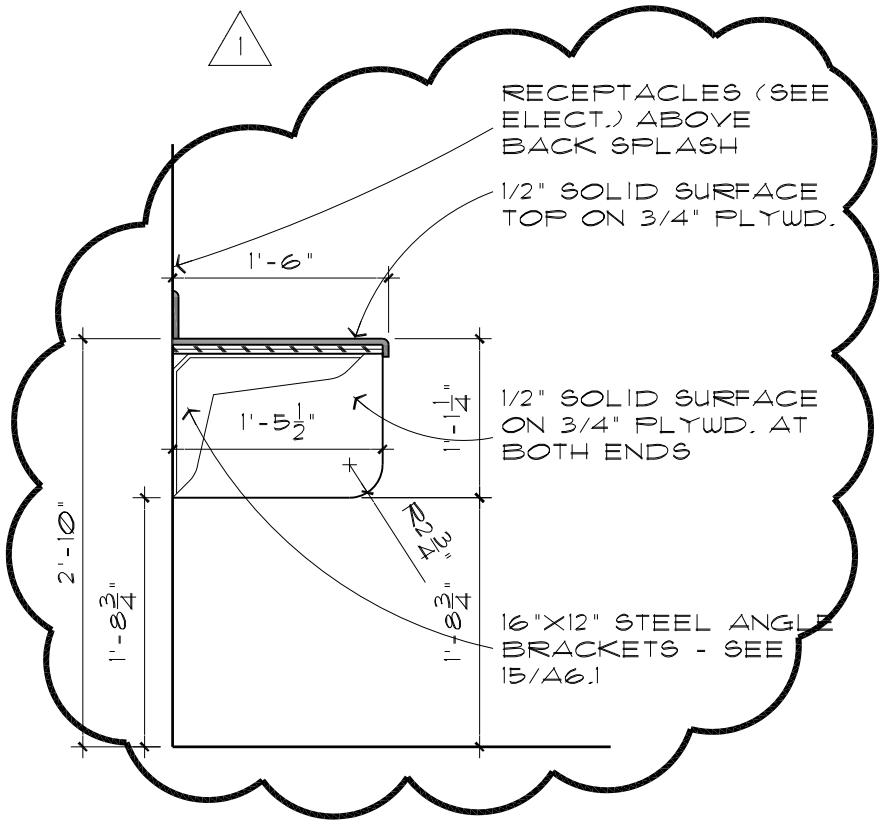
#### H. Final Polished Concrete Floor Finish:

1. Aggregate Exposure Class A – Cement Fines: Surface exposure of 85 to 95% Cement Fines and 5 to 15% fine aggregate on visual observation of the overall area of the polished floor.
  
2. Appearance Level 2 – Satin (Honed):
  - a. Procedure: Recommended not less than 4 steps with full refinement of each diamond tool with one application of densifier.
  
  - b. Measurement: Determine the Image Clarity Value, %, and the Haze Index:
    - 1) Image Clarity Value, %: An average value of 10 to 39 measured in accordance with ASTM D5767 prior to the application of sealers
  
    - 2) Haze Index: An average value less than 10 measured in accordance with ASTM D4039 prior to the application of sealers.
  
    - 3) The minimum number of tests distributed across the polished surface should be three, for areas up to 1000 ft<sup>2</sup> and one additional test for each 1000 ft<sup>2</sup> or fraction thereof. This applies to both the Image Clarity Value and Haze Index.

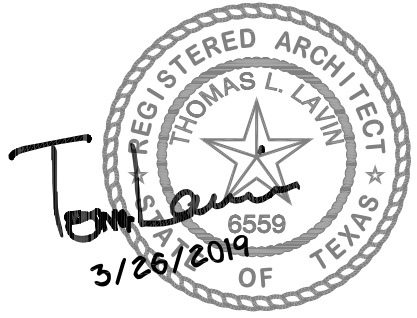
END OF SECTION 03354



**15**  
A6.1 **Elevation**  
WAITING ROOM 120



**12**  
A6.2 **Section**  
SCALE : 3/4" = 1'-0"



	A New Building for		Addendum #1	SHEET
	<h1>Toot 'N Totum</h1> <p>31 Hunsley Road Canyon, Texas</p>		JOB NO. : 2017-25 DATE: 3/26/2019 REVISIONS:	<h1>1</h1>  OF 1

# BROWN CONSULTING ENGINEERS, INC.

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3505 OLSEN • SUITE 110  
AMARILLO, TEXAS 79109

(806) 354-0141  
FAX: (806) 354-0142

March 26, 2019

BCE, Inc. Project #21851

**Memo To:** Ryan Miller, Lavin Associates, Inc.  
Richard Sims, Lavin Associates, Inc.

**From:** Seth A. McClellan, P.E.

**Subject:** A New Building for Toot 'N Totum – Hunsley & Soncy Rd Amarillo, Texas  
Addendum #1

Please forward the following addendum to the contractor for inclusion in the project.

## PLUMBING

Item 1: Specification Section 15410: Add the following paragraph:

### 2.25 SOFT WATER PIPING, ABOVE GRADE

- A. Copper Tubing: ASTM B88, Type L, hard drawn.
  - 1. Fittings: ASME B16.22, wrought copper.
  - 2. Joints: ASTM B32, solder, Grade 95TA.

End of Addendum #1



March 26, 2019  
Texas Registered Engineering Firm  
F-683



P. O. Box 3800  
121 S. Bonham  
Amarillo, TX 79116  
806.372.2904  
fax 806.371.0424  
engineering@spectrumsystem.com

Daniel McCracken, P.E.  
Michael Ferry, Electrical Designer

Ryan Miller  
Lavin Architects  
Amarillo, Tx  
3/26/2019

Re: Toot-N-Totum Addendum #1

Dear Ryan;

Please note the following electrical items for Toot-N-Totum Hunsley Addendum #1:

- Provide lighting, receptacles, data, and mechanical connection in the drive up kiosk. Include:
  - Type DL30 light fixture centered in the ceiling equal to a Metalux 22EN-LD2-30-UNV-CD1-U with an SK-22-WS shallow surface mount kit. Switch with a wall mounted occupancy sensor
  - Change Site Plan Keyed Note #18 feeder to include 3-#10, 3-#12 instead of the 3-#12 shown.
  - Add four (total) duplex receptacles above counter height next to the telescoping doors on each side.
  - Add one data outlet with two drops. Feed the drops from the IT room in the car wash.
  - Use the conduit system shown on the site plan.
  - Add connection and control for a through-the-wall AC unit.
  - Add four Type S3 fixtures on the exterior corner posts on the two sides with the telescoping doors. Control with a photocell.
  - The 3-#10 shall be for the AC unit and the 3-#12 shall be for all lighting and receptacles.
- The Type S3 fixture shall include two Soraa 36 degree snap system beam spreader AC-E-GC-3636-00.
- Provide breakout prices for the light fixture quote and the panel quote. The quote shall be summarized as follows:
  - Price including light fixtures and panels.
  - Panel Quote
  - Light Fixture Quote

Sincerely,

A handwritten signature in blue ink that reads "Daniel G. McCracken".



Spectrum Engineering