



**ROCKFORD BOARD OF EDUCATION  
INVITATION FOR BID ON SUPPLIES, MATERIALS, EQUIPMENT OR SERVICES  
FOR SCHOOL DISTRICT NO. 205  
ROCKFORD, ILLINOIS**

IFB No.        **16-48 Brookview Elementary School Additions and Renovations**

DATE:        **Tuesday, April 12, 2016**

RE:        **ADDENDUM NO. 4**

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To All Bidders:

Attached are modifications, clarifications and/or corrections for the Project Manual and are hereby made a part of the contract documents. Please attach this addendum to the Project Manual(s) in your possession. Please note the receipt of this addendum on the bid form. Bidders shall review changes to all portions of this work as changes to one portion may affect the work of another.

**DATE CHANGE**

**Deadline for Request for information is Thursday April 14, 2016. Last Addendum will be posted on April 15, 2016.**

If you plan to hand deliver your IFB submission on the due date, please note that you must check in on the 3<sup>rd</sup> floor prior to coming to the 6<sup>th</sup> floor. Please allow time for this as late submissions will not be accepted.

Copies of the bidding documents and addendums are available from Onvia DemandStar, by email from the Purchasing Department, BHFX Digital Imaging and Printing, DG Digital Printing, YCS Printing, Inc., or by download from the District's Purchasing Bids-RFPs webpage at [www.rps205.com](http://www.rps205.com).

Refer all questions relative to the business aspect, Instructions to Bidders, Special Conditions, and questions concerning the technical aspect of the documents to the Purchasing Process Manager by email at [tamara.pugh@rps205.com](mailto:tamara.pugh@rps205.com).





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815 / 397-3330

**ADDENDUM NO. 4**

Date: April 12th, 2016

Project: **16-48 Brookview Elementary School Addition Project**

Project Number: IFB No. 16-48

To: All Bidders

This addendum is issued to modify, clarify, or correct the original Project Manual and/or Drawings for Brookview Elementary School Addition Project and is hereby made a part of the contract documents. Please attach this addendum to the Project Manual(s) in your possession. Please note the receipt of this addendum on the bid form. Bidders shall review changes to all portions of this work as changes to one portion may affect the work of another.

**Changes to the Project Manual for Brookview Elementary School New Gymnasium, Kitchen & Lift.**

Section 075423 TPO; Part 2 - 2.4 Insulation Accessories

Items D. & E Cover Board Options; 1/4 inch thick at roofing application and 5/8" thick at all parapet application.

Section 083325 Overhead Coiling Grill Part 2 - 2.6 Open Curtain Grill Assembly

Items E Hood Stainless steel

2. To Read as follows: Mounting "Between jambs in lieu of Face of wall

**S2O**

**S2O Consultants Inc. Brookview Kitchen Consultants**

Section 11400 Food Service Equipment

Refer to S2O specification section addressing Item #32 Dated 04-12-2016.

## **Changes to the Project Construction Documents for Brookview Elementary School New Gymnasium, Kitchen & Lift Addendum #3**

1. Sheet A1.0. Roof Plans

Key notes 1, 2 and 3 Adjusted to read 1/4" cover board in lieu of 5/8" as indicated on plans

2. Sheet A1.1.3 South Lift Plans

Omit Floor Plan Key Notes 4 through 13 and Ceiling plan key notes C1 completely

3. Sheet A2.1.1 Door & Frame Schedule

Door No. 124A Revised to Read as Follows; 5'-2" x 14'-8" In lieu of what is shown.

3. Sheet A3.3.0 & A3.3.1

a) Detail 3 Soffit construction To read as GWB in lieu of glass mat sheathing as noted on soffit detail

b) Detail 3 Roofing cover board revised to Read 1/4" in lieu of 5/8" All parapets cover board material to stay at 5/8" thick

4. Sheet A3.3.2, A3.3.3, A3.3.4, A3.3.5, A3.3.6 & A3.3.7

a) Detail 2 Roofing cover board revised to Read 1/4" in lieu of 5/8". All parapets cover board material to stay at 5/8" thick

5. Sheet A3.4.1 Kitchen Coiling Grill Unit, Detail 4, 5 & 6

a) Detail 4 Revised to be ***"Jamb to Jamb"*** installation in lieu of wall mounted.

b) Detail 5 Revised, coordinated with coiling grill supplier for jamb anchoring and material.

c) Detail 6 Kitchen Sill - Refer to Kitchen consultant drawings FS101SC front counter detail.

6. Sheet A8.1.1 Room Finish Schedule

Remark Note 10: Revised to Read as follows- ***"All exposed structure framing including Sound Decking to be painted"*** ( Refer to painting specification)

**BN- RFI Submitted through RPS Purchasing Process Manager  
Continuation from BN-RFI:4**

**BN-RFI: 05 - Specification & Construction Drawing:  
REQUEST:**

- The interior stud framing spec, 092216, calls for minimum stud thickness to be .033. This is an exterior gauge. Do you want .030 for the interior framing?
- Details 3 on A3.3.4 and 2 on A3.3.5 and similar to these show dens deck prime over foam board. How is this attached? There is not framing shown here.
- Detail 3 on A3.3.1, specifically the interior soffit, shows studs, air barrier, then Drywall. Another note referencing the same thing calls for glass mat sheathing. Please clarify soffit construction.
- A 1.1.3, south lift plan, note 5, calls out 7" steel studs and drywall 2 sides to roof deck above. Can't seem to find a note 5. Is there any drywall work associated with this area?

## RESPONSE:

1. Interior soffit framing to be 28ga. Refer to Addendum #2 for steel stud framing around toilets and office rooms in this area.
2. This area would fall under the scope of work for roofing sub-contractor.
3. Sheet A3.3.0 & A3.3.1 detail 3 To read as GWB in lieu of glass mat sheathing as noted on this detail
4. Sheet A1.1.3 Notes 4 through 13 and ceiling plan key note C1 have been omitted from the scope of work completely in this area

## **BN-RFI: 06 - Specification & Construction Drawings**

1. The drawings are not clear regarding vertical reinforcement in non-load bearing masonry walls. Details 7, 14, & 15 on S3.0 state to see plan for vertical wall reinforcement. Please clarify.
2. Detail 1 on S4.0 calls for #6 bars at openings. Keynote 8 on S2.0 calls for #5 bars at openings. General note 13 on A2.1.2 calls for #4 bar at door jambs. Please clarify which is to be used.
3. Masonry note 8 on drawing S1.1 calls for a bond beam at the top of all walls. Is this required for non-load bearing walls?
4. Regarding the Coiling door/grille:
  - a. The spec section 083326 call for a coiling grille, but the elevation on the door schedule shows a rolling door, not grille. Please clarify this.
  - b. On drawing A1.0.2 the opening appears to be dimensioned at 14'-8" wide, but the door schedule on A2.1.1 dimensions 9'-0" wide.
  - c. On drawing A3.2.1 the opening height is 5'-2" but 5'-4" on the door schedule, please clarify.

## RESPONSE:

1. Items 1, 2 & 3 Refer to Missman. Inc. letter addressing these items; dated 04-05-2016.
4. Specification Section 083326.
  - a. Unit to be a coiling grill in lieu of rolling door unit as shown on door schedule
  - b. Wall opening to be 14'-8" in lieu of what is shown on door schedule of 9'-0"
  - c. Coiling grill unit to be 5'-2" as noted on building section in lieu of 5'-4" as called for on door schedule. Note Steel lintel ELEV. adjusted to 9'-4" AFF. (Coordinated with grill supplier for final lintel ELEV.)

- d. Provide stainless steel fascia cover for coiling unit exposed to view by jamb to jamb installation.
- e. Mounting location revised to be "Between Jambs" in lieu of Face of wall

**BN-RFI: 07 - Civil Construction Drawings**  
REQUEST

I am seeing 7 bollards (please verify this) also, are they stainless or mild steel. There are 2 different details of the bollards and not sure which one is needed?

There is a spec calling out railings, I am not seeing any. Are there any railings for this job??

**RESPONSE:**

1. Refer to ARC Design letter addressing these items dated 04-11-2016 for Addendum #3
2. The only interior railing for this project are located on sheet A1.1.3 detail 3 and 4 and South Lift Plan (1) as follows.
  - a) Sheet A1.1.3 Omit key notes 4 through 13 and Ceiling plan key notes C1 completely
  - b) Provide new upper guard rails on both existing brick veneer knee walls (As noted for demo on sheet D1.2.0 Key note (1) & as shown on detail 1, 3 & 4 of sheet A1.1.3
  - c) (1) South Stairway Section - Provide new handrail on existing brick veneer wall line opposite the stair lift layout A1.1.3
  - d) Note stair lift hand rail provided by stair lift provider for this side only, refer to sheet S2.0 Lift 'A' Foundation plan and detail 1/S3.1 for additional supports this side only (Coordinated between both sub-contractors)

**BN-RFI: 08 - Construction Drawings**

I am looking at the plans and there is a discrepancy in the width of the coiling grille in the kitchen area. The plan calls for the width of door number 124A to be 14'-8", but the door schedule is calling it 9' wide? Please clarify.

**RESPONSE:**

Refer to BN-RFI: 06 which addressed this item

**BN-RFI: 09 - Construction Drawings Clarification**

01) Which type of insulation do we use on this project, 3" Extruded-Polystyrene Board ASTM C58 Type IV or 3" Polyisocyanurate?

**RESPONSE:**

Refer to BN-RFI: 09 For all building wall sections - Interior board insulation to Read as follows Extruded-Polystyrene Board in lieu of Polyisocyanurate as noted on drawing

## **BN-RFI: 10 - Specification Clarification**

Is the AISC certification going to be requirement for the steel fabricator?

### **RESPONSE:**

Refer to BN-RFI: 01 which addressed this item

## **BN- Product Substitution Request through RPS Purchasing Process Manager**

### **BN- Substitution Request : 01, 02 & 03**

### **RESPONSE:**

**Substitution Request Reviewed ( Verify product material meets requirements and is approved by TPO roofing mfg. (See attached SCI forms)**

### **BN- Substitution Request : 04 - Section 23 83 10 – Heat Pump Heat Recovery System**

### **RESPONSE:**

**OSA, LLC**

**Engineering Services / Building Commissioning/ LEED Consultants  
MEP Consultant**

Refer to attached specification reference section from OAS dated 04-12-2016 - Addressing substitution request

### **See the following attachments**

- a) Refer to S2O Specification. section addressing Item #32 Dated 04-12-2016.
- b) RFI #6 Missman letter dated 04-05-2016.
- c) RFI #7 Arch Design letter and plans dated 04-11-2016
- d) Hagney Approved CSI 13.1 Substitution Request Form 01,02 & 03
- e) OSA letter Approved Substitution Request dated 04-12-201

End of Addendum #4

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SECTION 114000 – FOODSERVICE EQUIPMENT

**PART 1 – GENERAL**

**1.1 WORK INCLUDES**

- A. The work referred to in this section consists of furnishing all labor and material required to provide and deliver all equipment hereinafter specified into the building, uncrate, assemble, hang, set in place, level, and completely install, exclusive of final utility connections.
- B. Coordinate but do not install (unless specifically directed to do so in the technical specifications) Owner and Vendor-supplied equipment noted on the drawings or in the specifications as NIKEC. Show on roughing in plans the sizes, utilities, and other requirements as furnished in the Specifications, by Owner or appropriate supplier in submittals as if the equipment is contractor furnished.
- C. Coordinate and show sizes, utilities, and other requirements as determined by physical inspection for equipment noted as existing to be reused. Include costs for marking, removing, storing, cleaning, redelivering and installing such equipment. All requirements within the project manual apply to reused equipment except warranty as if contractor furnished including but not limited to code compliance and accessories necessary to conform with the new application.

**1.2 SUBMITTALS**

- A. Upon award of Contract, furnish the Architect with reproducible copies of the following drawings, in accordance with the approved project schedule, which shall be made on sheets equal in size and matching the bid set drawing size. Reproduced copies of bid documents will not be accepted for this purpose in any fashion.
  - 1. Equipment specified for fabrication shall be detailed and fully dimensioned to a minimum scale of 3/4" = 1'-0" (1:20) for plan and elevation views and 1-1/2" = 1'-0" (1:10) for sections.
  - 2. Prepare separate electrical and mechanical dimensioned rough-in drawings at 1/4" = 1'-0" (1:50) showing exact point of penetration of floors, walls, and ceilings for all services required to operate the equipment that the Contractor shall furnish, including the requirements for Contractor supplied and installed refrigerant and beverage piping line runs. These drawings shall also show exact locations of final connections to equipment. Indicate floor drains, floor sinks, receptacles, lights, and other special conditions related to the equipment known to the Contractor but provided under other Sections.
  - 3. Dimensioned drawings shall be submitted showing the location and size of all bases, depressions, grease interceptors, special height walls, openings in walls for equipment or operations, and critical dimensions, etc. Drawings shall be drawn to a scale of not less than 1/4" = 1'-0" (1:50).
- B. Manufacturers' Data: Upon award of Contract, submit bound copies of Manufacturers' Illustrations and Technical Data to the Architect for review prior to procurement. Items of Standard Manufacture shall be submitted, including items purchased to be built into fabricated equipment. Each illustration shall be marked to describe accurately the item to be furnished as specified, including voltage, phase, load, accessories, etc.



- C. Manufacturers' List: Submit in writing a list of all manufacturers' representatives of the foodservice equipment, such as convection ovens, ranges, etc., and their authorized service agencies' addresses and telephone numbers.
- D. Foundation Data: Data and drawings shall be submitted for each item, if any, requiring special foundations, structures, or supports. Such foundations, structures, or supports will be provided and installed by other appropriate trades in accordance with the drawings and specifications which shall be provided by the Contractor and reviewed by the Architect.
- E. Operation and Maintenance Manuals: Provide three bound copies of operation, maintenance, and parts manuals for all equipment items of standard manufacture including standard component assemblies built into all custom-fabricated items.
- F. Review by the Architect of the drawings and brochures submitted by the Contractor does not waive the responsibility of the Contractor to furnish each item of equipment in complete compliance with the specifications and contract drawings.
- G. The number of copies of all submittals shall be as determined by the Architect.
- H. Samples: Samples of materials, products, and fabrication methods shall be submitted for review at no additional cost, before proceeding with the work.

### **1.3 QUALITY ASSURANCE**

- A. Standard Products: Materials, products, and equipment furnished under this contract shall be the standard items of manufacturers regularly engaged in the production of such materials, products, and equipment and shall be of the manufacturers' latest design that complies with the specifications.
- B. Manufacturers' Qualifications: Manufacturers shall be regularly engaged in the production of the items furnished and shall have demonstrated the capability to furnish similar equipment that performs the functions specified or indicated herein.
- C. Installation Qualifications: Contractor shall use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work defined in this Section.
- D. Coordination of Work: Coordinate work with the respective trades performing preparatory work for installation of equipment under this Contract, including, but not limited to: construction of pits, trenches, receptors; rough-in of supply, waste and vent piping; electrical connections; and field verification of dimensions.
- E. Product Options: Drawings indicate foodservice equipment based upon equipment specified herein. All substitutions shall be in compliance with the requirements in Division 1 (or Section I if appropriate.).
- F. Conflict: Where written specifications and drawings conflict or appear to conflict, request clarification. Prior to receiving clarification use the greater quality or greater quantity.

### **1.4 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver foodservice equipment in containers designed to protect equipment and finish until final installation. Make arrangements to receive equipment at project site at a time and place agreed with the General Contractor. If the site is not ready for delivery, then either delay delivery or arrange to hold in a secure and protected warehouse until delivery can be made to job site.

- B. Store foodservice equipment in original containers and in location to provide adequate protection to equipment while not interfering with other construction operations. Coordinate with other trades so that worktables, serving counters and equipment are not used for scaffolding or as workbenches.
- C. Handle foodservice equipment carefully to avoid damage to components, enclosures, and finish. Do not install damaged foodservice equipment; replace and return damaged components to equipment manufacturer.

## **1.5 APPLICABLE CODES AND STANDARDS**

- A. Except as otherwise indicated, each item of equipment shall comply with the latest current edition of the following standards as applicable to the manufacture, fabrication, and installation of the work in this section. Comply with all Federal, State, and Municipal regulations and notifications which bear on the execution of this work. Call to the attention of the Owner in writing any design conflict with the requirements of the Americans with Disabilities Act (ADA) during Bid Process so resolution can be effected prior to Contract Award.
  - 1. NSF Standards: Comply with applicable National Sanitation Foundation standards and criteria and provide NSF "Seal of Approval" on each manufactured item and on major items of custom-fabricated work.
  - 2. UL / ETL / CSA Standards: For electrical components and assemblies, provide either UL / ETL / CSA listed products or, where no listing service is available, provide a complete index of the components used as selected from the UL / ETL / CSA "Recognized Component Index." For fire extinguishing systems comply with UL 300.
  - 3. ANSI Standards: Comply with applicable ANSI standards for electric-powered and gas-burning equipment; for piping to compressed-gas cylinders; and for plumbing fittings, including vacuum breakers and air gaps, to prevent siphonage in water piping.
  - 4. AGA / CGA: All gas-fired equipment shall be AGA / CGA approved, equipped to operate on the type gas available at the job site, and shall contain 100% automatic safety shut-off devices.
  - 5. NFPA Standards: Comply with NFPA Bulletin 96 for exhaust systems; with NFPA Bulletins 13, 17, 17A and 96 for fire extinguishing systems; and with NFPA 54, National Fuel Gas Code and NFPA 70, National Electrical Code.
  - 6. ASME Code: Comply with ASME boiler code requirements for steam-generating and steam-heated equipment; provide ASME inspection, stamps, and certification of registration with National Board.
  - 7. SMACNA Guidelines: Provide seismic restraints for food service equipment to comply with the Sheet Metal and Air Conditioning Contractors National Association's (SMACNA) "Kitchen Equipment Fabrication Guidelines", appendix 1, "Guidelines for Seismic Restraints of Kitchen Equipment", unless otherwise indicated.
  - 8. ASHRAE: Provide mechanical refrigeration systems complying with the American Society of Heating, Refrigerating and Air Conditioning Engineers' ASHRAE 15, "Safety Code for Mechanical Refrigeration".

## **1.6 PROJECT CONDITIONS**

- A. Visit the job site to field check actual wall dimensions and roughing-in and be responsible for furnishing, fabricating, and installing the equipment in accordance with the available space and utility services as they exist on the job site for an accurate fit.

- B. Check all door openings, passageways, elevators, etc., to be sure that the equipment can be conveyed to its proper location within the building and, if necessary, check with the Contractor regarding the possibility of holding wall erection, placement of doorjamb, windows, etc., for the purpose of moving the equipment to its proper location. Any removal and rebuilding of walls, partitions, doorjamb, etc., necessary to place the equipment or, if caused by incorrect information on the Contractor's drawings, shall be done at the expense of the Contractor.
- C. Physically check the location and utility size of all "rough-ins" at the job site for compatibility with the equipment being installed before finished floors, walls, and/or ceilings are in place.
- D. Check electrical characteristics and water, steam, and gas pressure. Provide pressure-regulating valves where required for proper operation of equipment.

## 1.7 GUARANTIES AND WARRANTIES

- A. Self-contained or remote refrigeration systems furnished under this Contract shall be provided with start-up and a one-year service contract providing free service, 24 hours per day, seven days per week, including parts and labor. Hermetic or semi-hermetic compressors shall be covered by the manufacturers' factory warranty for an additional four years. Other equipment provided shall include a one-year warranty covering parts and labor, plus any extended warranties as normally provided by individual manufacturers. Equipment including refrigeration systems both self-contained and remote shall be warrantied by the Contractor on the project for one year as indicated in the preceding sentence. The first day of the first year commences upon the issuance of a certificate of occupancy for each area.

## PART 2 - PRODUCTS

### 2.1 GENERAL

- A. The equipment and its component parts shall be new and unused. All items of standard manufactured equipment shall be current models at the time of delivery. Parts subject to wear, breakage, or distortion shall be accessible for adjustment, replacement, and repair.
- B. Means shall be provided to ensure adequate lubrication for moving parts. Oil holes, grease fittings, and filler caps shall be accessible without the use of tools.
- C. The design of the equipment shall be such as to provide for safe and convenient operation. Covers or other safety devices shall be provided for all items of equipment presenting safety hazards. Such guards or safety devices shall not present substantial interference to the operation of the equipment. Guards shall provide easy access to guarded parts.
- D. Trim shall not be an acceptable substitute for accuracy and neatness. When trim is required and accepted by Architect in lieu of rejection of items of equipment, it shall be the Contractor's responsibility to provide same at no additional cost.
- E. Unless otherwise specified herein, no material lighter than #20 gauge shall be incorporated into the work. Gauges for sheet iron and sheet steel shall be U.S. Standard Gauges and finished equipment gauge thickness shall not vary more than 5% plus or minus from the thickness indicated below.

<u>GAUGE</u>	<u>THICKNESS</u>	<u>GAUGE</u>	<u>THICKNESS</u>
#10	0.1406" (3.0mm)	#16	0.0625" (1.6mm)
#12	0.1094" (2.5mm)	#18	0.0500" (1.25mm)
#14	0.0781" (2.0mm)	#20	0.0375" (1.0mm)

- F. Materials or work described in words which have a well-known and accepted technical or trade meaning shall be held to refer to such accepted meanings.

## **2.2 MATERIALS**

- A. Submit a certified copy of the mill analysis of materials if requested by the Architect.
- B. Stainless steel sheets shall conform to American Society for Testing and Materials (ASTM) specification A240, Type 304 Condition A, 18-8, having a No. 4 finish. A No. 2B finish shall be acceptable on surfaces of equipment not exposed to view. Sheets shall be uniform throughout in color, finish, and appearance.
- C. Stainless steel tubing and pipe shall be Type 304, 18-8, having a No. 4 finish, and shall conform to either ASTM A213 if seamless or ASTM A249 if welded.
- D. Rolled shapes shall be of the cold-rolled type conforming to ASTM A36.
- E. Galvanized sheet steel shall conform to ASTM A526; where extensive forming to take place, conform to ASTM A527; conform to ASTM A525, coating designation G115, chemical treatment.
- F. Galvanized steel sheets shall be cold-rolled, stretcher leveled, bonderized, and rerolled to ensure a smooth surface.
- G. Castings shall be corrosion-resisting metal containing not less than 30% nickel. Castings shall be rough ground, polished, and buffed to bright luster and free from pit marks, runs, checks, burrs, and other imperfections. In lieu of corrosion-resisting metal castings, die-stamped or cast 18-8 stainless steel will be acceptable.
- H. Millwork materials shall be free from defects impairing strength, durability, or appearance; straight and free from warpage; and of the best grade for their particular function. Wood shall be well seasoned and kiln dried and shall have an average moisture content of 8%, a maximum of 10%, and a minimum of 5%.
1. Plywood and other woodwork of treatable species, where so required by the code, shall be fire-retardant treated to result in a flame spread rating of 25 or less with no evidence of significant progressive combustion when tested for 30 minutes duration under ASTM E84 and shall bear the testing laboratory mark on a surface to be concealed.
  2. Concealed softwood or hardwood lumber shall be of poplar, Douglas fir, basswood, red oak, birch, maple, beech, or other stable wood and shall be select or better grade, unselected for color and grain, surfaced four sides, square-edged, and straight. Basswood may be used where fire-retardant treated materials are required.
  3. Plywood for transparent finish shall conform to U.S. Product Standard PS-51-71, Type I (fully waterproofed bond), with architectural grade face veneers of species as specified, free of all pin knots, patches, color streaks and spots, sapwood, and other defects. Plywood designated to have plywood cores shall be of either 5 ply or 7 ply construction. Plywood so designated on the drawings and plywood not otherwise shown shall have a particle board core, cross banding of veneers, and face and back veneers. Particle board cores shall have a 45-pound density, except where the fire retardant treatment requires cores of lesser density.
  4. Face veneers shall be matched for color and grain to produce balance and continuity of character. Mineral streaks and other discolorations, worm holes, ruptured grain, loose texture, doze, or shake will not be permitted. Face veneer leaves on each surface shall be full-length, book matched, center matched, and sequence matched. Surfaces shall be sequenced and blueprint matched. Veneers not otherwise indicated shall be plain sliced. Backing veneers for concealed surfaces shall be of a species and thickness to balance the pull of the face veneers.

5. Hardwood plywood for painted surfaces shall conform to U.S. Product Standard PS-51-71, Type I, and shall have sound birch, maple, or other approved close grain hardwood faces suitable for a paint finish.
6. Perforated hardboard shall be a tempered hardboard, 1/4" (6 mm) thick, conforming to Federal Specification LLL-B-810B, Type I, SIS, Finish B (primed), Design B (perforated), with 1/4" (6 mm) diameter holes spaced on 1" (25 mm) centers both ways.
7. Plastic laminate surfaces shall be laminated with thermosetting decorative sheets of the color, pattern, and style as selected by the Architect. Horizontal surfaces shall be laminated with sheets conforming to Federal Specification L-P-508F, Style D, Type I (general purpose), Grade HP, Class 1, 1/16" (2 mm) thick, satin finish, with rough sanded backs. Vertical surfaces shall be laminated with sheets conforming to Federal Specification L-P-598F, Style D, Type II, (vertical surface), Grade HP, Class 1, non-forming, satin finish, 1/32" (1 mm) thick or heavier. Surfacing for curved surfaces shall be laminated from sheets conforming to Federal Specification L-P-508F, Style D, Type III (post-forming), Grade HP, Class 1, satin finish. Balance sheets for backs in concealed locations shall be either reject material of the same type and thickness as the general purpose grade facing or may be .020" (0.5 mm) thick laminate backing sheets conforming to Federal Specification L-P-00508E, Style ND, Type V (backing sheet), Grade HP.
8. Adhesive for application of plastic laminate to wood substrates of counter tops shall be a phenolic, resorcinol, or melamine adhesive conforming to Federal Specification MMM-A-181C and producing a waterproof bond. Adhesive for applying plastic laminate to vertical surfaces shall be either a waterproof type or a water resistant type such as a modified urea-formaldehyde resin liquid glue conforming to Federal Specification MMM-A-188C. Contact adhesive will not be acceptable.
9. Plywood for laminate assemblies shown or specified with plywood core shall be of the 5 or 7 ply construction with sanded close-grain hardwood face and back veneers, laminated with waterproof glue, in thickness shown, conforming to U.S. Product Standard PS-51-71. Particle board for plastic laminate assemblies shown or specified with particle board wood core shall conform to U.S. Products Standard CS-236-66, Type 1 or 2, Grade B (45 pound density), Class 2; except where fire-retardant treatment is required, the density shall conform to the treatment requirements.
- I. Sealant: ASTM C 920; type S, Grade NS, Class 25, use, NT. Provide elastomeric sealant, NSF certified for end use application indicated. Provide sealant that, when cured and washed, meeting requirements of Food and Drug Administration's 21 CFR, Section 177.2600 for use in areas that come in contact with food. Dow-Corning #780 or General Electric "Silastic" or approved equal in either clear or approved color to match surrounding surfaces and applied in accordance with sealant manufacturers' recommendations for smooth, sealed finish.
- J. Tempered Glass: ASTM C 1048, Kind FT (fully tempered), Condition A (uncoated surfaces), Type I (transparent), Class 1 (clear), Quality q3 (glazing select). Provide products complying with ANSI Z97.1, manufactured by horizontal (roller hearth) process and 1/4" (6 mm) thick, unless otherwise indicated. Provide exposed safety edges, if any, seamed before tempering.
- K. Sound Dampening: NSF-certified, nonabsorbant, hard-drying, sound deadening coating. Provide coating compounded for permanent adhesion to metal in 1/8" (3 mm) thickness that does not chip, flake, or blister.

## 2.3 FINISHES

- A. Paint and coatings shall be of an NSF approved type suitable for use in conjunction with foodservice equipment. Such paint or coating shall be durable, non-toxic, non-dusting, non-flaking, and mildew

resistant; shall comply with all governing regulations; and shall be applied in accordance with the recommendations of the manufacturer.

- B. Exterior, galvanized parts, exposed members of framework, and wrought steel pipe where specified to be painted shall be cleaned, properly primed with rust-inhibiting primer, degreased, and finished with two (2) coats of epoxy-based grey hammertone paint, unless otherwise specified.
- C. Stainless steel, where exposed, shall be polished to a #4 commercial finish. Where unexposed, finish shall be #2B. The grain of polishing shall run in the same direction wherever possible. Where surfaces are disturbed by the fabricating process, such surfaces shall be finished to match adjacent undisturbed surfaces.
- D. Galvanized shelving shall not be painted.
- E. Fabricated equipment shall be spray coated with plastic suitable for protecting the equipment during transport and installation. The coating shall be easily removable and shall be removed after the equipment installation is complete at the work site or, alternatively, when directed by the Architect.
- F. Exposed surfaces on brass, bronze, or steel shall be plated with chromium over nickel in accordance with Federal Specifications WW-P-541, Paragraph 9.5 and Table 9.4, unless otherwise specified.

## **2.4 ELECTRICAL AND MECHANICAL REQUIREMENTS**

- A. Standard UL / ETL / CSA listed materials, devices, and components shall be selected and installed in accordance with NEMA Standards and recommendations and as required for safe and efficient use and operation of the foodservice equipment without objectionable noise, vibration, and sanitation problems.
  - 1. Provide recognized commercial grade signals, "on-off" pushbuttons or switches, and other speed and temperature controls as required for operation of each item, complete with pilot lights and permanent engraved, plastic laminate signs and graphics identifying each item. Provide stainless steel cover plates at controls and signals.
  - 2. Each item requiring electrical power shall be equipped with either a terminal box for permanent connection or with cord and plug for interruptible connection, as indicated. Provide NEMA standard grounding type plugs, where used.
  - 3. Furnish foodservice equipment completely wired internally using wire and conduit suitable for a wet location, including a separate grounding wire. Provide electrical outlets and receptacles required to be mounted on or in fabricated equipment and interconnect to a suitable terminal box (subpanel, starter, or disconnect switch if so specified) with all wires neatly tagged showing item number, voltage characteristics, and load information.
  - 4. Receptacles for all wall- and floor-mounted outlets will be provided to be used for plug-in equipment with characteristics as noted on the drawings. Provide Hubbell three-wire or four-wire grounding-type connectors and neoprene cords installed on each item of plug-in equipment to match receptacles provided.
  - 5. Electrically heated equipment shall be internally wired to a thermostatic control and an "on-off" red neon light indicator, which shall be mounted in a terminal box on a removable stainless steel access panel.
  - 6. Only rigid steel zinc-coated conduit shall be used, painted to match adjacent surfaces where exposed. Wiring shall be run concealed wherever possible.
  - 7. Provide on, or for, each motor-driven appliance or electrical heating or control unit, a suitable control switch or starter of the proper type and rating.

8. Appliances shall be furnished complete with motors, driving mechanism, starters, and controllers, including but not limited to, master switches, timers, cut-outs, reversing mechanism, and other electrical equipment if and as applicable. Wiring and connection diagrams shall be furnished with electrically operated machines and for electrically wired fabricated equipment.
  9. Appliances shall be of rigid construction, free from objectionable vibration. Quietness of operation of all foodservice equipment is a requirement. Remove or repair any equipment producing objectionable noise and/or vibration as directed by the Architect.
  10. Motors shall be of the drip-proof, splash-proof, or totally enclosed type, having a continuous duty cycle and ball bearings, except small timing motors which may have sleeve bearings. Motors shall have windings impregnated to resist moisture. Motors located where subject to deposits of dust, lint, or other similar matter from the machine on which installed shall be of the totally enclosed type. Motors shall have ample power to operate the machines for which designated under full load operating conditions without exceeding their nameplate ratings. Horsepower requirements on driven equipment shall be determined by the manufacturer based on normal operation at maximum capacity. The nominal rated motor horsepower shall be not less than the horsepower required for normal operation of the equipment at maximum capacity. Insulation shall be NEMA Class B, or better.
  11. Cover plates shall be furnished and installed for all electrical outlets, receptacles, switches, etc., to match the material and finish of the equipment to which they will be fastened.
  12. Switches, controls, etc., shall be conspicuously labeled as to use with plastic nameplates secured to the adjacent surface as previously specified in Article 2.01-C. Submit a sample for approval if requested by Architect.
  13. Where specified for custom fabricated equipment, provide compartment with electrical sub-panel which shall be pre-wired in conduit concealed in cabinet body construction and connected to all electrical components built into or set upon the counter. Electrical sub-panel shall be UL / ETL / CSA listed, 3-phase, 4-wire circuit breaker type with a ground buss main breaker and individual breakers for each serviced load. Buss shall be copper and the circuit breakers shall be the molded case, bolt-on type with thermomagnetic quick-make, quick-break trip. Multi-pole circuit breakers shall have an internal trip bar. The circuit breakers shall have an interrupting capacity of 10,000 amperes at 120 volts sized for 125% of the connected load and a minimum of two (2) extra, single pole, 20 amp circuit breakers shall be provided. The loads shall be connected through the breakers in a phased sequence to balance the load on each phase.
- B. Water inlets shall be located above the positive water level wherever possible to prevent siphoning of liquids into the water supply system. Wherever conditions shall require a submerged inlet, a suitable type of check valve (except in jurisdictions where check valves are prohibited) and vacuum breaker shall be provided with the fixture to prevent siphoning. Where exposed, piping and fittings shall be chrome-plated. Where vacuum breaker piping is through equipment, provide chrome -plated escutcheon plates to cover holes.
1. Provide and install indirect waste lines from equipment which will discharge into floor drains or safe wastes, chrome-plated where exposed. Extend to a point at least 1" (25 mm) (or as required by local or state code) above the rim of the floor drain, cut bottom on 45-degree angle and secure in position.
  2. Horizontal piping lines shall be run at the highest possible elevation and not less than 6" (150 mm) above the floor, through equipment where possible.
  3. No exposed piping in or around fixtures or in other conspicuous places shall show tool marks or more than one thread at the fitting.

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4. Steam operating valves on or in fabricated and purchased foodservice equipment shall be provided with composition hand wheels, which shall remain reasonably cool in service.
  5. Provide suitable gas and liquid pressure-reducing valves for equipment with such components that might reasonably be expected to be affected over a period of time by adverse pressure conditions, including but not limited to dishwashers, booster heaters, coffee urns, ranges, steam boilers, etc.
- C. Provide and install complete refrigeration systems--charged, started, and operating properly--including, but not limited to: compressors, condensers, racks, coils, vibration eliminators, sight glasses (moisture indicating type), expansion valves, filters, oil separators, thermostats, defrost time clocks, all controls and control wiring, liquid line driers, piping, and refrigeration grade copper tubing with all sweat joints using Safety-Silv No. 1200 or approved equal silver solder (with as few joints as possible)
1. Where specifications call for pre-piped lines (i.e., from a fixture to a valve compartment, etc.), provide such work in strict conformance with other sections of the specifications which set forth standards for this type of work or in conformity with the requirements of the ASHRAE Standards or local authorities, whichever is the greater.
  2. Mechanically refrigerated cold pans shall have a normally closed liquid line electric solenoid valve installed before the expansion valve and wired to a silent-type toggle switch complete with an "on-off" red neon light indicator and both mounted in a terminal box on a removable access panel. This switch shall be fed by a separate control circuit and shall not to be wired into the compressor circuit so that it shall stop the flow of refrigerant to the cold pan and not turn off the compressor. The compressor shall then pump down and turn off through the action of the pressure control.
  3. Each refrigeration item specification is written to provide minimum specifications and scope of work. Refrigeration equipment shall be designed and installed to maintain the following general temperatures unless otherwise specified.

a. Walk-In Refrigerators	1.7°C / 35°F
b. Walk-In Freezers	-23.3°C / -10°F
c. Reach-In Refrigerators	1.7°C / 35°F
d. Reach-In Freezers	-23.3°C / -10°F
e. Undercounter Refrigerators	1.7°C / 35°F
f. Undercounter Freezers	-23.3°C / -10°F
g. Cold Pan	-17.8°C / 0°F
h. Work Rooms	10°C / 50°F
  4. Provide electrical and refrigeration components needed by the completed system and complete all refrigeration and control connections of and to said components.
  5. Provide evaporator coil defrost system on all walk-in refrigerator and freezer rooms where the refrigeration systems are designed to operate at room temperature of less than 35°F (1.7°C).
  6. Verify the requirements of and provide any or all additional refrigeration specialty(s) or component(s) required or recommended by the manufacturer for proper operation under the specific operating conditions and location of each system specified.



7. Verify and provide manufacturer's certification (or certification by manufacturer's authorized agent) that the equipment selection hereinafter specified for each refrigeration system is properly sized and shall meet the operating requirements set forth for each system regarding maintaining specified operating temperature, hours of compressor running time, and system pressures and velocities as recommended by the equipment manufacturer(s).
8. During check-out and initial operation, verify that:
  - a. Controls are properly adjusted.
  - b. Condensers are equipped with an overload protector.
  - c. A competent service mechanic is on site during the first eight (8) hours of operation.
  - d. Switches, starters, and controls are identified as to function.
9. Unless otherwise specified, furnish thermometers for walk-in units mounted above the exterior entrance door with suitable length armored capillary tubes to allow the sensing bulbs to be installed in the incoming air stream to the blower coil with runs fastened to the walk-in walls to prevent it from damage. This identical requirement applies to alarm systems when specified.

## **2.5 PRODUCT SPECIFICATIONS**

Refer to Part 4 for complete itemized product specifications.

## **PART 3 - EXECUTION**

### **3.1 INSTALLATION**

- A. Begin installing the equipment at the time the building is ready to receive the equipment and in accordance with the schedule.
- B. Provide a competent foreman or supervisor for erection of equipment and to coordinate with other trades regarding connections, installation, and inspection. Coordinate delivery schedule to ensure adequate openings in the building to receive the equipment.
- C. Install refrigeration work in an approved manner, using first quality fittings, controls, valves, etc. Refrigeration items shall be started up, tested, adjusted, and turned over to the Architect in first-class condition and left operating in accordance with the manufacturer's specifications.
- D. Set equipment that rests on masonry bases level onto a bed of silicone rubber sealant.
- E. Seal equipment that butts to a wall or against other equipment with silicone rubber sealant. Set trim strips or other items requiring fasteners in a bed of silicone rubber sealant and fastened with suitable stainless steel fasteners 48" (1200mm) or less on centers. , surfaces shall be thoroughly clean and degrease all surfaces prior to the application of sealant.
- F. Install and interconnect electrical controls, switches, or other units which are separately furnished for field installation in or on equipment provided, unless otherwise specified.
- G. Install and wire refrigeration systems in strict conformance with the manufacturers' instructions and recommendations. Ensure that all refrigeration condensing units are ventilated properly and are accessible for repair, maintenance, and inspection.
- H. Hang evaporator coils per the manufacturer's recommendation at the locations as shown on the drawings. Mount units such that the drain pans are pitched to the drain lines. Hang the coils using nylon or other approved non-conductive, non-corrosive fasteners. Furnish #12 gauge galvanized

steel fish plates of suitable size and shape on the exterior ceiling of the walk-in to spread the weight of the coils adequately. Connect coils to the condensing unit and install to constitute a complete working system capable of maintaining the interior temperatures specified regardless of the heavy usage the walk-in units may receive.

- I. Furnish and install a copper or PVC drainline painted silver from each coil outlet to a point 1" (25mm) above the floor drain. Trap drainlines immediately above the floor drain. Provide continuous electrified heater tape for freezer drainlines, coordinate electrical requirements and wiring with electrical division. Insulate drainline after installation.
- J. Refrigeration tubing shall be the Type L, ACR hard drawn degreased, sealed copper and shall be installed with horizontal runs sloped 1" per 20 feet (1:240) toward the condensing units. Refrigerant piping shall be properly supported by adjustable hangers spaced and adjusted to the drop required. Where vertical runs of more than 5' (1500mm) occur in the suction line, trap the risers at the bottom. Install piping so that refrigerant or oil cannot drain back into the coils from the suction line.
- K. Insulate suction and refrigerant lines with minimum 1/2" (13mm) Armstrong armaflex or equal cellular type insulation. Provide metal pipe sleeves where piping passes through a wall, ceiling, or floor. Fill space around the tubing with mastic insulating compound. Install a permanent suction line filter in each compressor suction line with pressure fitting ahead of the filter to facilitate checking of pressure drop through the filter. Fully insulate and seal penetrations through walk-in cooler or freezer structures to be vapor tight to prevent condensation within any light fixtures, switch boxes, junction boxes, or any other fittings. Fully seal refrigeration and drain lines and provide escutcheon plates.
- L. Furnish and completely install a thermostat to control the refrigeration temperatures for each individual compartment.
- M. Mount the condensing units on a welded steel rack containing all accessories and components necessary to form a complete condensing unit package. Provide each condensing unit with a factory mounted, pre-wired control panel/disconnect switch complete with circuit breakers, contactors, and time clocks as required.
- N. Furnish the refrigeration systems with a one-year refrigeration service contract, covering all parts and labor, with service available seven days per week, 24-hours per day. Provide an option for continuation of the service contract after the first year.. Warrant the refrigeration system for one year and provide the compressors with the manufacturer's extended five-year warranty.
- O. Furnish four (4) copies of complete remote refrigeration system control wiring and piping diagrams. Frame one (1) copy in Plexiglas and mount at compressor location or inside the refrigeration system enclosure as appropriate.
- P. Coordinate the equipment work with the respective work of other Sections so that electrical and mechanical components built into the equipment will conform and/or adapt to the type, materials, and characteristics of the building components.
- Q. Install heated and motor-driven equipment so as to operate efficiently. Provide additional vents, guards, deflectors, and other accessories as needed at no additional cost. Note such additions or modifications on the shop drawings and bring to Architect's attention by special accompanying letter.

### **3.2 FABRICATION**

- A. Items of fabricated equipment shall be fabricated in the same factory and shall be similar in construction details, materials, methods, and appearance to similar types of items so fabricated under this contract.

- B. Each fabricated item of equipment shall include necessary reinforcing, bracing, and welding with the proper number and spacing of uprights and cross members for strength. Wherever standard sheet sizes will permit, the tops of all tables, shelves, exterior panels of cabinet type fixtures, and doors and drainboards shall be constructed of a single sheet of metal. Except where required to be removable, flat surfaces shall be secured to vertical and horizontal bracing members by welding or other approved means to eliminate buckle, warp, rattle, and wobble. Equipment not braced in a rigid manner and which is subject to rattle and wobble shall be unacceptable, and the Contractor shall add additional bracing in an approved manner to achieve acceptance.
- C. Suitable pipe slots shall be provided on fabricated equipment to accommodate service and utility lines and mechanical connections. These slots shall be of proper size and shall be neatly made with turned up edges around to eliminate cutting or defacing of equipment on the job. Cabinet bases shall be provided with an inner panel duct at the ends or rear of the cabinet allowing adequate space to conceal vertical piping. Such work, when performed at the job site, shall be of the same quality as similar work performed in the shop.
- D. Exposed surfaces shall be free from bolt and screw heads. When bolts are required, they shall be of the concealed type and be of similar composition as the metal to which they are applied. Where bolt or screw threads on the interior of fixtures are visible or may come into contact with hands or wiping cloths, they shall be capped with a stainless steel acorn nut and stainless steel lock washer.
- E. Where screw threads are not visible or readily accessible, they shall be assembled with stainless steel lock washers and nuts. Wherever bolts or screws are welded to the underside of trim or tops, the reverse side of the weld shall be finished uniformly with the adjoining surfaces. Depressions at these points shall not be acceptable.
- F. Rivets shall not be permitted in any location.
- G. Welding shall be the heliarc method with welding rod of the same composition as the sheets or parts welded. Welds shall be complete, strong, and ductile with excess metal ground off and joints finished smooth to match adjoining surfaces. Welds shall be free of mechanical imperfections such as gas holes, pits, cracks, etc., and shall be continuously welded so that the fixtures shall appear as one piece construction. Butt welds made by spot solder and finished by grinding shall not be acceptable.
  - 1. Spot welds shall have a maximum spacing of 3" (75mm). Tack welds shall be of at least 1/4" (6mm) length of welding material at a maximum space of 4" (100mm) from center to center. Weld spacing at the ends of the channel battens shall not exceed 2" (50mm) centers.
  - 2. In no case shall soldering be accepted.
  - 3. Fixtures shall be shop fabricated of one piece and shipped to the job completely assembled wherever possible. Equipment too large to transport or enter the building as one piece shall be constructed so that the field joints can be welded at the job site.
  - 4. Exposed joints shall be ground flush with adjoining material and finished to harmonize therewith. Whenever material has been depressed by a welding operation, such depression shall be suitably hammered and peened flush with the adjoining surface and, if necessary, again ground to eliminate low spots. In all cases, the grain of rough grinding shall be removed by successive fine polishing operations.
  - 5. Unexposed welded joints on undershelves of tables or counters in stainless steel construction shall be suitably coated at the factory with an approved metallic-based paint.
  - 6. After galvanized steel members have been welded, welds and areas where galvanizing has been damaged shall have a zinc dust coating applied in conformance with U.S. Government Military Specification Number MIL-P-26915.

- H. Butt joints and contact joints, wherever they occur, shall be close fitting and shall not require filler. Wherever break bends occur, they shall be free of undue extrudence and shall not be flaky, scaly, or cracked in appearance; where such breaks do mar the uniform surface appearance of the material, such marks shall be removed by suitable grinding, polishing, and finishing. Wherever sheared edges occur, they shall be free of burrs, fins, and irregular projections and be finished to obviate danger of cutting or laceration when the hand is drawn over them. In no case shall overlapping materials be acceptable where miters or bullnosed corners occur.
- I. The grain of polishing shall run in the same direction on horizontal and on vertical surfaces of each item of fabricated equipment except in the case where the finish of the horizontal sections of each shall terminate in a mitered edge. Where sinks and adjacent drainboards are equipped with backsplash, the grain of polishing shall be consistent in direction throughout the length of the backsplash and sink compartment.
- J. Component parts, whether fabricated by the Contractor or purchased for building into the fabricated equipment, shall conform to the following.
- K. Bolts, screws, nuts, and washers shall be of steel, except where brass or stainless steel is fastened, in which case they shall be of brass or stainless steel, respectively. Where dissimilar metals are fastened, bolts, screws, nuts, and washers shall be of the higher grade metal. The spacing and extent of bolts and screws shall be such as to ensure suitable fastening and prevent buckling of the metals fastened.

### **3.3 CLEAN-UP**

- A. At completion of the installation, clean up, lubricate, and adjust where necessary items of equipment provided and turn them over in first-class condition.
  - 1. Where stainless steel surfaces are disturbed by the installation or fabricating process, such surface shall be finished to match adjoining undisturbed surfaces.
  - 2. At the completion of the installation work, stainless steel shall be gone over with a portable polishing machine and buffed to perfect surfaces. Painted surfaces shall be carefully gone over and retouched as required.

### **3.4 START-UP AND TESTING AND COMMISSIONING**

- A. Startup Services: Engage factory-authorized service representatives to perform startup services and to demonstrate and train Owner's maintenance personnel as specified below.
  - 1. Coordinate food service equipment startup with service-utility testing, balancing, and adjustments. Do not operate steam lines before they have been cleaned and sanitized.
  - 2. Remove protective coverings and clean and sanitize equipment, both inside and out, and relamp equipment with integral lighting. Where applicable, comply with manufacturer's written cleaning instructions.
  - 3. Test each equipment item for proper operation. Repair or replace equipment that is defective in operation, including units that operate below required capacity or that operate with excessive noise or vibration.
  - 4. Test refrigeration equipment's ability to maintain specified operating temperature under heavy-use conditions. Repair or replace equipment that does not maintain specified operating temperature.

5. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
6. Test motors and rotating equipment for proper rotation and lubricate moving parts according to manufacturer's written instructions.
7. Test water, drain, gas, steam, oil, refrigerant, and liquid-carrying components for leaks. Repair or replace leaking components.
8. Train Owner's maintenance personnel on procedures and schedules related to startup and shutdown, troubleshooting, servicing, and preventive maintenance for each food service equipment item.
9. Review data in the operation and maintenance manuals. Refer to Division 1 Section "Contract Closeout."
10. Review data in the operation and maintenance manuals. Refer to Division 1 Section "Operation and Maintenance Data."
11. Schedule training with Owner, through Architect, with at least 7 days' advance notice.

### **3.5 SEISMIC RESTRAINTS**

- A. Install equipment in these contract documents according to the "SMACNA Guidelines for Seismic Restraint of Kitchen Equipment" in any State, province, or jurisdiction that has legislated this requirement as necessary for acceptance. This shall include:
  1. Identifying these items on his submittal drawings, Plans, Elevations, and Sections.
  2. Showing required SMACNA methods of restraint on his submittal drawings.
  3. Referencing the appropriate detail(s).
  4. Obtain regulatory approval for all seismic engineering details.
- B. If no SMACNA detail exists for a particular situation, prepare and obtain approval for a special attachment detail:
  1. Detail must be prepared by an engineer licensed by the State having jurisdiction over the project and accompanied by the supporting calculations used in the design.
  2. Verify that the restraint design is appropriate to the building's structural conditions and the surfaces to which the equipment will be secured.

## **PART 4 - ITEMIZED PRODUCT SPECIFICATIONS**

The design of the project is based on the following specified equipment. Furnish all equipment in compliance with these specifications. Substitutions, deviations, alternates and owner approved equals must be approved prior to submission for review. All costs associated with re-design, re-engineering and changes to the work shall be paid by the equipment supplier.

**ALL ITEMS BELOW SHALL BE FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR, IN CONFORMANCE WITH THE FRONT END SPECIFICATIONS, WITH THE EXCEPTION OF THE FOLLOWING, WHICH SHALL BE CONTRACTOR PROVIDED AND INSTALLED:**

**ITEM #3, 03.1 & 03.2-Walk-in Cooler and Complete Refrigeration System**

**ITEM 304, 04.1 & 04.2-Walk-in Freezer and Complete Refrigeration System**

**ITEM #26-Exhaust Hood**

**ITEM #27-Fire Supression System**

**Item # 32 Floor Trough**

**ITEM #01 PLASTIC SHELVING UNIT**

Manufacturer: Cambro or equal by ISS or Metro

Model: CSU

Camshelving® Starter Unit, width and length x 64"H, 4 shelf, includes: solid bottom shelf, four posts, 2 sets of post connectors, traverses & vented shelf plates, speckled gray, NSF

**ITEM #02 DUNNAGE RACK**

Manufacturer: Cambro or equal by ISS or Metro

Model: DRS

S-Series Dunnage Rack, slotted top, 3000 lb. load capacity, 21"W x length per plan x 12"H, polypropylene, one-piece, seamless double wall construction, 4" square legs, speckled gray, NSF

**ITEM #03 & 04 WALK-IN COOLER/FREEZER COMBINATION**

Manufacturer: ThermoKool, Imperial, Thermalrite

Model: Custom

16'-2"W X 7'-9"D x 8'-6"H (Overall includes freezer)

Interior dimensions for cooler-9"W x 7'1"D

4" urethane insulation, minimum value R-25.

NSF & UL approved construction

Interior vertical panels finished with stucco embossed .040 aluminum

Interior ceiling panels to be smooth white aluminum finish

Unexposed exterior vertical and ceiling panels to be stucco embossed galvanized

Exposed exterior vertical stucco aluminum panels with 1/8" thick aluminum tread plate for 48" high wainscoting exposed exterior.

Doors- 36"W x 76" high; three hinges; 48"H 1/8" thick aluminum tread plate inside and out; 14" x 24" observation window. Provide inside safety release.

Heated relief port in freezer

Provide Modularm 75LC door for light and alarm control, shipped to factory to recess into panels.

Conduit for wiring shall penetrate top of box and be exposed 6" high.

Automatic door closer

1/8" thick aluminum tread plate for 48" high wainscoting exposed exterior.

(1) Extra LED light fixtures per compartment Lights shall have an efficacy of no less than 40 lumens per watt.

Heat tape for freezer drain line

**Floorless unit with screeds to sit on insulated floor by GC. See FS101SC for insulated floor details by GC.**

See FS101SC for floor details.

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Matching trim strips and enclosure panels as required to adjacent walls and ceiling.  
Provide roof mounted, complete refrigeration system. (verify location of system, air-cooled)  
Unit shall meet or exceed all 2009 Federal mandates.

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Provide and install complete refrigeration systems--charged, started, and operating properly--including, but not limited to:

compressors, condensers, racks, coils, vibration eliminators, sight glasses (moisture indicating type), expansion valves, filters, oil separators, thermostats, defrost time clocks, all controls and control wiring, liquid line driers, piping, and refrigeration grade copper tubing with all sweat joints using Safety-Silv No. 1200 or approved equal silver solder (with as few joints as possible)

Where specifications call for pre-piped lines (i.e., from a fixture to a valve compartment, etc.), provide such work in strict conformance with other sections of the specifications which set forth standards for this type of work or in conformity with the requirements of the ASHRAE Standards or local authorities, whichever is the greater.

Refrigeration equipment shall be designed and installed to maintain the following general temperatures unless otherwise specified.

- |                          |                 |
|--------------------------|-----------------|
| a. Walk-In Refrigerators | 1.7°C / 35°F    |
| b. Walk-In Freezers      | -23.3°C / -10°F |

Provide electrical and refrigeration components needed by the completed system and complete all refrigeration and control connections of and to said components.

Provide evaporator coil defrost system on all walk-in refrigerator and freezer rooms where the refrigeration systems are designed to operate at room temperature of less than 35°F (1.7°C).

Verify the requirements of and provide any or all additional refrigeration specialty(s) or component(s) required or recommended by the manufacturer for proper operation under the specific operating conditions and location of each system specified.

Orbus controller with variable speed EC motor(s) to be factory mounted and tested, located on condensing unit.

Verify the requirements of and provide any or all additional refrigeration specialty(s) or component(s) required or recommended by the manufacturer for proper operation under the specific operating conditions and location of each system specified.

Verify and provide manufacturer's certification (or certification by manufacturer's authorized agent) that the equipment selection hereinafter specified for each refrigeration system is properly sized and shall meet the operating requirements set forth for each system regarding maintaining specified operating temperature, hours of compressor running time, and system pressures and velocities as recommended by the equipment manufacturer(s).

During check-out and initial operation, verify that:

- a. Controls are properly adjusted.
- b. Condensers are equipped with an overload protector.

- c. A competent service mechanic is on site during the first eight (8) hours of operation.
- d. Switches, starters, and controls are identified as to function.

Unless otherwise specified, furnish thermometers for walk-in units mounted above the exterior entrance door with suitable length armored capillary tubes to allow the sensing bulbs to be installed in the incoming air stream to the blower coil with runs fastened to the walk-in walls to prevent it from damage. This identical requirement applies to alarm systems when specified.

ITEM #03.1 EVAPORATOR COIL-COOLER

Included in item # 03

ITEM #03.2 COMPRESSOR-COOLER-OUTDOOR ROOF MOUNT

Included with item # 03

ITEM #04.1 EVAPORATOR COIL -FREEZER

Included in item # 04

ITEM #04.2 COMPRESSOR - FREEZER-OUTDOOR ROOF MOUNT

Included in item # 04

ITEM #05 DESK

NIKEC - This is not in the kitchen equipment contract and is shown here for informational purposes only. General Contractor to confirm all required utilities are provided

ITEM #06 FILE CABINET

NIKEC - This is not in the kitchen equipment contract and is shown here for informational purposes only. General Contractor to confirm all required utilities are provided

ITEM #07 HAND SINK

Manufacturer: Eagle Group or equal by Advance Tabco, Nationwide, or Universal Stainless or IEI  
Model: HSA-10-1FK

Hand Sink, wall mount, 13-1/2" Wide x 9-3/4" front-to-back x 6-3/4" deep bowl, 304 stainless steel construction, splash mounted faucet, single knee pedal, skirt, basket drain, deep-drawn seamless design-positive drain, inverted "V" edge, NSF

Right and Left end splash

Faucet/Drain – shipped loose to plumber to install on site.

Soap & paper towel dispensers provided by Owner to be installed by KEC

ITEM #08 PREP REFRIGERATOR

Manufacturer: Continental or equal by Beverage-Air or Delfield  
Model: UC27

Undercounter Refrigerator, 27 11/16" wide, one-section, stainless steel top, (1) field rehingable door, stainless steel front, aluminum sides & interior, 3 5/8" casters, rear mounted self-contained



refrigeration, 1/5 hp

ITEM #09 SOILED DISHTABLE

Manufacturer: Eagle Group or equal by Advance Tabco, Nationwide, or Universal Stainless or IEI

Model: SDTL-48-14/3

Soiled Dishtable, straight design, 48"W x 30"D x 43-1/2"H, left-to-right operation, 14/304 stainless steel top, 8"H backsplash, stainless steel hat channels, 20" x 20" x 5" deep pre-rinse sink with basket drain, (1) set of splash mounted faucet holes for pre-rinse, raised rolled edges on front & side, stainless steel legs & side bracing, adjustable feet, NSF

All welded construction

**No Disposer in Sink**

**No scrap block**

ITEM #10 WALL SHELF

Manufacturer: Eagle Group or equal by Advance Tabco, Nationwide, Universal Stainless or IEI

Model: WS1224-14/3

Wall Shelf, 12" x 24" 14/304 stainless steel, 1-1/2" roll on front, 1-1/2" upturn on rear & ends, stainless steel mounting brackets stud welded to shelf, NSF

Furnished by RPS 205 and installed by KEC

~~ITEM #11 DISPOSER~~

~~Manufacturer: InSinkErator or equal by Salvajor~~

~~Model: SS-300-7-MRS~~

~~SS-300™ Complete Disposer Package, sink mount system, 6-5/8" diameter inlet, with #7 collar adaptor for sink installation, 3 HP motor, stainless steel construction, includes syphon breaker, solenoid valve, flow control valve, removable splash baffle, stainless steel sink stopper, manual reverse switch~~

ITEM #12 PRE-RINSE-SPLASH/WALL MOUNT

Manufacturer: Fisher or equal by T&S or Chicago Faucet

Model: 2210-WB

Pre-Rinse Assembly, 8" adjustable centers, wall-mounted mixing valve, with spring action flexible gooseneck, with spray head (1.15 gallons per minute @ 60 PSI), with wall bracket.

Shipped loose to plumber to install on site

ITEM #13 DISHWASHER, DOOR TYPE-CORNER

Manufacturer: Hobart or equal by Insinger or Champion

Model: AM15VLT-2

Ventless Door Type Dishwasher, Energy Recovery, tall chamber, hot water sanitize, internal condensing system, 40 racks/hr, corner, solid-state controls with digital status, booster heater, electric tank heat, auto-fill, stainless steel tank, doors & feet, ENERGY STAR®

Single point electrical connect AM15 kit (field installation required) (3 phase booster

Two extra (2) Combination rack

Two extra (2) 6 pan rack

ITEM #14      CLEAN DISHTABLE

Manufacturer: Eagle Group or equal by Advance Tabco, Nationwide, or Universal Stainless or IEI  
Model: CDTR-48-14/3

Clean Dishtable, straight design, 48"W x 30"D x 43-1/2"H, left-to-right operation, 14/304 stainless steel top, 8"H backsplash, stainless steel hat channels, raised rolled edges on front & side, stainless steel legs & crossbracing, adjustable metal feet, NSF  
All welded construction

ITEM #15      SHELVING, WALL-MOUNTED

Manufacturer: Eagle Group or equal by Advance Tabco, Nationwide, or Universal Stainless or IEI  
Model: WS1236-14/3

Wall Shelf, 12" x 36" 14/304 stainless steel, 1 1/2" roll on front, 1 1/2" upturn on rear & ends, stainless steel mounting brackets stud welded to shelf, NSF

ITEM #16      THREE (3) COMPARTMENT SINK

This is not in the kitchen equipment contract and is shown here for informational purposes only. General Contractor to confirm all required utilities are provided.

Verify replacement faucet (Item 17) and drain levers (item 18) coordinate with existing three compartment sink

ITEM #17      FAUCET

Manufacturer: Fisher or equal by T&S or Chicago Faucet  
Model: 13277

Faucet, wall/backsplash mount, 8" C.C., 14" long swing spout, 1/2" inlets  
Shipped loose to plumber to install on site

ITEM #18      LEVER WASTE

Manufacturer: Fisher or equal by T&S or Chicago Faucet  
Model: 22322

DrainKing Waste Valve, flat strainer, overflow body, 14 x 16 tube & elbow, 12 GPM drain rate, cast red brass body  
Shipped loose to plumber to install on site

ITEM #19      SPARE NUMBER

ITEM #20      SHELVING, WALL-MOUNTED

Manufacturer: Eagle Group or equal by Advance Tabco, Nationwide, or Universal Stainless or IEI  
Model: WS12114-14/3

Wall Shelf, 12" x 114" 14/304 stainless steel, 1 1/2" roll on front, 1 1/2" upturn on rear & ends, stainless steel mounting brackets stud welded to shelf, NSF

ITEM #21      TABLE, PREP /SINK

Manufacturer: Eagle Group or equal by Advance Tabco, Nationwide, or Universal Stainless or IEI

Model: SMPT3090  
Marine Prep Table, 90"W x 30"D, 14/304 stainless steel top with box marine edge, (2) 24" x 18" x 12" sink bowls, splash mount T&S faucet on 8" centers, 10" high backsplash, 1/2" thick poly cutting board with set of slides welded to outside of unit, NSF approved drawer, gusset with Uni-Lok® design, heavy gauge 304 undershelf, 1-5/8" dia. stainless steel feet with flanged adjustable feet, NSF  
All welded construction  
Right side splash

ITEM #22 SHELVING, WALL-MOUNTED

Manufacturer: Eagle Group or equal by Advance Tabco, Nationwide, or Universal Stainless or IEI  
Model: WS1290-14/3  
Wall Shelf, 12" x 90" 14/304 stainless steel, 1 1/2" roll on front, 1 1/2" upturn on rear & ends, stainless steel mounting brackets stud welded to shelf, NSF  
Two Tier, Mount first shelf 54" AFF, second shelf 12" above first.

ITEM #23-25 SPARE NUMBER

ITEM #26 EXHAUST HOOD

Manufacturer: Captive Air, Streivor, Halton, Avtec, Gaylord  
Model: EXHAUST HOOD

12'-0"L x 60"D plus fire cabinet on end per plan

See plans for location and placement of item with reference to adjoining equipment. Furnish and install per Manufacturer's standard specifications and the following:

Install in the location as shown on drawings. It is the responsibility of the Installer to verify all clearances and stand offs from the hood to limited combustibles and/or combustibles. Hood must be installed in accordance with the Manufacturer's specifications. Canopy Hoods to be installed a minimum of 78in. off finished floor and level. ADA requires 80in. minimum off above the finished floor.

Hood to be U.L. listed #710, N.S.F. approved and built in compliance to the prevailing NFPA Standard #96.

The Hood assembly to be size and shape per the drawings with 3in standoff in the back. The hood (exposed and unexposed) shall be fabricated from Type 201 18 gauge stainless steel or heavier. All exposed surfaces to be fabricated from Type 201 stainless steel with a #4 finish. All exposed welds to be ground smooth and polished to a #4 finish.

Exhaust airflow volume and static pressure at the duct collar(s) shall not exceed those shown on the drawings.

Stainless steel matching enclosure panels from the top of the Hood to the finished ceiling to be furnished by KEC. (Verify ceiling height with plan.)

KEC shall provide 20 gauge stainless steel wall sheathing to extend from the top of the floor base to the bottom of the rear edge of the hood, the full length of the hood and extending to the side walls where so installed. Sheathing shall be maximum practical size and trimmed with Component Hardware joining and end strips. Pre-cut holes for utilities to minimize field cutting. All holes to be trimmed with chrome-plated escutcheon plates. Finish to match exhaust hood.

See FS101H for additional details

---

**ITEM #27**                      **FIRE SUPPRESSION SYSTEM**

Manufacturer:              Ansul Fire Protection  
Model:                      R102

Furnish and install a complete, fully operational wet chemical automatic fire extinguishing system to provide surface, duct and plenum protection in conformance with NFPA-96 and local code requirements. All exposed components shall be chrome plated. Field installation of system shall be done by a trained and authorized distributor. No exposed piping is acceptable with the exception of appliance drops (if applicable). Appliance drops shall be chrome-plated or stainless steel. Furnish mechanical gas shut-off valves (verify size) and provide to Plumber on site for installation. Located in cabinet on right of exhaust hood, Item #26.

System shall be complete in all respects, including remote manual activation device, mechanical gas solenoid valve, and provision for connection to a remote notification device.

**ITEM #29**                      **COMBI OVEN**

Manufacturer:              Alto-Shaam or equal by Cleveland or Rational  
Model:                      CTP7-20G

Combitherm® CT PROformance™ Combi Oven/Steamer, gas, boiler-free, countertop, (7) 18" x 26" full size sheet or (14) 12" x 20" full size hotel pan (1/1 GN) capacity, PROtouch control with steam/convection/combi and retherm cooking modes, programmable cool-down, SafeVent™ steam venting, single point removable probe, CombiClean PLUS™ with (5) cleaning levels, (2) side racks with (7) non-tilt support rails, CoolTouch3™ glass window, door hinged right, high efficiency LED lighting, stainless steel construction, adjustable stainless steel legs, 98,000 BTU, EcoSmart®, cULus, CE, UL ANSI/NSF 4, IP X5, Gastec, ENERGY STAR®

Dormont Quick Disconnect Kit, for all gas ovens

Dormont Quick Disconnect kit for water connection

Mobile stand for single unit

**ITEM 29.1**                      **WATER FILTER**

Manufacturer:              Dormont Manufacturing or equal by 3M or Everpure  
Model:                      QTSTM MAX-2S-1M

Watts Hydro-Safe® QT Steam Max Filtration System, three-stage filtration system, 1.5 gpm, 1 micron carbon block filter, 5 micron sediment pre-filter reduces scale, sand, silt, sediment, rust, chlorine taste and odor, with remote filter housing, 15,000 gallons, (2) 1/2" NPT brass ball valves, flush kit, polypropylene filter housing mounted on powder coated steel bracket, inlet and outlet pressure gauges

For use w/ item #29

**ITEM #30**                      **TILTING SKILLET, GAS**

Manufacturer:              Cleveland Range or equal by Market Forge  
Model:                      SGL30TR

DuraPan™ Tilting Skillet, gas, 30-gallon capacity, modular open base, standard with electric tilt mechanism, stainless steel construction, includes spring-assisted cover, gallon markings and electronic spark ignition, food strainer, stainless steel level adjustable feet, CE, NSF

Double Pantry Faucet with, 3/4" swing spout & bracket

48" flexible gas hose, with quick disconnect & restraining device

**ITEM #31      CONVECTION OVEN**

Manufacturer:      Blodgett Oven or equal by Vulcan or Garland

Model:              DFG100XCEL SINGLE

Xcel Convection Oven, gas, single-deck, standard depth, capacity (5) 18" x 26" pans per compartment, 2-speed fan, porcelain interior liner with coved corners, EZ slide rack, porcelain crumb tray, interior lights, stainless steel front, sides & top, glass doors with removable interior glass windows, flue connector, 80,000 BTU , cETL, NSF

Mobile stand for single unit

48" flexible gas hose, with quick disconnect & restraining device

**ITEM #32      FLOOR TROUGH**

Manufacturer:      IMC/Teddy or equal by Eagle Group or Advance Tabco

Model:              ASFT-2436-SG

ASFT Anti-Spill Floor Trough, 24" wide x 36" long x 6" deep, with drain & (SG) subway grating

**ITEM #33      MOBILE WORK TABLE**

Manufacturer:      Eagle Group or equal by Advance Tabco, Nationwide, or Universal Stainless or IEI

Model:              T3060SE

Work Table, 30"W x 60"D, 14/304 stainless steel top with square turndown ends, Uni-Lok® gusset system, 18 gauge stainless steel undershelf, (4) 1-5/8" diameter heavy gauge stainless steel legs, NSF

Square edge table, front and/or rear, per table

All welded construction

Table Casters, 5" diameter, set of (4), (2) swivel & (2) braked, 250 lb weight capacity per caster, poly cart washable with polymer tread

**ITEM #34      HEATED CABINET, MOBILE**

Manufacturer:      Food Warming Equip or equal by Cres Cor, Carter Hoffman or Winston

Model:              PHTT-12

Clymate IQ™ Heated Cabinet, mobile, insulated, humidified holding system, oversized water reservoir, top mounted circulating heat system with recessed controls, (12) pair universal stainless steel tray slides 4.5" OC, (12) 18x26x4-1/2 in. pans, stainless steel construction, push-pull air distribution system

5" Caster standard: EZ Roll Heavy Duty Poly, (2) rigid, (2) swivel with brakes

**ITEM #35      FRONT COUNTER**

Manufacturer:      Eagle Group or equal by Advance Tabco, Nationwide, or Universal Stainless or IEI

Model:              Custom

Length per plan x 42"D. Top 14 gauge, 304 stainless steel. 16 ga, Type 304. s/s legs with bullet feet. Constructed in accordance with the front end specifications and drawings. Provide cut-outs for drop-in equipment per plan, food shield and POS cords/cables. Provide hat channel support for drop-in equipment. Provide apron on kitchen side and mount controls. Provide 11 3/4"

clearance in front of food shield posts. Coordinate overhead door location so it does not interfere with food shield and drop in equipment. Depth of Counter is effected by knee wall depth. 42" counter is based on 8" knee wall. Field verify knee wall prior to fabrication.

See FS101SC for details

ITEM #35.1                      FOOD SHIELD

Manufacturer:                BSI

Model:                        DECO-250-N

Overall length 8'-7"- Two (2) segments per plan

Overall Height 14"

Through counter mount.

1/2" tempered glass front and top and side panels, 1-" stainless steel square tubing uprights, narrow mounting flange, NSF, ETL-Brushed stainless

Post placement- First set to second set- 50" o.c. Second set to third set- 50" O.C.

Coordinate with counter manufacturer for correct placement of post holes.

It is the responsibility of the KEC to verify all codes (NSF) are meet when placing and installing the food shield.

See FS101F for details

ITEM #36                      DROP-IN HOT WELLS

Manufacturer:                Vollrath

Model:                        36404

3-well hot modular drop-in with infinite controls & standard drains, 18/8 stainless steel, drip-free flange, ind drain shutoffs, 6-3/8" deep wells operate moist or dry, dial controls, 625W per well, 120v/60/1-ph, 15.6 amps, NEMA 5-20P, OA 41-1/2"x26", cutout 40-3/4"x25-1/4", 7/8" corner radius

Manifold drain lines in field, separate drain shut-off per well

Cord/Plug- no hard wire connection

ITEM #37                      DROP-IN HOT/COLD WELLS

Manufacturer:                Vollrath

Model:                        3667201

Hot/Cold Drop-In Unit, top mount, (2) pan, remote mountable panel with on-off switch, hot/cold toggle with indicator lights for hot or cold, thermostatic temperature rotary knob control in hot mode, preset cold control, automatic manifold drain, 300 series stainless well & flange, galvanized wrapper, 625watts per well, 12amp, 120v, 5-20P, cULus, NSF, NSF7, Made in U.S.A.

Cord/Plug- no hard wire connection

Wells work independent hot/cold

Manifold drain lines in field; separate drain shut offs per well

ITEM #38                      MILK COOLER-EXISTING/PROVIDED BY VENDOR

NIKEC - This is not in the kitchen equipment contract and is shown here for informational purposes only. General Contractor to confirm all required utilities are provided

ITEM #39                      POS

NIKEC - This is not in the kitchen equipment contract and is shown here for informational purposes only. General Contractor to confirm all required utilities are provided

**ITEM #40      MOBILE WORK TABLE**

Manufacturer: Eagle Group or equal by Advance Tabco, Nationwide, or Universal Stainless or IEI

Model: T2436SE

Work Table, 36"W x 24"D, 14/304 stainless steel top with square turndown ends, Uni-Lok® gusset system, 18 gauge stainless steel undershelf, (4) 1-5/8" diameter heavy gauge stainless steel legs, NSF

Square edge table, front and/or rear, per table

All welded construction

Table Casters, 5" diameter, set of (4), (2) swivel & (2) braked, 250 lb weight capacity per caster, poly cart washable with polymer tread

**ITEM #41      REFRIGERATED SELF-SERVE CASE**

Manufacturer: Structural Concepts or equal by Federal

Model: CO35R

Oasis® Self-Service Refrigerated Open Air Screen Case, 36-1/4"L, 61-5/8"H, Breeze-E (Type II) with EnergyWise self-contained refrigeration system, (2) non-lit adjustable metal shelves, top light, black interior, (2) full end panels, 4"D removable wall spacer brackets. 6' Power cord, exit at base, standard

Left and Right end panels: Full with mirrored interior, vinyl edging, standard

Base Support: Seismic Levelers

Back Panel: Solid rear swinging doors with lock

Exterior: Stainless steel

Roll-down security cover, locking

Coordinate wall opening to ensure fit. Wall opening should be within 1"-2" of overall size necessary on top and sides.

END OF SPECIFICATIONS

***IFB No. 16-48 Brookview Elementary School Addition & Renovation***  
**REQUEST FOR INFORMATION**

Page 1 of 1

By: Chad Carr  
Date: April 5, 2016  
Project No: C15x134  
Project Title: Brookview Elementary School Gymnasium Addition  
Location: Rockford, IL

**Subject: RFI #4**

**Response:**

1. All exterior walls are to be reinforced with #5 vertical bars at 32" O.C. Interior partition walls are to be reinforced with #4 vertical bars at 48" O.C.
2. Reinforce per detail 1/S4.0 with #6 bars. Keynote 8 on S2.0 should say #6 bars.
3. Top of all exterior and load bearing walls require bond beam per Masonry note 8. Interior non-load bearing partition walls do not require a bond beam at the top.



## **ADDENDUM #4**

To: ALL CONTRACTORS BIDDING  
From: Arc Design Resources, Inc.  
Date: April 11, 2016  
Re: Brookview School

---

### Changes to the contract documents

This addendum is an integral part of the construction documents and shall be treated as such. Contractor shall acknowledge receipt of this Addendum in the submitted bid.

The following items have changed since the construction plans were released. These items add information to the contract documents that may affect the contract amount for the bid. See revised plans for complete changes. The following provides a summary of the changes:

#### **Sheet C04 – Layout/Utility Plan**

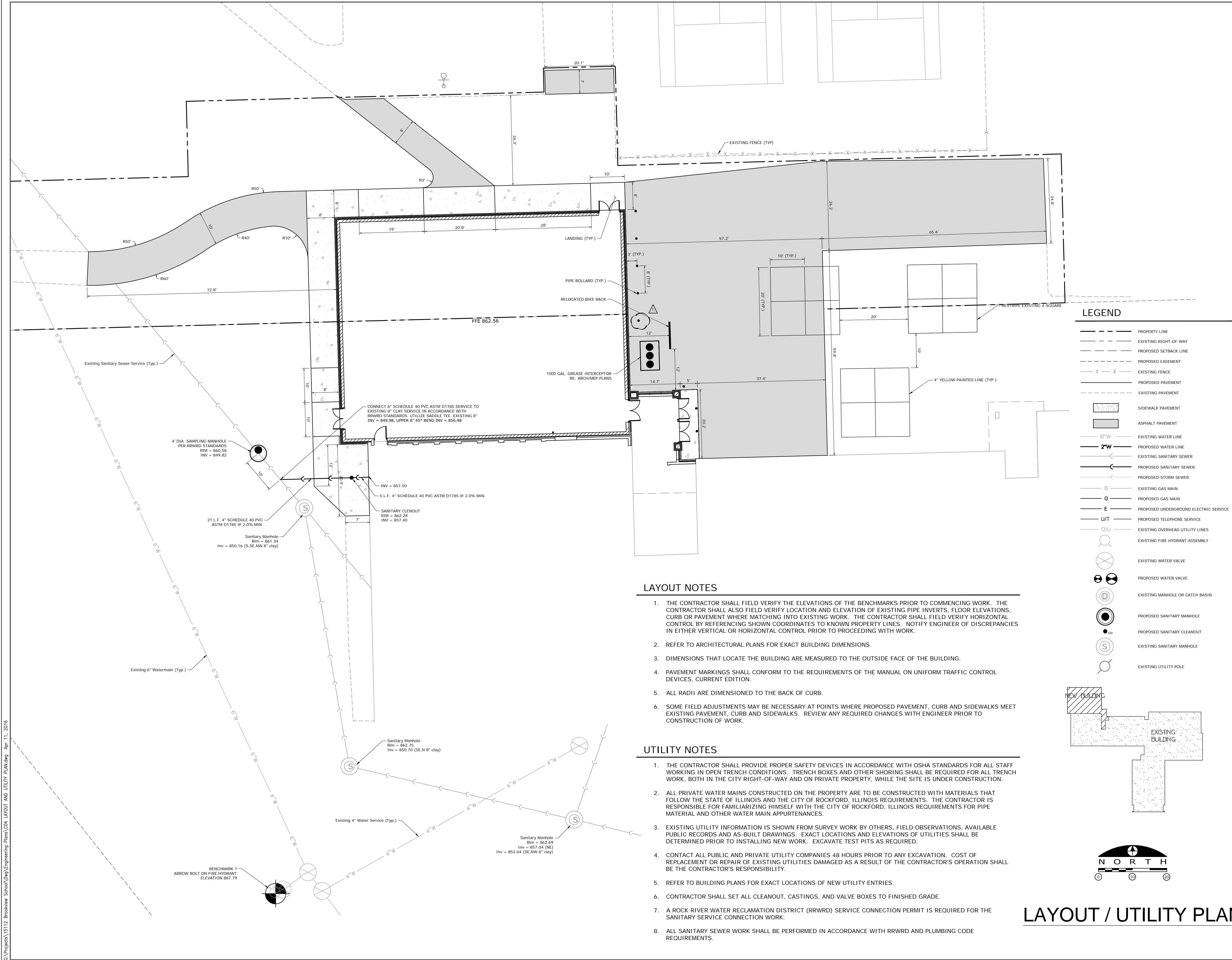
1. An additional bollard location has been indicated along the gymnasium wall. There shall be five (5) bollard in total provided along said wall.

#### **Sheet C07 – Details**

1. The stainless steel bollard detail has been omitted from the plans. The contractor shall utilize the mild steel pipe bollard.
2. The Typical Ramp Detail has been omitted from the plans as not ramps are required for the proposed improvements.

**END of ADDENDUM #4**

G:\Projects\15112 Brookview School\Eng\Engineering Plans\04\_LAYOUT AND UTILITY PLAN.dwg Apr 11, 2016



LAYOUT NOTES

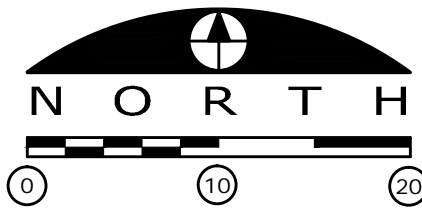
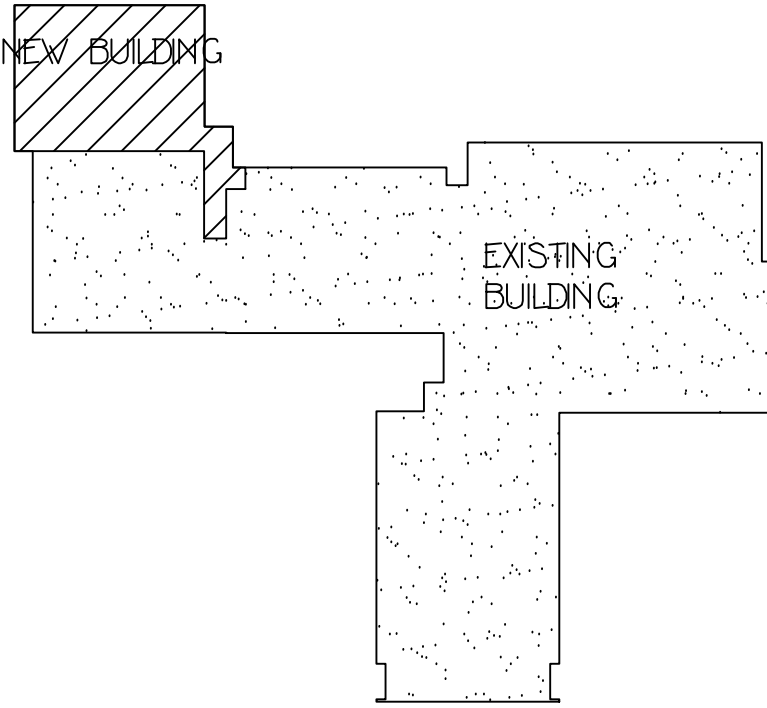
1. THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATIONS OF THE BENCHMARKS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL ALSO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING PIPE INVERTS, FLOOR ELEVATIONS, CURB OR PAVEMENT WHERE MATCHING INTO EXISTING WORK. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL CONTROL BY REFERENCING SHOWN COORDINATES TO KNOWN PROPERTY LINES. NOTIFY ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH WORK.
2. REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
3. DIMENSIONS THAT LOCATE THE BUILDING ARE MEASURED TO THE OUTSIDE FACE OF THE BUILDING.
4. PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
5. ALL RADII ARE DIMENSIONED TO THE BACK OF CURB.
6. SOME FIELD ADJUSTMENTS MAY BE NECESSARY AT POINTS WHERE PROPOSED PAVEMENT, CURB AND SIDEWALKS MEET EXISTING PAVEMENT, CURB AND SIDEWALKS. REVIEW ANY REQUIRED CHANGES WITH ENGINEER PRIOR TO CONSTRUCTION OF WORK.

UTILITY NOTES

1. THE CONTRACTOR SHALL PROVIDE PROPER SAFETY DEVICES IN ACCORDANCE WITH OSHA STANDARDS FOR ALL STAFF WORKING IN OPEN TRENCH CONDITIONS. TRENCH BOXES AND OTHER SHORING SHALL BE REQUIRED FOR ALL TRENCH WORK, BOTH IN THE CITY RIGHT-OF-WAY AND ON PRIVATE PROPERTY, WHILE THE SITE IS UNDER CONSTRUCTION.
2. ALL PRIVATE WATER MAINS CONSTRUCTED ON THE PROPERTY ARE TO BE CONSTRUCTED WITH MATERIALS THAT FOLLOW THE STATE OF ILLINOIS AND THE CITY OF ROCKFORD, ILLINOIS REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH THE CITY OF ROCKFORD, ILLINOIS REQUIREMENTS FOR PIPE MATERIAL AND OTHER WATER MAIN APPURTENANCES.
3. EXISTING UTILITY INFORMATION IS SHOWN FROM SURVEY WORK BY OTHERS, FIELD OBSERVATIONS, AVAILABLE PUBLIC RECORDS AND AS-BUILT DRAWINGS. EXACT LOCATIONS AND ELEVATIONS OF UTILITIES SHALL BE DETERMINED PRIOR TO INSTALLING NEW WORK. EXCAVATE TEST PITS AS REQUIRED.
4. CONTACT ALL PUBLIC AND PRIVATE UTILITY COMPANIES 48 HOURS PRIOR TO ANY EXCAVATION. COST OF REPLACEMENT OR REPAIR OF EXISTING UTILITIES DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
5. REFER TO BUILDING PLANS FOR EXACT LOCATIONS OF NEW UTILITY ENTRIES.
6. CONTRACTOR SHALL SET ALL CLEANOUT, CASTINGS, AND VALVE BOXES TO FINISHED GRADE.
7. A ROCK RIVER WATER RECLAMATION DISTRICT (RRWRD) SERVICE CONNECTION PERMIT IS REQUIRED FOR THE SANITARY SERVICE CONNECTION WORK.
8. ALL SANITARY SEWER WORK SHALL BE PERFORMED IN ACCORDANCE WITH RRWRD AND PLUMBING CODE REQUIREMENTS.

LEGEND

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- PROPOSED SETBACK LINE
- PROPOSED EASEMENT
- EXISTING FENCE
- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- SIDEWALK PAVEMENT
- ASPHALT PAVEMENT
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- EXISTING GAS MAIN
- PROPOSED GAS MAIN
- PROPOSED UNDERGROUND ELECTRIC SERVICE
- PROPOSED TELEPHONE SERVICE
- EXISTING OVERHEAD UTILITY LINES
- EXISTING FIRE HYDRANT ASSEMBLY
- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- EXISTING MANHOLE OR CATCH BASIN
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY CLEANOUT
- EXISTING SANITARY MANHOLE
- EXISTING UTILITY POLE



LAYOUT / UTILITY PLAN

HAGNEY  
ARCHITECTS  
LLC

Architecture, Planning, & Interior Design  
4615 E. State St. Suite 206  
Rockford, Illinois 61108  
P: 815.397.3330  
F: 815.397.0243  
E: Business@HagneyArchitects.com  
www.HagneyArchitects.com

ARC DESIGN  
RESOURCES INC.

A GYMNASIUM ADDITION AND WINDOW REPLACEMENT FOR:  
**BROOKVIEW ELEMENTARY SCHOOL**  
ROCKFORD, ILLINOIS

BY REFERENCE: AIA DOCUMENT A201 "GENERAL CONDITIONS OF THE CONTRACT FOR ARCHITECTURAL SERVICES" LATEST EDITION. IS MADE A PART OF THESE DOCUMENTS.  
COPYRIGHT 2019 HAGNEY ARCHITECTS

THE ARCHITECT WILL NOT HAVE CONTROL OVER, CHARGE OF OR RESPONSIBILITY FOR, THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OR FOR THE SAFETY OF THE CONSTRUCTION WORK OR THE QUALITY OF THE WORK, SINCE THESE ARE SOLELY THE CONTRACTOR'S RIGHTS AND RESPONSIBILITIES.

REVISIONS:	
ADDENDUM 4	04-11-2016
DRAWN BY:	
DATE:	
03-11-2016	
PROJECT NUMBER	
15112	
SHEET NUMBER	

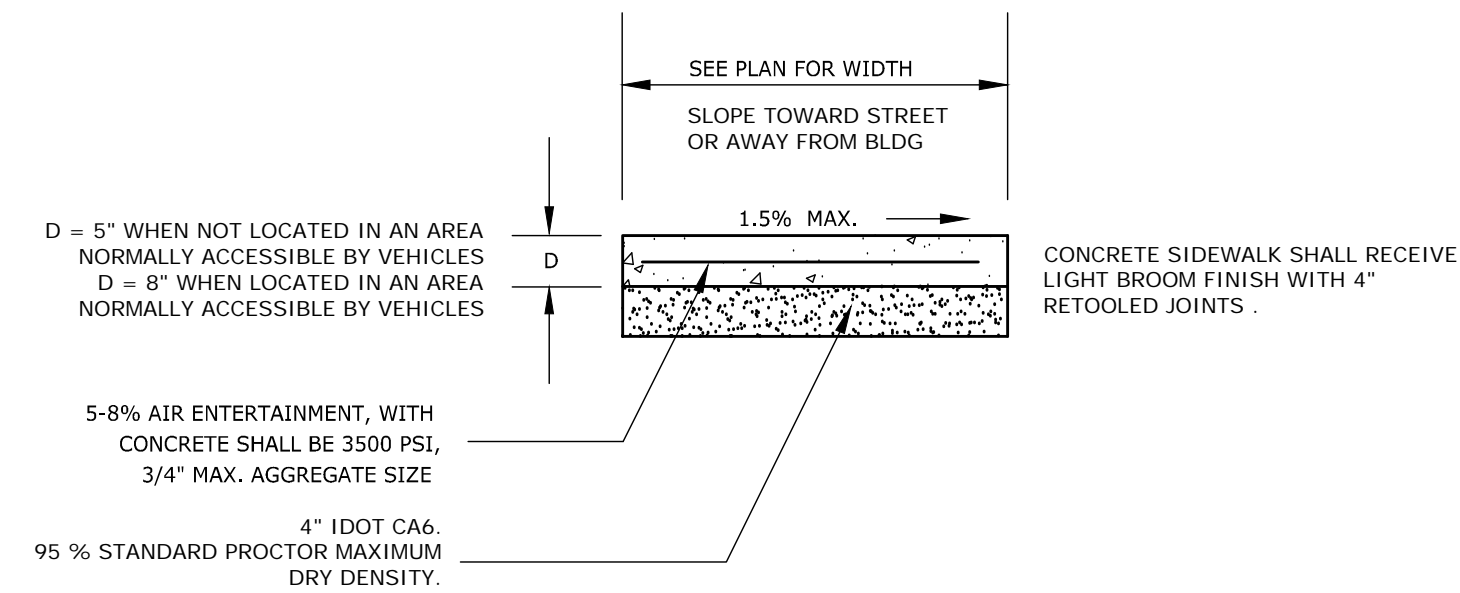
C04

BROOKVIEW ELEMENTARY SCHOOL C103



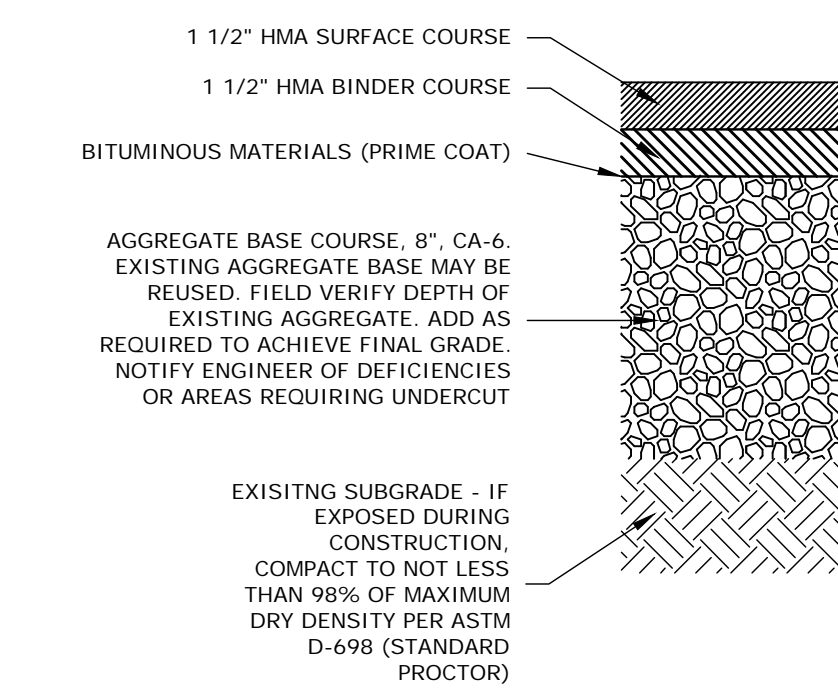
CONCRETE SIDEWALK

NOT TO SCALE



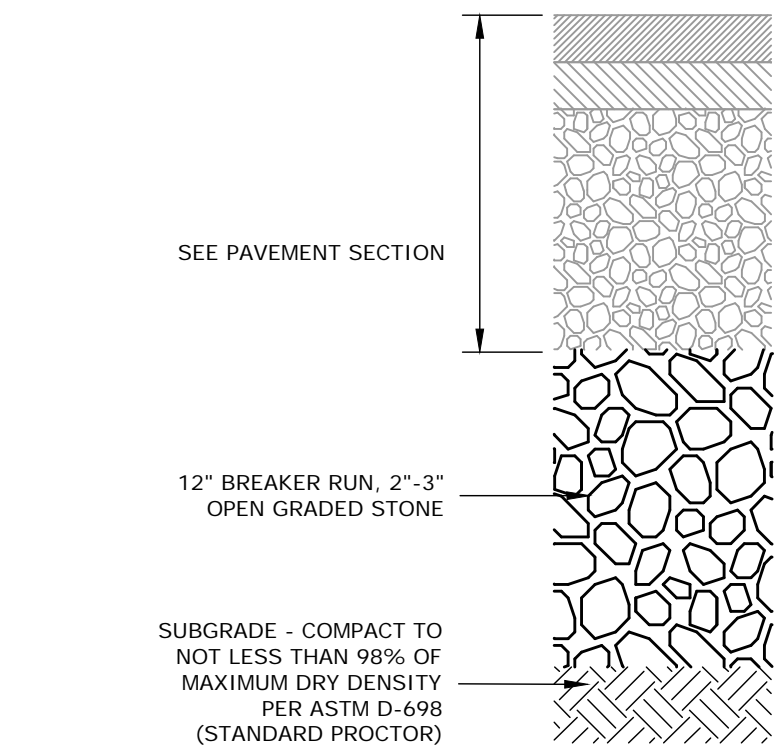
STANDARD DUTY ASPHALT PAVEMENT

NOT TO SCALE



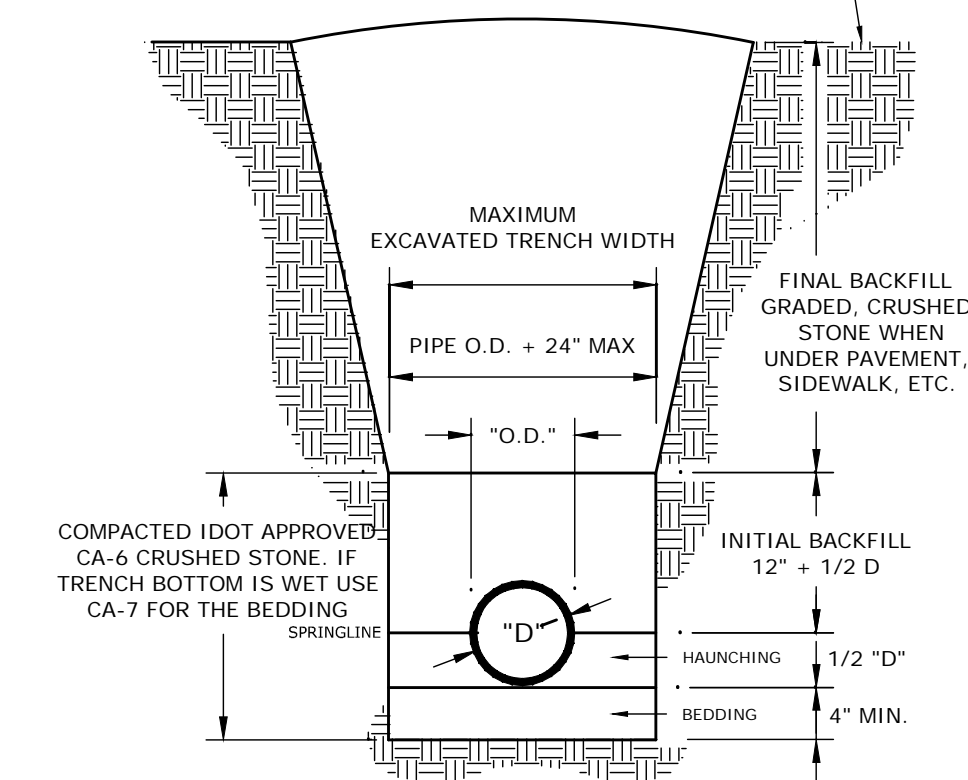
UNDERCUT

NOT TO SCALE



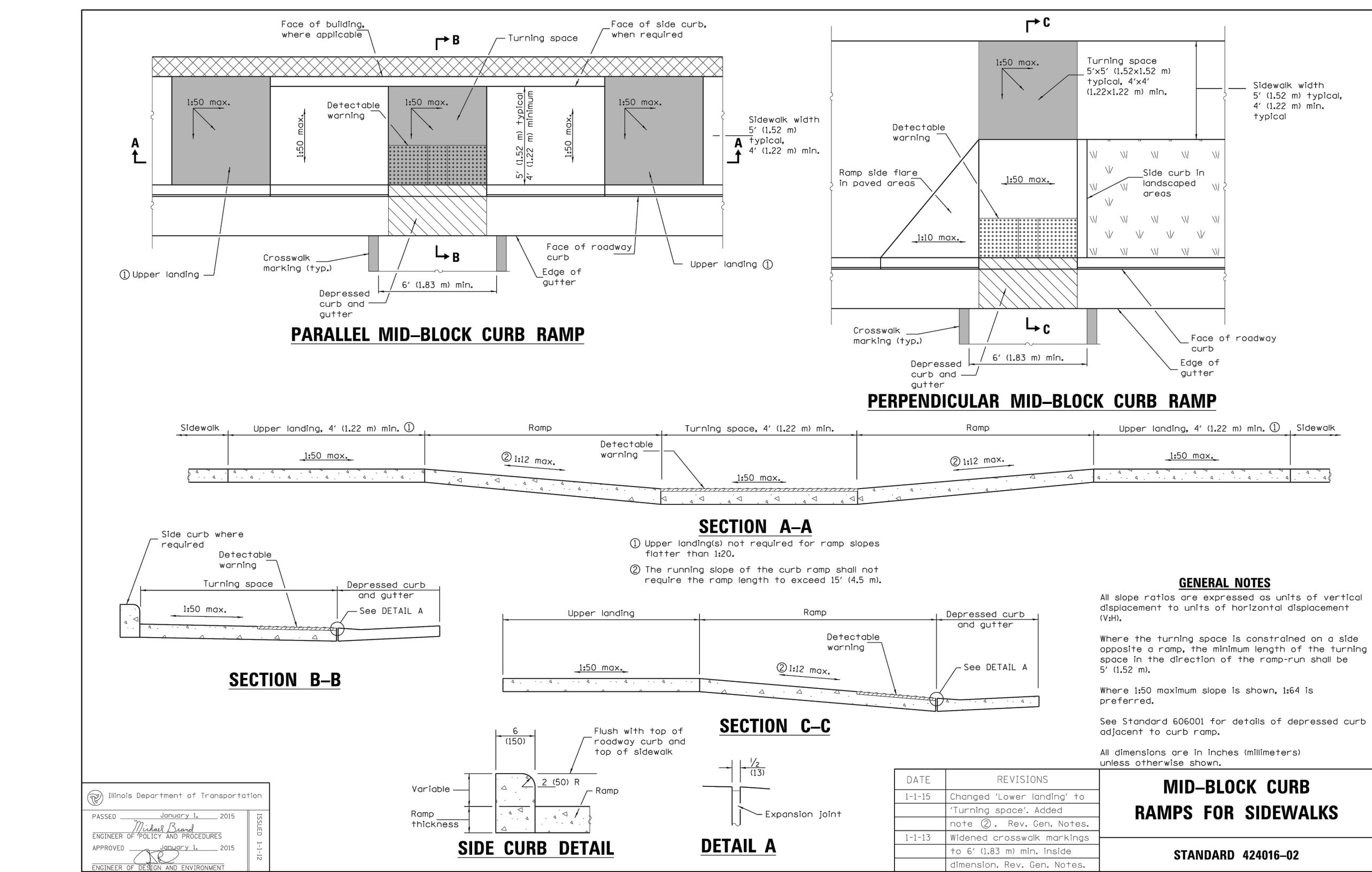
PIPE EMBEDMENT DETAIL

NOT TO SCALE

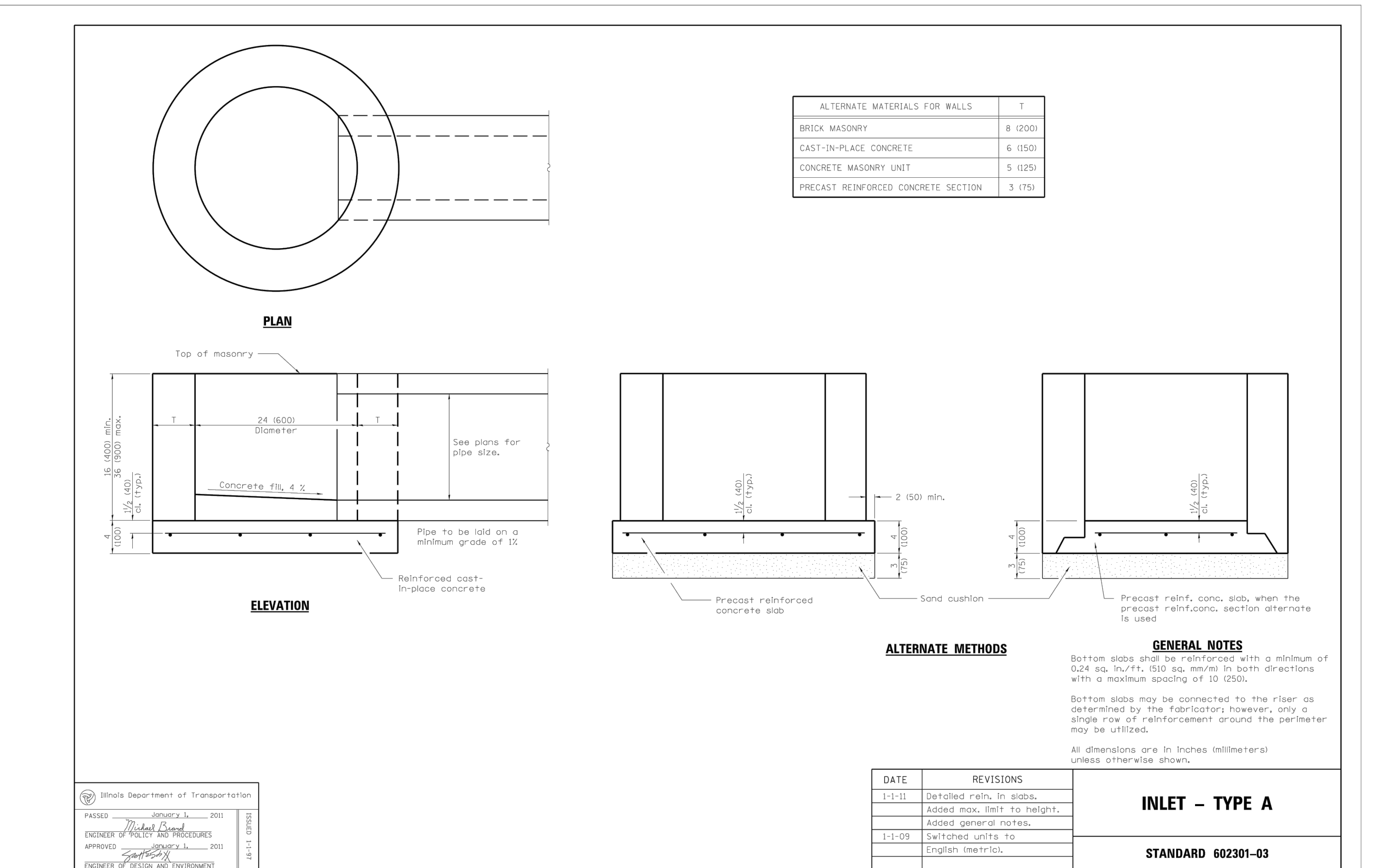


MID-BLOCK CURB RAMPS FOR SIDEWALK DETAIL

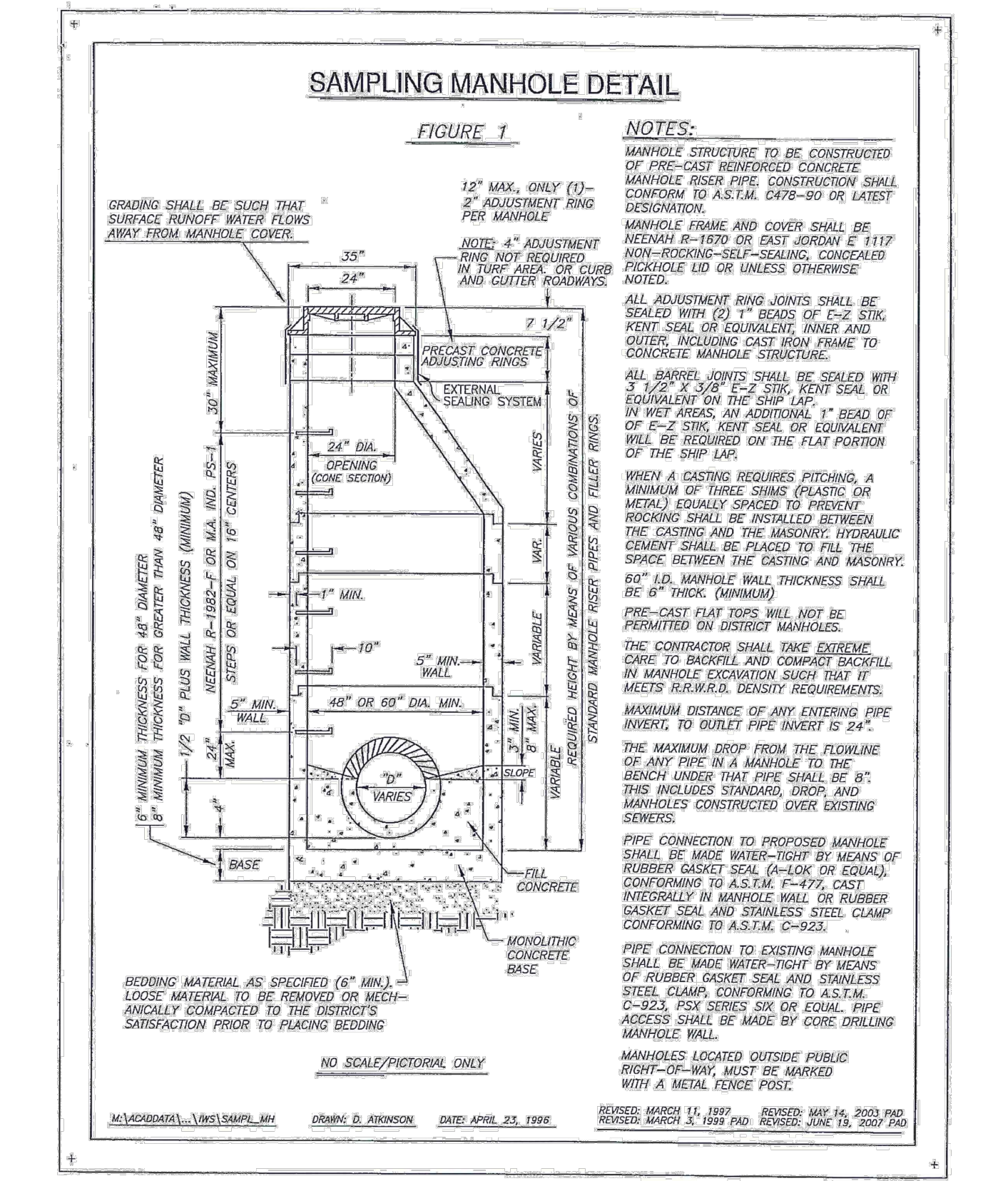
NOT TO SCALE



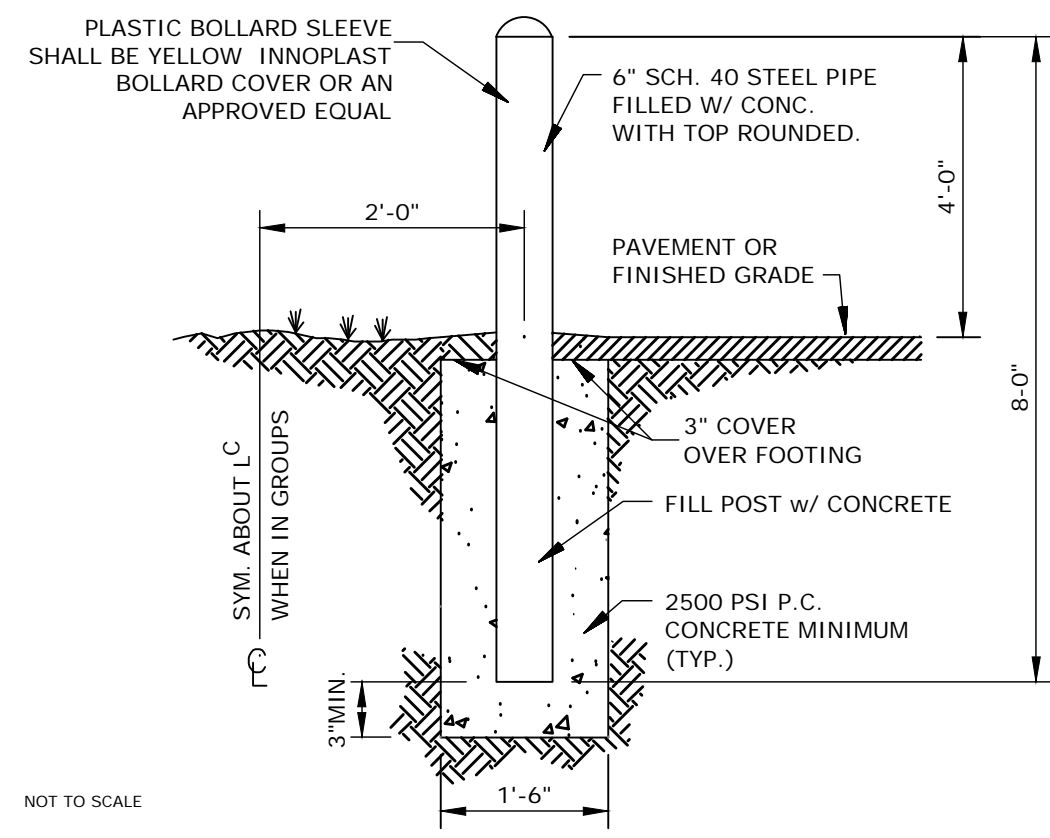
INLET - TYPE A DETAIL



SAMPLING MANHOLE DETAIL



STANDARD BOLLARD DETAIL



DETAILS

Architecture, Planning, & Interior Design  
4615 E. State St. Suite 206  
Rockford, Illinois 61108  
P: 815.397.3330  
F: 815.397.0243  
E: Business@HagneyArchitects.com  
www.HagneyArchitects.com

ARC DESIGN  
RESOURCES INC.

A GYMNASIUM ADDITION AND WINDOW REPLACEMENT FOR:  
**BROOKVIEW ELEMENTARY SCHOOL**  
ROCKFORD, ILLINOIS

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REVISIONS:		
ADDENDUM 4	04-11-2016	
DRAWN BY:		
DATE:	03-11-2016	
PROJECT NUMBER:	15112	
SHEET NUMBER:		
C07		





**OAS, LLC**  
**Engineering Services / Building Commissioning / LEED Consultants**

IFB No. 16-48 Brookview Elementary School Additions and Renovations

Date: April 12, 2016

Addendum Items:

A. Specifications:

1. Section 23 83 10 – Heat Pump Heat Recovery System

a. Page 23 83 10 – 3, Article 2.1 Approved Manufacturers ADD paragraph F. as follows:  
“F. Daikin.”

Sincerely,

Larry L. Arnold, P.E., CBCP, LEED AP

**O’Higgins and Arnold Sustainability, LLC**  
**769 Heartland Dr., Unit A**  
**Sugar Grove, IL. 60554**



OAS, LLC

Engineering Services / Building Commissioning / LEED Consultants

March 12, 2016

Mr. Mark Kehely  
Hagney Architects, LLC  
4615 East State St.  
Suite 206  
Rockford, IL 61108

Re: Brookview School – RPS (043-B-1)  
Equipment Review

Dear Mark,

We have reviewed the information provided on the Daikin equipment/system in reference to specification section 23 83 10 – Heat Pump Heat Recovery System. The proposed equipment meets the requirements of the specifications.

Please call me if you have any questions.

Sincerely,

O'Higgins and Arnold Sustainability, LLC

A handwritten signature in black ink, appearing to read 'Larry L. Arnold'.

Larry L. Arnold, P.E., LEED AP

[Brookview School RPS Daikin equal letter 4-12-16.doc](#)



## SUBSTITUTION REQUEST

(After the Bidding/Negotiating Phase)

Project: \_\_\_\_\_ Substitution Request Number: \_\_\_\_\_  
\_\_\_\_\_  
From: \_\_\_\_\_  
To: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_  
A/E Project Number: \_\_\_\_\_  
Re: \_\_\_\_\_ Contract For: \_\_\_\_\_

Specification Title: \_\_\_\_\_ Description: \_\_\_\_\_  
Section: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

Proposed Substitution: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_  
Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_  
Installer: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_

History: ☐ New product ☐ 1-4 years old ☐ 5-10 years old ☐ More than 10 years old

Differences between proposed substitution and specified product: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

☐ Point-by-point comparative data attached — REQUIRED BY A/E

Reason for not providing specified item: \_\_\_\_\_  
\_\_\_\_\_

Similar Installation:

Project: \_\_\_\_\_ Architect: \_\_\_\_\_  
Address: \_\_\_\_\_ Owner: \_\_\_\_\_  
\_\_\_\_\_ Date Installed: \_\_\_\_\_

Proposed substitution affects other parts of Work: ☐ No ☐ Yes; explain \_\_\_\_\_

Savings to Owner for accepting substitution: \_\_\_\_\_ (\$ \_\_\_\_\_).

Proposed substitution changes Contract Time: ☐ No ☐ Yes [Add] [Deduct] \_\_\_\_\_ days.

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ \_\_\_\_\_

# SUBSTITUTION REQUEST

(After the Bidding/Negotiating Phase — Continued)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: \_\_\_\_\_

Signed by: Andrea Hayes

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Attachments: ☐

## A/E's REVIEW AND ACTION

- ☒ Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- ☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- ☐ Substitution rejected - Use specified materials.
- ☐ Substitution Request received too late - Use specified materials.

Signed by: \_\_\_\_\_ Date: \_\_\_\_\_

Additional Comments: ☐ Contractor ☐ Subcontractor ☐ Supplier ☐ Manufacturer ☐ A/E  
☐ Other:

**REVIEWED**

By Mark Kehely of Hagney Architects LLC at 10:37 am, Apr 12, 2016

Verify that product material meets and is approved by TPO  
roofing mfg.



## SUBSTITUTION REQUEST

(After the Bidding/Negotiating Phase)

Project: \_\_\_\_\_ Substitution Request Number: \_\_\_\_\_  
\_\_\_\_\_  
From: \_\_\_\_\_  
To: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_  
A/E Project Number: \_\_\_\_\_  
Re: \_\_\_\_\_ Contract For: \_\_\_\_\_

Specification Title: \_\_\_\_\_ Description: \_\_\_\_\_  
Section: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

Proposed Substitution: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_  
Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_  
Installer: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_

History: ☐ New product ☐ 1-4 years old ☐ 5-10 years old ☐ More than 10 years old

Differences between proposed substitution and specified product: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

☐ Point-by-point comparative data attached — REQUIRED BY A/E

Reason for not providing specified item: \_\_\_\_\_  
\_\_\_\_\_

Similar Installation:

Project: \_\_\_\_\_ Architect: \_\_\_\_\_  
Address: \_\_\_\_\_ Owner: \_\_\_\_\_  
\_\_\_\_\_ Date Installed: \_\_\_\_\_

Proposed substitution affects other parts of Work: ☐ No ☐ Yes; explain \_\_\_\_\_

Savings to Owner for accepting substitution: \_\_\_\_\_ (\$ \_\_\_\_\_).

Proposed substitution changes Contract Time: ☐ No ☐ Yes [Add] [Deduct] \_\_\_\_\_ days.

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ \_\_\_\_\_



**SUBSTITUTION  
REQUEST**

(After the Bidding/Negotiating Phase — Continued)

- The Undersigned certifies:
- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
  - Same warranty will be furnished for proposed substitution as for specified product.
  - Same maintenance service and source of replacement parts, as applicable, is available.
  - Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
  - Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
  - Proposed substitution does not affect dimensions and functional clearances.
  - Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
  - Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: \_\_\_\_\_  
Signed by: Andrea Hayes  
Firm: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Attachments: ☐

A/E's REVIEW AND ACTION

- ☒ Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.  
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.  
☐ Substitution rejected - Use specified materials.  
☐ Substitution Request received too late - Use specified materials.

Signed by: \_\_\_\_\_ Date: \_\_\_\_\_  
**REVIEWED**  
By Mark Kehely of Hagney Architects LLC at 10:40 am, Apr 12, 2016

Additional Comments: ☐ Contractor ☐ Subcontractor ☐ Supplier ☐ Manufacturer ☐ A/E  
☐ Other:

Verify that product material meets and is approved by TPO roofing mfg.



## SUBSTITUTION REQUEST

(After the Bidding/Negotiating Phase)

Project: \_\_\_\_\_ Substitution Request Number: \_\_\_\_\_  
\_\_\_\_\_  
From: \_\_\_\_\_  
To: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_  
A/E Project Number: \_\_\_\_\_  
Re: \_\_\_\_\_ Contract For: \_\_\_\_\_

Specification Title: \_\_\_\_\_ Description: \_\_\_\_\_  
Section: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

Proposed Substitution: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_  
Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_  
Installer: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_

History: ☐ New product ☐ 1-4 years old ☐ 5-10 years old ☐ More than 10 years old

Differences between proposed substitution and specified product: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

☐ Point-by-point comparative data attached — REQUIRED BY A/E

Reason for not providing specified item: \_\_\_\_\_  
\_\_\_\_\_

Similar Installation:

Project: \_\_\_\_\_ Architect: \_\_\_\_\_  
Address: \_\_\_\_\_ Owner: \_\_\_\_\_  
\_\_\_\_\_ Date Installed: \_\_\_\_\_

Proposed substitution affects other parts of Work: ☐ No ☐ Yes; explain \_\_\_\_\_

Savings to Owner for accepting substitution: \_\_\_\_\_ (\$ \_\_\_\_\_).

Proposed substitution changes Contract Time: ☐ No ☐ Yes [Add] [Deduct] \_\_\_\_\_ days.

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ \_\_\_\_\_

# SUBSTITUTION REQUEST

(After the Bidding/Negotiating Phase — Continued)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
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- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: \_\_\_\_\_

Signed by: Andrea Hayes

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Attachments: ☐

## A/E's REVIEW AND ACTION



- ☒ Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.  
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.  
☐ Substitution rejected - Use specified materials.  
☐ Substitution Request received too late - Use specified materials.

Signed by: \_\_\_\_\_ Date: \_\_\_\_\_

**APPROVED**

By Mark Kehely of Hagney Architects LLC at 4:21 pm, Apr 11, 2016

Additional Comments: ☐ Contractor ☐ Subcontractor ☐ Supplier ☐ Manufacturer ☐ A/E  
☐ Other: