

ADDENDUM # 003

St. Clair Catholic District School Board

Our Lady of Fatima 545 Baldoon Rd Chatham, ON

Mechanical & Washroom Renovations Project No. 619-CP1825

Prepared by:

Wilson Diaz Architects Inc. 280 Queens Ave, Suite 1Q London, Ontario N6B 1X3

May 8th. 2018

This addendum forms part of the Contract Bid Documents and amends the original drawings and specifications issued for Bid on April 12th. 2018

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PART A - GENERAL

1.1 QUESTIONS:

a. <u>Question</u>: On drawing A800 Detail 2 Finish Schedule, it calls for Roller Shades. I can't find them in the drawings or specifications. Please advise.

<u>Answer</u>: Section 12241 Roller Shades have been added to the specifications and is included in this addendum.

b. <u>Question</u>: Can you find out if the heat pump piping is to be insulated as per the hot water heating lines or the domestic hot water lines

Answer: Heat pump piping is not to be insulated.

c. <u>Question:</u> On drawing A850, elevations 5, 6 and 8, the note indicates New Schluter Cap at wall tile grout lines.

I understand installing the New Schluter Cap on the top edge where the wall tile stops and does not go all the way to ceiling.

Please let me know if the New Schluter Cap is typical at all Ceramic wall tile in lieu of wall tile grout at the Universal Washroom.

<u>Answer:</u> New Schluter Cap should only be installed where the wall tile stops. The universal washroom elevations have been revised as per the attached architectural sketches ASK-009 and ASK-010 showing wall tile installed 2150mm up wall with Schluter edge cap.

d. <u>Question:</u> Drawings A502- what R-value of foam is required for interior side of entrance overhangs?

<u>Answer:</u> The R-value of foam required for the interior side of the entrance overhangs is to match that of the adjacent wall assemblies at 80mm thickness.

Addendum #003

e. <u>Question:</u> Drawing 1&2/A501 shows VB at FW1 wall- please clarify VB material and which trade is responsible for this scope of work?

<u>Answer:</u> This material should be Blueskin SA or an equivalent product. The trade responsible is at the General Contractor's discretion.

f. Question: The OBC Matrix on drawing A000-shows standpipe as being required A. Fire protection drawing M301 – does not show any standpipe. Please clarify.

Answer: A standpipe system is not required for this project.

g. <u>Question:</u> Can you please advise if there are prequalified subcontractors associated with this project, often school boards will prequalify major contractors such as Mechanical, Electrical and Masonry. I have not found any reference to this in the spec, can you please advise?

<u>Answer:</u> There are not any prequalified subcontractors selected for this project.

PART B - SPECIFICATIONS

1. Revised Table of Content

1 Page

Included new specification Division and Section

2. Revised Bid Form: Alternate Price #2

6 Page

Revised wording of Alternate Price #2 for clarity

3. Added Specification Section

3 Page(s)

Division 12 – Furnishings - Section 12241 Roller Window Shades has been added to the specification section.

PART C - ARCHITECTURAL DRAWINGS

RESERVED

PART D - STRUCTURAL DRAWINGS

RESERVED

PART E - MECHANICAL / ELECTRICAL DRAWINGS

RESERVED

ARCHITECTURAL SKETCHES INCLUDED

1. ASK-008 – Part Demolition Plan (AD/100)

Cut opening in roof membrane, rigid insulation and metal deck to allow for rooftop condensing unit ducts to penetrate into building. Refer to mechanical drawings for CU section (1/M102) and roof curb detail.

2. ASK-009 - Universal Washroom Elevation

Wall tile to be installed 2150 up Universal Washroom walls and capped with Schluter edge.

3. ASK-010 – Universal Washroom Elevation

Wall tile to be installed 2150 up Universal Washroom wall North Wall and capped with Schluter edge. East wall will not have any wall tile and will instead be painted concrete

block.

4. ASK-011 - OBC Matrix Revision

OBC matrix revised to reflect that a standpipe system is not required for this project.

5. ASK-012 - Childcare Door & Window

Remove door D114 from schedule and scope of work. No demolition work to be done on wall in sketch ASK-001 from Addendum #001 in this phase.

ATTACHMENTS INCLUDED

1. Mechanical and Electrical Addendum.

END OF ADDENDUM # 003

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Submitted By:		
To:	St. Clair Catholic District School Board	

Project: No. 619-CP1825

General Renovations and Addition for Mechanical Equipment

Our Lady of Fatima Catholic School 545 Baldoon Rd Chatham, Ontario

1) <u>BID PRICE</u>

The Drawings, Specifications and other Contract Documents for this Project have beer
examined, as well as the premises and job site conditions affecting the work. The
undersigned hereby offers to complete the work in accordance with the Contract
Documents for the following bid price, except as defined below for HST:

 Dollars (\$	·

in Canadian funds EXCLUDING HST. HST will be added to the bid price.

In submitting this Bid, the undersigned recognizes and accepts the right of the Owner to accept any Bid, which is deemed the most advantageous to the Owner, (or any part thereof), at the price submitted, or to reject any or all Bids. Acceptance of the Bid and/or award of the contract is subject to the approval of the **St. Clair Catholic District School Board**.

In the event that a discrepancy arises between the written bid price and the associated numerical price, the written bid price will be deemed to be correct.

Harmonized Sales Tax (HST)

The bidder shall not include the applicable HST in the bid price. The successful contractor will indicate on each application for payment as a separate amount the appropriate HST the Owner is obliged to pay.

2) CASH ALLOWANCES

1. Include a Stipulated Sum of Forty-Five Thousand Dollars (\$45,000.00) to cover costs associated with the supply and installation of new hardware.

- 2. Include a Stipulated Sum of Three Thousand Dollars (\$3,000.00) to cover costs associated with rework of existing security system in areas affected by construction (Damar).
- 3. Include a Stipulated Sum of Five Thousand Dollars (\$5,000.00) to cover costs associated with removal of unforeseen Asbestos products discovered during construction.
- 4. Include a Stipulated Sum of Three Thousand Dollars (\$3,000.00) to cover costs associated with reinstallation of Fibre Optic communications cable (Cogeco).

The General Contractor is to coordinate and ensure that all cash allowances specified in section 15001-22 Mechanical General Provisions, described under section 3.27 are fully accounted for in the Base Bid price.

The General Contractor is to coordinate and ensure that all cash allowances specified in section 16001-22 Electrical General Provisions, described under section 3.24 are fully accounted for in the Base Bid price.

Time and Materials rates to be applied against Cash Allowance work. Final reconciliation will adjust the cash allowance as credit the SCCDSB for unexpended amounts and extra to the contractor for over expenditure. The contractor shall refer to the documents for the reconciliation terms and conditions.

3) PRE-ORDERED EQUIPMENT

In order to achieve construction completion milestones as set out in the Instructions to Bidders - 1.11 Timing of Project; the St. Clair Catholic District School Board has prearranged certain items that may require a long lead time for delivery. The St. Clair Catholic District School Board has received fixed quotations through Chorley and Bisset Consulting Engineers and is issuing a letters of intent to proceed with the preparation of shop drawings and once shop drawings have been reviewed, to start production. The contractor and subcontractors herein agrees to assume the materials and equipment orders at the quoted price listed below for inclusion into the work and pay for the items based upon the received quotations. The contractor and subcontractors shall have complete control over all aspects of the work including payment for shop drawing processing (included in the Quotation Prices) delivery, storage, placement and coordination of the work. The contractor and subcontractors shall apply all mark-ups, profit and overhead for the assumed materials & equipment and shall be responsible for all warrantees and other requirements as stipulated as part of this bid submission. No other costs, levies, charges, overhead or profit shall form part of any claim after the bid has closed.

The following items have been pre-arranged:

1. Fluid Cooler

EVAPCO - Bid Amount \$79,950.00 + HST - Equipment Delivery 7 weeks.

2. Heat Pumps

CARRIER - Bid Amount \$53,000.00 + HST - Equipment Delivery 6 weeks.

3. ROOF TOP UNIT

AAON - Bid Amount \$52,425.00 +HST - Equipment Delivery 7 weeks.

4. Lighting Equipment

ELECTROZAD – Bid Amount \$37,175.00 + HST - Equipment Delivery 5 weeks.

5. Electrical Distribution Equipment

WESCO - Bid Amount \$34,995.00 + HST- Equipment Delivery 6 weeks.

<u>MOTE:</u> Equipment Delivery is latest delivery date in work weeks from Monday May 15th. 2018.

4) <u>INSURANCE</u>

	ndersigned carries Policy # following amounts:	with	
1.	Comprehensive General Insurance	\$	
2.	Automobile Liability Insurance	\$	

Provide a signed standard form provided by the Contractor's insurance company or broker stated its intention to provide insurance to the Bidder in accordance with the insurance requirements of the Contract Documents.

5) BONDING

The undersigned has provided with this bid the required Bonding and Surety as outlined in the Instruction to Bidders, Paragraph 1.08.

6) WORKPLACE SAFETY AND INSURANCE BOARD

The Bid package is to include a current Certificate of Good Standing from the Workplace Safety and Insurance Board (WSIB).

7) TIME OF COMPLETION

The undersigned hereby affirms and states that, if awarded the Contract for said work, the entire contract will be completed within the time frames as stated in the Instructions to Bidders, Paragraph 1.11.

8) SUMMARY

The undersigned agrees that the bid price shall remain in effect for a period of 60 (sixty) calendar days from the date of receipt of bids. The undersigned agrees to assume all increases in labour rates and material prices, taxes, duties, cost indexes, or any other rates that may develop during the life of this Contract.

9) DOCUMENTS AND INFORMATION

This Bid is based on the following:

- 1. Bid Form
- 2. Instructions to Bidders
- General Conditions
- 4. Drawings/Sketches
- Specifications

10) SCOPE OF WORK

As described in the Drawings and Specifications, the work includes demolition of exterior masonry face brick, interior load bearing & non-load bearing partitions, ceilings, portions of door and window assemblies, concrete floors for underfloor services, finishes and site works demolition. New work includes new exterior wall facing assemblies, new door & window systems, and parapet renovations. New work also includes the construction of a new mechanical room area and reworking of interior spaces to be included as part of the introduction of major mechanical equipment upgrades. New washroom areas and corridor improvements to be completed. Major mechanical work will include the phased installation of a building sprinkler system, new heat pumps, new ventilation systems and associated mechanical services. Lay in Acoustic (LAT) and some Gypsum Wall Board (GWB) ceilings will be replaced with new ceiling systems once above ceiling mechanical and electrical work has been completed in new areas. In certain areas where ongoing above ceiling work is required, ceiling systems will be completed with new suspended track and finished with previously removed and stored existing ceiling tile as noted on drawings. Site work to provide new underground water service to a newly created water service room are also part of the general scope of work for this project.

11) ADDENDA

The undersigned acknowledges receipt of Addenda Numbers _____ through ____ inclusive, and that the price, or adjustment thereof, for all work required therein is included in this proposal.

12) SEPARATE PRICES

Not Applicable

13) UNIT PRICES

Not Applicable

14) ALTERNATE PRICES

It is accepted that the intent of alternate prices is to allow the Owner to select an alternate scope of work at a price which is declared below, and solely at the owner's discretion.

The following prices have not been included in the Base Bid amount. The following prices, if accepted by the owner, shall include all labour, material, tools, equipment, overhead and profit, but exclude H.S.T. No other cost consideration shall be added to the contract for the scope of this work if accepted by the owner.

Alternate Price #1:

In lieu of providing new replacement windows (55) only, provide the cost of carefully removing the existing windows & frames, store and reinstall coordinated with ongoing masonry restoration. Provide new wall flashing brackets, closures, waterproofing, and sealants. Provide costs related to the installation of a 190mm deep stone sill with support clip in lieu of standard 90mm stone sill without support clip. Entirely clean all units, ensure all glazing is in good condition without seal breaks, ensure all insect screens are in as new condition and repair any defects with frames, windows and hardware. Assume all liability for damage. Refer to Drawing details on Drawing A625.

Extra \$_	Credit \$
	(Complete only the appropriate Value Change)

Alternate Price #2:

In lieu of providing new luminaires as indicated on Electrical Drawings E100 and E200 (total 156 fixtures); carefully remove, store and reinstall existing luminaires shown on Electrical Drawing E400 (total 200 fixtures). All lighting controls to remain. Remove and reinstall existing ceiling mounted lighting controls to facilitate new ceilings. Prior to reinstalling luminaires; contractor to clean all reflectors and lenses. Coordinate with ongoing lay-in ceiling tile work. Assume all liability for damage, and replace all lenses, lamps and luminaires broken during removal and/or reinstallation.

Extra	\$_	Credit \$
		(Complete only the appropriate Value Change)

15) <u>LIST OF SUBCONTRACTORS</u>

The following is the list of subcontractors to which reference is made on the submitted Bid Form.

No changes to the List of Subcontractors will be allowed without the Consultant's express written permission.

List each subcontractor by his firm's proper legal designation, and indicate whether his business is carried on as an individual, partnership, or limited company.

The bidder submits that in proposing the listed subcontractors, he has consulted each and has ascertained to his complete satisfaction that those named are fully acquainted with the extent and nature of the work involved and of the proposed construction schedule, and that they will execute their work to conform to the requirements of the Contract Documents.

	List of Subcontractors:	
	Demolition	
	Masonry	
	Steel	
	Glazing	
	Metal Siding	
	Mechanical	
	Electrical	
16)	EXECUTION OF CONTRACT	
	The Contract form will be a stand (CCDC) #2 2008 - Stipulated Sur	struction Documents Committee
	SIGNATURE:	
	NAME PRINTED:	
	TITLE:	
	COMPANY:	
	ADDRESS:	
	PHONE:	
	FAX:	
	DATE:	

END OF BID FORM

PART 1 - GENERAL

1.1. **General Instructions**

1.1.1. Read and be governed by conditions of the Contract and sections of Division 1 and General Conditions.

1.2. Installer Qualifications

1.2.1. Installation of the work of this section shall be by forces in the direct employ or under control of the system manufacturer, skilled, trained, and experienced in work of similar scope and complexity.

1.3. Submittals

- 1.3.1. Submit required submittals in accordance with Section 01300.
- 1.3.2. Shop Drawings:
 - 1.3.2.1.1. Submit shop drawings or fully dimensioned catalogue cuts.
 - 1.3.2.1.2. Clearly indicate general construction, configurations, jointing methods and locations, fastening methods and installation details.
- 1.3.3. Samples:
 - 1.3.3.1.1. Submit samples of each material and finish colour selected and each accessory for review.
- 1.3.4. Mock-Up:
 - 1.3.4.1.1. Erect mock-up in accordance with Section 01400.
 - 1.3.4.1.2. Erect 1 full size mock-up each roller shade type at the Place of Work for review. Completed and accepted mock-up shall act as the standard to which balance of the work of this section will be judged.
- Maintenance Instructions: Submit in accordance with Section 01700.

1.4. Protection

- 1.4.1. Before delivery to the Place of the Work, check each shade for operation; remove finger marks and smudges.
- 1.4.2. Tightly wrap Products in polyethylene or other protective covering and leave in open position until directed.

1.5. Delivery, Storage and Handling

1.5.1. Package Products to prevent distortion in shipment and handling. Label packages and crates, and protect finish surfaces by sturdy wrappings.

1.6. Warranty

1.6.1. The warranty period with regard to the work of this section is 2 years, in accordance with Section 01780.

PART 2 - PRODUCTS

2.1. Window Shades Systems

- 2.1.1. Roller shade systems as manufactured by Solarfective Products Ltd. and distributed by Patry Products Inc., Tel 416-282-1771, or approved alternative.
 - 2.1.1.1. Surface mounted motorized roller shades with fascia covers.
- 2.1.2. Shade systems specified in this section shall be one manufacturer who shall take full responsibility for the total project.

2.1.3. Operation:

 Manual: Easy-Lift Action, chain operated, with infinite positioning. Left or right hand operation as applicable to suite Place of the Work condition.

2.1.3.1.1. Drive Assembly:

- 2.1.3.1.1.1 Must allow fingertip control and include a built in shock absorber system to prevent chain breakage under normal operating conditions.
- 2.1.3.1.1.2. Factory set for the size and travel of the shades;
- 2.1.3.1.1.3. Capable of being field adjusted from the exterior of the shade unit without having to disassemble the hardware.
- 2.1.3.1.1.4. Drive Chain: No. 10 stainless steel bead chain formed in a continuous loop. The chain shall have a 40 kg (90 lb) load test. Chain may be positioned at either, or both, ends of the shade without disassembly of the shade unit.
- 2.1.3.1.1.5. Each shade shall have a counter balancing mechanism designed to offset the weight of the shade and give fingertip control.

2.1.4. Assembly:

- 2.1.4.1. Provide fully factory assembled shade unit consisting of 2 end shade brackets, shade tube, extruded aluminum fascia, hembar and fabric as specified.
- 2.1.4.2. End Brackets: a two piece molded ABS construction with a 6.35 mm (1/4") diameter nylon drive sprocket. Bracket colour shall coordinate with the fascia colour.
- 2.1.4.3. Shade Tube:1.52 mm (0.060") thick extruded aluminum with three equally spaced continuous stiffening fins 4.82 mm (3/16") high.
- 2.1.4.4. Manual shade rollers: 38 mm (1-1/2") diameter.
- 2.1.4.5. Motorized shade rollers: 64 mm (2-1/2") diameter.
- 2.1.4.6. Fascia: 1.7 mm (0.067") thick extruded aluminum. Finish to be clear anodized
- 2.1.4.7. Exterior Hembar: extruded aluminum with matching plastic end finials. Finish to be clear anodized.

2.1.4.8. Mounting: Mounting type to be face of mullions as indicated. Removal of shade system shall not require the disassembly of the shade unit.

2.1.5. Shade Mounting System:

- 2.1.5.1. Extruded aluminum bracket designed to accept preassembled shade system. Brackets to be used to facilitate the alignment of the shade opening with the ceiling. TELE-VENT Bracket to be of sufficient strength to prevent encroachment by other trades into shade space, and to ensure the underside of the fascia is within 1.5 mm (1/16") of the ceiling elevation. Brackets are not intended to be a ceiling support member. Brackets shall be supplied to Section 09250 for positioning and installation.
- 2.1.5.2. Modular Construction: Shades must be removable as a complete modular unit without any component disassembly required.

2.1.6. Shade Cloth:

- 2.1.6.1. Solar Shade fabric: 300 Series woven of 0.018 opaque vinyl coated polyester yarn consisting of approximately 75% PVC and 25% polyester core yarn. The fabric shall be tensioned in the finishing range prior to heat setting to keep warp ends straight and minimize or eliminate weave distortion to keep the fabric flat. Fabric: dimensionally stable, 3% openness factor, 21 oz/yd² weight. Colour to be Grey.
- 2.1.6.2. Performance: Fabric shall hang flat, without buckling or distortion. Edge, (where trimmed) shall hang true and straight, without shifting sideways more than 3 mm (1/8") in either direction due to warp distortion or weave design.
- 2.1.6.3. Flame Retardance: Certified by an independent Laboratory to pass CAN/LUC-S109 Large Flame Test.
- 2.1.6.4. Incorporate reinforcing, fastening and anchorage required for installation of shades.

PART 3 - EXECUTION

3.1. Installation

- 3.1.1. Shades to be snapped into place without screws or visible fasteners once initial cleanup is completed.
- 3.1.2. Securely attach all installation fittings to their mounting surfaces with stainless steel or hardened aluminum screws of correct length and type, and with compatible plugs or anchors where required.
- 3.1.3. Install shade roller true and level, and with cloth to hang flat without buckling or distortion.

3.2. Adjustment and Cleaning

- 3.2.1. Verify that installed shade system functions properly and adjust it accordingly to ensure satisfactory operation.
- 3.2.2. Refinish damaged or defective work so that no variation in surface appearance is discernible.

END OF SECTION

Our Lady of Fatima
Phase 2 Renewal
Chatham, Ontario
St. Clair Catholic District School Board

Chorley + Bisset Ltd.
Consulting Engineers
London, Ontario

7 May 2018

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Plus Section 16705 Security and Access Control Section 16700 Appendix A

ADDENDUM NO. 2

Make the following amendments and additions to the Drawings and Specifications, and include this cost in the Contract Price.

1. MECHANICAL SPECIFICATIONS

- 1. Section 15001 Mechanical General Provisions
 - 1. Revise Clause 3.27.1.2: Revise amount to "\$102,450.00".
 - 2. Insert Section 3.33 Pre-Bid Equipment Values and Scope, with the following clauses::
 - 3.33.1 \$53,000.00 to cover the cost of Equipment specified in Section 15600, Clause 2.22. Refer to revised Bid Form issued as part of Architectural Addendum #003.
 - 3.33.2 \$52,425.00 to cover the cost of Equipment specified in Section 15600, Clause 2.23. Refer to revised Bid Form issued as part of Architectural Addendum #003.
 - 3.33.3 \$79,950.00 to cover the cost of Equipment specified in Section 15600, Clause 2.24. Refer to revised Bid Form issued as part of Architectural Addendum #003.

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2. Section 15600 - Liquid Heat Transfer

- 1. Insert Clause 2.22.1 and revise subsequent clause numbering to suit:
- 2.22.1 Pre-Bid Equipment: For the equipment included in this clause, conform to the requirements of Section 15001, "Mechanical General Provisions". The Owner will issue a letter of intent to the equipment supplier to begin shop drawing preparation and subsequently production. The successful mechanical contractor will be required to issue a purchase order to the supplier for supply of this equipment. For the work of this Section, use only Carrier. Contact Pete Edmiston at Pete.Edmiston@carrierenterprise.com/519-455-7000.
- 2. Insert Clause 2.23.1 and revise subsequent clause numbering to suit:
- 2.23.1 Pre-Bid Equipment: For the equipment included in this clause, conform to the requirements of Section 15001, "Mechanical General Provisions". The Owner will issue a letter of intent to the equipment supplier to begin shop drawing preparation and subsequently production. The successful mechanical contractor will be required to issue a purchase order to the supplier for supply of this equipment. For the work of this Section, use only Aaon as supplied by Kilmer Environmental. Contact David Connor at David@kilmerenv.com/519-280-8049.
- 3. Insert Clause 2.24.1 and revise subsequent clause numbering to suit:
- 2.23.1 **Pre-Bid Equipment:** For the equipment included in this clause, conform to the requirements of Section 15001, "Mechanical General Provisions". The Owner will issue a letter of intent to the equipment supplier to begin shop drawing preparation and subsequently production. The successful mechanical contractor will be required to issue a purchase order to the supplier for supply of this equipment. For the work of this Section, use only Evapco as supplied by GPA Inc. Contact Mike Tomkinson at mtomkinson@gpainc.ca/905-851-3991.

2. ELECTRICAL SPECIFICATIONS

- 1. Section 16001 Electrical General Provisions
 - 1. Insert Section 3.25 Pre-Bid Equipment, with the following clauses:
 - 3.25.1 \$37,175.00 to cover the cost of supply of all Lighting Equipment, as indicated on the drawings and within the applicable specification sections. Rough-in boxes, conduit, wiring and installation are part of the Base Bid Price of Division 16. Refer to revised Bid Form issued as part of Architectural Addendum #003. These items include the following:
 - -Luminaire Types: A1, A2, A3, B1, D1, D2, J and J1
 - -Room Controllers
 - -Low Voltage Switches and Occupancy Sensors
 - -Line Voltage Occupancy Sensors
 - -Exit Sians
 - -Emergency Batteries and Remote Heads

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- 3.25.2 \$34,995.00 to cover the cost of supply of Distribution Equipment, as indicated on the drawings and within the applicable specification sections. Rough-in boxes, conduit, wiring and installation are part of the Base Bid Price of Division 16. Refer to revised Bid Form issued as part of Architectural Addendum #003. These items include the following:
 - -Panel A
 - -Panel C
 - -Panel MA
 - -Panel HPA
 - -Distribution Board DP1

2. Section 16400 - Service and Distribution

- 1. Insert Clause 2.1.4:
- 2.1.4 **Pre-Bid Equipment:** This includes equipment in clauses 2.2, 2.3, 2.4 and 2.5. Conform to the requirements of Section 16001, "Electrical General Provisions". The owner will issue a letter of intent to the equipment supplier to begin shop drawing preparation and subsequently production. The successful electrical contractor will be required to issue a purchase order to the supplier for supply of this equipment. Equipment in this section to be supplied by Wesco. Contact Adam Hilker at Wesco (ahilker@wescodist.com).

3. Section 16500 - Lighting

- 1. Insert Clause 2.1.4:
- 2.1.4 Pre-Bid Equipment: This includes equipment in clauses 2.2, 2.3 and 2.4. Conform to the requirements of Section 16001, "Electrical General Provisions". The owner will issue a letter of intent to the equipment supplier to begin shop drawing preparation and subsequently production. The successful electrical contractor will be required to issue a purchase order to the supplier for supply of this equipment. Equipment in this section to be supplied by Electrozad Supply Co. Contact Jeff Harloff at Electrozad Supply Co. (Jharloff@electrozad.com).

4. Section 16550 - Lighting Control Systems

- 1. Insert Clause 2.1.3:
- 2.1.4 **Pre-Bid Equipment:** This includes equipment in clauses 2.2, 2.3 and 2.4. Conform to the requirements of Section 16001, "Electrical General Provisions". The owner will issue a letter of intent to the equipment supplier to begin shop drawing preparation and subsequently production. The successful electrical contractor will be required to issue a purchase order to the supplier for supply of this equipment. Equipment in this section to be supplied by Electrozad Supply Co. Contact Jeff Harloff at Electrozad Supply Co. (Jharloff@electrozad.com).

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5. Section 16700 - Communications Raceways

- 1. Add "Refer to attached door hardware elevations and provide all work and materials as noted" to Clause 1.3.2.
- 2. Add Appendix A: "Door Hardware Elevations" attached.

6. Section 16705 - Security and Access Control

1. Add Section 16705 attached in its entirety.

3. ELECTRICAL DRAWINGS

1. Drawing E100 - Electric Heaters

1. Revise manufacturer/model number to: "Ouellet Cat # OACP-2250-T, 410mm x 561 mm white electric ceiling mounted recessed fan heater"

2. Drawing E100 - Mechanical Equipment Schedule

1. Revise Breakers for HP-405 and HP-406 to be 30A 3P. Revise Conductor to be 3#10. Confirm with Division 15 prior to ordering. Add note "Provide loose 30A 3P breaker for all HP-405 and HP-406."

3. Drawing E300 - Ground Floor Plan - Power and Systems

- Add Security Door Position Switch to all new exterior doors. Typical of six double doors.
- 2. Add Note 9 to read: "Refer to door hardware elevations attached to 16700. Provide all rough-in, power and fire alarm work."

END OF ADDENDUM NO. 2

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1	General
1.1	GENERAL REQUIREMENTS
1.1.1	Conform to the requirements of Section 16001, "Electrical General Provisions".
1.1.2	Products will comply with the latest edition of the following Standards:
	CAN/ULC-S302-M91, Installation and Classification of Burglar Alarm Systems for Financial and Commercial Premises, Safes and Vaults CAN/ULC-S303-M91, Local Burglar Alarm Units and Systems CAN/ULC-S306-03, Intrusion Detection Units CAN/ULC-S319-05, Electronic Access Control Systems CAN/ULC-S525-99, Audible Signal Appliances
1.2	DESCRIPTION OF SYSTEMS
1.2.1	Security System
1.2.1.1	Extend existing hardwired DSC security system including conduits, devices and all necessary components, as recommended by manufacturer.
1.2.1.2	Provide door contacts and motion sensors.
1.3	SUBMITTALS
1.3.1	Submit Shop Drawings in accordance with the General Conditions of the Contract and as specified in this Section.
1.3.2	Provide a written description of the proposed system configuration augmented with block diagrams identifying the location of all system components and associated cable routings.
1.3.3	Provide lists of all off-the-shelf and custom equipment, including equipment quantities.
1.3.4	Provide the mechanical, electrical and environmental specifications for all listed equipment and cable.
1.3.5	Provide an overview of any equipment installation techniques which may deviate from the standards contained in this Section. Expose all such installation techniques for prior approval by the Consultant.
2	Products
2.1	MATERIALS
2.1.1	Use materials specified herein or approved equal.
.2.1.2	Conductors in inaccessible ceiling spaces and partitions are to be installed in electrical metallic tubing in accordance with Specification Section 16700.
2.1.3	Conceal all wiring above finished suspended ceilings, except where otherwise noted.

2.1.4 Outlet boxes are to be code gauge, galvanized steel, of a depth necessary to accommodate the number of wires and the device contained therein.

2.2 **SECURITY SYSTEM**

2.2.1 **Detection Devices**

- 2.2.1.1 Door contacts are to be sleeved to fit flush in door frame. Provide repulsion type magnet contacts, suitable for wide gap 2.22 cm (.875"), SPDT contacts, white finish, type similar to Sentrol 1078 CAQ series.
- 2.2.1.2 Overhead door contacts are to be mounted to side of the door and track. Provide repulsion type magnet contacts, suitable for wide gaps up to 7 mm (3"), SPST contacts, all aluminum housing, 900 mm (36") stainless steel armoured cable, door and door track mounting hardware, Sentrol 2500 Series with 1092A brackets.
- 2.2.1.3 Quad element motion detector with digital motion detection (no analog detection) circuitry and shielded from EMI and RFI signals, 12 m x 12 m (40′ x 40′) range with 110° viewing angle, complete with form C relay and anti-tamper switch. Paradox DG65-C.

2.2.2 **Wiring**

- 2.2.3 All wiring to be a minimum 22 gauge four conductor, CMP rated, as per manufacturer's recommendations.
- 2.2.4 The following manufacturers of the above equipment will be considered equal subject to requirements of Clause "Material and Equipment":

DSC NEO

3 Execution

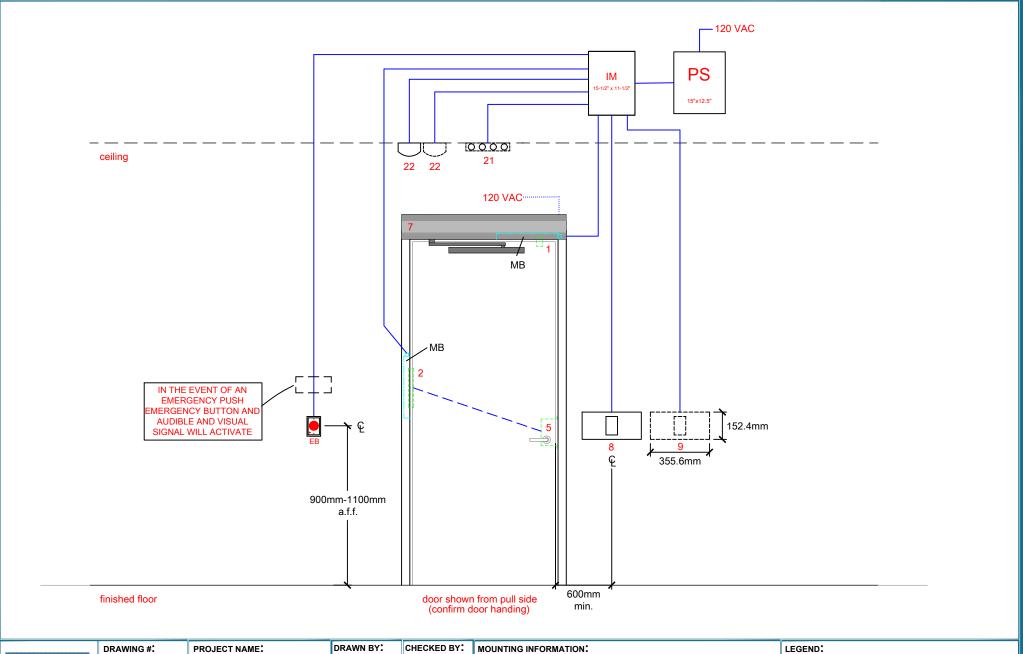
3.1 GENERAL INSTALLATION

- 3.1.1 Provide all necessary wiring, conduits, outlet boxes and devices for a complete system. Conceal all wiring.
- 3.1.2 Install all wiring to manufacturer's recommendations. Conceal all conduit within ceiling spaces, walls or partitions, where possible.
- 3.1.3 Submit complete detailed wiring diagrams with description of system upon completion as per Section 16100. Provide all required instructional support to permit correct use of system by staff members.
- 3.1.4 Coordinate with door hardware supplier all requirements for system components, door strikes, concealed door contacts in particular. Coordinate power and electrical parameters with the door hardware supplier.
- 3.1.5 Included in Base Bid for manufacturers representative to spend four hours on site for training Owner's Staff on the operations, maintenance and setup of the access control system. Notify Consultant seven days in advance of scheduled training.

3.2	SECURITY SYSTEM
3.2.1	Flush-mount door contacts in new doors/frames. Wire and connect each door contact to a separate system alarm zone as indicated.
3.2.2	Do not install detectors and door contacts until all room finishes, door trim and seals have been installed.
3.2.3	Mount entry delay horns in ceiling space above key pad.
3.2.4	Provide all necessary programming with documentation and backup. Provide one installation manual, two programming worksheets, 10 sets of User manuals, and 20 quick reference cards. Provide hardware means of convenient backing up and restoring the system program.
3.2.5	Wire all detection devices using form C contact and end of line resistor to provide full supervision against open circuits. Where provided, wire NC tamper switch in series with end of line resistor to provide trouble at panel if activated.
3.2.6	Operation
3.2.6.1	System Disarming
3.2.6.1.1	Opening a designated entry doors will activate door contacts.
3.2.6.1.2	Audible entry (delay horn) tone will advise the operator that the system is armed and the delay on entry has been activated. The operator has 15 seconds to enter their P.I.N. number to disarm the system.
3.2.6.2	Motion Detectors
3.2.6.2.1	On activation of a motion detector, the system panel will initiate an alarm signal.
3.2.6.2.2	On activation of a motion detector tamper switch, the system panel will initiate a trouble signal.
3.2.6.3	Door Contacts
3.2.6.3.1	Activation of a door contact defined as "instant", the system panel will initiate an alarm signal.
3.2.6.3.2	Activation of a door contact defined as "delay", the entry tone will sound and at the end of the programmed delay time period, the system panel will initiate an alarm signal if the system has not been disarmed.
3.3	VERIFICATION AND COMMISSIONING
3.3.1	Verify system and all connected components operation, and provide written Certificate of Verification.
3.3.2	Notify Owner and Consultant minimum seven days in advance of scheduled verification.
3.3.3	Provide all necessary tools, ladders and equipment.

3.3.4	Ensure appropriate subcontractors, and manufacturer's representatives and security specialists are present for verification.
3.3.5	Visual verification: Objective is to assess quality of installation and assembly and overall appearance to ensure compliance with Contract Documents. Visual inspection to include:
3.3.5.1	Sturdiness of equipment fastening.
3.3.5.2	Non-existence of installation related damages.
3.3.5.3	Compliance of device locations with drawings and reviewed shop drawings.
3.3.5.4	Compatibility of equipment installation with physical environment.
3.3.5.5	Inclusion of all accessories.
3.3.5.6	Device and cabling identification.
3.3.5.7	Application and location of ULC approval decals.
3.3.6	Technical verification: Purpose to ensure that all systems and devices are properly installed and free of defects and damage. Technical verification includes:
3.3.6.1	Measurements of coverage patterns
3.3.6.2	Connecting joints and equipment fastening.
3.3.6.3	Compliance with manufacturer's specification, product literature and installation instructions.
3.3.7	Operational verification: Purpose to ensure that devices and systems' performance meet or exceed established functional requirements. Operational verification includes:
3.3.7.1	Operation of each device individually and within its environment.
3.3.7.2	Operation of each device in relation with programmable schedule and or/specific functions.
3.4	ACCESSORIES
3.4.1	Turn accessories (reference cards, proximity cards, etc.) over to Owner at end of construction. Provide signed letter from Owner listing items and quantities of accessories confirming receipt, and include in electrical manuals.

END OF SECTION





RG SCCDSB Our Lady of Fatima April 3, 2018 REVISED 2:

OPENING(S):

p. - 519.474.9797 f. - 519.473.9997

DE 01

30 Doan Drive

Komoka, Ontario N0L 1R0

www.jpwsystems.ca

(opening # TBD)

ΑP CREATE DATE: REVISED 1: REVISED 3: Universal Washroom REVISED 4: REVISED 5:

Div. 26 to provide $\frac{1}{2}$ " conduit for all location shown

Div. 26 to provide single gang box for all locations shown (exact mounting locations to be determined)

Div. 26 to provide 120 VAC to power supply and to auto operator

- 1 door contact
- 2 current transfer

- 5 electric lockset
- 7 auto operator
- 8 inside push button enclosure 9 - outside push button enclosure

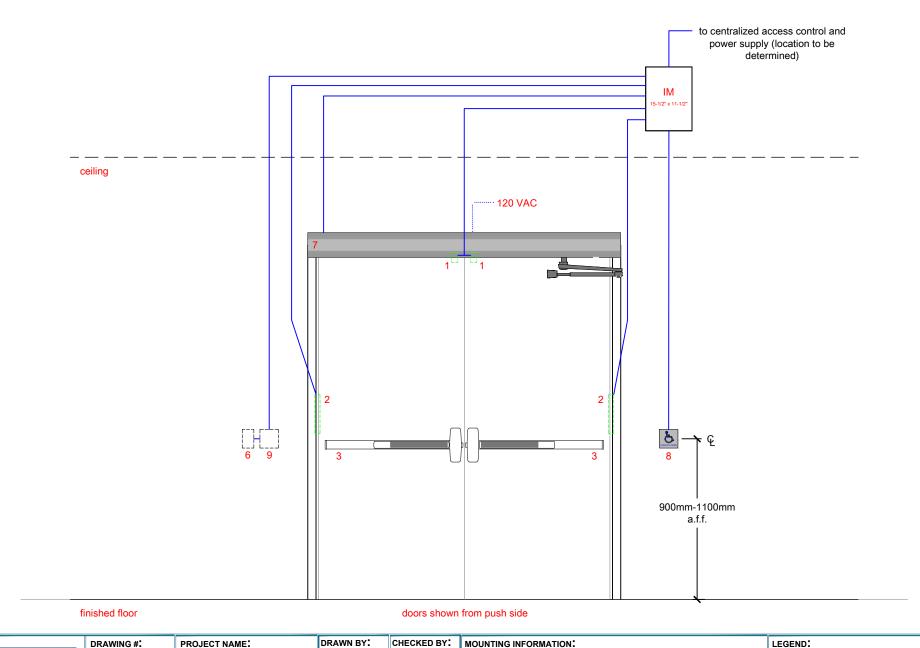
IM - integration module

PS - power supply

MB - mortar box

- 21 LED annunciator
- 22 speaker
- EB emergency button

NOTE: THIS DRAWING HAS BEEN COMPLETED TO THE AUTHOR'S BEST ABILITY GIVEN THE INFORMATION AT THE TIME OF COMPLETION. PLEASE USE THIS INFORMATION AT YOUR OWN RISK.





DE 02

30 Doan Drive Komoka, Ontario N0L 1R0

e.	p 519.474.9797 f 519.473.9997 - info@jpwsystems.ca
	www.jpwsystems.ca

SCCDSB
Our Lady of Fatima

CREATE DATE: REVISED 1: April 3, 2018 REVISED 2: REVISED 3: OPENING(S): **Entrance Doors** REVISED 4: REVISED 5: (opening # TBD)

RG

ΑP

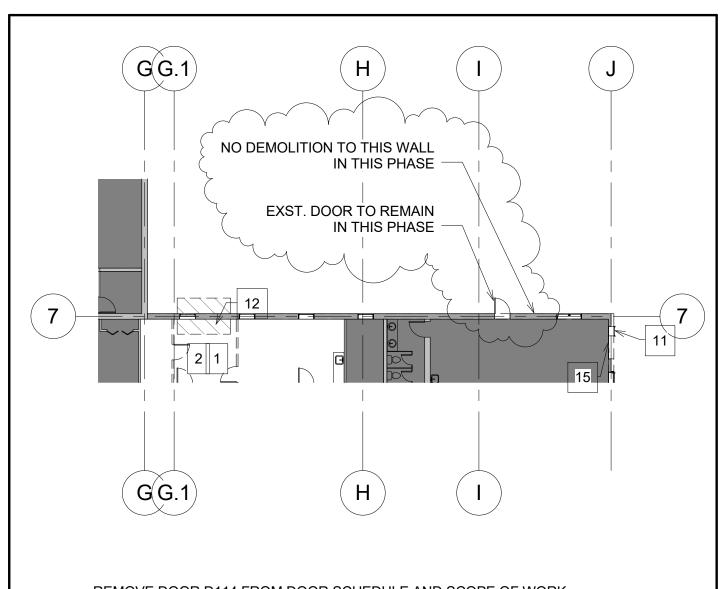
Div. 26 to provide $\frac{1}{2}$ " conduit for all location shown

Div. 26 to provide single gang box for all locations shown (exact mounting locations to be determined)

Div. 26 to provide 120 VAC to auto operator

- 1 door contact
- 2 current transfer
- 3 electric exit device
- 6 card reader
- 7 auto operator
- 8 inside push button
- 9 outside push button
- IM integration module

NOTE: THIS DRAWING HAS BEEN COMPLETED TO THE AUTHOR'S BEST ABILITY GIVEN THE INFORMATION AT THE TIME OF COMPLETION. PLEASE USE THIS INFORMATION AT YOUR OWN RISK.



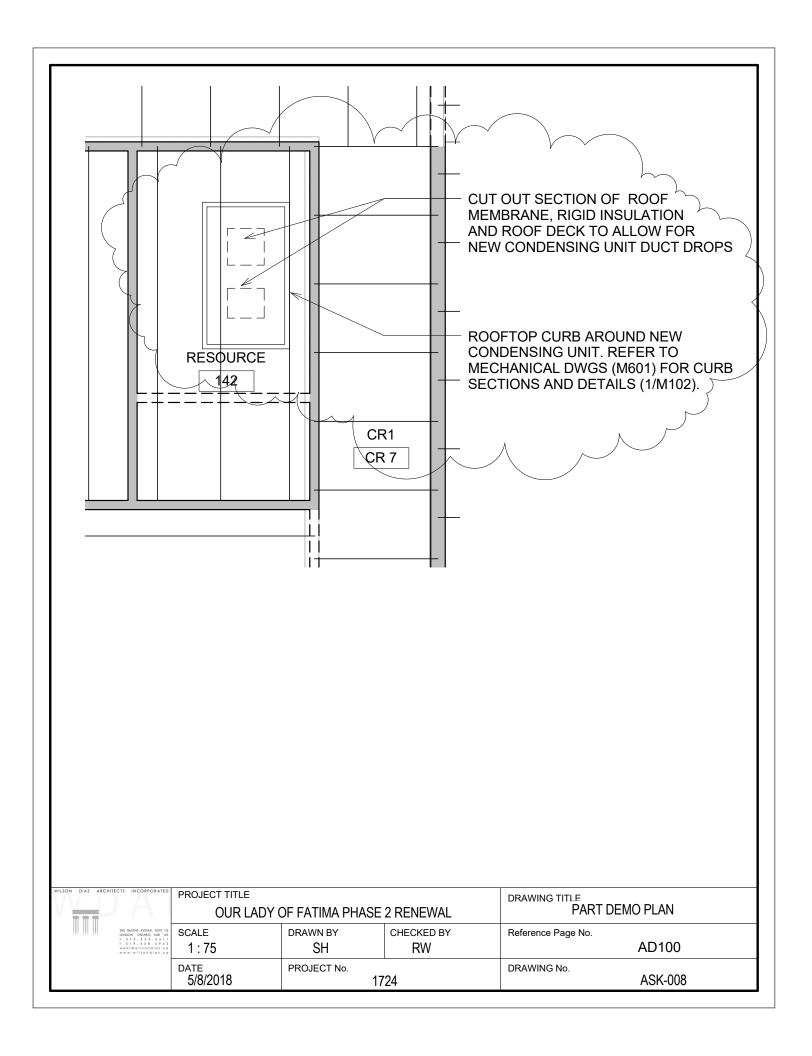
REMOVE DOOR D114 FROM DOOR SCHEDULE AND SCOPE OF WORK

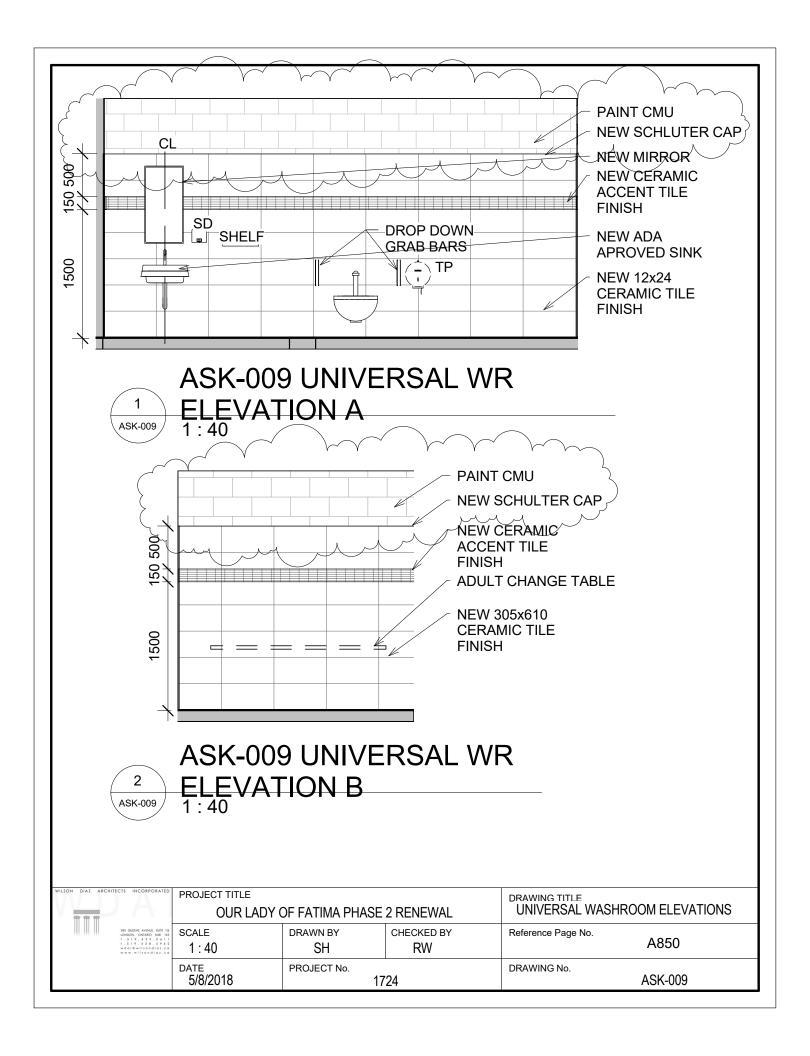
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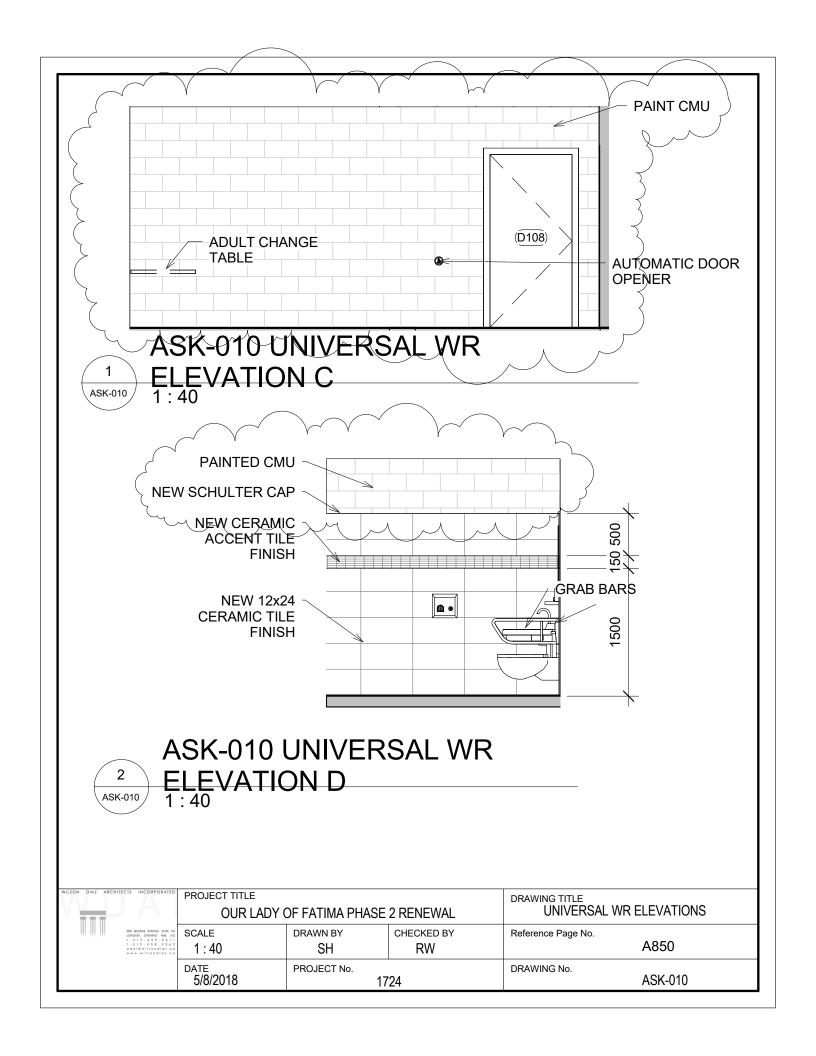
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