## WORKSHOP

## Addendum 01

Project: CSV L'Harmonie Child Care Addition Date: 07 November 2024

158 Bridgeport St E, Waterloo, ON Pages incl. cover: 16

Tender No.: 25-28

The following changes, additions, deletions and clarifications are hereby made an integral part of the documents, including the drawings and specifications for the above project.

ltem	Description
1.01	Refer to the attached:
	Electrical Addendum E-01 (4 pages attached) prepared by Mantecon Partners, dated November 6, 2024.
	Civil Addendum C-01 (2 pages attached) prepared by Mantecon Partners, dated November 6, 2024.
	Mechanical Addendum M-01 (3 pages attached) prepared by Mantecon Partners, dated November 6,
	2024. Architectural drawings: A0.1, A1.0, A1.1, A3.0, A6.1 (5 pages attached).
1.02	Clarification: For additional clarity, within project technical specifications any and all reference to testing & inspections "by Owner" shall be understood to be carried out by a 3 <sup>rd</sup> party testing and inspection agency acceptable to the Owner and paid for from the Cash Allowance value identified within the Bid Form. Testing/Inspections by Contractor, if any, shall be included within the Bid Price.
1.03	Clarification: The 1.8m wood fence has been added to the architectural site plan 1/A1.0 to match Landscape drawings.
1.04	Clarification: Details of the RTU screen have been deleted from sheet A3.0. Metal RTU screen has been deleted.
1.05	Addition: Refer to 1/A1.1, 10/A3.0, and S10 on A0.1 for revised window demolition and replacement scope.
1.06	Question: Can architect confirm control panels (CCP) are not a millwork/finished carpentry item?  Answer: See added detail 8/A6.1. Classroom control panels are to be supplied and installed by the Electrical contractor.
1.07	Question: Can architect confirm there are no solid surface countertops on this project?  Answer: Refer to details on A6.0 and A6.1. As indicated, countertops are PLAM and SS.
1.08	Question: Can architect confirm above MDF and (FR) MDF are not applicable on this project?  Answer: Confirmed.
1.09	Question: Can architect provide a colour schedule or basis of design colour for the plastic laminate, as there are substantial price variations between manufacturers with laminate range from \$50.00 to \$400.00/sht?  Answer: Specification Section 06 20 00 2.1.4.2. The colour will be a solid colour (i.e. not a texture) and flat finish (i.e. no three dimensional texture) selected from the manufacturer's standard range.
1.10	Question: Confirm P.Lam tops have a standard particleboard core with a balancing backer sheet?  Answer: Laminated Plastic Countertops to have a exterior grade hardwood plywood core with non-telegraphic grain with type II adhesive meeting the requirements of AWMAC's Standards (NAAWS).
1.11	Question: Can architect clarify what wood is to be used, i.e. MDF, pine, poplar, birch for exposed painted wood window surrounds/exposed blocking? and confirm these will be painted by the painting section on site?  Answer: Window trim to be solid wood – paint-grade poplar. General Contractor to determine which subtrade does the painting. Site-painting is acceptable.

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1.12	Question: Can architect clarify core construction for millwork?									
	Answer: Cabinet doors/drawers are to be wood veneer and 3mm solid edging on Veneer core plywood (hardwood									
	with non-telegraphing grains manufacturer with exterior glue meeting requirements of AWMAC's Standards (NAAWS).									
1.13	Question: Can architect confirm that Servery cabinets are a P.Lam construction on									
	a standard particleboard core with matching P.Lam edges?									
	Answer: Cabinet doors/drawers are to be PLAM and PLAM edges on Veneer core plywood (hardwood with an non-									
	telegraphing grains manufacturer with exterior glue meeting requirements of AWMAC's Standards (NAAWS).									
1.14	Question: Can architect provide a dimensioned section cut thru SS Shroud and backsplash panel?									
	Answer: Shroud to match dimensions of the fire-suppression/exhaust hood and to be coordination during the shop									
	drawing phase. Assume minimum 55"wide x 48" deep (plan dimensions).									
1.15	Question: Please confirm that the following items are not in contract (NIC) and will be supplied and									
	installed by others:									
	a. Stacked washer/dryer in room 152 (note 19 on drawing A2.1)									
	b. Appliances (details 7 & 8 on drawing A3.3)									
	Answer: Appliance supply/install to be as follows:									
	Stacked washer/dryer Owner supplied, Contractor installed									
	Oven, microwaves, fridges Owner supplied, Contractor installed									
	Dishwasher Contractor to relocate from Servery 129 in the existing school									
1.16	Question: Washroom Accessories Legend -Note W12 - states "Prefabricated change table with integral stairs".									
	They are located in Preschool WC 145, Toddler WC/Change 140 and Infant WC 148.									
	Please provide specifications/details for these prefabricated change tables.									
	Answer: Refer to Specification Section 10 80 00 – 2.1 – W12									
1.17	Question: Detail 8/A3.0 shows RTU screen elevations. It is not shown on the roof plan, building elevations or structural									
	drawings. Can you please identify where the roof top screen is located.									
	Answer: Metal RTU screen has been deleted. Refer to Item 1.04 above.									
1.18	Question: Please confirm if a bid bond is required as part of the bid submission and what the acceptance									
	period of the tender is. For the online submission please provide a location to upload the agreement to bond.									
	Answer: No, a Bid Bond is not required. This is an RFQ and not a Tender, therefore there is no contract A formed. In									
	terms of Material and Performance & Labour Bonds, the agreement to bond will be collected from the retained									
	vendor, after closing.									

Note that remaining questions will be addressed in a subsequent addendum.

## **End of Addendum 01**



ADDENDUM E-01

Architect:	Workshop	Date:	November 6, 2024
Project:	CSV L'Harmonie Daycare Addition	Project No.:	22-058

This addendum forms part of the contract documents and amends the original bidding requirements, drawings and specifications noted below.

### 1 Electrical

## 1.1 Drawings

- .1 E0.1 Electrical Specifications (Sheet 1 of 2)
  - Updated specifications to include additional security information.
- .2 E0.2 Electrical Specifications (Sheet 2 of 2)
  - Updated specifications to include additional security information.
- .3 E.03 Site Demolition Plan
  - Updated demolition instructions for door intercom stations
  - Updated drawing notes to reflect changes

**END OF ADDENDUM E-01** 

1. DEFINITIONS: FOLLOWING ARE DEFINITIONS OF WORDS FOUND IN THIS SPECIFICATION AND ON

**ASSOCIATED DRAWINGS** 

- a. "CONCEALED" HIDDEN FROM NORMAL SIGHT IN FURRED SPACES, SHAFTS, CEILING
- SPACES, WALLS, UNDERFLOOR, AND PARTITIONS.
- b. "EXPOSED" ALL ELECTRICAL WORK VISIBLE TO BUILDING OCCUPANTS.
- c. "PROVIDE" (AND ALL TENSES OF "PROVIDE") SUPPLY INSTALL, WIRE AND CONNECT d. "INSTALL" - (AND ALL TENSES OF "INSTALL") - INSTALL, WIRE AND CONNECT COMPLETE,
- PRODUCTS AND SERVICES SPECIFIED.
- f. "FINISHED AREA" ANY AREA OR PART OF AN AREA WHICH RECEIVES A FINISH SUCH AS PAINT, OR IS FACTORY FINISHED.
- g. "GOVERNING AUTHORITY" AND/OR "REGULATORY AUTHORITY" AND/OR "MUNICIPAL AUTHORITY" - ALL GOVERNMENT DEPARTMENTS, AGENCIES, STANDARDS, RULES AND REGULATIONS THAT APPLY TO AND GOVERN THE ELECTRICAL WORK AND TO WHICH THE WORK MUST ADHERE.
- h. "OR APPROVED EQUAL" MATERIAL OR EQUIPMENT PROPOSED BY CONTRACTOR, IN LIEU OF THAT SPECIFIED, AS APPROVED BY CONSULTANT.
- i. "AS INDICATED" AS SHOWN ON DRAWINGS AND/OR NOTED IN SPECIFICATIONS
- j. "CONSULTANT" ARCHITECT OR CONSULTING ENGINEER WHO HAS PREPARED THE CONTRACT DOCUMENTS ON BEHALF OF THE OWNER. 2. PROVIDE ALL WORK AND MATERIALS IN ACCORDANCE WITH THE LATEST EDITIONS OF THE
- ONTARIO ELECTRICAL SAFETY CODE, THE ONTARIO BUILDING CODE, APPLICABLE CSA AND ULC STANDARDS, THE REQUIREMENTS OF THE ELECTRICAL SAFETY AUTHORITY AND ALL OTHER APPLICABLE MUNICIPAL AND PROVINCIAL CODES AND REGULATIONS. ANY MATERIALS. EQUIPMENT OR INSTALLATIONS NOT MEETING ALL REQUIREMENTS OF THE APPROPRIATE REGULATORY AGENCIES WILL NOT BE ACCEPTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THESE REQUIREMENTS ARE MET AND PROVIDE EVIDENCE OF SUCH AS REQUESTED.
- 3. CAREFULLY EXAMINE THE SITE AND TENDER DOCUMENTS FOR THE WORK IN ACCORDANCE WITH THE INSTRUCTIONS TO BIDDERS. VISIT THE EXISTING BUILDING AND BECOME FAMILIAR WITH EXISTING ARCHITECTURAL, STRUCTURAL AND MECHANICAL CONDITIONS, THE LOCATION OF EXISTING ELECTRICAL EQUIPMENT AND INSTALLATIONS, AND OTHER FACTORS RELATED TO THE
- WORK TO BE DONE, NO EXTRA CHARGES WILL BE CONSIDERED FOR ANYTHING WHICH COULD HAVE BEEN REVEALED IN THE COURSE OF SUCH EXAMINATIONS. 4. THE ELECTRICAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE SATISFACTORY COMPLETION OF ALL WORK BEARING UPON THE ELECTRICAL TRADE, PLAN WORK WELL IN
- ADVANCE TO ELIMINATE DELIVERY AND INSTALLATION DIFFICULTIES, CO-ORDINATE WORK WITH OTHER TRADES TO PREVENT CONFLICTS ON SITE AND RESOLVE INTERFERENCES. PROVIDE WORK IN STAGES AND AT TIMES REQUIRED BY THE PROJECT SCHEDULE 5. ALL ELECTRICAL WORK SHALL BE COMPLETED TO BUILDING OWNER REQUIREMENTS AND
- BUILDING STANDARDS IN ACCORDANCE WITH THE RELEVANT SECTIONS, ARTICLES AND DETAILS OF THE BASE BUILDING SPECIFICATIONS AND DRAWINGS. 6. OBTAIN AND PAY FOR PERMITS REQUIRED BY THE ELECTRICAL SAFETY AUTHORITY (ESA) AND
- LOCAL INSPECTION AUTHORITIES FOR THIS WORK. PRESENT FINAL CERTIFICATES TO CONSULTANT 7. ALL WORK SHALL BE PROVIDED BY QUALIFIED JOURNEYMAN ELECTRICIANS OR APPRENTICES
- HOLDING VALID ONTARIO CERTIFICATES OF QUALIFICATION AND BE SUPERVISED BY A COMPETENT FOREMA
- 8. PRIOR TO THE CONSULTANT RELEASING THEIR COMPLIANCE LETTER THE WORK MUST BE COMPLETE AND SAFE. THE FOLLOWING DOCUMENTATION MUST BE SUBMITTED WITH NO
- a. ESA INSPECTION CERTIFICATE
- b. FIRE ALARM VERIFICATION REPORT (WITHOUT EXCEPTIONS) c. FIRE ALARM AUDIBILITY REPORT (WITHOUT EXCEPTIONS)
- d. EMERGENCY LIGHTING TESTING REPORT
- 9. CARRY OUT ALL WORK IN ACCORDANCE WITH ONTARIO ELECTRICAL SAFETY CODE (OESC) REGULATIONS INCLUDING BULLETINS, AND ELECTRICAL SAFETY AUTHORITY INSPECTION REQUIREMENTS
- 10. PAY ALL FEDERAL AND PROVINCIAL SALES TAXES APPLICABLE.
- 11. ALL EQUIPMENT SHALL BE NEW AND CSA (OR EQUIVALENT PER OESC) APPROVED UNLESS OTHERWISE NOTED.
- 12. MATERIALS SUPPLIED SHALL CONFORM TO MINIMUM PUBLISHED REQUIREMENTS AND
- RECOMMENDATIONS, OR BETTER, OF APPLICABLE STANDARDS OF:
- CSA CANADIAN STANDARDS ASSOCIATION
- EEMAC ELECTRICAL AND ELECTRONIC MANUFACTURERS' ASSOCIATION OF CANADA • NEMA - NATIONAL ELECTRICAL MANUFACTURERS' ASSOCIATION
- ULC UNDERWRITERS LABORATORIES OF CANADA LTD.
- ESA ELECTRICAL SAFETY AUTHORITY
- OBC ONTARIO BUILDING CODE
- 13. DRAWINGS WHICH ACCOMPANY THESE SPECIFICATIONS ARE DIAGRAMMATIC AND SHOW THE REQUIRED DISTRIBUTION, NUMBER AND LOCATIONS OF THE ELECTRICAL EQUIPMENT, FIXTURES AND OUTLETS, AND INDICATE SUGGESTED CIRCUITING. DO NOT SCALE DRAWINGS BUT USE ONLY DIMENSIONS WHICH ARE SHOWN. WHERE EXACT BUILDING DIMENSIONS AND DETAILS ARE REQUIRED, USE ONLY DIMENSIONS FROM THE ARCHITECTURAL DRAWINGS OR JOB SITE
- 14. KEEP A COMPLETE AND SEPARATE SET OF PRINTS ON SITE AT ALL TIMES AND NOTE THEREON CLEARLY, NEATLY, ACCURATELY AND PROMPTLY ALL ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL CHANGES, REVISIONS AND ADDITIONS TO THE WORK AND DEVIATIONS FROM THE CONTRACT DOCUMENTS. ACCURATE LOCATIONS, DEPTH, SIZE AND TYPI OF UNDERGROUND UTILITIES SHALL BE INCLUDED IN THESE RECORD DRAWINGS. INDICATE ALSO ON THE RECORD DRAWINGS THE LOCATION OF ACCESS PANELS OR REMOVABLE CEILING TILES WHICH COVER EQUIPMENT OR JUNCTION BOXES WHICH MAY REQUIRE FUTURE ACCESS OR WHERE CONDUIT OR WIRING FOR FUTURE USE IS LOCATED. THE FINAL AS-BUILT DRAWINGS SHAL BE SUBMITTED AT THE COMPLETION OF THE PROJECT WITH AN APPLICATION FOR A CERTIFICATE OF TOTAL PERFORMANCE, INDICATE IN RED INK ON AS-BUILT DRAWINGS ALL DEVIATIONS AND
- APPROVED CHANGES FROM THE CONTRACT DRAWINGS 15. SUBMIT FOR REVIEW A SINGLE (1) SET OF SHOP DRAWINGS AND DATA SHEETS IN EITHER .PDF OR HARD COPY FORMAT COVERING ALL ITEMS OR EQUIPMENT TO BE INSTALLED UNDER THE CONTRACT. SHOP DRAWINGS SHALL SHOW ALL RELEVANT PERFORMANCE AND INSTALLATION INFORMATION. EQUIPMENT WILL NOT BE ACCEPTED ON SITE UNTIL REVIEW OF SHOP DRAWINGS IS COMPLETE. SUBMIT SHOP DRAWINGS FOR LIGHTING FIXTURES, EXIT LIGHTS, EMERGENCY LIGHTS AND BATTERY UNITS, DISCONNECT SWITCHES, STARTERS, TRANSFORMERS, NEW PANELS, FIRE ALARM, VOICE/DATA WIRING, AND OTHER SYSTEMS SPECIFIED IN THIS PROJECT TO CONSULTANT FOR REVIEW.
- 16. ARCHITECTURAL SPECIFICATIONS AND DRAWINGS SHALL BE REVIEWED IN CONJUNCTION WITH THESE DRAWINGS AS THEY ARE PART OF THIS WORK
- 17. COORDINATE WITH ALL TRADES AND ARRANGE EQUIPMENT IN PROPER RELATION WITH OTHER APPARATUS, DUCTS, PIPES, ETC., AND WITH BUILDING CONSTRUCTION AND ARCHITECTURAL
- 18. IN GENERAL, ALL NECESSARY CUTTING AND PATCHING FOR THE ELECTRICAL WORK SHALL BE PROVIDED BY THE APPROPRIATE TRADE AT THE EXPENSE OF THE CONTRACTOR UNLESS INDICATED OTHERWISE ON THE DRAWINGS. HOLES THROUGH EXTERIOR WALLS AND ROOF ARE TO BE PROPERLY FLASHED AND MADE WEATHERPROOF, REPAIR ANY DAMAGE CAUSED BY THE ELECTRICAL TRADE TO EXISTING BUILDINGS OR EQUIPMENT, ETC., TO THE OWNER'S SATISFACTION. IN GENERAL, PAINTING OF ELECTRICAL WORK AND PATCHES AS REQUIRED WILL BE PROVIDED BY THE ELECTRICAL TRADE.
- 19. PROVIDE ALL EXCAVATION, TRENCHING, BACKFILLING, COMPACTION AND CONCRETE REQUIRED FOR THE ELECTRICAL WORK UNLESS OTHERWISE INDICATED. ALL EXCAVATIONS SHALI BE BACKFILLED WITH CLEAN MATERIALS (SAND TO 100 mm (4") COVER ALL AROUND FOR DIRECT BURIED CONDUIT OR CABLES) AND BE POWER COMPACTED TO A MINIMUM OF 100% PROCTOR UNLESS INDICATED OTHERWISE. ALL CONCRETE SHALL BE FORMED IN PLACE, BE RATED MINIMUM 25 MPa AND BE PROVIDED AS A CONTINUOUS POUR. PROVIDE STEEL REINFORCEMENT WHERE INDICATED. CONCRETE ENCASED DUCTS SHALL BE PROVIDED WITH A MINIMUM 75 mm (3") CONCRETE ENVELOPE. RESTORE TO ORIGINAL CONDITION ALL SURFACES, LANDSCAPING, ETC.
- DISTURBED BY EXCAVATION WORK. 20. MATERIALS REMOVED AND NOT REUSED WILL BECOME OWNERS PROPERTY, AND SHALL BE
- DISPOSED OF FROM THE SITE PRIOR TO COMPLETION OF WORK AS DIRECTED BY OWNER. 21. THOROUGHLY CLEAN ALL ELECTRICAL EQUIPMENT DURING CONSTRUCTION AND ON
- COMPLETION OF CONTRACT. REMOVE ALL ELECTRICAL DEBRIS FROM THE SITE. 22. PROVIDE LEGIBLE SIGNS AND BARRIERS ON OR AROUND ALL LIVE PANELS AND EQUIPMENT DURING CONSTRUCTION TO PREVENT INJURY OR SHOCK.

23. TEST ALL EQUIPMENT AND WIRING AT ANY TIME REQUESTED BY THE OWNER AS PART OF THE

CONTRACT. PROVIDE ALL METERS, MATERIALS AND LABOUR REQUIRED TO CARRY OUT THIS

- WORK. PRIOR TO CONNECTION OF ADDITIONAL LOADS TO EXISTING SOURCES, ENSURE THROUGH LOAD MEASUREMENT AND MONITORING THAT THE REQUIRED EXCESS CAPACITY IS 24. UPON COMPLETION OF THE ELECTRICAL INSTALLATIONS, TRIAL OPERATE ALL EQUIPMENT,
- SYSTEMS AND DEVICES TO ENSURE CORRECT FUNCTIONING. FOLLOWING SATISFACTORY TRIAL OPERATION, INSTRUCT THE OWNER'S REPRESENTATIVE REGARDING OPERATION AND MAINTENANCE OF THE SYSTEMS AND EQUIPMENT INSTALLED.
- 25. PERFORM ALL WORK IN SUCH A MANNER AS TO CAUSE AS LITTLE DISTURBANCE OR INCONVENIENCE AS POSSIBLE TO THE EXISTING OPERATIONS. WHERE DEEMED NECESSARY BY THE OWNER OR CONSULTANT, PROVIDE TEMPORARY MEASURES AS REQUIRED TO MAINTAIN SPECIFIC SERVICES AND/OR PROVIDE WORK OUTSIDE REGULAR HOURS AT NO ADDITIONAL
- COST. DO NOT INTERRUPT ANY ELECTRICAL SERVICES WITHOUT PRIOR AUTHORIZATION. 26. PROVIDE ALL SLEEVES, INSERTS, HANGERS AND CORE DRILLING OF SLAB REQUIRED FOR THE ELECTRICAL WORK. TREAT ALL SLEEVES OR HOLES PIERCING ACOUSTICAL SEPARATIONS FOR

## **ELECTRICAL SPECIFICATIONS**

- INSTALLATIONS OF THIS DIVISION TO MAINTAIN ACOUSTICAL RATING. ALL GAPS SHALL BE PACKED WITH ACOUSTICAL INSULATION AND SEALED AT BOTH ENDS WITH ACOUSTICAL CAULKING. PATCH ALL OPENINGS AROUND INSTALLATIONS OF THIS DIVISION PIERCING FIRE OR SMOKE SEPARATIONS WITH AN APPROVED WATERTIGHT SMOKE AND FIRE STOP SEALANT. 27. PROVIDE ALL ACCESS DOORS REQUIRED FOR THE ELECTRICAL INSTALLATIONS, ACCESS DOOR
- SIZE, TYPE AND FIRE RATING SHALL BE IN ACCORDANCE WITH THE ARCHITECTURAL SPECIFICATIONS AND CONDITIONS. 28. GENERALLY, MOUNT EQUIPMENT AS CLOSE AS PRACTICAL TO THE LOCATION SHOWN ON THE DRAWINGS TAKING INTO CONSIDERATION SITE CONDITIONS. ENSURE ALL EQUIPMENT IS LOCATED IN A MANNER ALLOWING EASY ACCESS FOR MAINTENANCE, REPAIR OR ADJUSTMENT CONFIRM ALL ARCHITECTURAL CONDITIONS SUCH AS GLAZING, DOOR SWINGS, FURNITURE AND EQUIPMENT TYPES AND LAYOUTS, ETC., ON SITE PRIOR TO INSTALLING ANY RELATED ITEM OR
- 29. REFER TO LIGHTING CONTROL SEQUENCE OF OPERATION FOR EACH SPACE. CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM CONSISTING OF ALL CONTROL DEVICES, WIRING,
- CONNECTIONS, ETC. AS REQUIRED. 30. THE OWNER RESERVES THE RIGHT TO RELOCATE ANY FIXTURE. OUTLIET, DEVICE, FQUIPMENT, ETC., UP TO 3 m (10') PRIOR TO INSTALLATION WITHOUT INCURRING ANY EXTRA COST. CONFIRM
- 31. PROVIDE SPRINKLERPROOF HOODS AND DOORS FOR ELECTRICAL EQUIPMENT INSTALLED IN
- 32. ARRANGE WITH COMMUNICATIONS SERVICE PROVIDER FOR INSTALLATION OF NEW PHONE/INTERNET/CATV WIRING AND RACEWAYS AS REQUIRED. RACEWAYS SHALL BE EMT IN

LOCATIONS, MOUNTING HEIGHT AND ARRANGEMENT OF ALL OUTLETS ON SITE PRIOR TO

- WALLS AND CEILING SPACES; PVC BELOW FLOOR SLABS ON GRADE. 33. IF ASBESTOS MATERIAL IS ENCOUNTERED, STOP WORK IN THE AFFECTED AREA IMMEDIATELY AND NOTIFY THE CONSULTANT AND OWNER.
- 34. GUARANTEE ALL MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER/CONSULTANT. PROVIDE WRITTEN GUARANTEE. 35. OWNER RESERVES RIGHT TO TRIAL AND/OR TEMPORARY USAGE PRIOR TO ACCEPTING
- 36 ON COMPLETION OF PROJECT AND BEFORE FINAL PAYMENT, SUBMIT
- a. ONE (1) SET OF PDF'S AS-BUILT DRAWINGS WITH ALL CHANGES AND BURIED SERVICES EXACT LOCATIONS NOTED THEREON. PLOT USING THE CONSULTANT CTB FILE. DRAWING SHALL HAVE THE ELECTRICAL CONTRACTORS LOGO AND CONTACT INFORMATION, ISSUED FOR AS BUILT WITH THE CURRENT DATE
- b. SUBMIT THREE (3) COPIES (BOTH ELECTRONIC (CD) AND HARDCOPIES) OF MAINTENANCE DATA AND OPERATING INSTRUCTIONS IN A HARD-BACK, 3 RING BINDER, EACH OF WHICH IS TO INCLUDE:
- 1 COPY OF EACH SHOP DRAWING (REVISED AS PER THE REVIEWED DRAWINGS).
- 1 COPY OF EQUIPMENT PARTS LIST.

INSTALLATION.

- 1 COPY OF RECOMMENDED LIST OF SPARE PARTS.
- 1 COPY OF OPERATING AND MAINTENANCE INSTRUCTIONS. • 1 COPY OF EQUIPMENT INSTALLATION DETAILS, CONSTRUCTION AND PERFORMANCE
- 1 LIST OF ALL MANUFACTURING AND EQUIPMENT SERVICE DEPOTS INCLUDING TELEPHONE NUMBERS
- 1 COPY OF THE ELECTRICAL SAFETY AUTHORITY FINAL INSPECTION CERTIFICATE.
- 1 COPY OF THE EMERGENCY LIGHTING TEST RESULTS
- 1 COPY OF THE FIRE ALARM VERIFICATION CERTIFICATE
- 1 COPY OF ANY OTHER CERTIFICATES, APPROVAL LETTERS, ETC. 38. WIRING AND CONDUIT SHALL BE CONCEALED IN WALLS OR ABOVE CEILINGS UNLESS
- OTHERWISE APPROVED.
- 39. SUPPLY, INSTALL, WIRE AND CONNECT ALL EQUIPMENT SHOWN, SPECIFIED OR MENTIONED. 39. ARRANGE WITH SUPPLY AUTHORITY FOR INCOMING SERVICE AND PAY ALL SUPPLY AUTHORITY

## 40 PROVIDE WIREGUARD ON DEVICES WHERE INDICATED. SECURITY AND ACCESS CONTROL SYSTEMS

- CAN/ULC-\$302- (LATEST EDITION) STANDARD FOR INSTALLATION AND CLASSIFICATION OF BURGLAR ALARM SYSTEMS FOR FINANCIAL AND COMMERCIAL PREMISES, SAFES AND VAULTS
- 42. CAN/ULC-S303, LOCAL BURGLAR ALARM UNITS AND SYSTEMS
- 43. CAN/ULC-S304, INTRUSION DETECTION
- 44. CAN/ULC-S306, INTRUSION DETECTION UNITS 45. CAN/ULC-S304-(LATEST EDITION), SIGNAL RECEIVING CENTRE AND PREMISE BURGLAR ALARM CONTROL UNITS
- 46. CAN/ULC-S3-1-(LATEST EDITION) STANDARD FOR CENTRAL AND MONITORING STATION BURGLAR ALARM SYSTEMS
- 47. ORD-C634, CONNECTORS AND SWITCHES FOR USE WITH BURGLAR ALARM SYSTEMS.UL 1076 (LATEST 48. ULC-\$318, POWER SUPPLIES FOR BURGLAR ALARM SYSTEMS.CAN/ULC-\$524-(LATEST EDITION) -
- INSTALLATION OF FIRE ALARM SYSTEMS 49. CAN/ULC-S559-(LATEST EDITION) - EQUIPMENT FOR FIRE SIGNAL RECEIVING CENTERS AND SYSTEMS 50. CAN/ULC-\$561-(LATEST EDITION) - INSTALLATION AND SERVICES FOR FIRE RECEIVING CENTERS AND
- 51. UL294- (LATEST EDITION) STANDARD FOR SAFETY FOR ACCESS CONTROL SYSTEM UNITS.
- THE COST FOR THIS SUB-TRADE TO SUPPLY AND INSTALL THIS SYSTEM WILL BE CARRIED BY THE FLECTRICAL SUB-CONTRACTOR. THE ELECTRICAL CONTRACTOR IS TO PROVIDE ALL RACEWAYS AS NOTED ON THE DRAWINGS AND WITHIN THESE DOCUMENTS.
- 53. THE FOLLOWING SPECIFICATIONS ARE PROVIDED AS A GUIDELINE FOR THE ELECTRICAL CONTRACTOR TO UNDERSTAND THE WORK OF THIS SUB-TRADE.
- WORK WITH THIS SUB-TRADE.
- IMPLEMENT A PROPRIETARY INTRUSION ALARM AND ACCESS CONTROL SYSTEM AS DESCRIBED IN THE FOLLOWING SPECIFICATION. AS WELL AS CARD READER, ELECTRIC STRIKE, DOOR VIDEO INTERCOM STATION AT MAIN ENTRY, AND DESK MOUNT MONITOR/DOOR RELEASE AT THE SECRETARIAL WORK 56. DETECTION OF AN ALARM FROM MOTION DETECTORS, OR ALARM OPERATION OF FIRE ALARM SYSTEM
- SHALL BE ZONE ANNUNCIATED IN THE CONTROL PANEL AND INITIATE A PROGRAMMED SIGNAL TO BE TRANSMITTED TO A CENTRAL STATION (OF THE OWNER SPECIFICATION) OVER A BELL CANADA TELEPHONE SYSTEM.
- 57. ALL WIRING SHALL BE INSTALLED IN CONDUIT PROVIDED
- 58. FOR CO-ORDINATION INFORMATION ONLY, ONE BIDDING SECURITY SUB-CONTRACTOR IS: ARCHIE GALANG
- CHUBB FIRE & SECURITY 410 LEWIS ROAD UNIT #18
- STONEY CREEK, ONTARIO. L8E 5Y7 DIRECT: 519-580-0917
- 59. OTHER CHUBB CERTIFIED CONTRACTORS ARE INVITED TO BID WITH THE UNDERSTANDING THAT THE FOLLOWING INFORMATION MUST BE SUBMITTED TO THE CONSULTANT A MINIMUM OF ONE WEEK PRIOR TO TENDER CLOSE FOR CONSIDERATION.
- CONFIRMATION THAT THE CONTRACTOR HAS BEEN IN BUSINESS AT LEAST 5 YEARS
- CONFIRMATION OF GENERAL AND FAILURE TO PERFORM LIABILITY INSURANCE WITH A MINIMUM \$5,000,000.00 COVERAGE.
- CONFIRMATION OF VALID WORKERS COMPENSATION COVERAGE. 60. NOTE: ALL BIDDING SECURITY SUB-CONTRACTORS MUST BE CHUBB REPS OR CHUBB CERTIFIED INSTALLER.

61. PROVIDE INTEGRATED CONTROL TECHNOLOGY PROTEGE GX.

- 62. PROVIDE A COMPLETE AND OPERATING INTRUSION DETECTION AND ACCESS CONTROL
- 63. DETECTION OF AN ALARM FROM MOTION DETECTORS, ALARM OPERATION OF FIRE ALARM SYSTEM, DETECTION OF LOW TEMPERATURE BY THERMOSTATS OR DETECTION OF A POWER FAILURE SHALL BE ZONE ANNUNCIATED IN THE CONTROL PANEL AND INITIATE A PROGRAMMED SIGNAL TO BE TRANSMITTED TO A ULC APPROVED MONITORING STATION WITH COMPLETE
- BILINGUAL CAPABILITIES OVER A BELL CANADA TELEPHONE SYSTEM. 64. THE SYSTEM SHALL BE CAPABLE OF MANUALLY ARMING AND DISARMING BY
- ALARM CONTROL KEY PAD
- THE MECHANICAL BUILDING AUTOMATION SYSTEM

- 67. THE ACCESS CONTROL SYSTEM CONSISTS OF FIELD DEVICES INCLUDING, BUT NOT LIMITED TO:

## **ELECTRICAL SPECIFICATIONS**

- CARD READERS
- DOOR CONTROLLERS
- ELECTRONIC DOOR HARDWARE SUCH AS ELECTRIC STRIKES, LATCHES AND LOCKS POWER TRANSFER AND CONCEALED HINGES/SWITCHE WITH ANCILLARY CONNECTIONS
- INTERCOM STATIONS FOR DOOR RELEASE
- CONTROL AND TERMINATION EQUIPMENT INCLUDING, BUT NOT LIMITED TO:
- ACCESS CONTROL SYSTEM SERVER
- POWER SUPPLIES
- BATTERIES 4. UNINTERRUPTABLE POWER SUPPLIES (UPS)
- 68. ALL SYSTEM DEVICES / DOORS CONNECT TO CENTRALLY LOCATED DOOR CONTROL PANELS AT THIS SCHOOL LOCATION, CONNECTIVITY FROM DOOR CONTROL PANELS TO THE SYSTEM SERVER FRONT END IS BASED ON ETHERNET IP BASED PROTOCOLS OVER THE CONSEIL SCOLAIRE

## VIAMONDE NETWORK

- 1. PROVIDE LAMACOID LABELS (3-PLY) WHITE LETTERED ON BLACK BACKGROUND- 1/4" HIGH LETTERING ON ALL ELECTRICAL EQUIPMENT SUPPLIED, MOUNTED AND/OR CONNECTED BY THIS
- CIRCUITING NUMBER CONNECT BY THIS CONTRACT.
- 3. ALL WIRING SHALL BE COLOUR CODED AS PER OESC AND BE IDENTIFIED WITH BRADY OR
- 4. IN GENERAL, ALL WIRING SHALL BE TYPE R90 XLPE INSTALLED IN CONDUIT OR RACEWAYS UNLESS OTHERWISE SPECIFIED. USE ONLY COPPER CONDUCTORS, MINIMUM SIZE NO. 12, SIZED AND COLOUR CODED ACCORDING TO THE ELECTRICAL SAFETY CODE WHERE NOT INDICATED. 5 SIZE ALL WIRING FOR A MAXIMUM OF 3% VOLTAGE DROP IN A FEEDER OR BRANCH CIRCUIT
- 7. THE USE OF FLEXIBLE CABLE (TYPE AC90 ONLY) IS TO BE RESTRICTED TO INTERIOR PARTITION WALLS, ACCESSIBLE CEILING SPACES AND FINAL CONNECTIONS TO LIGHT FIXTURES. THE
- 8. ALL 120 V (SINGLE PHASE) BRANCH CIRCUITS SHALL BE PROVIDED WITH A SEPARATE NEUTRAL CONDUCTOR FOR EACH CIRCUIT. PIGTAIL CONNECT NEUTRAL CONDUCTORS AT ALL DEVICES.
- 9. ALL WIRING SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS, ALL REGULATORY REQUIREMENTS AND SHALL SATISFY ALL APPLICABLE CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND REPLACE AS REQUIRED ANY EXISTING WIRING
- 10. FEEDERS AND BRANCH CIRCUITS RATED 100 AMPERES OR GREATER SHALL BE CHECKED WITH A
- 1000 V MEGGAR FOR 15 SECONDS BEFORE ENERGIZATION. 11. WIRE AND CONNECT MOTORS, SUPPLIED BY OTHERS, AS INDICATED.
- 13. PROVIDE VFD CERTIFIED CABLES ON THE LOAD SIDE OF VFD'S TO MOTOR TERMINAL CONNECTIONS. COORDINATE WITH EQUIPMENT AND CABLE SUPPLIER RECOMMENDATIONS TO MATCH MOTOR LOAD REQUIREMENTS.
- 14 FUSED AND NON-FUSED, HEAVY DUTY, VISIBLE BLADES IN THE OFF POSITION, QUICK-MAKE QUICK-BREAK MECHANISM, LOAD BREAK TYPE WITH DOOR/HANDLE/SWITCHING MECHANISM INTERLOCK WITH OVERRIDE, LOCK-OFF PROVISION, ARC EXTINGUISHERS, SILVER PLATED WIPE ACTION CONTACTS, AND SPRING REINFORCED FUSE CLIPS, OF SIZES INDICATED, CSA CERTIFIED PROVIDE DISCONNECT SWITCHES AHEAD OF EACH PIECE OF EQUIPMENT WHERE NECESSARY TO
- MEET CODE REQUIREMENTS. 15. FUSIBLE SWITCH UNITS INSTALLED IN EXISTING SWITCHBOARD EXTENSION SHALL HAVE QUICK MAKE-QUICK BREAK MECHANISM WITH PROVISIONS FOR LOCKING IN THE OPEN OR CLOSED. POSITION, AND DOOR/HANDLE/SWITCHING MECHANISM INTERLOCK WITH OVERRIDE. ALL
- CONTACTS OR OTHER SPECIAL FEATURES AS NOTED ON THE DRAWINGS. 16. SWITCH FUSE HOLDERS SHALL HAVE REINFORCED CLIPS. FUSES SHALL BE EASILY REMOVABLE
- WHEN THE SWITCH IS IN THE OFF POSITION. 17. ALL SWITCHES SHALL HAVE AMPLE GUTTER SPACE FOR TOP OR BOTTOM WIRING AND BE PROVIDED WITH ENCLOSURES TO SUIT THE SPECIFIC APPLICATION.
- 18. PROVIDE MANUAL AND MAGNETIC MOTOR STARTERS FOR MOTORS AND EQUIPMENT AS INDICATED. STARTERS SHALL INCLUDE MANUAL RESET, ADJUSTABLE THERMAL OVERLOAD UNITS WITH INTEGRAL SINGLE PHASE PROTECTION AND BE COMPLETE WITH INTERLOCKS, AUXILIARY RELAYS, CONTROL TRANSFORMERS, TERMINALS, ETC., REQUIRED FOR PROPER OPERATION. REFER TO THE DRAWINGS FOR FURTHER DETAILS OF MECHANICAL EQUIPMENT CONTROL AND WIRING
- 19. PROVIDE AC CONTROL RELAYS AND CONTACTORS WITH REQUIRED COIL AND CONTACT RATING AND PILOT LIGHT FOR CONTROL OF EQUIPMENT AND MISCELLANEOUS LOADS AS SHOWN. PROVIDE AUXILIARY COMPONENTS, CONTROL TRANSFORMERS, TERMINALS, SWITCHES,
- 20. PROVIDE 600V 200,000 RMS SYMMETRICAL INTERRUPTING RATING, HRCI TYPE J (600A OR LESS) AND HRCI TYPE L (OVER 600A). FOR MOTOR PROTECTION: TIME DELAY 200,000A RMS
- 22. PANELS SHALL BE OF THE TYPE WITH VOLTAGE AND CURRENT RATING AS SHOWN ON THE DRAWINGS, SIZED TO ACCOMMODATE BRANCH CIRCUIT BREAKERS AND SPACES AS INDICATED

BUS BRACING SHALL BE PROVIDED TO SUIT THE SHORT CIRCUIT CAPACITY RATING INDICATED ON

THE DRAWINGS OR MINIMUM 10 KA AT 208 V, 3 PHASE. RESTRICTIVE DIMENSIONS SHALL BE AS

- SHOWN. PROVIDE LOCKING DOORS FOR ALL PANELS. ALL PANEL DOORS, TRIM AND SURFACE MOUNT TUBS SHALL BE FINISHED IN LIGHT GRAY ENAMEL PAINT. TUBS FOR FLUSH MOUNT PANELS SHALL BE GALVANIZED.
- 24. UNLESS OTHERWISE NOTED ALL BREAKERS SHALL BE RATED MINIMUM 10 KA SYMMETRICAL INTERRUPTING CAPACITY AT 208 VOLTS, 3 PHASE AS APPROPRIATE AND NOT LESS THAN THE SHORT CIRCUIT CAPACITY AS SHOWN ON THE DRAWINGS.
- $25. \ \mathsf{PROVIDE} \ \mathsf{BREAKER} \ \mathsf{LOCK}\text{-}\mathsf{ON} \ \mathsf{DEVICES} \ \mathsf{FOR} \ \mathsf{ALL} \ \mathsf{ESSENTIAL} \ \mathsf{AND} \ \mathsf{EQUIPMENT} \ \mathsf{LOADS}.$
- 27. PROVIDE LOCKABLE, PAINTED RED BREAKERS FOR FIRE ALARM CONTROL PANEL POWER

- 28. PROVIDE OUTLET BOXES OF ADEQUATE SIZE OF TYPE APPROVED FOR THE PARTICULAR APPLICATION AS REQUIRED FOR ALL WIRING DEVICES, LIGHT FIXTURES, ETC., OR AS SHOWN WIRING SYSTEMS. INSTALL ALL BOXES TO BE ACCESSIBLE, IF NECESSARY PROVIDE ACCESS
- 29. IN ALL CASES USE ONLY CONDUIT AND RACEWAYS APPROVED FOR THE PARTICULAR APPLICATION AND OF ADEQUATE SIZE TO SUIT TYPE AND NUMBER OF CONDUCTORS BEING CARRIED. PROVIDE A SEPARATE GROUND CONDUCTOR IN ALL CONDUITS. THE CONDUIT SYSTEM SHALL NOT BE USED AS THE GROUND PATH, WHERE INDICATED, USE CONDUIT AS SPECIFIED. EVERY CONDUIT OR SECTION OF ARMOURED CABLE SHALL BE ADEQUATELY SECURED USING APPROVED SUPPORTS, CLAMPS AND FASTENERS TO ENSURE A SAFE AND SOUND INSTALLATION. ALL CONDUIT OR ARMOURED CABLE RUN IN FINISHED AREAS SHALL BE CONCEALED IN WALLS, CEILINGS OR FURRING UNLESS OTHERWISE INDICATED OR APPROVED BY THE OWNER.
- 30. BOXES FOR OUTDOOR USE: GALVANIZED CAST FERRALLOY COMPLETE WITH NEOPRENE

32. FIXTURE BOXES: ELECTRO-GALVANIZED STEEL 100mm (4") OCTAGON COMPLETE WITH 10mm

AND AROUND OUTLET BOXES. VERIFY EXACT REQUIREMENTS ON SITE PRIOR TO PROCEEDING

ARMOURED CABLE SHALL NOT BE USED WHERE EXPOSED UNLESS OTHERWISE NOTED.

(3/8") FIXTURE STUD WHERE NECESSARY 33. WHERE OUTLET BOXES ARE INSTALLED IN EXTERIOR WALLS AND/OR INSULATED CEILING HAVING ASSOCIATED VAPOUR BARRIERS ON THE WARM SIDE OF THE INSULATION AND WHERE OUTLET BOXES PERFORATE THE VAPOUR BARRIER, PROVIDE ELECTRICAL BOX VAPOUR BARRIERS BEHIND

## **ELECTRICAL SPECIFICATIONS**

- 34. ALL JUNCTION BOXES IN CONCEALED CEILING SPACES SHALL BE LABELED WITH PEN MARKER AS TO CIRCUITS CONTAINED THEREIN.
- 35. SWITCHES AND RECEPTACLE BOXES SHALL BE 1104 TYPE FOR RECESSED MOUNTING. 36. RIGID METAL CONDUIT SHALL BE USED WHERE INSTALLED AS AN EXTERIOR BRANCH CIRCUIT
- ABOVE FINISHED GRADES. ALL FITTINGS MUST BE THREADED TYPE. ALL CONDUIT TERMINATIONS SHALL HAVE BUSHINGS WITH INSULATED PLASTIC LINING. RIGID METAL EXPANSION JOINT -CROUSE HINDS "XJ" SERIES WITH BONDING STRAP OR EQUIVALENT.
- 37. IN AREAS WITH SOLID CEILINGS, ELECTRICAL AND SYSTEMS JUNCTION BOXES ALONG WITH ASSOCIATED WIRE AND CONDUIT SHALL BE LOCATED IN AREAS WHERE CEILING ACCESS IS
- 39. ALL CONDUIT IN PUBLIC AREAS WITH EXPOSED CEILING MUST BE PAINTED EMT. PAINT COLOUR TO BE CONFIRMED BY ARCHITECT.
- 40. EXIT SIGNS SHALL BE CSA APPROVED, PICTOGRAM GREEN "RUNNING-MAN" ON WHITE BACKGROUND MADE OF DURABLE EXTRUDED ALUMINUM HOUSING C/W WHITE FINISH, WHITE LED SOURCE, ENERGY EFFICIENT, AND UNIVERSAL MOUNTING.

41. REMOTE HEADS SHALL BE 4-WATT HEAD, COMPATIBLE WITH THE VOLTAGE SUPPLIED, IMPACT

- 42. PROVIDE COMPLETE 12V DC BATTERY POWERED EMERGENCY LIGHTING SYSTEMS FOR THE BUILDING AREAS INDICATED. SYSTEMS SHALL CONSIST OF FULLY AUTOMATIC BATTERY UNITS (SPECIFIED WATTS FOR 1/2 HOLIR) WITH MOLINTING BRACKET AND REMOTE LAMP HEADS AS SHOWN ON DRAWINGS. EMERGENCY BATTERY UNITS SHALL BE C/W BATTERY DISCONNECT SWITCH (70% OF NORMAL VOLTAGE) AND AUTOTEST AND AUTOMATED SELF-DIAGNOSTIC
- 43. THE EMERGENCY BATTERIES SHALL BE LONG LIFE LEAD-ACID, CALCIUM ALLOY TYPE IN SEALED
- 44. THE BATTERY CAPACITY SHALL BE SIZED TO SUPPLY THE NUMBER OF FIXTURES INDICATED ON THE DRAWINGS, PLUS HAVE AN ADDITIONAL MINIMUM 10% SPARE CAPACITY FOR FUTURE HEADS. THE BATTERIES SHALL BE CAPABLE OF PROVIDING POWER TO THE FIXTURES FOR THIRTY MINUTES
- WIRING, WIRE SYSTEM IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO MAINTAIN VOLTAGE DROP TO LESS THAN 5% TO FURTHEST FIXTURE, CONNECT REMOTE LAMP HEADS AND EXIT SIGN EMERGENCY SOCKETS TO BATTERY UNIT INDICATED. INSTALL A SINGLE RECEPTACLE AD JACENT TO BATTERY LINIT FOR CONNECTION TO BATTERY SUPPLY FROM A A PERMANENT AND SAFE INSTALLATION OF THE BATTERY UNITS.
- 46. LED FIXTURES: MINIMUM TEMPERATURE OF 3500K FOR COMMERCIAL AND 4000K FOR EXTERIOR
- OR NOTED OTHERWISE. ACCEPTABLE MANUFACTURES AS PER LUMINAIRE SCHEDULE. 47. PROVIDE ALL LIGHT FIXTURES AS SPECIFIED ON THE DRAWINGS COMPLETE WITH BALLASTS, DRIVERS, LENSES, LAMPS, AUXILIARY COMPONENTS, MOUNTING HARDWARE, ETC., REQUIRED FOR A COMPLETE INSTALLATION. VERIFY ALL CATALOG NUMBERS WITH DESCRIPTIONS GIVEN. CHECK ALL LIGHTING FIXTURES PRIOR TO THEIR INSTALLATION TO ENSURE THAT THEY ARE THE
- 48. LED MONOCHROME LIGHTING FIXTURE SHALL HAVE LIGHTING WITH A MINIMUM CRI OF 85 FOR REGULARLY OCCUPIED SPACES, A MINIMUM CRI OF 70 FOR EXTERIOR, AND A MINIMUM OF 75 FOR ALL OTHER SPACES. THE FIXTURE SHALL HAVE A MINIMUM L70 OF 50,000 HOURS. ALL LIGHTING SHALL HAVE IESNA LM-79 AND LM-80 TESTING REPORTS AND LIFE CALCULATIONS BASED ON TM-21. EXTERIOR AND INTERIOR AREA LIGHTING SHALL HAVE A MINIMUM EFFICIENCY
- 49. LED DRIVERS SHALL HAVE MINIMUM LIFESPAN EQUAL OR BETTER THAN THE LIFESPAN OF THE L70 LIFESPAN OF THE LED LAMPS IT SERVES. DRIVERS SHALL BE INTEGRATED INTO THE FIXTURE IF LED DRIVERS SHALL HAVE HIGH POWER FACTOR. ALL LED LIGHTING AND DRIVERS USED IN EXTERIOR OR UNHEATED APPLICATIONS SHALL PROVIDE START-UP AND OPERATION IN
- 50. THE CONTRACTOR SHALL ENSURE THAT ALL LIGHT FIXTURES ARE ADEQUATELY SUPPORTED. FIXTURES MUST BE SUPPORTED DIRECTLY FROM THE BUILDING STRUCTURAL MEMBERS. CO-ORDINATE THE REQUIREMENTS OF THE LIGHT FIXTURE SUPPORTS WITH THE OTHER TRADES (WHERE APPLICABLE) PRIOR TO FIXTURE INSTALLATION. FIXTURE SAFETY CHAINS OR WIRES SHALL ALSO BE PROVIDED AS REQUIRED BY REGULATORY AGENCIES.
- . THE METHOD OF ATTACHING SUSPENSION WIRES AND SAFETY CHAINS TO FIXTURES AND BUILDING ELEMENTS SHALL BE DISCUSSED AND APPROVED BY THE CONSULTANT OR OWNER PRIOR TO INSTALLATION. 52. SHOP DRAWINGS FOR LUMINAIRES INDICATING LIGHTING PERFORMANCE DETAILS, FIXTURE
- PICTURES OF EACH TYPE OF LIGHTING FIXTURE SHALL BE SUBMITTED FOR REVIEW. 53. SHOP DRAWINGS SHALL BE SUBMITTED FOR LED DRIVERS FOR ALL FIXTURES TO BE INSTALLED. THESE SHALL BE SUBMITTED SEPARATELY FROM THE LIGHTING FIXTURES BEING INSTALLED AND SHOULD INDICATE EACH FIXTURE THE PRODUCT IS INSTALLED.
- PROPERTY LINE INCLUDING ALL SITE LIGHTING FIXTURES. PROVIDE LIGHTING POWER DENSITY FOR ALL PARKING, DRIVEWAY AND ROADWAY AREAS. 55. FIXTURES SHALL NOT BE RELEASED PRIOR TO REVIEW OF THE SHOP DRAWINGS. CANCELLATION
- 56. DUAL TECHNOLOGY CEILING AND WALL MOUNT SENSORS.
- 57. SENSORS SHALL SENSE A PERSON OF AVERAGE SIZE MOVING DISTANCE OF 2" AND RETAIN
- 59. MULTIPLE SENSORS SHALL BE WIRED IN PARALLEL TO OBTAIN COVERAGE NOTED ON
- 50. TIME DELAY TO "OFF" SHALL BE ADJUSTABLE FROM 5 TO 30 MINUTES AND THE SENSOR SHALL BE COMPLETE WITH WALK-THROUGH AND TEST MODES.
- MANUFACTURER TO CONTROL THE LOADS NOTED ON THE DRAWINGS.
- 63. CEILING MOUNT OCCUPANCY SENSOR TO HAVE COVERAGE OF 2000 SQUARE FEET.
- 64. SWITCHES AND RECEPTACLES: PROVIDE SPECIFICATION GRADE WIRING DEVICES AS SHOWN ON THE DRAWINGS. DEVICES SHALL BE AS MANUFACTURED BY HUBBELL (OR APPROVED EQUAL) 15 AMP., 120 V TOGGLE SWITCH - 1201
- 20 AMP. DUPLEX RECEPTACLE (T-SLOT) 15 AMP. GROUND FAULT DUPLEX RECEPTACLE 20 AMP. GROUND FAULT DUPLEX RECEPTACLE
- DECORATOR STYLE 120 VOLT DEVICES 15 AMP., 120 V ROCKER SWITCH - DS115 20 AMP., 120 V ROCKER SWITCH - DS120 • 15 AMP., 120 V DUPLEX RECEPTACLE - DR15

WEATHERPROOF IN-USE RECEPTACLE COVER

20 AMP. DUPLEX RECEPTACLE (T-SLOT)

ON THE DRAWINGS.

- 20 AMP. GROUND FAULT DUPLEX RECEPTACLE FOR FLUSH MOUNTED DEVICES OR GALVANIZED STEEL TYPE COVERPLATES WITH ROUNDED
- 68. ALL EXTERIOR RECEPTACLES SHALL BE GFCI AND COME WITH WHILE-IN-USE COVERS AS PER
- 69. MOUNT DEVICES AT THE FOLLOWING HEIGHTS UNLESS NOTED OTHERWISE OR TO COMPLY WITH OBC, BARRIER FREE DESIGN: a. SWITCHES - 1200MM (47'')

## **ELECTRICAL SPECIFICATIONS**

- c. COMMUNICATION BACKBOXES 450MM (17.7")
- d. ELECTRICAL PANELS - 1981MM (78") TO TOP
- e. PUSH BUTTONS
- f. EXIT SIGNS - ABOVE DOOR OR 2032MM (80") g. FIRE ALARM PULL STATION - 1150MM (45")

- 70. PROVIDE TIME SWITCHES FOR CONTROL OF MECHANICAL AND ELECTRICAL LOADS AND SYSTEMS AS DESCRIBED BELOW AND IDENTIFIED ON THE DRAWINGS.
- 71. PROVIDE INDIVIDUAL SINGLE CIRCUIT, 120V, 7 DAY/24 HOUR DPST DIGITAL TYPE TIME CLOCKS C/W PROGRAMMING KEYPAD, LCD DISPLAY, MANUAL OVERRIDE CONTROL, RECHARGEABLE BATTERY RESERVE POWER AND 15A, 120V RATED CONTACTS FOR CONTROL OF GENERAL LOADS AS INDICATED ON THE DRAWINGS. PROVIDE 120V, SPDT, 10A, MOMENTARY CONTACT ADAPTER
- AS REQUIRED FOR CORRECT CONTACTOR INTERFACE. 72 PROVIDE 120V, SPST, 2,000 W RATED AD JUSTABLE LEVEL SETTING PHOTOCELLS FOR CONTROL OF INTERIOR AND/OR EXTERIOR LIGHTING AS INDICATED ON DRAWINGS. INSTALL UNITS AND AIM AS INSTRUCTED ON-SITE. CONNECT TO CONTACTORS, TIME CLOCKS, ETC., FOR DESIRED

## CONTROL AS SHOWN.

- 73. PROVIDE EMPTY CONDUIT/OUTLET BOX SYSTEM TO ALLOW INSTALLATION OF COMMUNICATIONS AND SPECIAL SYSTEMS (TELEPHONE, SECURITY, PAGING AND COMPUTER) EQUIPMENT AND WIRING AS DETAILED BELOW AND INDICATED ON THE DRAWINGS. INSTALL PUL
- 74. IN GENERAL, PROVIDE 38 mm (1½") EMPTY CONDUITS FROM THE SYSTEM EQUIPMENT ALLOW INSTALLATION OF TELEPHONE AND COMPUTER SYSTEMS DISTRIBUTION WIRING.
- 75. TO ALLOW INSTALLATION AND CONNECTION OF PAGING SYSTEM EQUIPMENT SPEAKERS AND WIRING BY THE OWNER, PROVIDE 19 mm (3/4") EMPTY CONDUITS FROM TELEPHONE
- 76. REFER TO CONDUIT SYSTEM RISER DIAGRAMS (WHERE PROVIDED) FOR DETAILS OF DISTRIBUTION CONDUIT AND COMPONENT DETAILS AND TO FLOOR PLANS FOR COMPONENT AND OUTLET LOCATIONS, CONTACT OWNER'S SYSTEMS INSTALLATION CONTRACTORS TO VERIFY ALL CONDUIT SIZES, OUTLET LOCATIONS AND INSTALLATION DETAILS PRIOR TO PROCEEDING WITH
- 77. PROVIDE EMPTY CONDUIT/OUTLET BOX SYSTEM AS REQUIRED TO ALLOW THE INSTALLATION OF THE MECHANICAL CONTRACTOR'S THERMOSTATS. COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR AND MECHANICAL DRAWINGS PRIOR TO ROUGH-IN. INSTALL PULL

- (VERIFICATION OF FIRE ALARM SYSTEMS), AND OBC 79. SUBMIT SHOP DRAWINGS FOR FIRE ALARM CONTROL PANEL, ANNUNCIATOR, SIGNALING DEVICES, DETECTION DEVICES, AND PULL STATIONS. 80. PROVIDE COMPLETE ELECTRICALLY SUPERVISED, CLOSED CIRCUIT, FIRE ALARM SYSTEM WITH
- DEVICES COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM. 81. DESIGN FIRE ALARM SYSTEM SO THAT THE OPERATION OF ANY ONE OF THE MANUAL FIRE ALARM STATIONS OR AUTOMATIC DETECTORS WILL CAUSE ALL FIRE ALARM SIGNALS TO SOUND
- 82. MANUAL FIRE ALARM PULL STATIONS SHALL BE PROVIDED WITH TWELVE (12) SPARE GLASS RODS TO BE LEFT WITH OWNER.
- MINUTE RATE-OF-RISE. USE WHERE NORMAL TEMPERATURES FLUCTUATIONS EXIST, BUT AMBIENT TEMPERATURES EXCEED 38°C (100°F), BUT DO NOT EXCEED 66°C (150°F). C. RATED 58°C(135°F) FIXED TEMPERATURE NON-RESTORABLE, USE WHERE VIOLENT

b. RATED AT 88°C(194°F) FIXED TEMPERATURE NON-RESTORABLE AND 8°C DEGREES PER

- TEMPERATURE FLUCTUATIONS EXIST, BUT NORMAL TEMPERATURES EXCEED 38°C (100°F) BUT DO EXCEED 66°C (150°F).
- a. PROVIDE COMPLETE SMOKE DETECTOR SYSTEM AS INDICATED. b. MOUNT DETECTORS ON CEILING AS INDICATED, AT THE HIGHEST POINT WHERE VARIATION IN CEILING HEIGHT EXIST, DO NOT MOUNT DETECTORS ON SIDES, UNDERSIDES, OR LESS THA 12" (300mm) FROM WALLS, BEAMS, JOISTS, DUCTS, OPEN WEB STEEL JOISTS OR ANY STRUCTURE PROJECTING BELOW ACTUAL CEILING HEIGHT, OR LESS THAN 48" (1220mm)
- RADIATING SURFACES BE ENCOUNTERED IN LOCATING ANY DETECTOR WHERE SHOWN. LOCATE THE DETECTOR AS NEAR AS POSSIBLE TO THE INDICATED POSITION, CLEAR OF OBSTACLES, TO THE SATISFACTION OF THE CONSULTANT, BUT MAINTAIN A CLEAR SPACE OF 24" (610mm), ON THE CEILING, BELOW AND AROUND.PROTECTIVE WIRE GUARDS OR GLASS COVERS FOR DETECTORS IN AREAS PRONE TO DAMAGE OR TAMPER MAY EXIST.
- 85. PHOTO ELECTRIC TYPE SMOKE DETECTORS: PROVIDE RELAY BASE WHEN DETECTORS ARE INSTALLED IN ELEVATOR LOBBIES, MACHINE ROOMS, CONTROL ROOMS, SHAFTS OR ADJACENT
- AND ALL OTHER UNITS SOUND INTERMITTENTLY. CONSTRUCTED AS PER CAN/ULC-S531. 87. DUCT SMOKE DETECTOR: PHOTO ELECTRIC TYPE DUCT SMOKE DETECTOR AND HOUSING WITH FORM-C SHUT DOWN RELAY AND LED REMOTE INDICATOR AND SAMPLING TUBES TO SUIT DUCT

OCTAGON/BOX, 85 DB AT TEN FEET PIEZO ELECTRIC ALARM, AND PUSH TO TEST SENSITIVITY TEST

BUTTON. INTERCONNECT DRY TYPE CONTACTS SO THAT TRIPPED UNIT SOUNDS CONTINUOUSLY

90. FIRE ALARM BELLS OR STROBES: MINIMUM 15CD AND 80 dB @ 3m. 91. PROVIDE WIRING, CONNECTION OF SUPERVISED VALVES AND FLOW SWITCHES SPRINKLER VALVES AS INDICATED.

89. PROVIDE PROTECTIVE WIRE GUARDS OR GLASS COVERS FOR DETECTORS IN AREAS PRONE TO

- 93. PROVIDE THRID-PARTY VERIFICATION OF FIRE ALARM EQUIPMENT DISTURBED BY THIS WORK, INCLUDING THOSE COMPONENTS NECESSARY TO DIRECT OPERATION OF SYSTEM, SUCH AS
- MANUAL STATIONS, THERMAL DETECTORS AND CONTROLS AS PER CAN/ULC-S537. d.ON COMPLETION OF VERIFICATION AND WHEN ALL ABOVE CONDITIONS HAVE BEEN COMPLIED WITH, MANUFACTURER SHALL ISSUE TO THE OWNER:
- 94. PROOF OF LIABILITY INSURANCE FOR INSPECTION. 95. PROVIDE LEGIBLE PERMANENTLY MOUNTED NOTICE AT EACH MANUAL STATION AS PER 96. FOR RENOVATIONS: INFORM GENERAL TRADE/OWNER OF ANY FIRE ALARM ZONE OR DEVICE

WHICH IS DISCONNECTED OR RENDERED INOPERATIVE, TO PREVENT FALSE ALARMS, AT THE

- 97. THE CONTROL PANEL SHALL BE A PROTEGE GX SURFACE MOUNTED PANEL COMPLETE WITH
- 98. REMOTE ZONE ANNUNCIATOR KEY PADS SHALL BE PRT-KLCS-B-TOUCH SENSE LCD KEYPAD.
  - 101. SIRENS SHALL BE ALARMSAF MODEL # BG-1/HWPOS AND BURTEK MODEL # SP30 COMPLETE WITH



STRUCTURAL MECHANICAL ELECTRICAL CIVIL

15 Foundry Street, Dundas, ON, L9H 2V6

REVIEW ALL DRAWINGS AND VERIEY ALL DIMENSIONS AT THE SITE, DO

2024/11/06 P.O. ISSUED FOR ADDENDUM E-01 2024/10/09 P.O. **ISSUED FOR TENDER** 2024/07/26 P.O. ISSUED FOR PERMIT 2023/12/22 F.S ISSUED FOR PERMIT ISSUED FOR COORDINATION 2023/12/08 F.S. ISSUED FOR 80% REVIEW 2022/12/23 ISSUED FOR 60% REVIEW 2022/11/24 ISSUED DATE BY

WORKSHOP ARCHITECTURE

WATERLOO, ONTARIO

158 BRIDGEPORT ROAD EAST

**ELECTRICAL SPECIFICATIONS** 

CHECKED BY DRAWING NUMBER NOV 2022

ORIGINAL SHEET - ARCH D

- 54. THE ELECTRICAL CONTRACTOR IS TO INCLUDE IN THE TENDER ALL COSTS REQUIRED TO CO-ORDINATE 55. THE CONTRACTOR SHALL INSTALL AND PROVIDE ALL LABOUR, MATERIAL, EQUIPMENT, NECESSARY TO
- ARCHIE.GALANG@CHUBBFS.COM
- PROVIDING INSTALLATION AND TESTING OF SIMILAR SERVICES. • A MINIMUM OF FIVE REFERENCES FOR WHOM YOU HAVE PROVIDED SERVICES.
- SYSTEM. THE SYSTEM SHALL INCLUDE ALL NECESSARY EQUIPMENT AND WIRING TO ACCOMPLISH FUNCTIONS SPECIFIED, COMPLETE IN EVERY DETAIL. THE SYSTEM SUPPLIER WILL BE RETAINED TO SUPERVISE THE INSTALLATION, MAKE FINAL CONNECTIONS AND TEST.
- 65. THE SYSTEM SHALL ACCEPT ALARM AND TROUBLE SIGNALS FROM:
- HYDRO POWER FAILURE.
- 66. THIS SYSTEM MUST BE FULLY INTEGRATED WITH THE ACCESS CONTROL SYSTEM.

- 2. PROVIDE BRADY LABELING ON ALL RECEPTACLE COVER PLATES INDICATING PANEL AND
- EQUIVALENT SELE-STICKING PERMACODE WIRE MARKERS
- AND 5% VOLTAGE DROP FROM THE SUPPLY SIDE OF THE CONSUMER SERVICE TO THE POINT OF 6. T90 NYLON MAY BE USED IN LIEU OF R90 FOR INTERIOR INSTALLATIONS UP TO SIZE #10, HOWEVER, CONDUIT FILL SHALL BE BASED ON R90 RATING.
- FLEXIBLE CABLE SHALL BE RESTRICTED TO 3600 mm (12') IN LENGTH AND BE SUITABLY CLIPPED AND SUPPORTED EVERY 900 mm (3').
- JOIN ALL CONDUCTORS USING APPROVED SOLDERLESS WING NUT PRESSURE CONNECTORS.
- 12. BX (AC-90) CABLE IS ONLY PERMITTED TO LIGHT FIXTURES WITH A MAXIMUM LENGTH OF
- FUSIBLE UNITS SHALL BE MODULAR TYPE EQUIPPED FOR HRCI FUSES AND INCLUDE AUXILIARY
- ETC., REQUIRED FOR CONTROL AND CONNECTION.
- SYMMETRICAL RATING, HRCI TYPE J TIME DELAY (600A OR LESS) AND HRCI TYPE L TIME DELAY 21. PROVIDE FUSE SIZE AND TYPE COMPATIBLE WITH VFD MANUFACTURER REQUIREMENTS.
- 23. PROVIDE PANEL LABELS AND NEATLY TYPEWRITTEN PANEL DIRECTORY INSIDE DOOR IN PLASTIC
- 26. CONNECT ALL SINGLE PHASE LOADS SUCH THAT THERE IS THE LEAST POSSIBLE IMBALANCE OF
- PROVIDE JUNCTION BOXES, COMPLETE WITH BLANK COVERS AS REQUIRED OR SHOWN FOR ALL PANELS. SECURE ALL BOXES INDEPENDENT OF THE CONDUIT/WIRING SYSTEM.
- 31. BOXES FOR INDOOR USE: CODE GAUGE ELECTRO-GALVANIZED STEEL FOR CONCEALED MOUNTING AND GALVANIZED CAST FERRALLOY OR CAST BRUSHED ALUMINUM FOR EXPOSED USE, UNLESS OTHERWISE NOTED.

- WITH INSTALLATIONS

- POSSIBLE, OR ACCESS PANELS MAY BE PROVIDED WITH THE APPROVAL OF THE OWNER OR
- 38. EMT CONDUIT SHALL BE USED FOR WIRING AND CONCEALED WHEREVER POSSIBLE. EMT COUPLINGS AND CONNECTORS SHALL BE STEEL SETSCREW CONCRETE TIGHT OR STEEL COMPRESSION RAIN TIGHT.
- RESISTANT, FLAME RETARDANT THERMOPLASTIC, ROTATIONAL, SUPPLIED WITH A CANOPY C/W
- CIRCUITRY COMPLYING WITH C.S.A. AND N.B.C. REQUIREMENTS. PLASTIC CONTAINERS AND BE TOTALLY MAINTENANCE FREE WITH A MINIMUM LIFE EXPECTANCY
- WITHOUT DROPPING BELOW NINETY-ONE (91) PERCENT OF THE RATED BATTERY VOLTAGE. 45. PROVIDE GREY COLOURED CONDUCTORS IN A SEPARATE CONDUIT SYSTEM, FOR THE D.C. LOCAL LIGHTING CIRCUIT. MOUNTING PLATFORMS AND ACCESSORIES SHALL BE PROVIDED FOR
- SPECIFIED FIXTURES FOR THE PROJECT.
- SERVING ONLY THAT FIXTURE OR REMOTE IF THE DRIVER SERVES MORE THAN ONE FIXTURE. ALL DRIVERS SHALL BE DIMMABLE USING 0-10V DIMMING TECHNOLOGY UNLESS NOTED OTHERWISE TEMPERATURES FROM -30 °C TO +50 °C.
- CONSTRUCTION DETAILS, AIR CONTROL AND DUCTWORK CONNECTION DETAILS, ETC., AND
- 54. FOR APPROVED EQUALS TO BASE DESIGN FIXTURES, SHOP DRAWINGS FOR EXTERIOR LIGHTING SHALL INCLUDE A COMPUTER GENERATED SITE PLAN PLOT POINT-BY-POINT CALCULATIONS AT NO LESS THAN 3 m (10') SPACING FOR THE FULL EXTERIOR SPACE UP TO 2 m BEYOND THE
- CHARGES WILL NOT BE PAID FOR CHANGES TO FIXTURES MADE BEFORE THE FIXTURE CUTS HAVE BEEN REVIEWED
- 58. SENSORS SHALL HAVE AN INTEGRAL BYPASS SHUNT SWITCH FOR SERVICE OR MANUAL
- 31. SENSORS SHALL CARRY A 5 YEAR WARRANTY. 62. SENSORS SHALL INTERFACE WITH POWER/RELAY PACKS AS REQUIRED BY THE SAME
- 20 AMP., 347 V TOGGLE SWITCH - 18220 • 15 AMP., 120 V DUPLEX RECEPTACLE - 5252 - 5352 - GF5252 - GF5352
- 15 AMP. GROUND FAULT DUPLEX RECEPTACLE - GF15 37. PROVIDE VERTICALLY BRUSHED STAINLESS STEEL COVERPLATES, COLOURED TO MATCH DEVICE, CORNERS FOR SURFACE MOUNTED DEVICES AS APPROPRIATE FOR ALL OUTLETS, GANGED TYPE FOR ALL GROUPED OUTLETS. PROVIDE SPECIAL RECEPTACLES AND OUTLET TYPES AS IDENTIFIED

- WP826

- DR20

b. RECEPTACLES - 450MM (17.7")

- MOUNTING BACKBOARD TO SUITABLE AREAS OF ACCESSIBLE CEILING SPACES AS SHOWN, TO TERMINATE CONDUITS WITH AN APPROPRIATE INSULATED BUSHING. FOR EACH GENERAL WALL OUTLET INDICATED PROVIDE A 19 mm (3/4") EMPTY CONDUIT FROM A STANDARD SINGLE GANC BOX WITH BLANK COVERPLATE TO AN ACCESSIBLE CEILING SPACE WITHIN 3 m (10') OF THE MAIN
- BACKBOARD TO ACCESSIBLE CEILING SPACES AS SHOWN.

IF THE SYSTEM IS SINGLE STAGE.

84. SMOKE DETECTOR:

DAMAGE OR TAMPER

- CORDS IN ALL EMPTY CONDUITS. 78. COMPLY WITH CAN/CSA-S524 (INSTALLATION OF FIRE ALARM SYSTEMS), CAN/CSA-S537
- ZONE COMPONENTS AND SIGNAL CIRCUIT COMPONENTS FOR PRESENT AND FUTURE AS INDICATED. IF FIRE ALARM IS EXISTING AND WORK DESCRIBED IS TO TIE INTO EXISTING, PROVIDE
- 83. AUTOMATIC THERMAL DETECTORS: CONSTRUCTED AS PER CAN/ULC-S530. a. RATED AT 58°C(135°F) FIXED TEMPERATURE NON-RESTORABLE AND 8°C DEGREES PER MINUTE RATE-OF-RISE. USE WHERE NORMAL TEMPERATURES DO NOT EXCEED 38°C (100°F).
- TEMPERATURE FLUCTUATIONS EXIST, BUT NORMAL TEMPERATURES DO NOT EXCEED 38°C d. RATED 88°C(194°F) FIXED TEMPERATURE NON-RESTORABLE. USE WHERE VIOLENT
- FROM AIR HANDLING OR HEATING OUTLETS. COMPLY WITH CAN/CSA-S524. c. SHOULD INTERFERENCE FROM OBSTRUCTION, LAMP POSITIONS, AIR OUTLET OR HEAT
- 86. STAND-ALONE PHOTO ELECTRIC SMOKE ALARMS: EACH UNIT SHALL HAVE POWER ON INDICATOR LED, DETACHABLE MOUNTING PLATE SUITABLE FOR STANDARD 4" (102mm)
- DIMENSIONS. WALL MOUNT REMOTE INDICATOR MINIMUM 300 MM (1 FT) BELOW CEILING AT DETECTOR LOCATION 88. PROVIDE COMBINATION CARBON MONOXIDE OPTIONS AS SPECIFIED ON THE DRAWINGS.
- 92. LOCATE END-OF-LINE RESISTORS IN CONTROL PANEL (CLASS A) OR IN SEPARATE BOX LOCATED NOT MORE THAN 6'-0" (1830mm) ABOVE FINISHED FLOOR BEYOND LAST MANUAL STATION, AUTOMATIC INITIATING DEVICES OR SIGNAL (CLASS B).
- e. COPY OF INSPECTING TECHNICIAN'S REPORT SHOWING LOCATION OF EACH DEVICE AND CERTIFYING TEST RESULTS OF EACH DEVICE. f. CERTIFICATE OF VERIFICATION CONFIRMING THAT INSPECTION HAS BEEN COMPETED AND SHOWING CONDITIONS UPON WHICH, SUCH INSPECTION AND CERTIFICATION HAVE BEEN
- BEGINNING OF THE WORKDAY. RECONNECT ALL FIRE ALARM ZONES AND DEVICES AT END OF WORKDAY AND INFORM GENERAL TRADE/OWNER.
  SECURITY AND ACCESS CONTROL S SYSTEMS
- 99. MOTION DETECTORS SHALL BE DUAL TECHNOLOGY STYLE EQUIVALENT TO HONEYWELL CAT. 100. DETECTORS TO BE MOUNTED IN ACCORDANCE WITH SYSTEM SUPPLIERS INSTRUCTIONS.

RECHARGEABLE STAND-BY BATTERIES OF ADEQUATE CAPACITY.

MHITE PINISH AMOSURFACE MOUNTING.

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OT SCALE THE DRAWINGS. REPORT ALL DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH ANY CONSTRUCTION OR SHOP FABRICATION. ALL DRAWINGS. SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF 'MANTECON PARTNERS' AND MUST BE AND RELATED DOCUMENTS IN PART OR WHOLE IS FORBIDDEN WITHOUT THE ENGINEER'S WRITTEN PERMISSION.

CSV L'HARMONIE DAYCARE **ADDITION** 

AS INDICATED

November 07, 2024 — 04:20pm Plotted by: ppan

### **ELECTRICAL SPECIFICATIONS ELECTRICAL SPECIFICATIONS** 102. ON SINGLE DOORS, DOOR CONTACTS SHALL BE RECESS MOUNTED AND OF HIGH QUALITY, WIDE-GAP 4. IN SOME SECTIONS OF THIS SPECIFICATION, MATERIALS AND EQUIPMENT ARE SPECIFICALLY SERIES TYPE, (SENTROL CAT, # 1078). DESCRIBED AND NAMED BY MANUFACTURER FOR THE PURPOSE OF ESTABLISHING A MINIMUM IRE ALARM AND FIRE PANEL TROUBLE STANDARD OF MATERIALS, PRODUCT QUALITY AND OTHER SPECIFIED REQUIREMENTS. 103. THE CONTROL PANEL SHALL BE UTILIZED TO RELAY FIRE SIGNALS FROM THE BUILDING FIRE ALARM PANEL THE PROJECT SYSTEMS DESIGN AS PER THE DRAWINGS AND SPECIFICATIONS IS BASED ON THE TO THE CENTRAL MONITORING STATION. THESE RELAYS ARE TO BE LABELLED AND LOCATED INSIDE THE FIRE SPECIFIED MANUFACTURER'S FOUIPMENT BUT IS INTENDED TO BE APPROPRIATE FOR FOUIVALEN ALARM PANEL IN A SECURE JUNCTION BOX. RELAYS AND BOX BY DIVISION 16 TO THE REQUIREMENTS OF EQUIPMENT OF ALL OTHER MANUFACTURERS CONTAINED ON THE "APPROVED THE SECURITY SUB-CONTRACTOR. MANUFACTURER'S LIST" 104. TWO (2) ZONES OF THE CONTROL PANELS SHALL BE ASSIGNED AS FOLLOWS: PRODUCTS OF MANUFACTURER'S LISTED AS "ALTERNATES" ARE SUBJECT TO SHOP DRAWING FIRE ZONE 1 – 'FIRE' BUILDING FIRE SYSTEM ACTIVATED. REVIEW TO ENSURE THAT THEY ARE EQUIVALENT TO THE PRODUCTS OF THE SPECIFIED • FIRE ZONE 2 - 'FIRE TROUBLE' BUILDING FIRE SYSTEM IS IN TROUBLE. MANUFACTURER. ALTERNATE MANUFACTURER'S EQUIPMENT SHALL CONFORM TO THE SPACE 105. FIRE ZONES SHALL BE DESIGNATED TWENTY-FOUR (24) HOUR ZONES AND SHALL NOT BE LIMITATIONS IMPOSED BY THE PROJECT AND THE INTENT AS OUTLINED IN THIS SPECIFICATION AN ARMED/DISARMED BY THE DIGITAFIREL KEYPAD. DRAWINGS 106.FIRE MONITORING SHALL BE TO ULC STANDARDS. SUBMIT REGISTRATION OF SITE WITH PROJECT THE CONTRACTOR MAY SUBMIT ALTERNATIVE PROPOSALS OF MANUFACTURERS NOT LISTED IN CONFORMANCE PAPERWORK. THE APPROVED MANUFACTURERS LIST OF PROPOSALS OR MODIFIED DESIGN WITH APPROPRIATE COSTS, DELIVERY, AND SYSTEM DESIGN ADJUSTMENTS WHICH HE FEELS MAY BE ADVANTAGEOUS 107. THE SECURITY SYSTEM IS TO PROVIDE A CONTACT CLOSURES TO A LIGHTING CONTACTOR CONTROLLING CONSIDERATIONS FOR THE PROJECT. CORRIDOR (BOTH FLOORS) AND ATRIUM LIGHTING. CURITY AND ACCESS CONTROLS SYSTEMS 108. UPON DISARMING OF THE SYSTEM, A CONTACT IS TO SIGNAL A LIGHTING CONTACTOR TO ENERGIZE AND PROVIDE POWER TO SEVERAL LIGHTING CIRCUITS. STALLATION 109. UPON ARMING OF THE SYSTEM, A CONTACT IS TO SIGNAL A LIGHTING CONTACTOR TO DE-ENERGIZE 18. INSTALL CONDUIT NETWORK. THUS DISCONNECTING POWER TO SEVERAL LIGHTING CIRCUITS. 9. INSTALL CABLE AS SUPPLIED BY SECURITY SUB-CONTRACTOR. 110. THE WIRING FROM THE CONTROL PANEL CONTACTS TO THE LIGHTING CONTACTOR CONTROL CIRCUIT 20. STUB CONDUIT FLUSH ON WALL AT DETECTOR LOCATIONS SHOWN (DO NOT PROVIDE BOX). CONFIRM SHALL BE BY THE ELECTRICAL SUB-CONTRACTOR. LOCATIONS ON SITE WITH SYSTEM SUPPLIER.ALL EQUIPMENT SHALL BE MOUNTED AND CONNECTED IN ELEPHONE CONNECTION AND OFFSITE MONITORING COMPLETE ACCORDANCE WITH THE SYSTEM SUPPLIERS SPECIFICATIONS. 21. ALL FINAL DEVICE CONNECTIONS, INSTALLATIONS AND YESTING SHALL BE PERFORMED BY THE SECURITY 111. ALL SYSTEMS SHALL BE MONITORED ON A 24 HOUR A DAY, 7 DAYS A WEEK BASES. AT NO TIME SHALL A SYSTEM BE LEFT UNMONITORED. 112. ALL SYSTEMS SHALL BE PROVIDED WITH BOTH PRIMARY AND BACK-UP MEANS OF COMMUNICATION: INSTALL DOOR VIDEO INTERCOM SYSTEM IN ACCORDANCE WITH MANUFACTURER'S GRIDLINES AND PRIMARY COMMUNICATION FROM THE THIRD PARTY ALARM MONITORING CENTER TO THE SYSTEM FRONT SCHEMATICS AND PROVIDE TRAINING FOR USERS (MINIMUM 1.5 HOURS) OVER TWO (2) SEPARATE END SHALL BE BASED ON STANDARD DIGITAL DIALER PROTOCOLS OVER STANDARD TELEPHONE LINES. • BACK-UP COMMUNICATIONS SHALL BE PROVIDED VIA GSM - RADIO COMMUNICATIONS. STEM PROGRAMMING IF SUPPORTED AND AGREED TO BY CONSEIL SCOLAIRE VIAMONDE PRIOR TO INSTALLATION, IP BASED. MONITORING AND COMMUNICATIONS MAY ALSO BE USED AS A PRIMARY MEASURE TO MONITOR THE 23. THE CONTRACTOR IS REQUIRED TO PROVIDE ALL SYSTEM PROGRAMING INCLUDING BUT NOT LIMITED TO: ALARM PANEL. THE USE OF A SECONDARY COMMUNICATIONS METHOD MUST ALSO BE PROVIDED. • ALL SYSTEM(S) CONFIGURATION. (STANDARD TELEPHONE LINE - POTS OR GSM). OFFSITE MONITORING AND COMMUNICATION PARAMETERS 113. A SELF-TEST OF THE DIGITAL DIALER SHALL BE CARRIED OUT DAILY TO ENSURE COMMUNICATION IS ON LINE TO THE STATION. USER ENROLMENT AND SETUP 114. THE BOARD'S INTERCONNECT TELEPHONE COMPANY SHALL BE CONTRACTED. AS A SUB-CONTRACTOR 24. ALL SYSTEM NAMING CONVENTIONS SHALL BE PRESENTED BY THE CONTRACTOR FOR APPROVAL BY UNDER DIVISION 16 - ELECTRICAL TO INSTALL A CA38A JACKS ON THE STREET SIDE OF THE LAST LISTED CONSEIL SCOLAIRE VIAMONDE. TELEPHONE LINE. THE JACK SHALL BE WIRED FOR LINE SEIZURE AND THE LINE TELEPHONE NUMBER SHALL BE THE CONTRACTOR IS REQUIRED TO CONDUCT AND CHAIR PRE-INSTALLATION MEETINGS AS REQUIRED SUITABLE MARKED ON THE JACK COVER. WITH CONSEIL SCOLAIRE VIAMONDE OR THEIR REPRESENTATIVE TO IDENTIFY SPECIFIC REQUIREMENTS OF 115. WIRING FROM THE CA38A JACKS TO THE SURVEILLANCE CONTROL PANELS SHALL BE THE RESPONSIBILITY THE SYSTEM PROGRAMMING. OF DIVISION 16. THE CA38A JACKS SHALL BE WIRED WITH A PULLOUT PLUG ON SURVEILLANCE SIDE OF THE THE CONTRACTOR SHALL BE RESPONSIBLE TO DOCUMENT ALL DECIDED ON SOFTWARE CONFIGURATION PARAMETERS AND SUBMIT FOR APPROVAL TO CONSEIL SCOLAIRE VIAMONDE. 7. ALL FIELD-DEFINED PROGRAMS SHALL BE STORED IN NON-VOLATILE MEMORY AND SHALL NOT BE LOST IF 116. THE SECURITY SUB-CONTRACTOR SHALL BE RESPONSIBLE TO CO-ORDINATE THE INSTALLATION OF TWO AC MAINS AND/OR BATTERY IS LOST. CA- 38A TELEPHONE JACKS (BY THE TELEPHONE SUB-CONTRACTOR) AT THE TELEPHONE SERVICE IN THE 28. ALL PROGRAMMING MAY BE ACCOMPLISHED THROUGH THE STANDARD LCD KEYPAD. AS WELL SCHOOL FOR THE TRANSMISSION OF ALARMS OOR VIDEO INTERCOM STATION ALL PROGRAMMING OR EDITING OF THE EXISTING PROGRAM IN THE SYSTEM SHALL BE ACHIEVED 117. THE MAIN ENTRY SYSTEM WILL CONSIST OF THE FOLLOWING COMPONENTS: WITHOUT SPECIAL EQUIPMENT AND WITHOUT INTERRUPTING THE ALARM MONITORING FUNCTIONS OF THE MASTER MONITOR STATION COMPLETE WITH INTEGRAL COLOUR MONITOR, DOOR COMMUNICATION AND FIRE ALARM CONTROL PANEL AND / OR THE IDS. RELEASE BUTTONS, DESK STAND AND ASSOCIATED POWER SUPPLY. AIPHONE CAT. #JP-4MED COMPLETE 30. PROVIDE PARTITIONING OF THE SYSTEM TO SUIT THE MULTIPLE BUILDING USERS AND THEIR SCHEDULES. WITH MCW-S/A AND PS-2420UL CO-ORDINATE ALL REQUIREMENTS WITH BOARD REPRESENTATIVES. • FLUSH MOUNTED VANDAL-RESISTANT DOOR STATION COMPLETE WITH PTZ CAPABILITIESAIPHONE CAT. NG AND COMMISSIONING • ELECTRIC STRIKE SUITABLE FOR INDICATED DOOR. CO-ORDINATE WITH HARDWARE SUPPLIER.APPROVED 31. ACCEPTANCE TEST PROCEDURES MANUFACTURER: RUTHERFORD CONTROLS. • A MINIMUM OF 5 DAYS PRIOR TO ON-SITE TESTING, PREPARE AND SUBMIT TWO (2) COPIES OF A PROPOSED 118. THE CHILDCARE ENTRY SYSTEMS WILL CONSIST OF SIMILAR COMPONENTS EXCEPT THE MASTER STATION ACCEPTANCE TEST PLAN (ATP) FOR REVIEW BY CONSEIL SCOLAIRE VIAMONDE. MUST ALSO COMMUNICATE WITH SUB-INTERCOM STATIONS AND THIS AREA'S MASTER AND SUB-STATIONS • CONSEIL SCOLAIRE VIAMONDE RESERVES THE RIGHT TO REQUEST THAT TESTS COMPLETED BE REPEATED OR MUST RELEASE THE TWO (2) NOTED ENTRY POINTS. TO REQUEST ANY ADDITIONAL TESTS REQUIRED TO DEMONSTRATE COMPLIANCE WITH THIS STANDARD. 119. APPROVED MANUFACTURERS: AIPHONE UPON APPROVAL OF THE ATP BY CONSEIL SCOLAIRE VIAMONDE THE CONTRACTOR SHALL PERFORM ALL TESTS AND FORWARD THE DOCUMENTED RESULTS CONSEIL SCOLAIRE VIAMONDE. 120. CARD READERS ARE TO BE PROVIDED AND SHALL SECURELY READ ACCESS CONTROL DATA FROM CARDS AND FOBS. • AFTER A REVIEW OF THE PRELIMINARY TESTS AS OUTLINED IN THE ATP, A SITE ACCEPTANCE TEST DATE SHALL 121. CARD READERS SHALL BE INTEGRATED CONTROL TECHNOLOGY PRX-TSEC-EXTRA-KP-BT-W. BE ESTABLISHED. A DATE WILL NOT BE ESTABLISHED UNTIL ALL EQUIPMENT IS AVAILABLE FOR TESTING. HILDCARE DOOR ALARM SYSTEM CONSEIL SCOLAIRE VIAMONDE SHALL BE ENTITLED TO WITNESS TESTING ON THE AGREED DATE. 122. PROVIDE AS DETAILED ON THE DRAWINGS FOR THE CHILDCARE AREA, A DOOR ALARM SYSTEM • ON THE DATE OF SITE ACCEPTANCE THE CONTRACTOR SHALL BE PRESENT TO PERFORM TESTING. CONSEIL COMPLETE WITH DOOR ALARM CONTACTS, LOCAL BUZZER/STROBE AND ARM/BYPASS KEYSWITCH AND ALI SCOLAIRE VIAMONDE OR THEIR REPRESENTATIVE SHALL BE PRESENT TO WITNESS ALL OF THE TESTS NECESSARY SUPPORT HARDWARE AND WIRING FOR A COMPLETE AND OPERATIONAL SYSTEM. ■ IN THE EVENT THAT CONSEIL SCOLAIRE VIAMONDE OR THEIR REPRESENTATIVE PROCEED TO THE SITE FOR SIT 123. ALL NECESSARY CABLE WILL BE SUPPLIED BY THE SECURITY SUB-CONTRACTOR FOR INSTALLATION BY THE ACCEPTANCE TESTING, ON THE AGREED DATE, AND FINDS THE SYSTEM INCOMPLETE OR NOT OPERATIONAL ELECTRICAL CONTRACTOR. ALL WIRING REQUIREMENTS MUST BE CONFIRMED WITH THE SECURITY SUB-THE CONTRACTOR SHALL COVER ALL COSTS ASSOCIATED WITH RETURNING FOR REPEAT TESTING CONTRACTOR PRIOR TO TENDER CLOSE. THE CONTRACTOR SHALL DEMONSTRATE THAT ALL EQUIPMENT AND ITS CONFIGURATION IS COMPLIANT TO 124. ALL SECURITY WIRING SHALL BE 20AWG MINIMUM, MULTI-CONDUCTOR, STATION 'Z' LOW-VOLTAGE WIR THE CONSEIL SCOLAIRE VIAMONDE STANDARDS. ALL DEFICIENCIES IDENTIFIED SHALL BE CORRECTED BY TH OR EQUIVALENT. CONTRACTOR PRIOR TO FINAL SYSTEM ACCEPTANCE. 125. ALL WIRING MUST BE FT6 CABLE. WIRING SUPPLYING POWER TO THE CONTROL PANELS SHALL BE NO 12 THE SYSTEM AND ALL DEVICES SHALL BE TESTED BY THE CONTRACTOR BACK TO THE ALARM MONITORING AWG MINIMUM, TW75. STATION. AT THE END OF TESTING THE CONTRACTOR SHALL REQUEST AND RECEIVE FROM THE MONITORING 126. ALL WIRING TERMINATIONS SHALL BE CLEARLY MARKED AT THE SURVEILLANCE CONTROL PANEL AND STATION, A HARD COPY PRINT OUT OF ALL ALARMS RECEIVED BY THE MONITORING STATION DURING THE DIGITAL KEYPADS. A WIRING COLOUR CODE AND TERMINATION CHART SHALL BE LEFT AT THE TEST PERIOD. THE CONTRACTOR SHALL FORWARD A COPY OF THIS TEST REPORT TO CONSEIL SCOLAIRE SURVEILLANCE CONTROL PANEL. VIAMONDE FOR REVIEW, AS WELL AS PROVIDE AN ADDITIONAL COPY WITH THEIR AS-BUILD 127. ALL WIRING IS TO BE INSTALLED IN A CONDUIT NETWORK PROVIDED BY THE ELECTRICAL CONTRACTOR. THE CONTRACTOR SHALL DEMONSTRATE THAT ALL EQUIPMENT AND ITS CONFIGURATION IS COMPLIANT TO THE CONSEIL SCOLAIRE VIAMONDE STANDARDS, ALL DEFICIENCIES IDENTIFIED PROVIDE ALL GROUNDING REQUIRED BY THE ONTARIO ELECTRICAL SAFETY CODE OR ANY SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL SYSTEM ACCEPTANCE. LOCAL AUTHORITIES REGARDLESS OF WHETHER IT HAS BEEN SHOWN. THIS INCLUDES EQUIPMENT THE SYSTEM AND ALL DEVICES SHALL BE TESTED BY THE CONTRACTOR BACK TO THE ALARM. GROUNDING AS WELL AS SYSTEM (SERVICE) AND DISTRIBUTION GROUNDING. PROVIDE ADDITIONAL SPECIFIC PROVISIONS AS INDICATED, INCLUDING GROUND CONNECTIONS FOR MONITORING STATION. AT THE END OF TESTING THE CONTRACTOR SHALL REQUEST AND RECEIVE MAIN ELECTRICAL ROOM AND BUILDING STRUCTURE. PROVIDE THESE INSTALLATIONS FROM THE MONITORING STATION, A HARD COPY PRINT OUT OF ALL ALARMS RECEIVED BY THE ACCORDING TO ELECTRICAL SAFETY CODE REGULATIONS, COLLECT ALL GROUND. MONITORING STATION DURING THE TEST PERIOD. THE CONTRACTOR SHALL FORWARD A COPY OF CONNECTIONS AT A COMMON POINT IN THE MAIN ELECTRICAL ROOM, WHICHIN TURN IS THIS TEST REPORT TO CONSEIL SCOLAIRE VIAMONDE FOR REVIEW, AS WELL AS PROVIDE AN ADDITIONAL COPY WITH THEIR AS-BUILD DOCUMENTATION. 2. ALL GROUNDED FEEDERS AND BRANCH CIRCUITS SHALL BE PROVIDED WITH A SEPARATE 33. FINAL SYSTEM ACCEPTANCE GROUND CONDUCTOR SIZED ACCORDING TO THE ELECTRICAL SAFETY CODE REGULATIONS. THI AFTER SUCCESSFUL COMPLETION OF THE SAT, THE CONTRACTOR SHALL PREPARE A DEFICIENCY LIST. THE CONDUIT SYSTEM SHALL NOT BE USED AS THE GROUND PATH, HOWEVER ALL CONDUITS SHALL BE CONTRACTOR SHALL CORRECT ALL DEFICIENCIES AND NOTIFY CONSEIL SCOLAIRE VIAMONDE WHEN ALL SOLIDLY GROUNDED ARRANGE GROUNDS SUCH THAT UNDER NORMAL OPERATING CONDITIONS CURRENT FLOW IN CONSEIL SCOLAIRE VIAMONDE WILL PROVIDE FINAL ACCEPTANCE OF THE WORK ONLY WHEN ALL ANY GROUNDING CONDUCTOR IS NOT OBJECTIONABLE AND WILL NOT HARM PERSONNEL OR REQUIREMENTS OF THIS SPECIFICATION HAVE BEEN FULFILLED, THE HAND OVER REPORT HAS BEEN RECEIVED EQUIPMENT. ARRANGE SERVICE GROUNDS AND DISTRIBUTION GROUNDS TO PROVIDE GROUND AND ALL NOTED DEFICIENCIES HAVE BEEN CORRECTED. RESISTANCE READINGS WITHIN VALUES REQUIRED BY THE ONTARIO ELECTRICAL SAFETY CODE AND THE ELECTRICAL SAFETY AUTHORITY. 34. TRAINING SHALL BE PROVIDED ON SITE AND CONDUCTED BY CONTRACTOR. ALL ASSOCIATED 4 IN GENERAL PROVIDE ALL POWER SLIPPLY WIRING, LINE VOLTAGE CONTROL WIRING, AND TRAINING COST SHALL BE CARRIED BY THE CONTRACTOR UNDER HIS COST. TRAINING SHALL FLECTRICAL SAFETY CODE REQUIRED DISCONNECT SWITCHES FOR ANY EQUIPMENT INSTALLED B CONSIST OF THE FOLLOWING MINIMUM REQUIREMENTS: OTHER TRADES. VERIFY THE ELECTRICAL CHARACTERISTICS AND WIRING REQUIREMENTS OF ALL • USER TRAINING – SHALL CONSIST OF TYPICAL SYSTEM OPERATIONS INCLUDING BUT NOT LIMITED TO: EQUIPMENT BEFORE PROCEEDING WITH THE ACTUAL INSTALLATIONS. REFER TO THE DRAWINGS ARMING, DISARMING, BYPASS OF ZONE(S), CHANGING INDIVIDUAL USER CODE, TROUBLE CONDITIONS. FOR A DESCRIPTION OF EQUIPMENT WIRING AND CONTROL REQUIREMENTS AND COMPONENTS ADMINISTRATIVE TRAINING TO BE PROVIDED BY THE CONTRACTOR. 35. THE TRAINING SHALL BE PERFORMED IN TWO (2) STAGES: 5. CO-OPERATE WITH ALL OTHER TRADES ON THE JOB SUCH THAT ALL EQUIPMENT CAN BE • STAGE I: CONTRACTOR CONDUCTED TRAINING. TRAINING SHALL BE PROVIDED AT TWO (2) DIFFERENT TIME INSTALLED WITHOUT ANY CONFLICTS OR DELAYS. PROVIDE AND MAINTAIN TEMPORARY WIRING IN TWO SEPARATE GROUPS, EACH GROUP SHALL CONSIST OF 5 INDIVIDUALS FOR A TOTAL OF 10. DATES LIGHTING AND POWER SUPPLY INSTALLATIONS AS REQUIRED BY OTHER TRADES DURING AND TIMES ARE SUBJECT TO APPROVAL BY THE CONSEIL SCOLAIRE VIAMONDE. STAGE II: A MINIMUM OF 4 HOURS OF FOLLOW-UP ON-SITE TRAINING CONDUCTED BY THE CONTRACTOR S. THE CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXTENT OF DEMOLITION, REMOVAL, AT A TIME CONVENIENT TO BOTH PARTIES TO REINFORCE THE STAGE I TRAINING AND ANSWER ANY RELOCATION, RE-ROUTING AND RECONNECTION OF EXISTING ELECTRICAL EQUIPMENT, FIXTURES QUESTIONS THAT MAY ARISE IN THE INTERIM. A PORTION OF THIS TRAINING MAY TAKE THE FORM OF OUTLETS AND WIRING REQUIRED FOR THE EXECUTION AND COMPLETION OF THIS PROJECT. IN TELEPHONE SUPPORT DURING THE FIRST FEW MONTHS OF OPERATION. (THIS TELEPHONE SUPPORT WILL BE AT GENERAL, RELOCATE EXISTING SERVICES AS REQUIRED TO ACCOMMODATE NEW EQUIPMENT THE DISCRETION OF THE BOARD REP). AND INSTALLATIONS AND ARCHITECTURAL CHANGES. IN AREAS BEING TOTALLY RENOVATED, APPROVED MANUFACTURERS LIST PROVIDE ALL ELECTRICAL DEMOLITION WORK AND REPLACE EXISTING INSTALLATIONS WITH NEW AS SHOWN. EXTRA CHARGES FOR PREMIUM TIME LABOUR, IF REQUIRED TO COMPLETE THE PROJECT AS DESCRIBED, SHALL BE INCLUDED IN THE BID PRICE. SEQUENCE OF DISCONNECTION AND REMOVAL AND/OR RELOCATION OF EXISTING EQUIPMENT DISCONNECT SWITCHES, LIGHTING AND POWER PANELS: AND WIRING SHALL BE CO-ORDINATED WITH THE OWNER AND OTHER TRADES AND SHALL EATON; SIEMENS; SCHNEIDER ELECTRIC CONFORM TO THE REQUIREMENTS AND CONDITIONS OUTLINED IN THE SPECIFICATIONS. 3. WIRING LOCATED IN AREAS BEING ALTERED BUT FEEDING OUTLETS OR EQUIPMENT IN OTHER AREAS REQUIRED TO REMAIN IN SERVICE, SHALL BE REWORKED, EXTENDED AND RE-ROUTED AS ALLEN-BRADLEY; SIEMENS; EATON; SCHNEIDER ELECTRIC REQUIRED TO MAINTAIN THE CONTINUITY OF THESE SERVICES. PROVIDE ADEQUATE PROTECTION TO EXISTING WIRING AND EQUIPMENT WHICH HAS BECOME EXPOSED TO MECHANICAL INJURY IN THE COURSE OF ALTERATIONS OR NEW INSTALLATIONS. . INSTALL ALL CONDUIT AND FEEDERS RUNNING THROUGH THE EXISTING BUILDING ALONG ROUTES GOULD; BUSSMAN APPROVED ON SITE BY THE OWNER. NEW INSTALLATIONS WILL NOT NECESSARILY BE ALLOWED ALONG SHORTEST ROUTES BUT SHOULD FOLLOW CORRIDORS OR ROUTES OF EXISTING MAIN WIRING DEVICES: HUBBELL; PASS AND SEYMOUR; LEVITON 10. IN SOME INSTANCES, NEW OUTLETS AND EQUIPMENT ARE SHOWN IN THE SAME LOCATION AS THE EXISTING OUTLETS. THESE MAY BE FED THROUGH THE EXISTING CONDUITS PROVIDED THAT THE CONDUITS ARE IN GOOD CONDITION AND ARE ACCEPTABLE TO THE ELECTRICAL SAFETY TIME SWITCHES AND PHOTO ELECTRIC CONTROLS: AUTHORITY FOR RE-USE. ALL WIRING TO NEW OUTLETS AND EQUIPMENT SHALL BE NEW UNLESS TORK; PARAGON; INTERMATIC OTHERWISE INDICATED. ALL UNUSED CONDUIT ENTRANCE OPENINGS SHALL BE SEALED. 1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL EQUIPMENT WHICH IS NOT TO BE RE-USED SHALL BECOME THE PROPERTY OF THIS CONTRACTOR (FOR DISPOSAL OR REMOVAL FROM THE LIGHTING CONTROLS: SITE AS APPLICABLE) AND HAVE AN APPROPRIATE SALVAGE VALUE INCLUDED IN THE CONTRAC LEGRAND/WATT STOPPER; LEVITON; SENSOR SWITCH/ACCUITY; LUTRON; EATON; PHILIPS EXISTING ELECTRICAL EQUIPMENT TO BE RE-USED (RELOCATED AND RECONNECTED) SHALL BE CLEANED, PAINTED, REFURBISHED AND REPAIRED AS REQUIRED BEFORE REINSTALLATION. (TURN OVER EXISTING LIGHT FIXTURES, ELECTRICAL PANELS AND STIPULATED DEVICES NOT TO BE INTERIOR LIGHT FIXTURES: RE-USED OR DISPOSED OF TO THE OWNER.) LITHONIA; EATON; HUBBELL; PHILIPS 12. IN FINISHED AREAS OF THE EXISTING BUILDING, AS MUCH WIRING AS POSSIBLE SHALL BE CONCEALED, WHERE, IN THE CONTRACTOR'S OPINION IT IS ABSOLUTELY NECESSARY OR EXTERIOR LIGHT FIXTURES: ADVANTAGEOUS TO RUN WIRING ON THE SURFACE, (NOT SIMPLY TO AVOID CUTTING WALL OR

EATON; HOLOPHANE; HUBBELL; LITHONIA; PHILIPS; CREE

EMERGENCY LIGHTING FIXTURES AND BATTERY UNITS:

THOMAS & BETTS; BEGHELLI; STANPRO; AIMLITE

THOMAS & BETTS; BEGHELLI; STANPRO; AIMLITE

DIVISION 27

CLOCKS:

**ELECTRICAL SPECIFICATIONS** MATCH EXISTING SYSTEM TELEC.OR STRUCTURED CABLING SYSTIMAX DIVISION 28 FIRE ALARM SYSTEM: SIMPLEX SECURITY SYSTEM: MONITORED BY CHUBB INTEGRATION: MOTION DETECTORS: HONEYWELL DOOR CONTACTS: SENTROL 1076 SECURITY INTERCOMS AND STATIONS: AIPHONE ELECTRIC STRIKE: RUTHERFORD CONTROLS CARD READER: ICT COMPATIBLE



PROJECT NORTH



15 Foundry Street, Dundas, ON, L9H 2V6 Phone: (905)648-0373 www.manteconpartners.com

REVIEW ALL DRAWINGS AND VERIFY ALL DIMENSIONS AT THE SITE. DO OT SCALE THE DRAWINGS. REPORT ALL DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH ANY CONSTRUCTION OR SHOP FABRICATION, ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF 'MANTECON PARTNERS' AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS IN PART OR WHOLE IS FORBIDDEN WITHOUT THE ENGINEER'S WRITTEN PERMISSION.

2024/11/06 P.O. **ISSUED FOR ADDENDUM E-01** 2024/10/09 P.O. ISSUED FOR TENDER 2024/07/26 P.O. ISSUED FOR PERMIT 2023/12/22 F.S ISSUED FOR PERMIT 2023/12/08 F.S. ISSUED FOR COORDINATION ISSUED FOR 80% REVIEW 2022/12/23 ISSUED FOR 60% REVIEW 2022/11/24 DATE BY ISSUED

WORKSHOP **ARCHITECTURE** 

CSV L'HARMONIE DAYCARE **ADDITION** 

158 BRIDGEPORT ROAD EAST WATERLOO, ONTARIO

DRAWING TITLE:

**ELECTRICAL SPECIFICATIONS** 

AS INDICATED CHECKED BY DRAWING NUMBER: NOV 2022

ORIGINAL SHEET - ARCH D

FLOOR) OBTAIN APPROVAL FROM THE OWNER BEFORE PROCEEDING. ALL SURFACE RACEWAYS INSTALLED SHALL BE AS MANUFACTURED BY WIREMOLD UNLESS OTHERWISE INDICATED. WIREMOLD RACEWAYS SHALL BE SIZED AS INDICATED OR TO SUIT CONDUCTORS BEING CARRIED

USE ONLY APPROVED COMPONENTS, FITTINGS AND METHODS FOR SECURING, JOINING AND

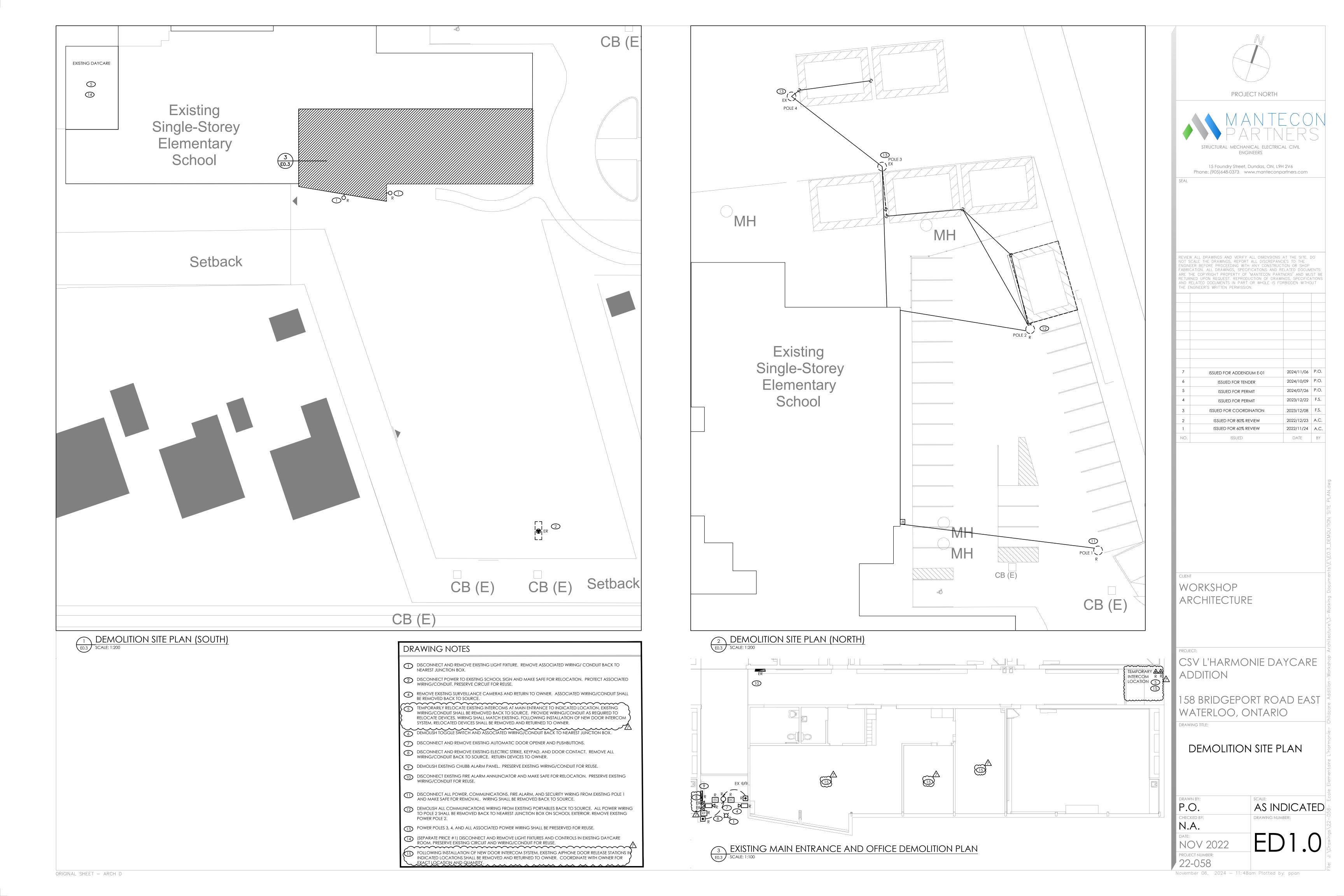
PAINTED BY THE CONTRACTOR TO MATCH THE ADJACENT WALL OR CEILING FINISH. 13. SERVICE AND DISTRIBUTION SYSTEM POWER INTERRUPTIONS SHALL BE KEPT TO A MINIMUM. POWER INTERRUPTIONS MUST BE CO-ORDINATED WITH THE OWNER AND ALL OTHER TRADES BY

SUPPORTING SURFACE RACEWAYS AND OUTLET BOXES. SURFACE MOUNT RACEWAYS SHALL BE

THIS CONTRACTOR. WRITTEN APPLICATION FOR ELECTRICAL INTERRUPTIONS MUST BE RECEIVED FROM THE CONTRACTOR INDICATING THE DATE, TIME AND ESTIMATED DURATION OF THE

INTERRUPTION. APPLICATION FOR APPROVAL OF THE POWER INTERRUPTIONS MUST BE SUBMITTED TO THE OWNERS AND CONSULTANT AT LEAST TWO WEEKS PRIOR TO THE REQUESTED SHUT-DOWN

November 07, 2024 — 03:45pm Plotted by: ppan





ADDENDUM C-01

Architect:	Workshop	Date:	November 06, 2024
Project:	CSV L'Harmonie Daycare Addition	Project No.:	22-058

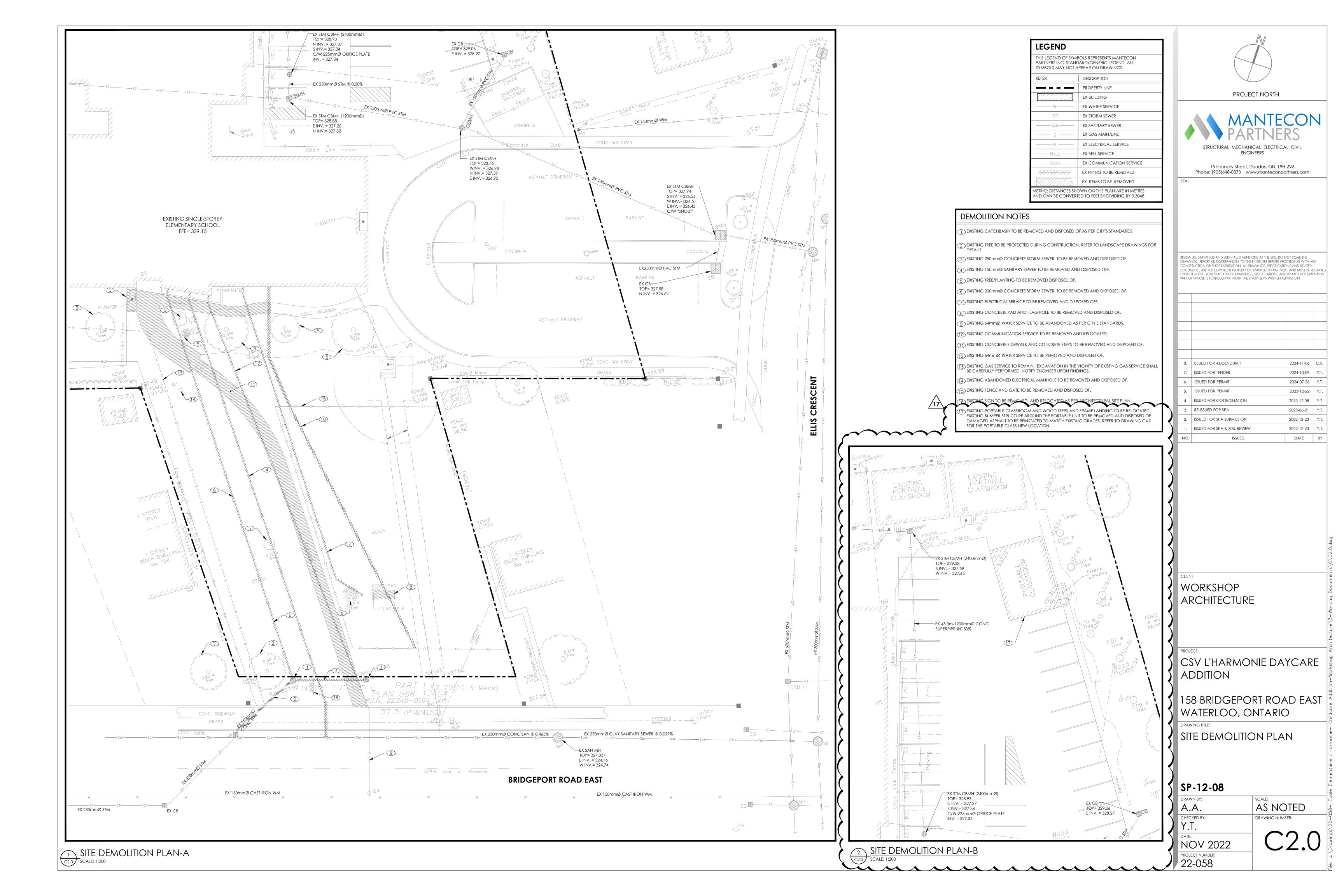
This addendum forms part of the contract documents and amends the original bidding requirements, drawings and specifications noted below.

## 1 Civil

## 1.1 Drawings

- .1 C2.0 Site Demolition Plan
  - Remove and relocate existing portable classroom, wood steps and frame landing.
  - Remove and dispose of existing bumper structure around the portable unit that is being relocated.
  - Reinstate damaged asphalt due to relocating the portable unit. Grades to match existing.

**END OF ADDENDUM C-01** 





ADDENDUM M-01

Architect:	Workshop	Date:	November 6, 2024
Project:	CSV L'Harmonie Daycare Addition	Project No.:	22-058

This addendum forms part of the contract documents and amends the original bidding requirements, drawings and specifications noted below.

## 1 Mechanical

## 1.1 Drawings

- .1 M1.0 Gound Floor Proposed Drainage Plan
  - Grease interceptor selections changed- sizing updated.
- .2 M6.0 Mechanical Schedules
  - Grease interceptor schedule and selection added.

### 1.2 Notes

.1 Contractor is required to conform to the Plumbing Code including Air Test, Potable water tests, and any other applicable tests.

**END OF ADDENDUM M-01** 



## DRAWING NOTES

- CONNECT TO SITE SERVICE.
- 2) STORM WATER PIPE TO RUN AT HIGH LEVEL.
- RAIN WATER LEADER FROM CANOPY WITH CAST IRON BASE AND CLEAN OUT (NO VISIBLE PVC).
- PEDIMAT LOCATED AT ENTRANCE DOOR, COORDINATE SIZE AND TYPE WITH ARCHITECTS.

## GENERAL DRAWING NOTES

- 1. CONTRACTOR TO READ IN CONJUNCTION WITH ARCHITECTURAL, STRUCTURAL & ELECTRICAL DRAWINGS.
- 2. UNLESS OTHERWISE NOTED ALL FLOOR DRAIN, FUNNEL FLOOR DRAINS SHOWN ON THE DRAWING SHALL BE CONNECTED TO THE TRAP SEAL PRIMER. CONTRACTOR TO FIELD RUN ALL TUBING AS NECESSARY TO ACCOMMODATE. TUBING SIZE SHALL BE 3/8" ID MINIMUM.



PROJECT NORTH



15 Foundry Street, Dundas, ON, L9H 2V6 Phone: (905)648-0373 www.manteconpartners.com

review all drawings and verify all dimensions at the site. Do not scale the drawings, report all discrepancies to the engineer before proceeding with any Construction or shop fabrication. All drawings, specifications and related documents are the copyright property of 'mantecon partners' and must be returned upon request, reproduction of drawings, specifications and related documents in PART OR WHOLE IS FORBIDDEN WITHOUT THE ENGINEER'S WRITTEN PERMISSION.

11	ISSUED FOR TENDER ADDENDUM M-01	2024-10-22	J.S.
10	ISSUED FOR TENDER	2024-10-09	J.S.
9	ISSUED FOR PERMIT COMMENTS	2024-09-26	J.C.
8	ISSUED FOR PERMIT COMMENTS	2024-08-27	J.S.
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2	ISSUED FOR 80% REVIEW	2022-12-23	J.L.
1	ISSUED FOR 60% REVIEW	2022-11-23	J.L.
NO.	ISSUED	DATE	BY

GREASE INTERCEPTOR (GI) CALCULATION

GREASE INTERCEPTOR CALCULATION: OBC 7.4.4.3(8) SERVERY

TRIPLE SINK

 $\frac{2*0.75*(45.72 \times 40.62 \times 20.32)}{60 \text{ seconds } * 1000L/cm^3} = 0.943L/s$ 

0.75\*(3\*40.62 x 35.56 x 17.78) = 0.964L/s 60 seconds \* 1000L/cm^3

TOTAL 1.907 L/S

SELECT A PROCEPTOR MODEL: ZURN Z1170 - 700 - T TOTAL LIQUID CAPACITY: 249.730L

GREASE INTERCEPTOR CALCULATION: OBC 7.4.4.3(8) SERVERY

4GPM = 0.25 L/s (RESIDENTIAL)

SELECT A PROCEPTOR MODEL: ZURN ZA1170 - 100 - T TOTAL LIQUID CAPACITY: 47.774L

WORKSHOP ARCHITECTURE

CSV L'HARMONIE DAYCARE ADDITION

158 BRIDGEPORT ROAD EAST WATERLOO, ONTARIO

DRAWING TITLE:

GROUND FLOOR PROPOSED DRAINAGE PLAN

DRAWN BY:	SCALE:
J.S.	AS NOTED
CHECKED BY:	DRAWING NUMBER:
J.L.	
NOV 2022	1  NA 1  O
110 4 2022	

October 23, 2024 - 08:54am Plotted by: jsneek

DATE: NOV 2022 PROJECT NUMBER: 22-058

ORIGINAL SHEET — ARCH D

RC	ROOFTOP UNIT SCHEDULE															
TAG	AIR FLOW (L/S)	SUPPLY FAN  E.S.P. (IN.WG.)  FRPM	HP	DUCT CONFIGURATION	E.A.T. DB/WB	COOLING COI  L.A.T. DB/WB (°C)  REFRIGERAN	TOTAL CAP SENS CA	P. INPUT KW(MBH)	GAS H OUTPUT KW(MBH)	HEATING EFFICIENCY	TURNDOWN	МСОР	MCA FLA	VOLTAGE	WEIGHT KG (LBS)	MANUFACTURER AND MODEL (BASIS OF DESIGN: TRANE)
RTU-2	2723	0.750 1165	3	-	25.56 / 19.33	13.85 / 13.47 -	53.42(182.27) 37.11(126.	4) 73.27(250.00)	59.35(202.50)	-	-	100.00	78.00 -	208V/3Ø/60Hz	1047.8 (2310.0)	TRANE MODEL: YSJ180A3SBL**H4E0A1A1000000000000000000000000000000000

GF	RILLES REG	ISTERS DIFFL	JSERS		
TAG	SIZE (MM)	APPLICATION	NECK SIZE (MM)	AIR FLOW RANGE (L/S)	MANUFACTURER AND MODEL (BASIS OF DESIGN: EH. PRICE)
S-1	1500	SUPPLY AIR	250	AS INDICATED	EH. PRICE MODEL: 4 SLOTS SDS LINEAR SLOT DIFFUSER WITH 1" SLOT WIDTH
S-2	1200	SUPPLY AIR	250	AS INDICATED	EH. PRICE MODEL: 4 SLOTS SDS LINEAR SLOT DIFFUSER WITH 1" SLOT WIDTH
S-3	600X600	SUPPLY AIR	150	AS INDICATED	EH. PRICE MODEL: SQUARE CONE DIFFUSER (SCD)
S-4	600X600	SUPPLY AIR	200	AS INDICATED	EH. PRICE MODEL: SQUARE CONE DIFFUSER (SCD)
S-5	600X600	SUPPLY AIR	250	AS INDICATED	EH. PRICE MODEL: SQUARE CONE DIFFUSER (SCD)
S-6	900	SUPPLY AIR	100	AS INDICATED	EH. PRICE MODEL: 1 SLOT SDS LINEAR SLOT DIFFUSER WITH 1" SLOT WIDTH
R-1	AS INDICATED	RETURN AIR	AS INDICATED	AS INDICATED	EH. PRICE MODEL: 80 SERIES, ALUMNIUM CONSTRUCTION, EGGCRATE FACE RETURN, WHITE POWDER COAT FINISH.
TE-1, E-1, S-7	AS INDICATED	EXHAUST	AS INDICATED	AS INDICATED	EH. PRICE MODEL: 630 SERIES. BLADE PARALLEL TO SHORT DIMENSION. WHITE POWDER COAT FINISH.

zone damper schedule											
G	GENERAL DESCRIPTION	SUPPLY AIR	SUPPLY AIR	AIR FLOW (L/S)		MANUFACTURER & MODEL (BASIS OF DESIGN: TRANE)					
TAG #	AREA SERVED (ROOM No.)	inlet size Ød Mm (in)	OUTLET SIZE (WxH) (MM)	MAX.	MIN.	(APPROVAL EQUAL: EH PRICE; TITUS)					
VAV-1	137 ADMIN OFFICE	100 (4)	-	106.2	11.8	TRANE MODEL: VCCF04 (COOLING ONLY)					
VAV-2	138 SERVERY	100 (4)	-	106.2	24.1	TRANE MODEL: VCCF04 (COOLING ONLY)					
VAV-3	139 TODDLER ROOM	200 (8)	-	424.8	171.8	TRANE MODEL: VCCF08 (COOLING ONLY)					
VAV-4	141 PRESCHOOL ROOM (1)	200 (8)	-	424.8	257.7	TRANE MODEL: VCCF08 (COOLING ONLY)					
VAV-5	142 PRESCHOOL ROOM (2)	250 (10)	-	660.8	263.9	TRANE MODEL: VCCF10 (COOLING ONLY)					
VAV-6	136 HALLWAY	200 (8)	-	424.8	41.1	TRANE MODEL: VCCF08 (COOLING ONLY)					
VAV-7	150 STAFF LOUNGE	125 (5)	-	165.2	103.4	TRANE MODEL: VCCF05 (COOLING ONLY)					
VAV-8	147 INFANT ROOM	200 (8)	-	424.8	114.8	TRANE MODEL: VCCF08 (COOLING ONLY)					
VAV-9	149 REST AREA	100 (4)	-	106.2	53.8	TRANE MODEL: VCCF04 (COOLING ONLY)					
VAV-10	145 UTILITY ROOM & 152 IAUNDRY	100 (4)	-	106.2	20.8	TRANE MODEL: VCCF04 (COOLING ONLY)					

PUMP SCHEDULE										
SYMBOL	SERVICE	FLOW RATE	PRESSURE DROP	FLUID TYPE		MOTOR		MANUFACTURER AND MODEL		
STAIDOL		L/S	KPA	TEOLD TITE	HP	VOLTAGE	RPM	MANUFACTORER AND MODEL		
P-I	DOMESTIC HOT WATER RECIRCULATION	0.1	9	POTABLE WATER	-	120V/1Ø/60Hz	-	GRUNDFOS MODEL: UP 15-10 SU7P/TLC		
P-2	HHW	1.58	100	HHW	0.5	208V/3Ø/60Hz	3494	ARMSTRONG MODEL: 4380 0103-000.5		

EXPANSION TANK SCHEDULE											
	TAG	LOCATION	SERVICE	TYPE	TANK VOLUME L	MANUFACTURER AND MODEL (BASIS OF DESIGN: AMTROL)					
	ET-1	LAUNDRY ROOM	DHW	DIAPHRAGM	93.9	AMTORL MODEL: ST-12C-DD 150 PSIG ASME RATED					
	ET-2	UTILITY ROOM	HHW	PARTIAL BLADDER	132.5	AMTORL MODEL: 35LBC					

WATE	ER HEATER SCH	HEDULE						
SYMBOL	CADACITY KIAI	WATER 1	TEMP. °C	RECOVERY	L WEIGHT DEATABLE	DEMARKS		
STMBOL	CAPACITY KW	ENT.	LVG.	L/H	VOLTAGE	(HxD) (MM)	KG	REMIARNS
GWH-1	58.6	4.5	60	903	120V/1Ø/60Hz	1924x711	688	WATTS PVI CONQUEST 20L 100A GCL, C/W CONDENSATE NEUTRALIZATION KIT, CONCENTRIC TERMINATION KIT, FACTORY INSTALLED POWER CORD

BOIL	ER SCH	EDULE								
SYMBOL	CAPACITY INPUT	KW(MBH) OUTPUT	WATER T	EMP. °C LVG.	FLOW L/S	ELECTRICAL VOLTAGE MCA		DIMENSIONS (HxWxD) (MM)	OPERATING WEIGHT KG	REMARKS
B-1	26.27(91)	25.2(86)	43	60	1.58	120V/1Ø/60Hz	12A	1105x480x530	88	VIESSMANN: MODEL B2HA 88, 311

Kľ	TCHEN EXH	AUST H		SCHEDU	JLE					
No.	AREA SERVED	AIRFLOW L/S (CFM)	S.P. IN.WG.	ELECTRICAL	HOOD LENGTH MM(IN)	DIMENSIC WIDTH TOP MM(IN)		HEIGHT MM(IN)	OPERATING WEIGHT KG(LBS).	MANUFACTURER AND MODEL (BASIS OF DESIGN: GREENHECK)
KH-01	SERVERY	236 (500)	0.91	115V/1Ø/60Hz	900 (36)	30 (12)	596(23.5)	317(12.5)	42.2 (93)	GREENHECK GRRS-W-36-T-E-D-N

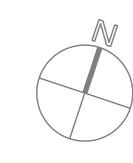
	$\sim$	$\vee$	$\sim$		$\sim$			$\sim$	
	G	REASE INTER	RCEPTO	OR SCHEE	DULE				
>	No.	AREA SERVED	FLOW RATE L/S (GPM)	CAPACITY KG (LBS)	DIM LENGTH MM(IN)	WENSIONS WIDTH MM(IN)	HEIGHT MM(IN)	OPERATING WEIGHT KG(LBS).	MANUFACTURER AND MODEL
>	(GI-1)	SERVERY	1.907 (30.226)	32 (70)	819 (32 1/4")	616 (24 1/4")	497 (19 1/2")	78 (172)	ZURN Z1170 - 700 - T GREASE INTERCEPTOR, SIZE 700 C/W RECESSED COVER FOR TILE MATCHING TILE THICKNESS.
>	GI-2)	SERVERY	.25 (3.963)	6 (14)	438 (17 1/4")	318 (12 1/2")	343 (13 1/2")	25 (56)	ZURN Z1170 - 100 - T GREASE INTERCEPTOR, SIZE 100 C/W RECESSED COVER FOR TILE MATCHING TILE THICKNESS.

SYMBOL	ACTIVE LENGTH MM (IN)	HEIGHT MM	E.W.T.	L.W.T.	CAPACITY KW	MANUFACTURER AND MODEL (BASIS OF DESIGN: GREENHECK)
RH-1	690 (27)	710 (28)	60	43	0.427	WALL FIN ECO-LINE WFB-S24 C3/4-433 2-6CL, DOUBLE ROW FINNED TUBE RADIATOR, 610mm ENCLOSURE HEIGHT
RH-2	1670 (46)	710 (28)	60	43	0.742	WALL FIN ECO-LINE WFB-S24 C3/4-433 2-6CL, DOUBLE ROW FINNED TUBE RADIATOR, 610mm ENCLOSURE HEIGHT
RH-3	4520 (178)	IN MILLWORK	60	43	2.247	WALL FIN ECO-LINE B C3/4-435 2-6CL, DOUBLE ROW FINNED TUBE RADIATOR, ENCLOSED IN MILLWORK
RH-4	2794 (110)	IN MILLWORK	60	43	1.380	WALL FIN ECO-LINE B C3/4-435 2-6CL, DOUBLE ROW FINNED TUBE RADIATOR, ENCLOSED IN MILLWORK
RH-5	7620 (300)	IN MILLWORK	60	43	3.783	WALL FIN ECO-LINE B C3/4-435 2-6CL, DOUBLE ROW FINNED TUBE RADIATOR, ENCLOSED IN MILLWORK
RH-6A	890 (35)	710 (28)	60	43	0.569	WALL FIN ECO-LINE WFB-S24 C3/4-433 2-6CL, DOUBLE ROW FINNED TUBE RADIATOR, 610mm ENCLOSURE HEIGHT
RH-6B	890 (35)	-	60	43	0.569	WALL FIN ECO-LINE WFB-S24 C3/4-433 2-6CL INVERTED ENCLOSURE, DOUBLE ROW FINNED TUBE RADIATOR, 610mm ENCLOSURE HEIGHT, MOUNTED AT HIGH LEVEL
RH-7	2060 (81)	710 (28)	60	43	1.323	WALL FIN ECO-LINE WFB-S24 C3/4-433 2-6CL, DOUBLE ROW FINNED TUBE RADIATOR, 610mm ENCLOSURE HEIGHT
RH-8	1500 (59)	-	60	43	0.963	WALL FIN ECO-LINE WFB-S24 C3/4-433 2-6CL INVERTED ENCLOSURE, DOUBLE ROW FINNED TUBE RADIATOR, 610mm ENCLOSURE HEIGHT, MOUNTED AT HIGH LEVEL
RH-9	610 (24)	710 (28)	60	43	0.393	WALL FIN ECO-LINE WFB-S24 C3/4-433 2-6CL, DOUBLE ROW FINNED TUBE RADIATOR, 610mm ENCLOSURE HEIGHT
RH-10	2515 (99)	IN MILLWORK	60	43	1.250	WALL FIN ECO-LINE B C3/4-435 2-6CL, DOUBLE ROW FINNED TUBE RADIATOR, ENCLOSED IN MILLWORK
RH-11	940 (37)	710 (28)	60	43	0.604	WALL FIN ECO-LINE WFB-S24 C3/4-433 2-6CL, DOUBLE ROW FINNED TUBE RADIATOR, 610mm ENCLOSURE HEIGHT
RH-12	660 (26)	-	60	43	0.420	WALL FIN ECO-LINE WFB-S24 C3/4-433 2-6CL INVERTED ENCLOSURE, DOUBLE ROW FINNED TUBE RADIATOR, 610mm ENCLOSURE HEIGHT, MOUNTED AT HIGH LEVEL
RH-13	610 (24)	710 (28)	60	43	0.393	WALL FIN ECO-LINE WFB-S24 C3/4-433 2-6CL, DOUBLE ROW FINNED TUBE RADIATOR, 610mm ENCLOSURE HEIGHT
RH-14	610 (24)	_	60	43	0.393	WALL FIN ECO-LINE WFB-S24 C3/4-433 2-6CL INVERTED ENCLOSURE, DOUBLE ROW FINNED TUBE RADIATOR, 610mm ENCLOSURE HEIGHT, MOUNTED AT HIGH LEVEL

F	FORCE FLOW HEATER SCHEDULE										
	E.W.T.	L.W.T.	CAPACITY		ELECTRIC	CAL (MA	IN POWER)	WEIGHT	MANUFACTURER AND MODEL		
No.	°C	°C	KW (BTU/H)	МСОР	МСА	FLA	VOLTAGE	KG (LBS)	(BASIS OF DESIGN: TRANE)		
FFH-1 FFH-2	60	43	3.532 (12.05)	-	-	-	115V/1Ø/60Hz	44 (97)	TRANE MODEL: FFDB030 HORIZONTAL CEILING CABINET 280CFM		

E	EXHAUST FAN SCHEDULE											
No.	AREA SERVED	AIRFLOW	S.P.		ELECTRICAL	DRIVE	FAN	OPERATING WEIGHT	SONES	MANUFACTURER AND MODEL		
110.		L/S	IN.WG.	HP	VOLTAGE		RPM	KG.	001120	(BASIS OF DESIGN: GREENHECK)		
EF-1	UNIVERSAL/ TODDLER WC	70.8	0.5	1/15	115V/1Ø/60Hz	DIRECT DRIVE	1225	-	4.9	GREENHECK MODEL: SP-A390-VG DIRECT DRIVE BATHTROOM EXHAUST FAN		
EF-2	WC	141.6	0.5	1/15	115V/1Ø/60Hz	DIRECT DRIVE	1362	-	2.6	GREENHECK MODEL: CSP-A390-VG DIRECT DRIVE CABINET FAN		

			0.1.117.1.517		1	
EFER	DESCRIPTION	SANITARY	SANITARY VENT	DHWS	DCWS	MANUFACTURER AND MODEL
WC)	NON - BARRIER FREE, FLOOR MOUNTED AUTOMATIC FLUSH VALVE WATERCLOSET	75Ø (3"Ø)	38Ø (1-1/2"Ø)	-	25Ø (1"Ø)	AMERICAN STANDARD 3451001.020 FLOOR MOUNTED TOILET C/W CENTOCO SEAT: 1500STSCCFE-001 SEAT, SLOAN FLUSH VALVE: ROYAL 111 ESS-101-OR-HW AND SLOAN POWER KIT EL-154.
(VC2)	BARRIER FREE, FLOOR MOUNTED AUTOMATIC FLUSH VALVE WATERCLOSET	75Ø (3"Ø)	38Ø (1-1/2"Ø)	-	25Ø (1"Ø)	AMERICAN STANDARD MADERA FLOOR MOUNTED TOILET C/W CENTOCO SEAT: 1500STSCCFE-001 SEAT, SLOAN FLUSH VALVE: ROYAL 111 ESS-101-OR-HW AND SLOAN POWER KIT EL-154.
-A) (1-B)	SINGLE WIDE WALL-HUNG LAVATORY, AUTOMATIC FAUCET	32Ø (1-1/4"Ø)	32Ø (1-1/4"Ø)	13Ø (1/2"Ø)	13Ø (1/2"Ø)	BRADLEY EXPRESS TLX-1 WALL HUNG C/W ZURN Z86100-XL SINGLE BASIN METERING FAUCET.
L2	DOUBLE WIDE WALL-HUNG LAVATORY, AUTOMATIC FAUCET	32Ø (1-1/4"Ø)	32Ø (1-1/4"Ø)	13Ø (1/2"Ø)	13Ø (1/2"Ø)	BRADLEY EXPRESS TLX-2 WALL HUNG C/W ZURN Z86100-XL SINGLE BASIN METERING FAUCET.
L3	TRIPLE WIDE WALL-HUNG LAVATORY, AUTOMATIC FAUCET	32Ø (1-1/4"Ø)	32Ø (1-1/4"Ø)	13Ø (1/2"Ø)	13Ø (1/2"Ø)	BRADLEY EXPRESS TLX-3 WALL HUNG C/W ZURN Z86100-XL SINGLE BASIN METERING FAUCET.
L4)	BARRIER FREE WALL HUNG, MANUAL FAUCET	32Ø (1-1/4"Ø)	32Ø (1-1/4"Ø)	13Ø (1/2"Ø)	13Ø (1/2"Ø)	AMERICAN STANDARD LUCERNE WALL HUNG BARRIER FREE SINK C/W CHICAGO 420-T45E2805ABCP FAUCET MCGUIRE 155A FIXTURE DRAIN, LFH165LKN3 SUPPLY AND 8872C P TRAP.
<u>\$1</u>	SINGLE COMPARTMENT, COUNTER MOUNTED, COMMERCIAL SINK	38Ø (1-1/2"Ø)	32Ø (1-1/4''Ø)	13Ø (1/2''Ø)	13Ø (1/2"Ø)	FRANKE: LBS6808P-1-1 SINGLE COMPARTMENT COMMERCIAL COUNTER MOUNTED SINK, C/W/ Chicago 430-ABCP FAUCET, LAWLER 570-86820 MIXING VALVE.
<u>\$2</u>	DOUBLE COMPARTMENT, COUNTER MOUNTED, COMMERCIAL SINK	38Ø (1-1/2"Ø)	32Ø (1-1/4''Ø)	13Ø (1/2''Ø)	13Ø (1/2"Ø)	FRANKE: ALBD6405P-1-1 DOUBLE COMPARTMENT COMMERCIAL COUNTER MOUNTED SINK, C/W/ Chicago 430-ABCP FAUCET, LAWLER 570-86820 MIXING VALVE.
<u>\$3</u>	TRIPLE COMPARTMENT, COUNTER MOUNTED, COMMERCIAL SINK	38Ø (1-1/2"Ø)	32Ø (1-1/4''Ø)	13Ø (1/2''Ø)	13Ø (1/2"Ø)	FRANKE: LBT6407CB-1 TRIPLE COMPARTMENT COMMERCIAL COUNTER MOUNTED SINK, C/W/ T&S BRASS B_0133_ADF12_B EASYINSTALL PRE-RINSE UNIT WITH WALL BRACKET FAUCET, LAWLER 570-86820 MIXING VALVE.
JS1)	MOP BASIN, FLOOR MOUNT	75Ø (3"Ø)	38Ø (1-1/2''Ø)	13Ø (1/2''Ø)	13Ø (1/2"Ø)	STERN WILLIAMS SB-900-T-35-T-40-BP25Ø SINK C/W CHICAGO 897-RCF WALL HUNG FAUCET.
NFHB	NON-FREEZE HOSE BIBB	-	-	-	19Ø (3/4"Ø)	ZURN Z1320XL, NON FREEZE, ANTI SIPHON, WALL HYDRANT.
FD	FLOOR DRAIN	75Ø (3"Ø)	38Ø (1-1/2"Ø)	13Ø (1/2"Ø)	-	WATTS FD-100NH-C-A5-1-5-7
FFD	FUNNEL FLOOR DRAIN	75Ø (3"Ø)	38Ø (1-1/2"Ø)	13Ø (1/2"Ø)	-	WATTS FD-100NH-EG-5-6-7-1
EW	EYEWASH STATION	75Ø (3"Ø)	38Ø (1-1/2''Ø)	13Ø (1/2"Ø)	-	-
MV	MIXING VALVE					WATTS/ANCON HY-300-2-VB



PROJECT NORTH



15 Foundry Street, Dundas, ON, L9H 2V6 Phone: (905)648-0373 www.manteconpartners.com

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1	ISSUED FOR 60% REVIEW	2022-11-23	J.L.
NO.	ISSUED	DATE	BY

WORKSHOP ARCHITECTURE

22-058

CSV L'HARMONIE DAYCARE ADDITION

158 BRIDGEPORT ROAD EAST WATERLOO, ONTARIO

MECHANICAL SCHEDULES

DRAWN BY:	SCALE:
J.S.	AS NOTED
CHECKED BY:	DRAWING NUMBER:
J.L.	
DATE:	N N Z (
NOV 2022	1010.C
PROJECT NUMBER:	

October 23, 2024 - 08:54am Plotted by: jsneek



 $\langle {\rm S6} \rangle$ 

**S7** 

 $\langle S8 \rangle$ 

**S9** 

 $\langle S2 \rangle$ 

 $\langle S1 \rangle$ 

**S3** 

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7 Issued for 60% Review 30 Nov 2022 9 Issued for 80% Cost Estimate 23 Dec 2022 and Review 15 Issued for 90% Client Review 22 Dec 2023 16 Issued for Permit 26 Jul 2024

07 Oct 2024

10 Oct 2024

06 Nov 2024

Description

17 Permit Response

18 Issued for Tender 20 Addendum 01

Materials Legend

RB

Acoustic Ceiling Tile ALUM Aluminum BRK Brick CER Ceramic Tile CMU Concrete Masonry Unit **EXIST** Existing EXP Exposed FGL Fire-Rated Glass Glazing Film

GF GLB Glazed CMU **GWB** Gypsum Wallboard PLY Fire Rated Plywood POR Porcelain Tile PLAM Plastic Laminate Paint Finish Rubber Base RES Resilient Sheet Flooring SCON Sealed Concrete SS

Stainless Steel Tempered Glass Solid Wood Wood Veneer

WORKSHOP

Workshop Architecture Inc. 6 Sousa Mendes Street Toronto Ontario M6P 0A8

> 416.901.8055 info@workshopto.ca workshopto.ca

CSV L'Harmonie Daycare Addition

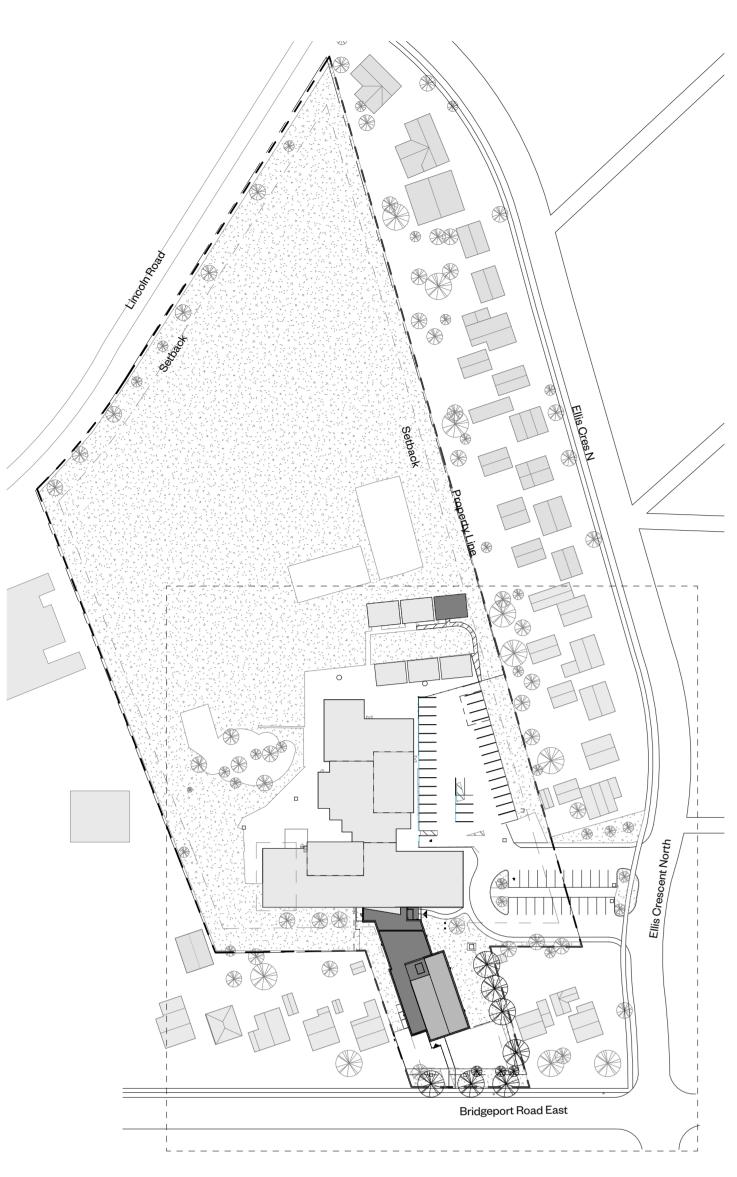
158 Bridgeport Road East

Waterloo

PROJECT CODE SCALE: As indicated 2207 DATE: STATUS: 06 November 2024 Addendum 01

Schedules

drawing number A0.1



2 <u>Site Plan</u> 1 : 1200

Zoning Info subject to: by-law 2018-50 current zoning: S

I of Area: 29 182 m<sup>2</sup>

Lot Area: 29,182 m <sup>2</sup>			
Regulation	Required	Existing	Proposed
Max. lot coverage	60%	8%	10%
Side setback (east) Side setback (west)	5m 5m	38m 19.6m	13.2m 5.2m
Front setback	7.5m	55m	10.4m
Rear setback	7.5m	144m	unchanged
Parking school daycare total	42 18 60	48 0 48	42 18 60
Max. building height	14m	7.1m	unchanged

	Site Plan Notes							
Note	Description							
31	Existing sign to be uninstalled and relocated as indicated.							
32	Relocate existing sign to this location. See also Electrical.							
33	New 1500mm wide asphalt walkway - see Landscape							
34	Storage shed - see Landscape.							
35	Perimeter fence around play areas typ (min 1500mm height) - see Landscape							
36	Existing tree to be protected - see Landscape							
S7	New concrete walkway - provide flush transition to existing municipal sidewalk							
S8	New trees - see Landscape							
S9	Provide 2 new flagpoles c/w foundations							
S10	Remove existing fence and relocate/modify as shown							
S11	Frost slab - see Structural							
S12	Diagonal yellow painted stripes on asphalt							
S13	Existing fence and gate to remain							
314	1.8m wood privacy fence - see Landscape							



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Rev	Description	Date
1	Issued for SPA Pre- Consultation	22 June 2022
2	Issued for 30% Cost Estimate	24 June 2022
5	Issued for Review	18 Oct 2022
6	Issued for Coordination	07 Nov 2022
7	Issued for 60% Review	30 Nov 2022
9	Issued for 80% Cost Estimate and Review	23 Dec 2022
10	Issued for SPA Submission	09 Feb 2023
11	Issued for SPA -R1	23 Jun 2023
15	Issued for 90% Client Review	22 Dec 2023
16	Issued for Permit	26 Jul 2024
17	Permit Response	07 Oct 2024
18	Issued for Tender	10 Oct 2024
20	Addendum 01	06 Nov 2024

## Site Plan Legend

LS Light Standard

MH Man Hole

⊥1829\_ Existing dimension

Tree Protection Fence Vertical Hoarding - see Landscape & Tree Protection Plan

New concrete

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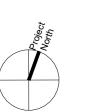
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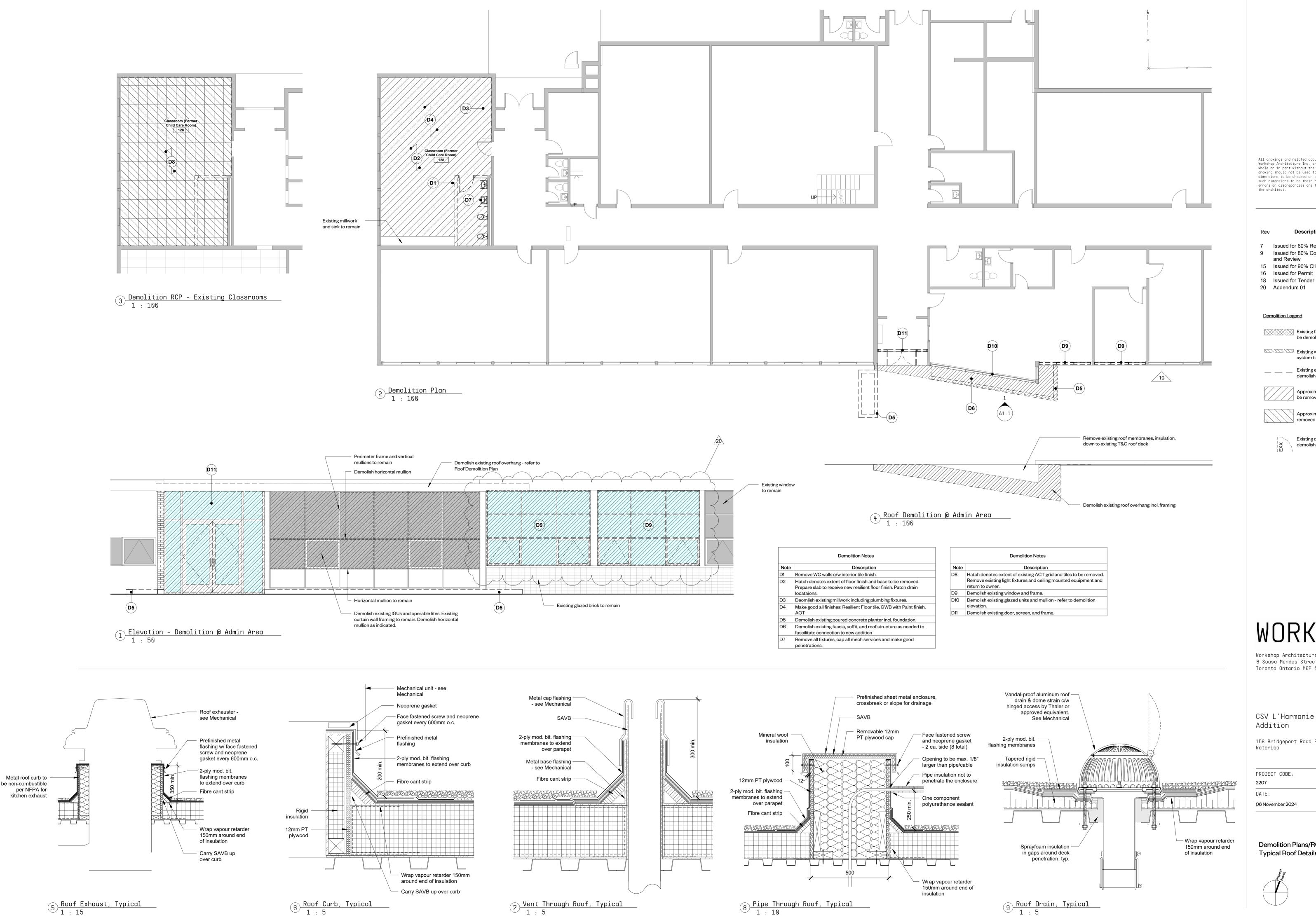
CSV L'Harmonie Daycare Addition

158 Bridgeport Road East Waterloo

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2207	As indicated
DATE:	STATUS:
06 November 2024	Addendum 01

Site Plan





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## **Demolition Legend**

Existing CMU partition to be demolished

Existing wall partition system to be demolished

Existing element to be demolished

Approximate extent of flooring to

/// be removed Approximate extent of ceiling to be

Existing door leaf and frame to be demolished

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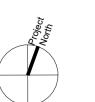
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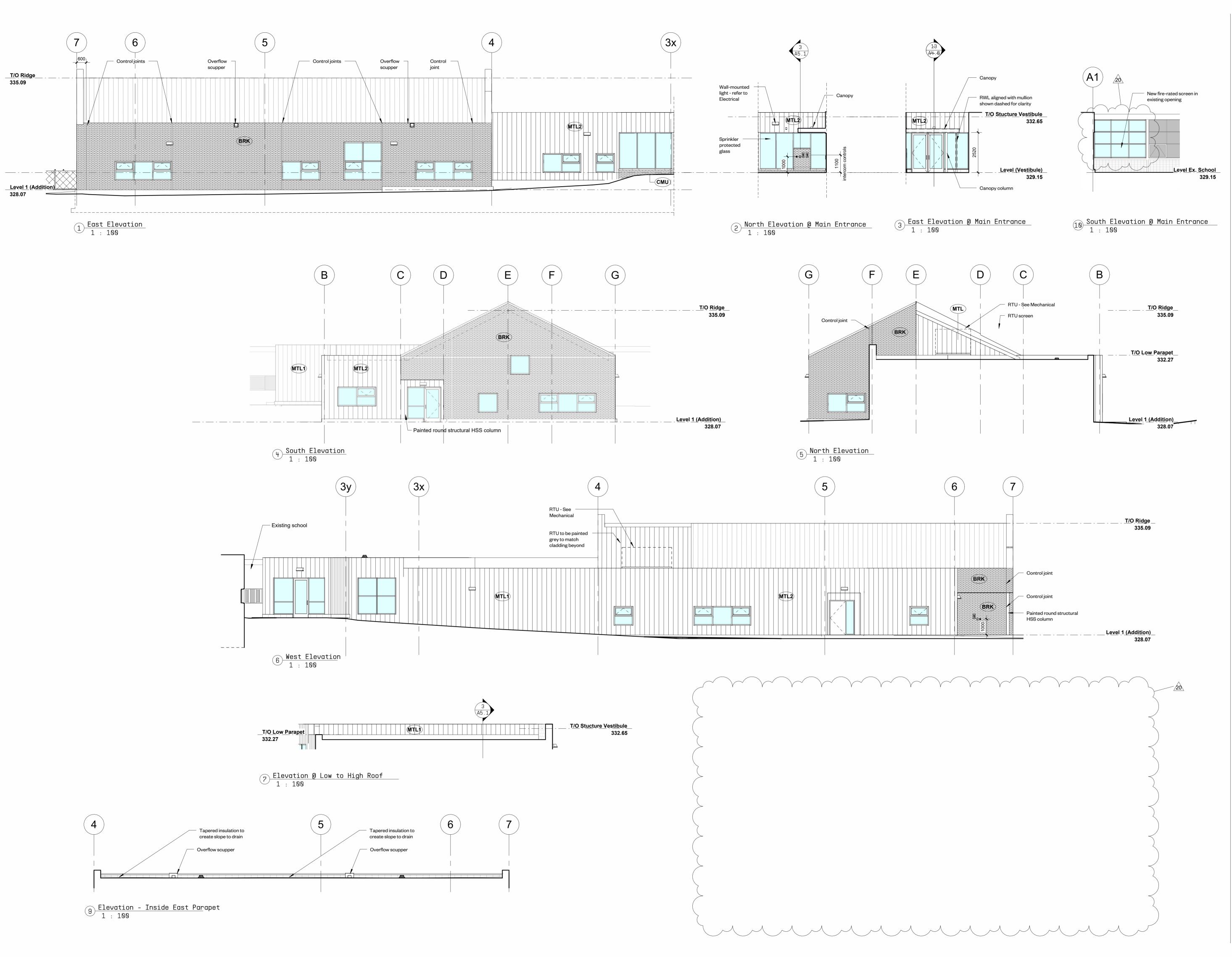
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Demolition Plans/RCP/Elevation & Typical Roof Details





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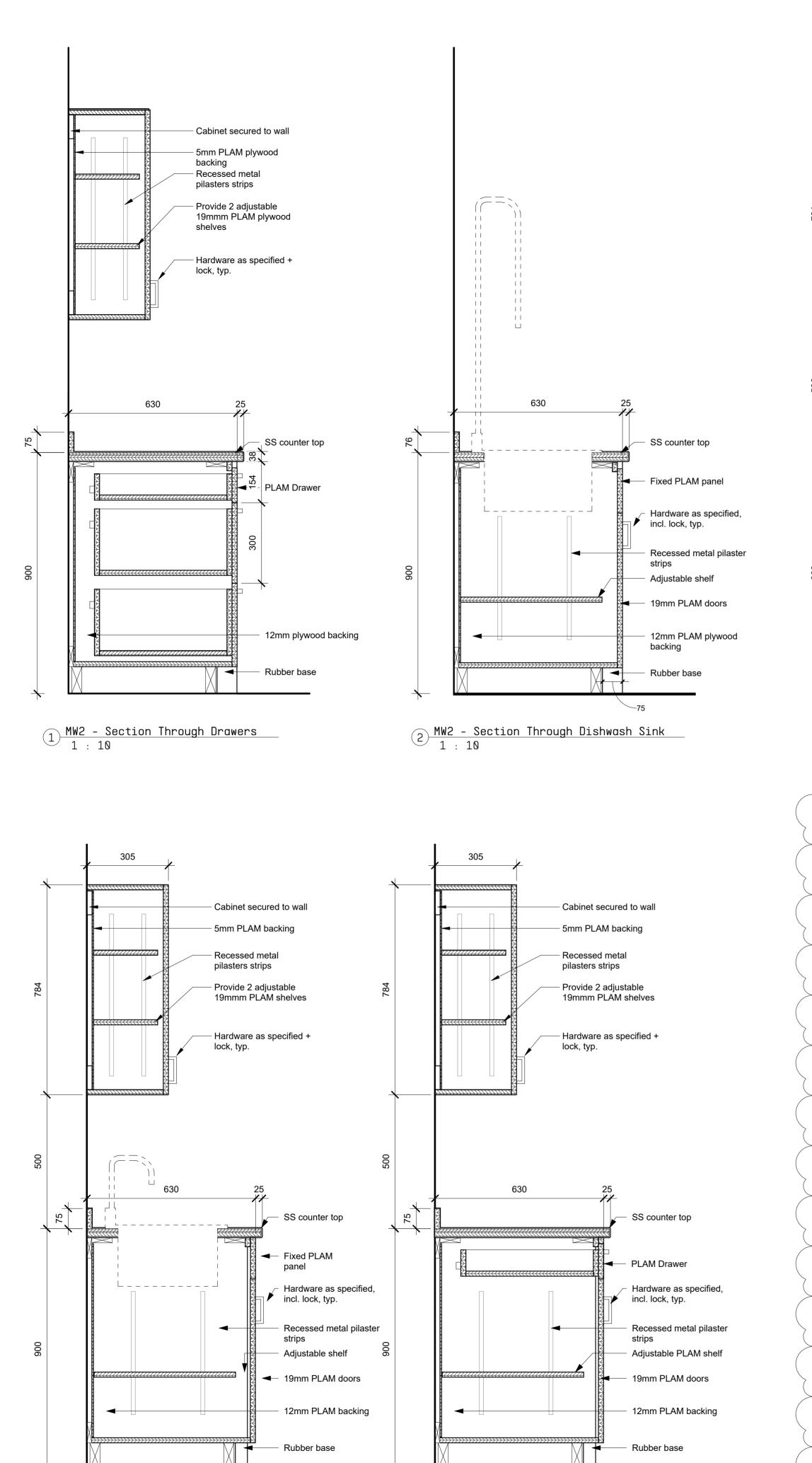
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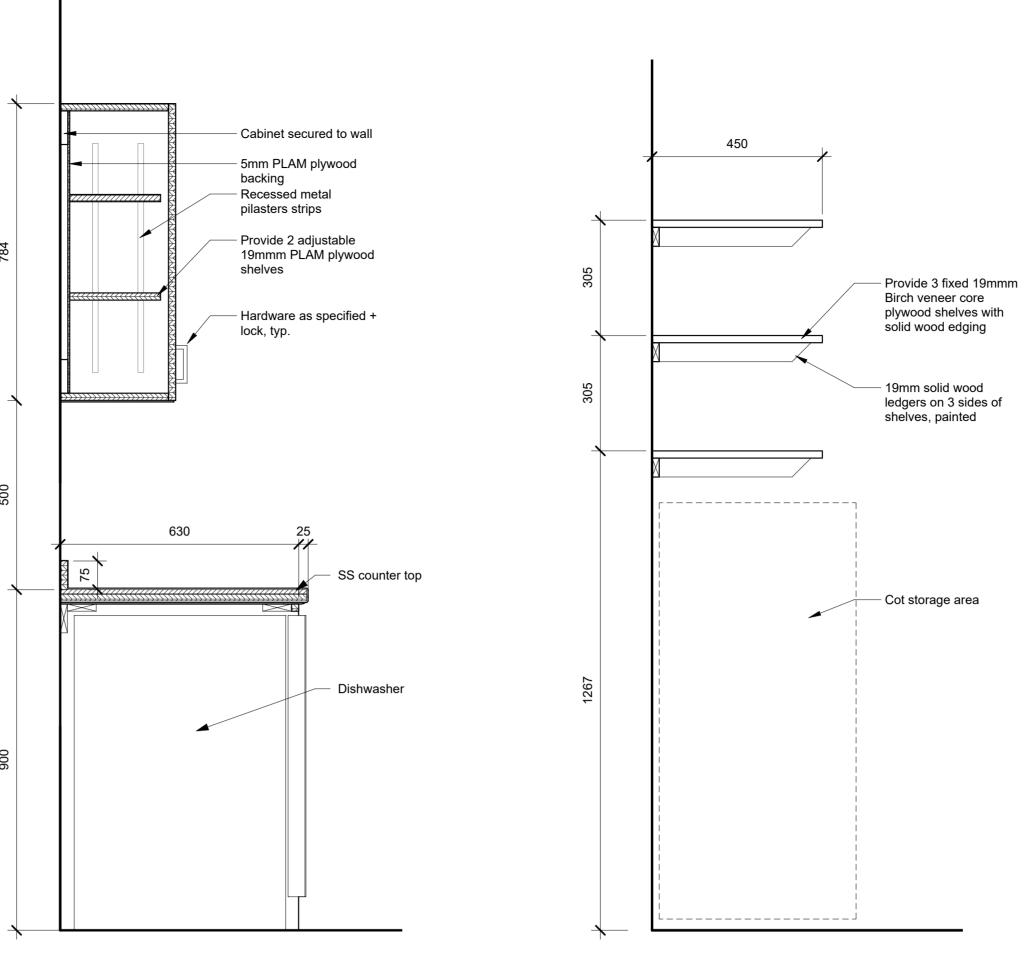
Exterior Elevations

drawing num

A3.0



6 MW1 Section 1 - Through Food Prep Sink 1 : 10



3 MW2 - Section Through Dishwasher 4 Section Through Closet Shelves 1 : 10

Fire Alarm - refer to Electrical

Battery-operated clock - refer to

PA speaker c/w back box, grill, and

Framed Emergency Exit Graphic c/w plexiglass cover - refer to

PA/Telephone handset - see

PA call switch - see Electrical

Thermostat - see Electrical

Light switches - see Electrical

Receptacles - refer to Electrical

Finished floor level

PLAM on 19mm plywood

Door alarm override switch - see

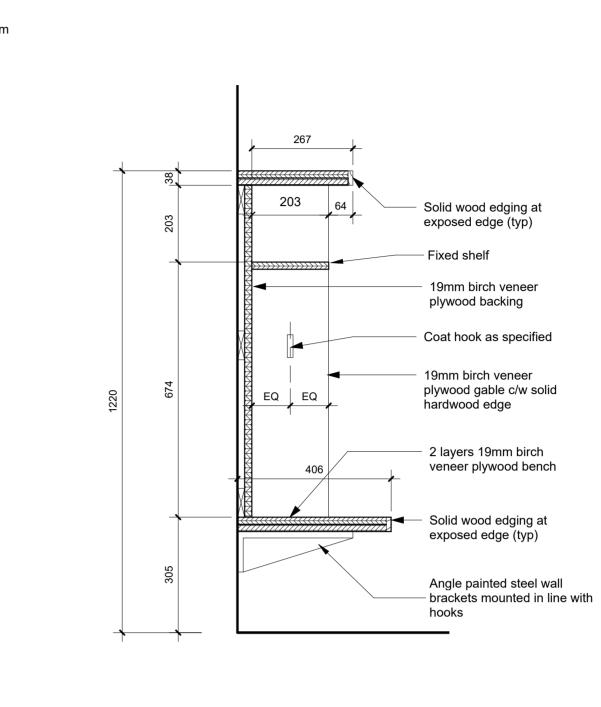
wiring - refer to Electrical

Electrical

Electrical

Electrical

Electrical



5 Typ. Section through Cubby 1 : 10

## Millwork Hardware Legend

Bumpers (2 each per door): Richelieu 3M (Peel & Stick)

Cabinet/Drawer Pulls: Richelieu Catalogue 6211 (BP6211128195)

Cam lock for all cabinet doors & drawers: National NCL-C8060-4GKA413A (keyed alike except as noted)

Coat Hook (cubbies): Canadian Builders Hardware Model No. CBH-61, stainless steel

Concealed hinges: Blum Blumotion 110 degrees

Concealed shelf support brackets: Richelieu 1621712G

Recessed metal pilaster strips: Richelieu Heavy Duty Metal Pilaster 2332G length to suit, flush installation

Steel Roller Glides at 150mm drawers: Accuride #2037 Full Extension

Steel Roller Glides at 233mm drawers: Accuride #3641 Full Extension

Soft close mechanism at all drawers: Richelieu BP97309910

Casters at Toy Carts: Gray Thermoplastic Rubber Casters for General Use Richelieu F24787 (Swivel with Brake): 2 per cart Richelieu F24786 (Swivel without Brake): 2 per

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16 Issued for Permit18 Issued for Tender20 Addendum 01

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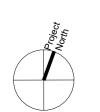
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Millwork



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