



UNIVERSAL WASHROOM MODERNIZATION  
MANOTICK PUBLIC LIBRARY  
5499 SOUTH RIVER DRIVE  
OTTAWA, ONTARIO



ISSUED FOR TENDER

## DRAWING LIST

### ARCHITECTURAL

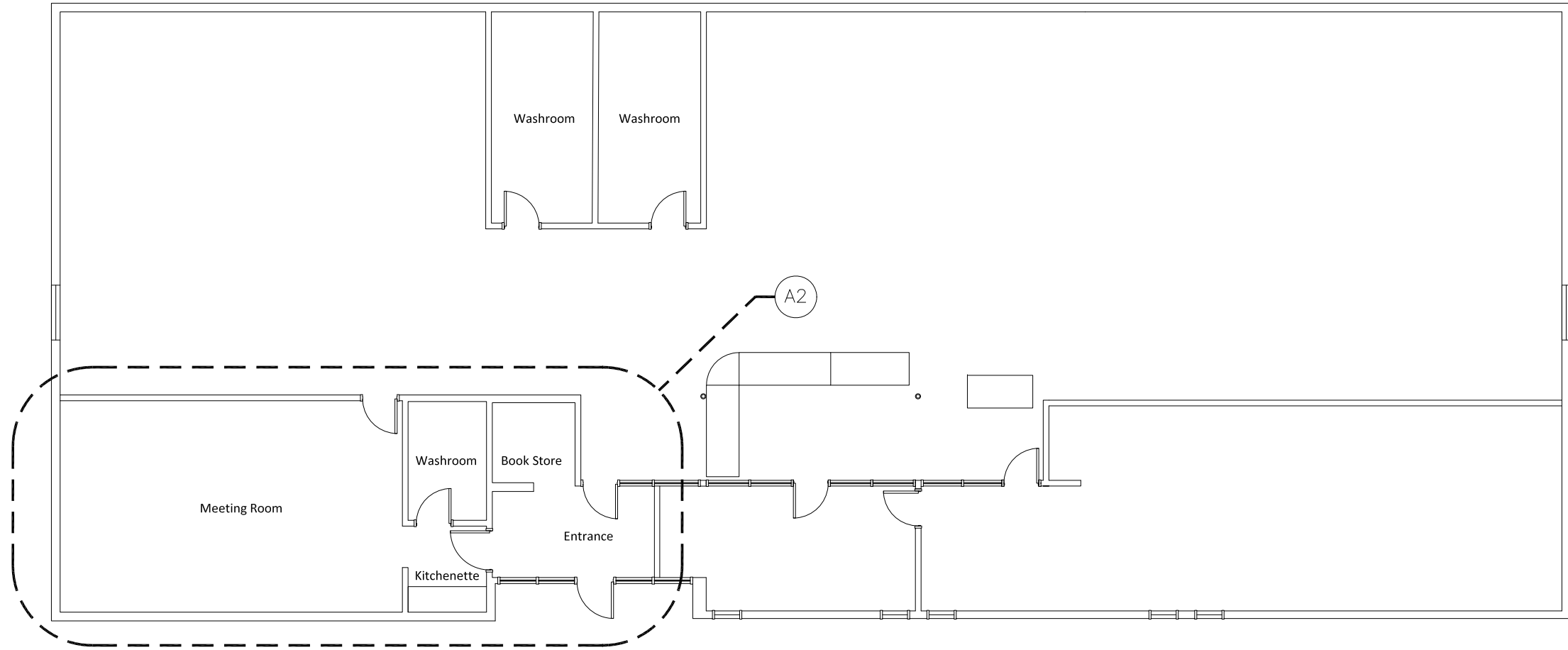
- A0 COVER PAGE, DRAWING LIST
- A1 EXISTING OVERALL FLOOR PLAN
- A2 EXISTING/DEMOLITION FLOOR PLAN
- A3 NEW FLOOR PLAN
- A4 WASHROOM ELEVATIONS
- A5 MILLWORK DETAILS
- A6 DOOR & FRAME SCHEDULE

### MECHANICAL AND ELECTRICAL

- ME01 EXISTING/DEMOLITION FLOOR PLAN
- ME02 NEW FLOOR PLAN
- ME03 DETAILS
- ME04 SPECIFICATIONS (1 OF 2)
- ME05 SPECIFICATIONS (2 OF 2)



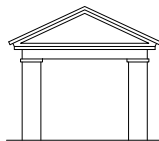
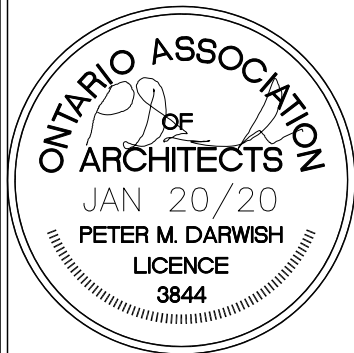
Peter Darwish Architect  
10 Castlethorpe Crescent  
Ottawa, Ontario K2G 5P5  
Tel/Fax: (613)226-6874  
Email: peterdarwish@rogers.com  
January 20, 2020  
PDA Project #19049  
City Project #CR013011



Examinations of Documents and Site

Each Bidder, before submitting a Bid, shall carefully examine the Drawings and Specifications to properly understand the extent of the Work and shall visit and examine the site to fully inform itself of all existing conditions, limitations and difficulties which may arise and include in its Bid submission the cost of all labour, materials, equipment and services required to complete the Work.

ISSUED FOR TENDER



PETER DARWISH ARCHITECT  
 10 Castlethorpe Crescent  
 Nepean, Ontario K2G 5P5  
 Tel/Fax: (613) 226-6874



CONTRACTOR TO CHECK AND VERIFY ALL PROJECT DIMENSIONS, CONDITIONS, AND QUANTITIES.  
 ALL DISCREPANCIES ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.  
 DO NOT SCALE THIS DRAWING.

Project  
 UNIVERSAL WASHROOM MODERNIZATION  
 MANOTICK PUBLIC LIBRARY  
 5499 SOUTH RIVER DRIVE  
 MANOTICK, ONTARIO  
 CITY PROJECT NO.: CR013011

Date		Scale		Drawn By		Checked By	
JAN 20/20		1:125		PMD		PMD	
Filename				Drawing #			
19049A1				A1			

Subject  
 EXISTING OVERALL FLOOR PLAN



READING AREA  
1-6

REMOVE EXISTING DOOR/FRAME/HARDWARE  
AND RETAIN FOR REINSTALLATION

REFER TO ELECTRICAL FOR  
REMOVALS AND RELOCATIONS

REFER TO MECHANICAL FOR REMOVAL  
AND RELOCATION OF EXISTING CEILING  
COLD AIR RETURN. REPAIR AND MAKE  
GOOD EXISTING STIPPLED CEILING.

MEETING ROOM  
1-5

REFER TO ELECTRICAL FOR  
REMOVALS AND RELOCATIONS

WASHROOM  
1-4

REMOVE TOILET TANK  
BOOK STORE  
1-2

REMOVE PAPER TOWEL  
DISPENSER/TRASH  
RECEPTACLE

ELECT PNL ELECT PNL

REMOVE MIRROR

REMOVE DOOR,  
FRAME TO REMAIN

ENTRANCE  
1-1

KITCHENETTE  
1-3

REMOVE EXISTING COAT HOOK STRIP.  
RETAIN FOR REINSTALLATION.

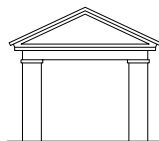
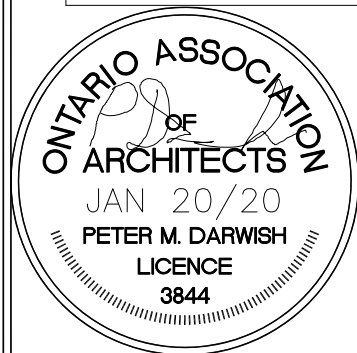
REFER TO ELECTRICAL FOR  
RELOCATION OF SECURITY DEVICES

**NOTES:**

- 1) REMOVE EXISTING RESILIENT FLOORING AND BASE IN WASHROOM. REMOVE EXISTING CERAMIC TILE FLOORING AND BASE IN KITCHENETTE. REMOVE PART OF CARPET IN MEETING ROOM AS REQUIRED. PROTECT ALL FINISHES TO REMAIN.
- 2) REMOVE GRAB BARS, TOILET PAPER DISPENSER, MIRROR, AND SEMI-RECESSED PAPER TOWEL DISPENSER/TRASH RECEPTACLE IN WASHROOM.
- 3) PRIOR TO DISPOSAL OF ALL REMOVED ITEMS, CONFIRM WITH CITY WHETHER THEY WANT TO RETAIN ANY ITEMS.
- 4) REMOVE PARTS OF WALLS AND CEILING AS REQUIRED FOR MECHANICAL, ELECTRICAL, AND ARCHITECTURAL WORK. REINSTATE AND MAKE GOOD. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS.
- 5) MAKE GOOD ALL FINISHES WHERE WORK PERFORMED.

-----  
REMOVALS SHOWN IN DASHED LINE

ISSUED FOR TENDER



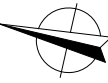
PETER DARWISH ARCHITECT  
10 Castlethorpe Crescent  
Nepean, Ontario K2G 5P5  
Tel/Fax: (613) 226-6874







CONTRACTOR TO CHECK AND VERIFY ALL PROJECT DIMENSIONS, CONDITIONS, AND QUANTITIES.  
ALL DISCREPANCIES ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.  
DO NOT SCALE THIS DRAWING.

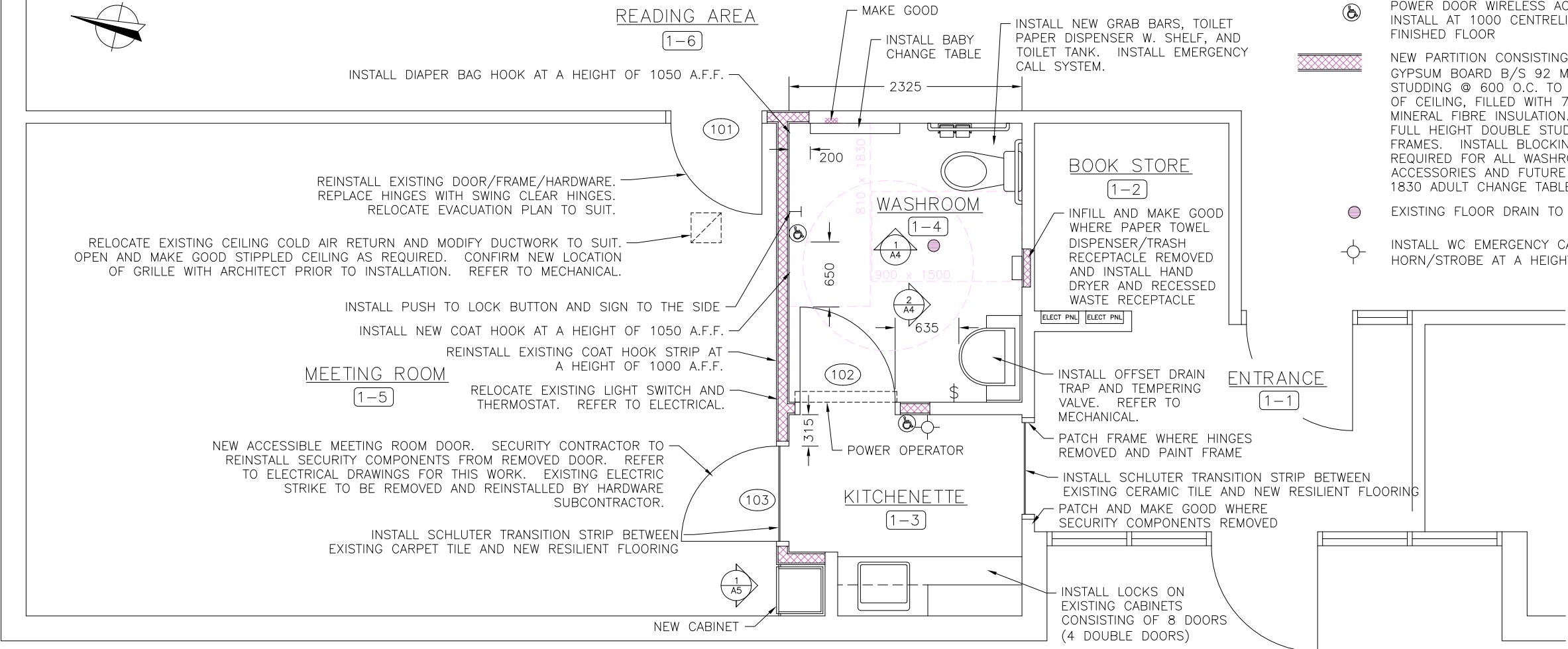
Project  
UNIVERSAL WASHROOM MODERNIZATION  
MANOTICK PUBLIC LIBRARY  
5499 SOUTH RIVER DRIVE  
MANOTICK, ONTARIO  
CITY PROJECT NO.: CR013011

Date		Scale	Drawn By	Checked By
JAN 20/20		1:50	PMD	PMD
Filename 19049A1			Drawing # A2	



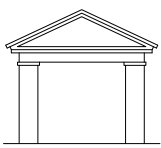
**LEGEND**

-  POWER DOOR WIRELESS ACTUATOR. INSTALL AT 1000 CENTRELINE ABOVE FINISHED FLOOR
-  NEW PARTITION CONSISTING OF 15.9 GYPSUM BOARD B/S 92 METAL STUDDING @ 600 O.C. TO UNDERSIDE OF CEILING, FILLED WITH 76 ROXUL MINERAL FIBRE INSULATION. INSTALL FULL HEIGHT DOUBLE STUDS AT DOOR FRAMES. INSTALL BLOCKING AS REQUIRED FOR ALL WASHROOM ACCESSORIES AND FUTURE 810 X 1830 ADULT CHANGE TABLE.
-  EXISTING FLOOR DRAIN TO REMAIN
-  INSTALL WC EMERGENCY CALL HORN/STROBE AT A HEIGHT OF 2150



- NOTES:**
- 1) INSTALL RESILIENT SHEET TILE FLOORING WITH FLASH COVE BASE IN THE WASHROOM AND KITCHENETTE. MAKE GOOD EXISTING CARPET FLOORING AND INSTALL MATCHING CARPET BASE ON NEW WALLS IN MEETING ROOM.
  - 2) MODIFY AND MAKE GOOD EXISTING CEILING IN MEETING ROOM. EXTEND EXISTING GYPSUM BOARD CEILING IN WASHROOM AND KITCHENETTE TO NEW PARTITION.
  - 3) PAINT ALL WALLS AND CEILING IN WASHROOM AND KITCHENETTE. PAINT NEW WALLS IN MEETING ROOM.
  - 4) INSTALL PUSH TO LOCK BUTTON WHERE SHOWN AT A CENTRELINE HEIGHT OF 1000. INSTALL SIGN ABOVE. INSTALL COAT HOOK WHERE SHOWN AT A CENTRELINE HEIGHT OF 1050. INSTALL WASHROOM OCCUPANCY LIGHT ABOVE EXTERIOR POWER DOOR ACTUATOR. INSTALL EMERGENCY CALL SYSTEM BESIDE TOILET. REFER TO DOOR HARDWARE SCHEDULE.
  - 5) SUPPLY AND INSTALL TACTILE/BRAILLE SIGNS. REFER TO DOOR HARDWARE SPECIFICATION AND SIGN SCHEDULE.
  - 6) REMOVE PARTS OF WALLS, CEILINGS, ETC. AS REQUIRED FOR PERFORMANCE OF WORK. REINSTATE AND MAKE GOOD. MAKE GOOD ALL FINISHES WHERE WORK PERFORMED.

ISSUED FOR TENDER



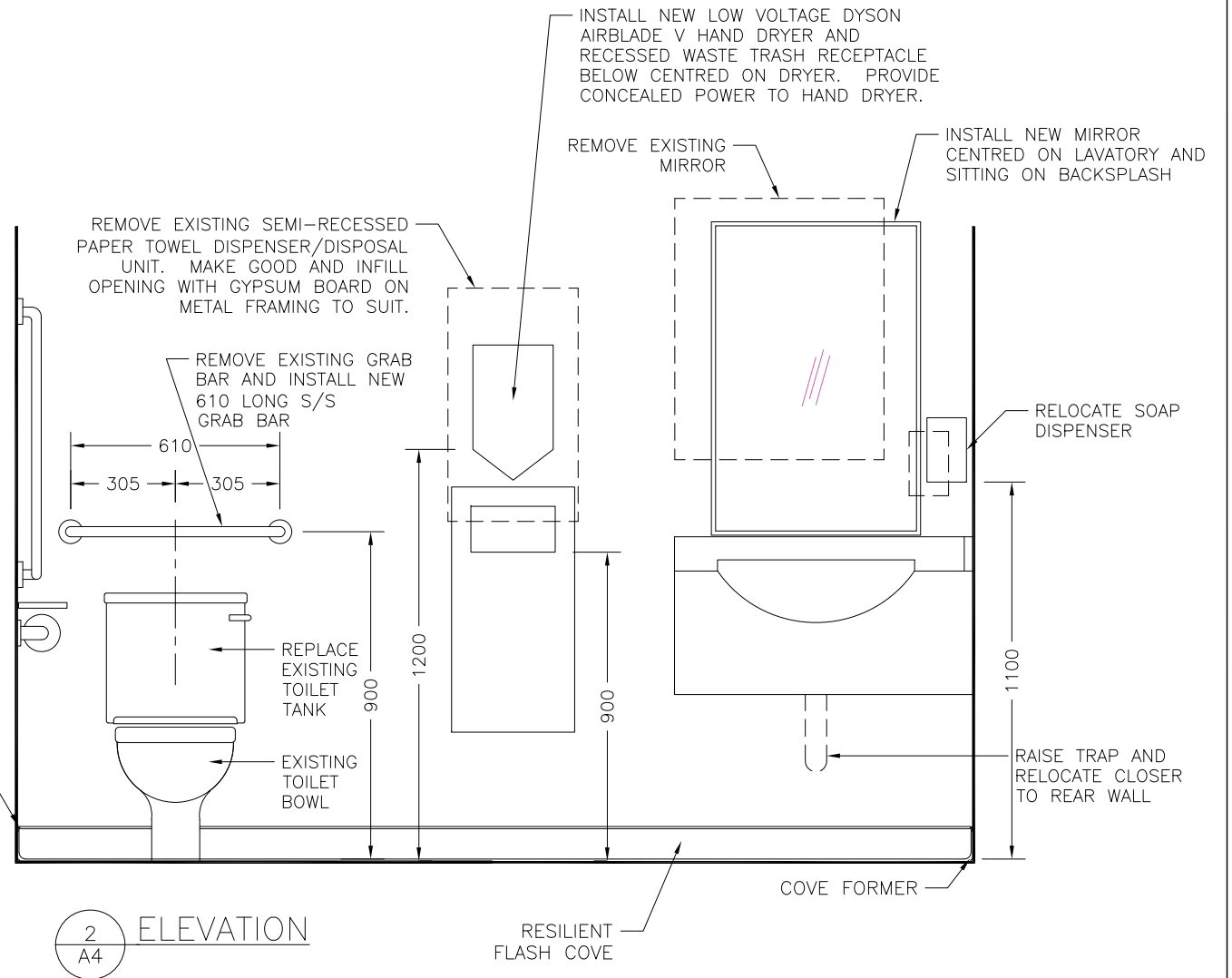
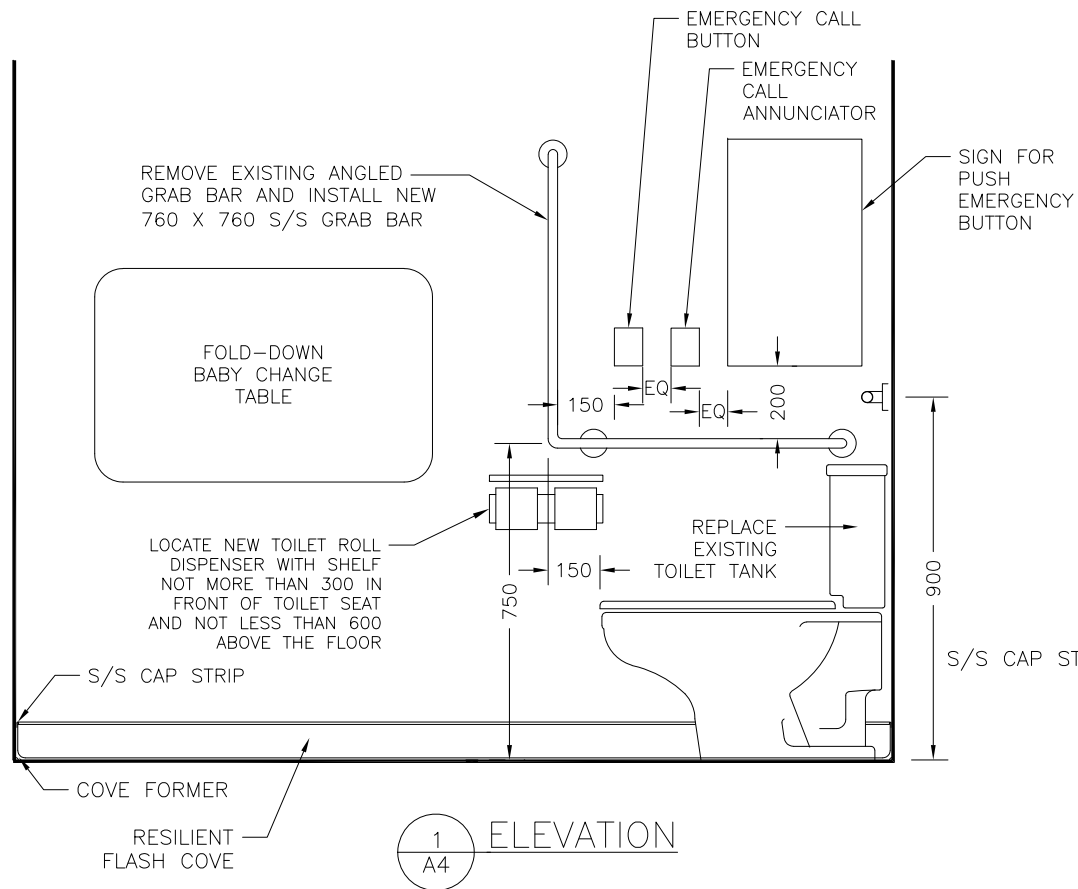
**PETER DARWISH ARCHITECT**  
 10 Castlethorpe Crescent  
 Nepean, Ontario K2G 5P5  
 Tel/Fax: (613) 226-6874



CONTRACTOR TO CHECK AND VERIFY ALL PROJECT DIMENSIONS, CONDITIONS, AND QUANTITIES.  
 ALL DISCREPANCIES ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.  
 DO NOT SCALE THIS DRAWING.

Project  
**UNIVERSAL WASHROOM MODERNIZATION  
 MANOTICK PUBLIC LIBRARY**  
 5499 SOUTH RIVER DRIVE  
 MANOTICK, ONTARIO  
 CITY PROJECT NO.: CR013011

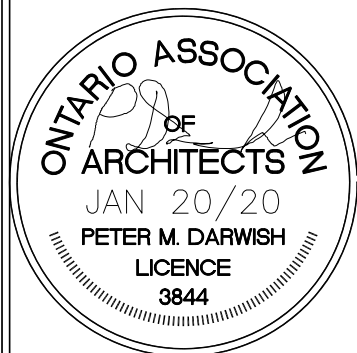
Date		Scale		Drawn By		Checked By	
JAN 20/20		1:50		PMD		PMD	
Filename 19049A1				Drawing # A3			



NOTES:

- NEW TOILET TANK TO BE COMPATIBLE WITH EXISTING BOWL, TO HAVE FLUSH HANDLE ON TRANSFER SIDE, AND TO HAVE A WITH LOCKING LID. REFER TO MECHANICAL. PROVIDE SHOP DRAWING FOR REVIEW.
- RELOCATE SINK DRAIN TRAP TO BE MINIMUM 360 ABOVE FLOOR AND MINIMUM 210 IN FROM FRONT OF LAVATORY BOWL. REFER TO MECHANICAL.
- SUPPLY AND INSTALL COMPLETE EMERGENCY CALL SYSTEM. REFER TO ELECTRICAL, DRAWING A3 AND DOOR HARDWARE SPECIFICATION.
- MAKE GOOD ALL FINISHES WHERE WORK PERFORMED.

ISSUED FOR TENDER



PETER DARWISH ARCHITECT  
10 Castlethorpe Crescent  
Nepean, Ontario K2G 5P5  
Tel/Fax: (613) 226-6874



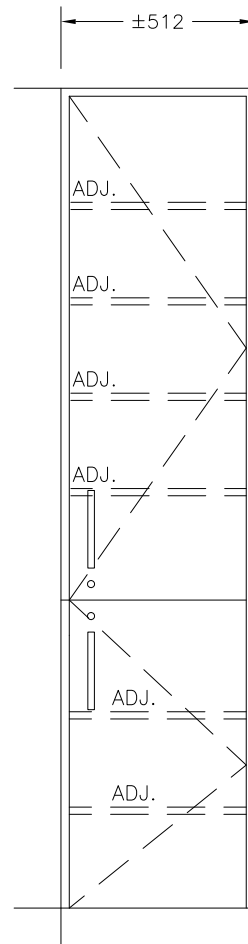
CONTRACTOR TO CHECK AND VERIFY ALL PROJECT DIMENSIONS, CONDITIONS, AND QUANTITIES.  
ALL DISCREPANCIES ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.  
DO NOT SCALE THIS DRAWING.

Project  
UNIVERSAL WASHROOM MODERNIZATION  
MANOTICK PUBLIC LIBRARY  
5499 SOUTH RIVER DRIVE  
MANOTICK, ONTARIO  
CITY PROJECT NO.: CR013011

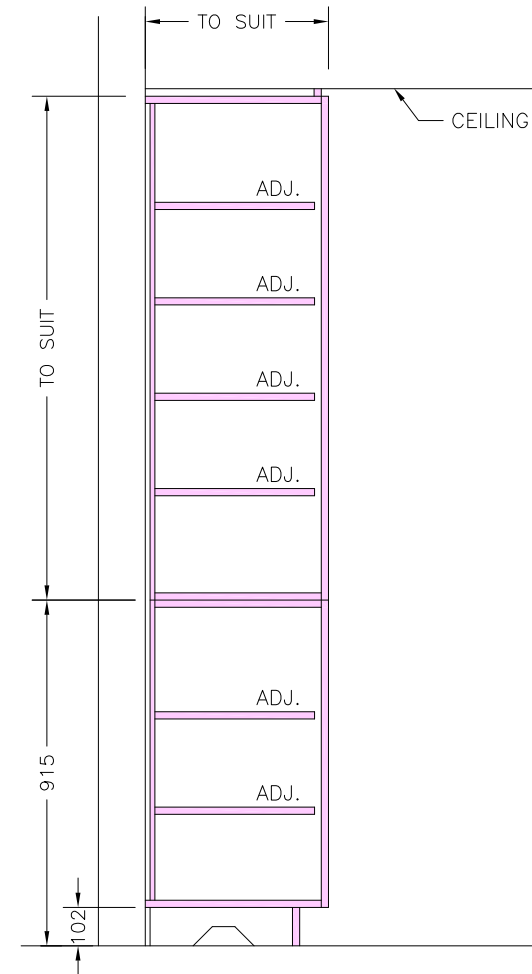
Subject  
WASHROOM ELEVATIONS

Date JAN 20/20	Scale 1:20	Drawn By PMD	Checked By PMD
Filename 19049A1		Drawing # A4	

NOTES:  
 FABRICATE CABINETRY OF PLASTIC LAMINATE FACED (ALL SIDES) 11/16" PLYWOOD CORE. DOORS ARE PLASTIC LAMINATE FACED (ALL SIDES) 3/4" MDF. PLASTIC LAMINATE AND SEALANT COLOURS BY ARCHITECT. PLASTIC LAMINATE TO BE CHOSEN BY ARCHITECT FROM FULL RANGE OF FORMICA, WILSONART, NEVAMAR AND ARBORITE LAMINATES. CABINET TO HAVE ADJUSTABLE SHELVES. DOORS TO HAVE SOFT-CLOSE HARDWARE. STAINLESS STEEL PULLS BP3487143170, 143 MM CC, BY RICHELIEU. DOORS TO HAVE LOCKS. ALSO INSTALL LOCKS ON EXISTING KITCHENETTE CABINETS CONSISTING OF 8 DOORS (4 DOUBLE DOORS). KEY ALL AS INSTRUCTED BY OWNER. MILLWORK CONSTRUCTION TO CONFORM TO AWMAC CUSTOM GRADE SPECIFICATIONS. PROVIDE SHOP DRAWINGS FOR REVIEW BY ARCHITECT PRIOR TO FABRICATION IN ACCORDANCE WITH SPECIFICATIONS.

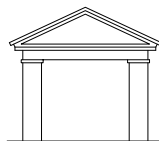
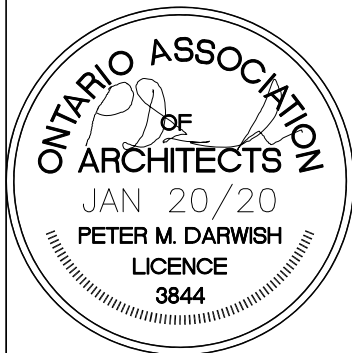


1  
A5 ELEVATION



A  
A5 SECTION

ISSUED FOR TENDER



PETER DARWISH ARCHITECT  
 10 Castlethorpe Crescent  
 Nepean, Ontario K2G 5P5  
 Tel/Fax: (613) 226-6874

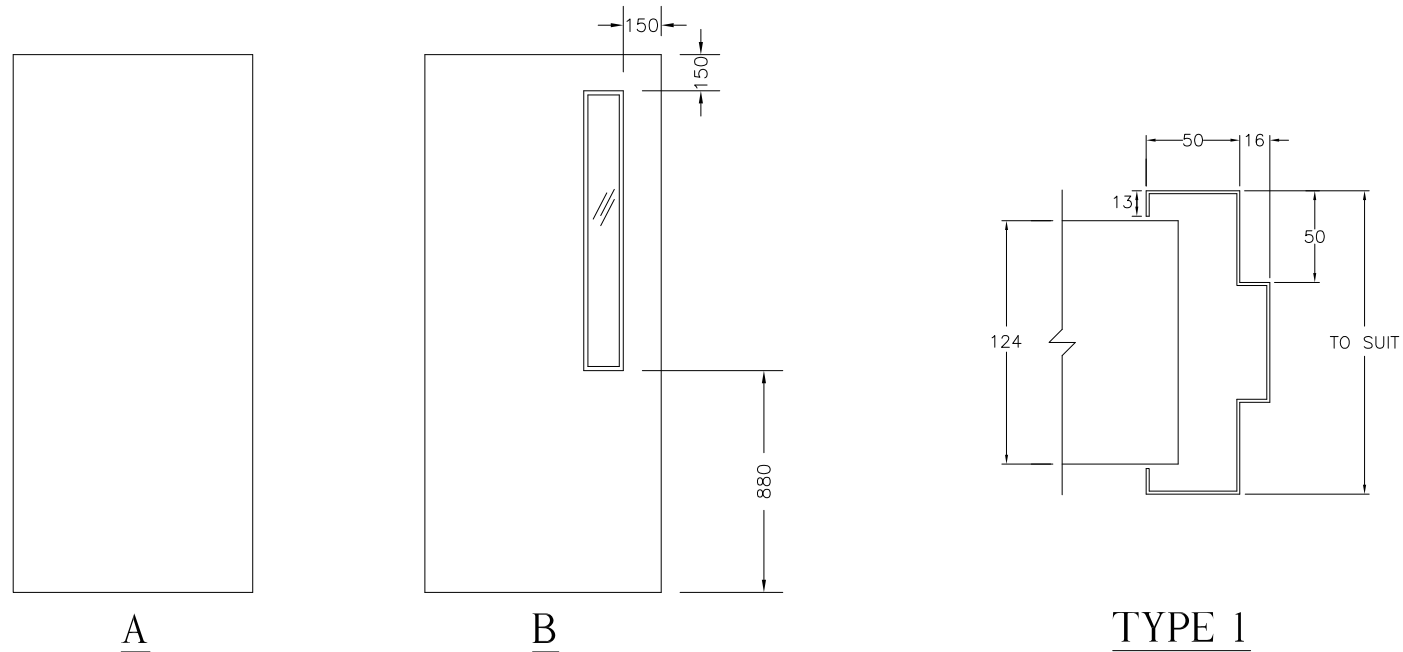


CONTRACTOR TO CHECK AND VERIFY ALL PROJECT DIMENSIONS, CONDITIONS, AND QUANTITIES.  
 ALL DISCREPANCIES ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.  
 DO NOT SCALE THIS DRAWING.

Project  
 UNIVERSAL WASHROOM MODERNIZATION  
 MANOTICK PUBLIC LIBRARY  
 5499 SOUTH RIVER DRIVE  
 MANOTICK, ONTARIO  
 CITY PROJECT NO.: CR013011

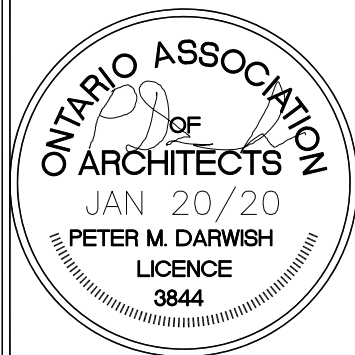
Date		Scale	Drawn By	Checked By
JAN 20/20		1:20	PMD	PMD
Filename			Drawing #	
19049A1			A5	

DOOR/SCREEN							FRAME			ULC LABEL (hr.)	NOTES
NUMBER	FROM	TO	TYPE	DIMENSIONS	MATERIAL	FINISH	TYPE	MATERIAL	FINISH		
101	1-6	1-5	EX	EXISTING	EX	PT	EX	EX PS	PT	-	1.
102	1-3	1-4	A	950 x 2135 x 45	HM	PT	1	PS	PT	-	2.
103	1-3	1-5	B	950 x 2135 x 45	HM	PT	1	PS	PT	-	3.



- NOTES: REFER TO SCHEDULE IN DOOR HARDWARE SPECIFICATION.
1. REINSTALL EXISTING 910 WIDE DOOR AND FRAME COMPLETE NEW SWING CLEAR HINGES. RELOCATE EXISTING FLOOR STOP.
  2. INSTALL A POWER DOOR OPERATOR, PUSH TO LOCK, AND ASSOCIATED HARDWARE.
  3. 6 MM TEMPERED GLAZING ON LATCH SIDE AS SHOWN.

ISSUED FOR TENDER



PETER DARWISH ARCHITECT  
 10 Castlethorpe Crescent  
 Nepean, Ontario K2G 5P5  
 Tel/Fax: (613) 226-6874

Abbreviations			
HM	HOLLOW METAL	PT	PAINT
PS	PRESSED STEEL	ST	STAIN
WD	WOOD	EX	EXISTING
ALUM	ALUMINUM	SC	SCREEN
ANOD	ANODIZED	FL	FLUSH
PLAM	PLASTIC LAMINATE		
KDPS	KNOCK-DOWN PRESSED STEEL		

Project
UNIVERSAL WASHROOM MODERNIZATION MANOTICK PUBLIC LIBRARY 5499 SOUTH RIVER DRIVE OTTAWA, ONTARIO CITY PROJECT NO.: CR013011

Subject			
DOOR & FRAME SCHEDULE			
Date	Scale	Drawn By	Checked By
JAN 20/20	N.T.S.	PMD	PMD
Filename		Drawing #	
19049/DRSCH		A6	



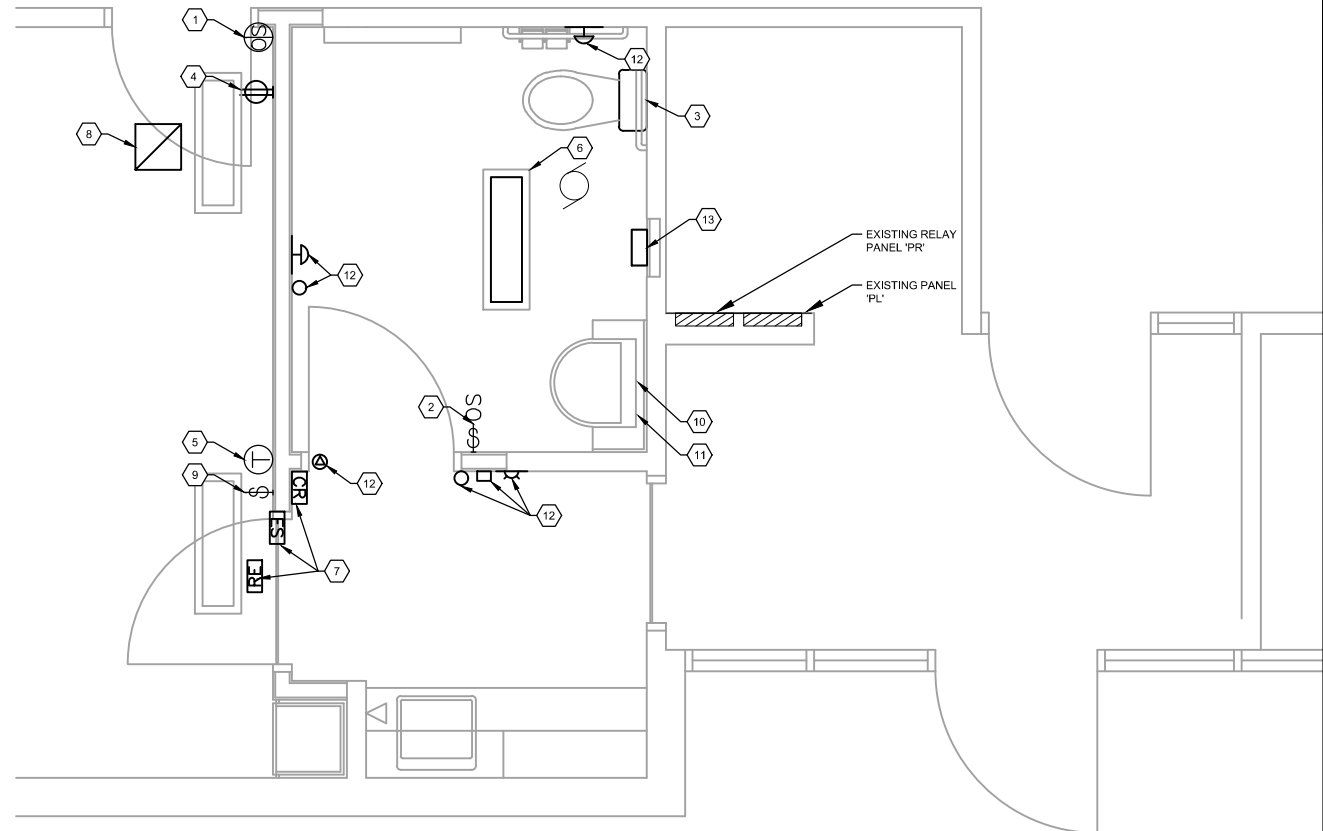


## GENERAL NOTES

- EXCEPT AS NOTED OTHERWISE ALL EXISTING EQUIPMENT TO REMAIN IS SHOWN IN THIN SOLID LINES.
- EXCEPT AS NOTED OTHERWISE ALL EQUIPMENT TO BE DEMOLISHED IS SHOWN IN THICK DASHED LINES.
- EXCEPT AS NOTED OTHERWISE ALL EQUIPMENT TO BE RELOCATED IS SHOWN IN THICK DASHED LINES AND INDICATED WITH 'R'.
- EXCEPT AS NOTED OTHERWISE ALL NEW EQUIPMENT IS SHOWN IN THICK SOLID LINES.
- THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING INFORMATION AND TO CONFIRM CIRCUITS BY TRACING THEM TO THE SOURCE.
- ELECTRICAL WIRING, CABLING, AND EQUIPMENT ARE SHOWN ON PLANS DIAGRAMMATICALLY. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM CONDITIONS ON SITE FOR THEIR EXACT LOCATION AND ROUTING PRIOR TO INSTALLATION. REFER TO ARCHITECTURAL DRAWINGS FOR ACCURATE DIMENSIONS AND LOCATIONS.
- INSTALLATION DETAILS TO BE VERIFIED AND COORDINATED ON SITE BY THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED COMPONENTS AND MATERIAL FOR INSTALLATION.
- CONTRACTOR TO PROVIDE NEW CONDUIT AND EXTEND EXISTING CONDUIT TO SUIT NEW ELECTRICAL REQUIREMENTS. ANY DAMAGED CONDUIT TO BE REPLACED WITH NEW AS REQUIRED. CONTRACTOR TO COORDINATE EXACT REQUIREMENTS ON SITE.
- CONTRACTOR TO LABEL ALL DEVICES AFTER CONSTRUCTION COMPLETION WITH THE PANEL AND CIRCUIT NUMBER.
- EXISTING CIRCUITS, EQUIPMENT AND COMPONENTS SHOWN ON PLANS WERE RETRIEVED FROM AS-BUILT DRAWINGS AND VISUAL INSPECTION AND ARE PROVIDED FOR INFORMATION ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL EXISTING INFORMATION AND TO CONFIRM CIRCUITS BY TRACING THEM.
- REMOVAL AND NEW CONSTRUCTION OF ARCHITECTURAL FEATURES ARE SHOWN FOR REFERENCE ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT DETAILS AND COORDINATION.
- CONTRACTOR SHALL REPAIR AND MAKE GOOD ANY FINISHES AFFECTED BY THE REMOVAL OR RELOCATION OF EQUIPMENT. COORDINATE WITH ARCHITECT.

## # SHEET KEYNOTES

- RELOCATED OCCUPANCY SENSOR. EXTEND CIRCUIT OR PROVIDE NEW WIRING AS REQUIRED TO MAINTAIN OPERATION.
- SUPPLY AND INSTALL NEW DUAL ACTIVATING SWITCH FOR THE FAN/LIGHT COMPLETE WITH OCCUPANCY SENSOR THAT CONTROLS TWO CIRCUITS. SWITCH SHALL BE LUTRON MODEL #MS-OPS6-DDV OR APPROVED EQUAL. EXTEND CIRCUIT AS REQUIRED TO MAINTAIN OPERATION.
- PROVIDE AND INSTALL NEW TANK FOR TOILET. MATCH FINISH OF EXISTING TOILET. REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFICATIONS.
- PROVIDE AND INSTALL NEW 5-15R DUPLEX RECEPTACLE. EXTEND CIRCUIT OR PROVIDE NEW WIRING AS REQUIRED TO MAINTAIN OPERATION.
- NEW LOCATION FOR EXISTING THERMOSTAT 1200mm AFF. EXTEND CIRCUIT OR PROVIDE NEW WIRING AS REQUIRED TO MAINTAIN OPERATION.
- PROVIDE NEW LENSE FOR EXISTING SURFACE MOUNTED FIXTURE TO MATCH EXISTING.
- PROVIDE NEW CONDUIT AND BACK BOXES FOR DOOR SECURITY. COORDINATE INSTALLATION WITH ARCHITECT AND SECURITY CONTRACTOR. WIRING AND DEVICES TO BE INSTALLED BY SECURITY CONTRACTOR. SEE DETAIL 2/ME03 FOR INSTALLATION DETAILS.
- NEW LOCATION FOR FOR COLD AIR RETURN. MODIFY DUCT WORK TO SUIT. OPEN AND MAKE GOOD STIPPLED CEILING AS REQUIRED. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
- PROVIDE AND INSTALL NEW LINE VOLTAGE SWITCH FOR MEETING ROOM LIGHTING. EXTEND CIRCUIT OR PROVIDE NEW WIRING AS REQUIRED TO MAINTAIN OPERATION.
- SINK SANITARY TRAP TO BE REPLACED AND LOCATED HIGHER ON THE WALL TO HIDE BELOW THE SINK AND TIGHT TO THE BACK OF THE WALL. ADD SCALD PROTECTION INSULATION.
- INSTALL NEW TEMPERING VALVE FOR SINK. RELOCATE TRAP PRIMER LINE UP ON WALL TO ALIGN WITH EXISTING DCW LINE WALL PENETRATION.
- PROVIDE AND INSTALL NEW ACCESSIBLE DOOR OPERATOR AS PER DETAIL 1/ME03. ACCESSIBLE DOOR TO INCLUDE: DOME LIGHT, ANNUNCIATOR, EMERGENCY PUSH BUTTON, PUSH TO LOCK BUTTON, AND DOOR PADDLES AS PER DETAIL. COORDINATE INSTALLATION OF DOOR CONTACT, ELECTRONIC STRIKE, AND DOOR OPERATOR WITH DOOR CONTRACTOR. PROVIDE DIRECT CONNECTION TO DOOR OPERATOR FROM PANEL 'C' CCT 7. COORDINATE EXACT CONDUIT ROUTING ON SITE. PROVIDE NEW 15A BREAKER TO MATCH EXISTING.
- PROVIDE AND INSTALL NEW 2#12 AWG +BOND FOR DIRECT CONNECTION TO NEW HAND DRYER FROM PANEL 'C' CCT 9. COORDINATE EXACT CONDUIT ROUTING ON SITE. PROVIDE NEW 15A BREAKER TO MATCH EXISTING.



## ELECTRICAL SYMBOLS

- DISTRIBUTION PANEL
- DUPLEX RECEPTACLE
- DIRECT POWER CONNECTION
- DATA OUTLET
- LIGHT SWITCH
- LIGHT SWITCH WITH OCCUPANCY SENSOR
- OCCUPANCY SENSOR
- THERMOSTAT
- WALL MOUNTED INDICATOR LIGHT

## ELECTRICAL SYMBOLS

- SURFACE MOUNTED LIGHT FIXTURE
- SECURITY CARD READER
- SECURITY REQUEST TO EXIT
- SECURITY ELECTRIC DOOR STRIKE
- EXHAUST FAN MOTOR
- DOME LIGHT
- PUSH TO LOCK BUTTON

ISSUED FOR  
TENDER/CONSTRUCTION  
SUBJECT TO ADDENDA



CONTRACTOR TO CHECK AND VERIFY ALL PROJECT DIMENSIONS, CONDITIONS, AND QUANTITIES.

ALL DISCREPANCIES ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.

DO NOT SCALE THIS DRAWING.

Project

UNIVERSAL WASHROOM MODERNIZATION  
MANOTICK PUBLIC LIBRARY  
5499 SOUTH RIVER DRIVE  
MANOTICK, ONTARIO

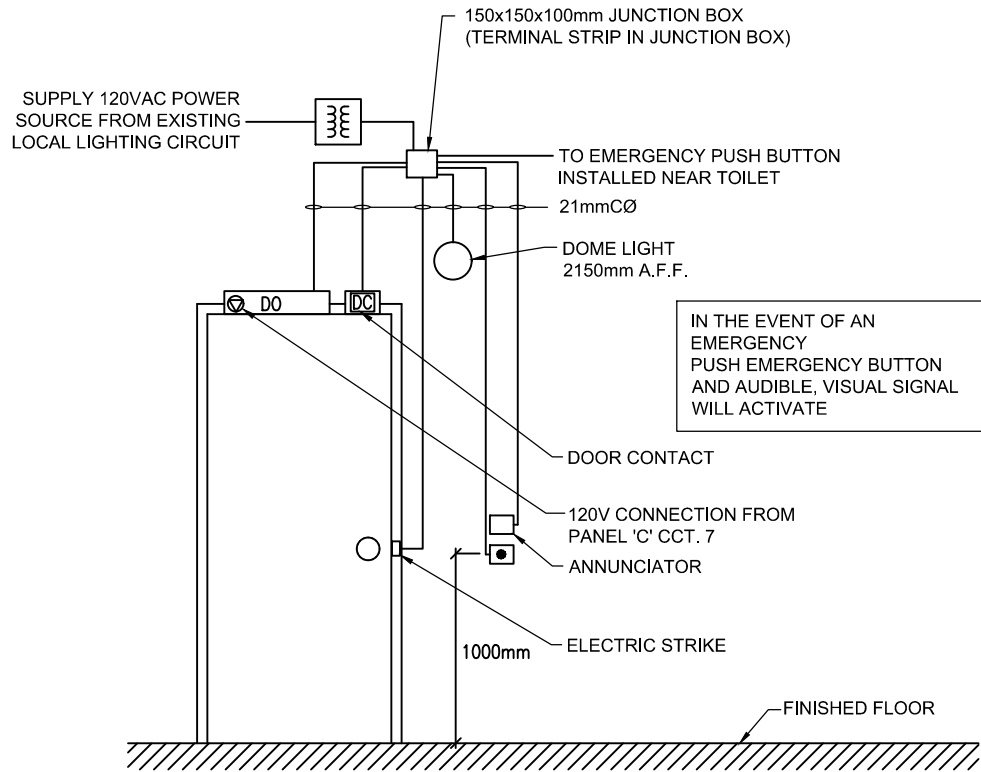
CITY PROJECT NO.: CR013011

Subject

MECHANICAL AND ELECTRICAL  
NEW FLOOR PLAN

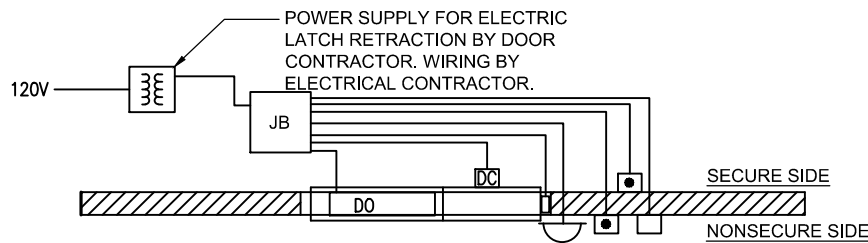
Date	Scale	Drawn By	Checked By
JAN 17/20	1:50	TT	EL JS

Filename	Drawing #
163302835_ME	ME02



ELEVATION VIEW

IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON AND AUDIBLE, VISUAL SIGNAL WILL ACTIVATE



PLAN VIEW

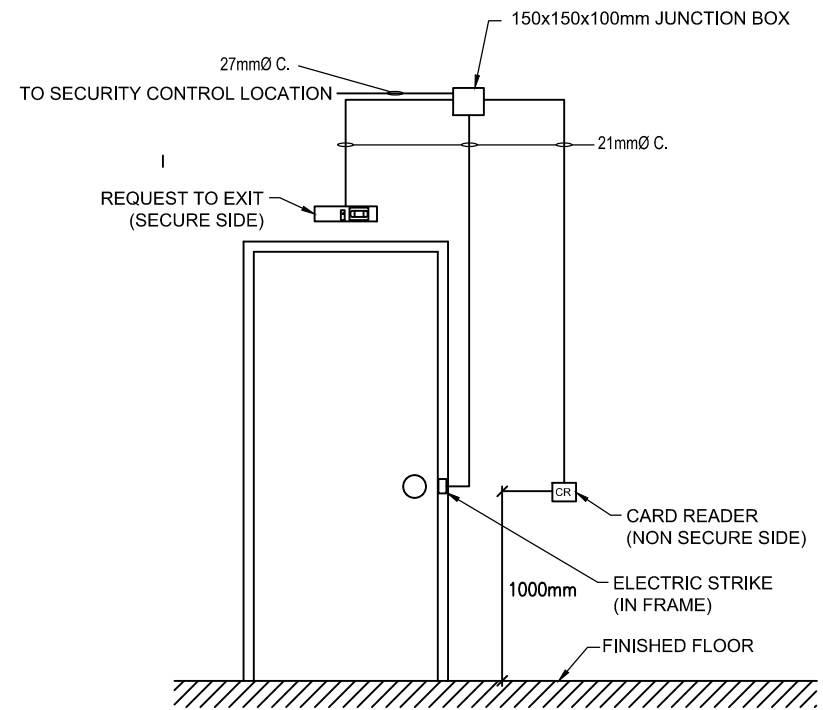
1 DOOR OPERATOR DETAIL  
ME03 SCALE: N.T.S

LEGEND

- DC DOOR CONTACT (CONCEALED TYPE)
- DOOR OPERATOR PUSH PADDLE
- DO ELECTRIC DOOR OPERATOR

NOTES

1. ALL CONDUIT BY ELECTRICAL CONTRACTOR TO BE 21mm UNLESS OTHERWISE SPECIFIED. ALL CONDUIT AND CONDUIT JUNCTION BOXES TO BE CONCEALED.
2. DOOR FRAME DEVICE BACK BOXES AND MOTOR GUARDS BY ELECTRICAL CONTRACTOR.
3. WALL/CEILING DEVICE BACK BOXES AND JUNCTION BOXES BY ELECTRICAL CONTRACTOR. SINGLE GANG BOXES UNLESS OTHERWISE SPECIFIED.
4. REFER TO ELECTRICAL DRAWINGS FOR DEVICE LOCATIONS.
5. ELECTRICAL CONTRACTOR TO SUPPLY EMPTY CONDUIT AND BOX WITH PULL STRING. WIRING AND DEVICES PROVIDED WITH DOOR CONTRACTOR. COORDINATE WITH ARCHITECTURAL LAYOUT.
6. JUNCTION BOXES SHOWN IN DOOR DETAILS SHALL BE LOCATED NEXT TO THE ELECTRICAL PANELS IN THE FOYER.



ELEVATION VIEW

2 SECURE DOOR DETAIL  
ME03 SCALE: N.T.S

ISSUED FOR TENDER/CONSTRUCTION  
SUBJECT TO ADDENDA



CONTRACTOR TO CHECK AND VERIFY ALL PROJECT DIMENSIONS, CONDITIONS, AND QUANTITIES.  
ALL DISCREPANCIES ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.  
DO NOT SCALE THIS DRAWING.

Project  
UNIVERSAL WASHROOM MODERNIZATION  
MANOTICK PUBLIC LIBRARY  
5499 SOUTH RIVER DRIVE  
MANOTICK, ONTARIO  
CITY PROJECT NO.: CR013011

Date		Scale	Drawn By	Checked By
JAN 17/20		1:50	TT	EL JS
Filename			Drawing #	
163302835_ME			ME03	

# ELECTRICAL GENERAL REQUIREMENTS

## 1. REGULATIONS AND CONDITIONS OF CONTRACT

- 1.1. CONFORM TO THE REQUIREMENTS OF CONTRACT DOCUMENTS, WHICH APPLIES TO AND FORMS PART OF ALL SECTIONS OF THE WORK.
- 1.2. COMPLY WITH THE LATEST EDITION OF THE ONTARIO ELECTRICAL SAFETY CODE AND SUBSEQUENT BULLETINS, AND WHERE APPLICABLE, ALL LOCAL, MUNICIPAL OR FEDERAL RULES, REGULATIONS AND ORDINANCES. SHOULD ANY OF THESE IMPOSE A HIGHER STANDARD THAN IS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL EXECUTE THE WORK IN ACCORDANCE WITH THESE LAWS, REGULATIONS, ETC., RATHER THAN AS SPECIFIED.
- 1.3. COORDINATE SCHEDULING OF ALL WORK WITH PROJECT MANAGER.
- 1.4. ELECTRICAL DRAWINGS SHALL NOT BE SCALED FOR MEASUREMENTS. EQUIPMENT DIMENSIONS OR DIMENSIONED LOCATIONS. REFER TO THE DRAWINGS FOR DIMENSIONS AND CONFIRM ALL MEASUREMENTS ON SITE WITH THE DESIGNER. CONTRACTOR IS TO MAKE ARRANGEMENT TO GET A COPY OF DRAWINGS AND ALL OTHER CONSULTANT DRAWINGS AFFECTING ELECTRICAL WORK.
- 1.5. THE ELECTRICAL DRAWINGS AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH ALL DRAWINGS AND SPECIFICATIONS FROM THIS AND ALL OTHER DISCIPLINES AND SHALL FORM PART OF THIS CONTRACT.
- 1.6. REQUEST IN WRITING FOR A COMPLETED ROUGH-IN AND FINAL INSPECTION OF THE ELECTRICAL SYSTEMS. WHEN THE FINAL INSPECTION REQUEST IS MADE, CONTRACTOR IS TO ENSURE THAT ALL DEFICIENCIES ARE COMPLETE; THAT EQUIPMENT HAS BEEN COMMISSIONED; THAT SYSTEMS ARE READY FOR OPERATION; ALL TAGS AND NAMEPLATES ARE INSTALLED; DRAWINGS AND CHARTS ARE COMPLETE; ALL FIXTURES AND EQUIPMENT HAVE BEEN CLEANED; SPARE PARTS HAVE BEEN PROVIDED; CONTROL SYSTEMS OPERATIONAL AND THE LANDLORD'S STAFF INSTRUCTED IN ALL PHASES OF THE SYSTEM OPERATION.
- 1.7. ALL ELECTRICAL WORK IN THIS CONTRACT SHALL BE PERFORMED BY SKILLED TRADESMEN AND WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY. WHERE THE WORKMANSHIP DOES NOT MEET THE SPECIFICATION, THE ENGINEER SHALL HAVE THE AUTHORITY TO INSTRUCT THE CONTRACTOR TO REMOVE SUCH SUBSTANDARD WORK AND REPLACE IT TO THE SATISFACTION OF THE ENGINEER WITH ALL ASSOCIATED COSTS BEING PAID BY THE CONTRACTOR.

## 2. PRODUCTS AND MATERIALS

- 2.1. ALL LUMINAIRES, EQUIPMENT AND MATERIALS SHALL BE C.S.A. APPROVED.
- 2.2. ALL EQUIPMENT MATERIAL, DEVICES AND WIRING SHALL CONFORM TO THE ONTARIO ELECTRICAL SAFETY CODE OR CODE HAVING JURISDICTION FOR THE PURPOSE FOR WHICH THEY ARE TO BE USED AND SHALL BEAR THE APPROVAL OF THE CSA AND/OR ULC OR HAVE SPECIAL APPROVAL OF THE INSPECTION AUTHORITY.

## 3. EXAMINATION AND PREPARATION

- 3.1. INCLUDE TOTAL SCOPE OF WORK WHICH IS TO INCLUDE BUT NOT LIMITED TO CUTTING, PATCHING, REMOVING, RE-ROUTING OF EXISTING ELECTRICAL EQUIPMENT AND WIRING, REMOVING, RELOCATING AND MODIFICATION OF LUMINAIRES, AS REQUIRED TO SUCCESSFULLY EXECUTE ALL WORK DESCRIBED. PRIOR TO SUBMITTING PRICE, THE CONTRACTOR IS TO REVIEW ANY DISCREPANCIES WITH THE CONSULTANT AND REPORT ANY AMBIGUITIES, OMISSIONS, CONFLICTS OR DEPARTURES FROM BUILDING CODES OR BY-LAWS. NO CLAIMS FOR EXTRA PAYMENT WILL BE CONSIDERED BECAUSE OF FAILURE TO FULFILL THIS CONDITION.

## 4. FIRESTOPPING

- 4.1. CONCRETE FOR FIRE STOPPING SHALL NOT BE USED ON WIRE WAYS, CABLE TRAYS, OR CONDUIT. IF THIS METHOD IS USED, REPLACE THE CONCRETE WITH APPROVED FIRE STOP AND REPLACE AND TEST CABLES AFFECTED.

## 5. DRAWINGS AND INSTALLATION

- 5.1. MODIFICATIONS SHALL NOT BE MADE TO THE ELECTRICAL DESIGN AS OUTLINED ON THE ISSUED DRAWINGS WITHOUT WRITTEN APPROVAL FROM THE CONSULTANT.
- 5.2. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW THE SCOPE OF THE WORK AND ARE NOT INTENDED TO SHOW THE DETAILS OF THE INSTALLATION. OBTAIN ALL DIMENSIONS FROM DRAWINGS AND DETAILS. VERIFY EXACT LOCATION AND MOUNTING HEIGHT OF ALL WIRING DEVICES WITH PRIOR TO INSTALLATION.

## 6. INSTALLATION, INTERFERENCE AND SETTING DRAWINGS

- 6.1. EXAMINE THE DRAWINGS TO ENSURE THAT THE WORK OF THIS DIVISION CAN BE SUCCESSFULLY COMPLETED. REPORT TO THE CONSULTANT ANY DISCREPANCIES BETWEEN ELECTRICAL DRAWINGS AND/OR SPECIFICATIONS AND DRAWINGS PRIOR TO INSTALLATION. REPORT TO THE CONSULTANT ANY OMISSIONS, CONFLICTS OR DEPARTURES FROM BUILDING CODES AND BY-LAWS, PRIOR TO INSTALLATION.
- 6.2. COORDINATE ELECTRICAL INSTALLATION WORK WITH THE WORK OF OTHER TRADES ON SITE, AND REPORT TO THE ANY INTERFERENCE OF OTHER TRADES' WORK THAT MAY AFFECT THE WORK OF THIS DIVISION.

## 7. EXTRA WORK

- 7.1. PROVIDE A COMPLETE ITEMIZED COST BREAKDOWN OF ALL MATERIAL, EQUIPMENT AND LABOUR COST ASSOCIATED WITH EACH SUBMISSION FOR ELECTRICAL CHANGE NOTICE IN THE FOLLOWING FORMAT: ALL MATERIAL USED IN THE CHANGE(S) MUST BE IDENTIFIED BY THE FOLLOWING: QUANTITY, AMOUNT OF PRODUCT, PRICE PER UNIT BASED ON NECA LATEST ELECTRICAL PRICE GUIDE, HOURS PER UNIT, PRICE PER UNIT, MATERIAL COST, HOURS BASED ON NECA NORMAL RATE (COLUMN 1), TOTAL COST OF MATERIAL, TOTAL HOURS.
- 7.2. MATERIAL DISCOUNTS: MATERIALS WILL BE PRICED AT NATIONAL PRICE SERVICE LESS THE FOLLOWING:
 

ALL CONDUITS:	LESS 30%
ALL CONDUIT FITTINGS, CONDUITS, CONDUIT SUPPORTS:	LESS 25%
BUILDING WIRE:	LESS 30%
FASTENERS AND SUPPORTS:	LESS: 25%
- 7.3. WHERE REQUESTED, PROVIDE PROPER SUPPLIERS OR DISTRIBUTORS QUOTATIONS AND BACKUP.
- 7.4. SUMMARY TO INCLUDE: TOTAL MATERIAL VALUE, JOURNEY MAN RATE AS PER CONTRACT OR INDUSTRY GUIDELINES, OVERHEAD AND MARK-UP
- 7.5. CHANGE NOTICE(S) ARE TO INCLUDE AT NO EXTRA COST: ELECTRICAL INSPECTOR PERMIT, CLEAN UP, AS BUILT DRAWINGS, TOOL CHARGES, MATERIAL DELIVERY, ENGINEERING AND DRAFTING, SAFETY, ESTIMATING AND MATERIAL EXPEDITING, GUARANTEE AND PARKING.

## 8. CLEANING

- 8.1. CLEAN ELECTRICAL EQUIPMENT, LIGHTING REFLECTORS, LENSES AND OTHER LIGHTING SURFACES THAT HAVE BEEN EXPOSED TO CONSTRUCTION DUST AND DIRT AT TIME OF FINAL CLEANING. REMOVE DEBRIS AND EXCESS MATERIALS FROM ELECTRICAL ROOMS AND SWEEP ELECTRICAL ROOMS CLEAN.

## 9. OPERATION & MAINTENANCE MANUALS AND CLOSE OUT DOCUMENTS

- 9.1. PROVIDE 'OPERATIONS AND MAINTENANCE MANUALS' WITH THE FOLLOWING INFORMATION:
  - NAME AND ADDRESS OF SUPPLIERS
  - SHOP DRAWINGS AS REVIEWED BY CONSULTANT
  - ONE YEAR WARRANTY
- 9.2. PROVIDE THE FOLLOWING AS A MINIMUM WITH NO DEFICIENCIES, WITH SPACE READY FOR INTENDED USE AND ELECTRICAL SYSTEMS INSTALLED IN ACCORDANCE WITH THE CONTRACTOR DOCUMENTS PRIOR TO ENGINEER ISSUING A LETTER OF CONFORMANCE TO ASSIST IN GAINING AN OCCUPANCY PERMIT:
  - ELECTRICAL SAFETY AUTHORITY CERTIFICATE WITH NO DEFICIENCIES LISTED

## 10. AS-BUILT/ RECORD DRAWINGS

- 10.1. INCLUDE ON DRAWINGS ALL POWER AND LIGHTING CIRCUITS AND CONDUIT RUNS 21mm AND LARGER, APPROXIMATE LOCATION OF ALL JUNCTION BOXES, ALL COMMUNICATIONS CONDUITS AND CABLE TRAY IF THEY FORM PART OF THE CONTRACT DOCUMENTS.

**ISSUED FOR  
TENDER/CONSTRUCTION**  
SUBJECT TO ADDENDA



CONTRACTOR TO CHECK AND VERIFY ALL PROJECT DIMENSIONS, CONDITIONS, AND QUANTITIES.  
ALL DISCREPANCIES ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.  
DO NOT SCALE THIS DRAWING.

Project  
UNIVERSAL WASHROOM MODERNIZATION  
MANOTICK PUBLIC LIBRARY  
5499 SOUTH RIVER DRIVE  
MANOTICK, ONTARIO  
CITY PROJECT NO.: CR013011

Date		Scale	Drawn By	Checked By
JAN 17/20		1:50	TT	EL JS
Filename			Drawing #	
163302835_ME			ME04	

# ELECTRICAL SPECIFICATION

## 1. DEMOLITION AND WORK IN EXISTING BUILDING

- 1.1. DISCONNECT AND REMOVE ALL ELECTRICAL EQUIPMENT INCLUDING LUMINAIRES, RECEPTACLES AND WIRING, INCLUDING VOICE/DATA, FROM AREAS BEING ALTERED OR DEMOLISHED. WIRING, CONDUIT AND EQUIPMENT REQUIRED TO MAINTAIN SERVICES IN OTHER PARTS OF THE BUILDING SHALL BE TEMPORARILY SUPPORTED, REROUTED, SERVICED OR RELOCATED AS REQUIRED. OBSOLETE CONDUITS AND CABLES SHALL BE DISCONNECTED FROM THEIR SOURCE OF SUPPLY AND REMOVED. ALL EXISTING WIRING NOT REMOVED SHALL BE DISCONNECTED, MADE SAFE, IDENTIFIED AND BLANKED-OFF.
- 1.2. COORDINATE ALL SHUTDOWNS OF EXISTING BASE BUILDING SYSTEMS WITH BUILDING OWNER AND/OR USER GROUP AT LEAST FIVE (5) WORKING DAYS IN ADVANCE. ENSURE THE SYSTEM IS FUNCTIONING NORMALLY WHEN WORK IS STARTED. LONGER NOTICES MAY BE REQUIRED, VERIFY BUILDING STANDARDS AND PROTOCOL WITH BUILDING OWNER AND/OR USER GROUP.
- 1.3. COORDINATE WITH BUILDING OWNER AND/OR PROJECT MANAGER ALL CONDUITS RUNNING IN OTHER TENANT AREAS.
- 1.4. PROVIDE ALL CLEANUP, LIFTING, STORAGE, CUTTING, PATCHING AND FLASHING AS REQUIRED. REMOVE ALL EXCESS DEBRIS, MATERIAL AND EQUIPMENT FROM SITE.
- 1.5. PATCH AND SEAL ALL OPENINGS IN FLOORS, WALLS AND PARTITIONS. IF FLOORS, WALLS OR PARTITIONS ARE FIRE RATED, PATCH AND SEAL PENETRATIONS WITH FIRE RESISTANT INSULATION AND APPROVED FIRE STOP SYSTEMS.
- 1.6. THE EXISTING BUILDING MUST BE KEPT IN OPERATION AT ALL TIMES. ASSUME FULL RESPONSIBILITY FOR ANY DISRUPTION TO EXISTING SERVICES. RECONNECT ANY SERVICES WHICH ARE TO REMAIN, AND WHICH HAVE BEEN DISCONNECTED DURING DEMOLITION OR CONSTRUCTION. ARRANGE WORK IN SUCH A MANNER THAT INTERRUPTIONS IN SERVICES OCCUR ONLY AT PRE-SCHEDULED TIMES. CARRY OUT THE WORK WITH A MINIMUM OF NOISE, DUST AND DISTURBANCE.
- 1.7. THE DEMOLITION DRAWINGS SHOW THE GENERAL SCOPE OF THE DEMOLITION AND NOT EXACT DETAILS OR TOTAL EXTENT. FOR EXACT DETAILS AND TOTAL EXTENT EACH SERVICE MUST BE CAREFULLY CHECKED ON SITE. BEFORE REMOVING SERVICES FOLLOW THE SERVICE THROUGH TO ENSURE OTHER AREAS OF THE BUILDING ARE NOT AFFECTED.
- 1.8. WHENEVER EXISTING SERVICES OR EQUIPMENT ARE TO BE REMOVED, ALL ELECTRICAL CONNECTIONS FOR SUCH SERVICES SHALL BE REMOVED, SECURED AND SAFELY TERMINATED. REMOVE ALL REDUNDANT WIRING AND CONDUIT BACK TO SOURCE PANEL OR NEAREST BASE BUILDING JUNCTION BOX.
- 1.9. MAKE SAFE AND DISCONNECT ALL POWER AND SYSTEMS, AS AND WHEN, AND TO THE EXTENT REQUIRED TO FACILITATE WITH THE DEMOLITION.
- 1.10. WHERE EXISTING ELECTRICAL EQUIPMENT IS DEEMED TO REMAIN IN AREAS OF DEMOLITION WORK, CONTRACTOR TO PROTECT SUCH EQUIPMENT BY THIS DIVISION WITHOUT ADDITIONAL COST TO THE OWNER.
- 1.11. RELOCATE ANY ELECTRICAL FEEDERS OR EQUIPMENT THAT ARE REQUIRED TO REMAIN IN SERVICE, THAT ARE SECURED TO EXISTING WALLS, FLOORS OR CEILINGS TO BE DEMOLISHED OR THAT ARE BURIED AND REQUIRED TO BE EXCAVATED FOR NEW WORK.
- 1.12. ALL EXISTING EQUIPMENT TO BE REUSED AND/OR RELOCATED IS THOROUGHLY INSPECTED AND REFURBISHED TO ENSURE CORRECT OPERATION WHEN PUT BACK INTO SERVICE AND TO MEET THE REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION.
- 1.13. REMOVAL, STORAGE, CLEANING (INCLUDING REMOVAL OF PAINT ETC) AND REINSTALLATION SHALL BE PROVIDED FOR ALL EXISTING MATERIALS TO BE RE-USED.
- 1.14. BLANK COVER PLATES SHALL BE PROVIDED FOR ALL DEVICES REMOVED FROM WALLS THAT ARE TO REMAIN AS EXISTING.
- 1.15. FOR ALL EXISTING DEVICES INDICATED TO BE RELOCATED, EXTENDING WIRING CONDUIT AND INSTALL IN NEW LOCATION AS SHOWN.
- 1.16. ALL EXISTING ELECTRICAL EQUIPMENT REMOVED AND NOT REUSED ARE TO BE OFFERED TO THE BUILDING OWNER PRIOR TO REMOVAL FROM SITE.

## 2. IDENTIFICATION

- 2.1. PROVIDE TYPED CIRCUIT DIRECTORIES SHOWING CONNECTED LOADS TO ALL NEW PANEL BOARDS AND EXISTING PANEL BOARDS WITHOUT DIRECTORIES. EXISTING PANEL BOARD'S DIRECTORIES SHALL BE REPLACED WITH NEW TYPE-WRITTEN DIRECTORIES REFLECTING THE LATEST REVISIONS.
- 2.2. PROVIDE LAMACOID NAMEPLATES C/W IDENTIFYING NAME, VOLTAGE, CURRENT RATING, FED FROM, ETC. WITH BLACK LETTERS ON A WHITE BACKGROUND TO ALL PANEL BOARDS AND ELECTRICAL EQUIPMENT. MINIMUM SIZE OF LETTERING, 6.35mm HIGH.

- 2.3. ELECTRICAL CONTRACTOR TO PROVIDE LABELS ON ALL RECEPTACLES. PROVIDE P-TOUCH LABELS, BLACK LETTERS ON CLEAR BACKGROUND, TO INDICATE SOURCE PANEL AND CIRCUIT NUMBER.
- 2.4. CONDUIT AND CABLE IDENTIFICATION: COLOUR CODE CONDUITS, BOXES AND METALLIC SHEATHED CABLES. CODE WITH PLASTIC TAPE OR PAINT AT POINTS WHERE CONDUIT OR CABLE ENTERS WALL, CEILING, OR FLOOR, AND AT 15m (50'-0") INTERVALS. COLOURS: 25mm (1") WIDE PRIME COLOUR AND 20mm (3/4") WIDE AUXILIARY COLOUR.

	COLOUR
UP TO 250 V NORMAL POWER	GREEN
TELEPHONE/DATA	WHITE
CONTROLS	PURPLE

## 3. LOCATION OF OUTLETS AND MOUNTING HEIGHTS

- 3.1. VERIFY EXACT LOCATION AND MOUNTING HEIGHT OF ALL WIRING DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.
- 3.2. OUTLETS SHALL NOT BE INSTALLED BACK TO BACK IN PARTITIONS. STAGGER TO PREVENT SOUND TRANSFER.
- 3.3. THE ARCHITECT SHALL HAVE THE RIGHT TO CHANGE THE LOCATION OF ANY OUTLET WITHIN 3 METERS OF THE LOCATION SHOWN ON THE DRAWINGS, WITHOUT EXTRA COST TO THE OWNER, IF THE REQUEST FOR SUCH CHANGES IS ISSUED PRIOR TO THE INSTALLATION OF THE OUTLET.
- 3.4. INSTALL ELECTRICAL EQUIPMENT AT THE FOLLOWING HEIGHTS UNLESS INDICATED OTHERWISE. MOUNTING HEIGHT OF EQUIPMENT IS FROM FINISHED FLOOR TO CENTER LINE OF EQUIPMENT UNLESS SPECIFIED OR INDICATED OTHERWISE.  
 LOCAL SWITCHES AND WALL MOUNTED OCCUPANCY SENSORS 1050mm (41-5/16 ")  
 WALL RECEPTACLES:  
 GENERAL 450mm (18")  
 TELEPHONE, DATA AND TV OUTLETS (STANDARD) 450mm (16")

## 4. WIRING

- 4.1. ALL WIRING SHALL BE COPPER UNLESS OTHERWISE NOTED. CONDUCTORS STRANDED FOR 10 AWG AND LARGER, MINIMUM SIZE 12AWG, COPPER.
- 4.2. PROVIDE A MINIMUM OF ONE BONDING CONDUCTOR FOR EACH THREE UNGROUNDED CONDUCTORS ON ALL CONDUIT AND CABLE RUNS. SIZE BONDING CONDUCTOR TO TABLE 16 OF THE ONTARIO ELECTRICAL SAFETY CODE. PROVIDE SEPARATE BONDING CONDUCTORS FOR EACH GROUND FAULT CIRCUIT INTERRUPTER CIRCUITS. ALL BOND CONDUCTORS TO BE COPPER AND INSULATED WITH A GREEN COLOURED INSULATION.
- 4.3. ALL EQUIPMENT, JUNCTION BOXES, PULL BOXES, LIQUID TIGHT FLEX, ETC. TO BE BONDED TO GROUND THROUGH BONDING CONDUCTORS.
- 4.4. SPLICE UP TO AND INCLUDING NO. 6 AWG WITH NYLON INSULATED EXPANDABLE SPRING TYPE CONNECTORS. SPLICE LARGER CONDUCTORS USING COMPRESSION TYPE CONNECTORS WRAPPED IN PVC INSULATION RATED AT THE RESPECTIVE VOLTAGE.
- 4.5. PROVIDE SEPARATE NEUTRAL CONDUCTOR FOR EACH 120 VOLT CIRCUIT FOR ALL CIRCUITS FEEDING RECEPTACLES AND POWER OUTLETS
- 4.6. BUILDING WIRE
  - 4.6.1. CHEMICALLY CROSS-LINKED THERMOSETTING POLYETHYLENE MATERIAL RATED RW90 OR RWU90 (USED FOR UNDERGROUND INSTALLATIONS), RATED 1000V INSULATION.
  - 4.6.2. INSTALL ALL WIRING IN CONDUIT UNLESS OTHERWISE NOTED. ALL CONDUCTORS ARE TO BE COLOUR CODED. PROVIDE COLOUR TAPE AT ALL TERMINATIONS TO IDENTIFY ALL CONDUCTORS IN EACH RUN.

## 5. CONDUIT AND CONDUIT FITTINGS

- 5.1. MINIMUM CONDUIT SIZE FOR LIGHTING AND POWER CIRCUITS SHALL BE 21mm (3/4") UNLESS NOTED OTHERWISE. USE ELECTRICAL METALLIC TUBING (EMT) CONDUIT EXCEPT WHERE SPECIFIED OTHERWISE. RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES. GROUP CONDUITS WHEREVER POSSIBLE ON SUSPENDED OR SURFACE MOUNTED CHANNELS. DO NOT PASS CONDUITS THROUGH STRUCTURAL MEMBERS, EXCEPT AS INDICATED. DO NOT LOCATE CONDUITS LESS THAN 78mm (3") PARALLEL TO STEAM OR HOT WATER LINES WITH MINIMUM OF 25mm (1 IN.) AT CROSSOVERS. CONDUITS MUST NOT BE USED TO SUPPORT OTHER CONDUITS.

- 5.2. CONDUIT FITTINGS SHALL BE MANUFACTURED FOR USE WITH CONDUIT SPECIFIED, COATING SAME AS CONDUIT. FACTORY "ELLS" WHERE 90 BENDS ARE REQUIRED FOR 27mm(1") AND LARGER CONDUITS WHEN A HYDRAULIC BENDER IS NOT USED. CONNECTORS, COUPLINGS AND STRAPS FOR EMT CONDUITS ARE TO BE SET-SCREW STEEL TYPE. IN A SPRINKLERED ENVIRONMENT, PROVIDE WATERTIGHT FITTINGS.
- 5.3. NEW CONDUITS AND OTHER NEW SERVICES SHALL BE CAREFULLY ROUTED SO THAT THEY DO NOT INTERFERE WITH ANY EXISTING INSTALLATIONS. ANY EXISTING CONDUITS, CABLES, CABLE TRAYS, BUS DUCTS OR OTHER SERVICES THAT INTERFERE WITH THE NEW INSTALLATION SHALL BE RELOCATED UNDER THIS CONTRACT AT NO EXTRA COST TO OWNER.
- 5.4. ALL WIRING SHALL BE IN CONCEALED EMT CONDUIT UNLESS OTHERWISE NOTED. SECURE CONDUIT TO UNDERSIDE OF FLOOR SLAB ABOVE. DO NOT CLIP TO CEILING HANGERS IN ANY MANNER OR FASTEN TO SPRINKLER PIPE SYSTEM.
- 5.5. NO SECTION OF CONDUIT SHALL BE LONGER THAN 30 METERS (100 FEET) OR CONTAIN MORE THAN TWO 90-DEGREE BENDS BETWEEN PULL BOXES. PROVIDE PULL BOXES AS REQUIRED.
- 5.6. COORDINATE WITH LANDLORD ALL CONDUITS RUNNING IN OTHER TENANT AREAS OR IN CEILING SPACE OF THE FLOOR BELOW TO FEED FLOOR MONUMENTS AND SYSTEM FURNITURE.
- 5.7. USE FLEXIBLE METAL CONDUIT FOR CONNECTION TO MOTORS OR VIBRATING EQUIPMENT (TRANSFORMERS, MOTORS, DIMMING RACK, DIESEL GENERATOR, ETC.) IN DRY AREAS, AND LIQUID TIGHT FLEXIBLE METAL CONDUIT IN DAMP, WET OR CORROSIVE AREAS. LIQUID TIGHT FLEXIBLE METAL CONDUIT TO HAVE A JACKET WITH AN FT6 RATING WHEN USED IN PLENUMS OTHERWISE PROVIDE A MINIMUM FT4 RATING. LENGTH OF FLEX OR CABLE NOT TO EXCEED 3 FEET.

## 6. GROUNDING

- 6.1. PROVIDE SYSTEM GROUNDING TO MEET REQUIREMENTS OF CURRENT ONTARIO ELECTRICAL SAFETY CODE OR CODE HAVING JURISDICTION.
- 6.2. INSTALL GROUNDING CONNECTIONS TO TYPICAL EQUIPMENT INCLUDED IN, BUT NOT NECESSARILY LIMITED TO, FOLLOWING LIST: FRAMES OF MOTORS, STARTERS, CONTROL PANELS.

## 7. WIRING DEVICES

- 7.1. ALL SWITCHES AND RECEPTACLES SHALL BE SPECIFICATION GRADE AND DECORA STYLE.
- 7.2. SWITCHES SHALL BE RATED 120V/15A.
- 7.3. SWITCHES SHALL BE RATED TO SWITCH FAN LOADS.
- 7.4. OCCUPANCY SENSORS SHALL BE PASSIVE INFRARED DETECTION WITH 180 DEGREE RANGE.
- 7.5. OCCUPANCY SENSOR SHALL COME WITH MANUAL OVERRIDE SWITCH/BUTTON.

## 8. OUTLET BOXES

- 8.1. SIZE BOXES IN ACCORDANCE WITH CSA C22.1 BASED ON NUMBER AND SIZE OF CONDUCTORS. SQUARE OR LARGER OUTLET BOXES AS REQUIRED FOR SPECIAL DEVICES, WHEREVER POSSIBLE GANG BOXES COMPLETE WITH GANGED COVER PLATES WHERE WIRING DEVICES ARE GROUPED. BLANK COVER PLATES FOR BOXES WITHOUT WIRING DEVICES. COMBINATION BOXES WITH BARRIERS WHERE OUTLETS FOR MORE THAN ONE SYSTEM ARE GROUPED.
- 8.2. NON-COMBUSTIBLE ELECTRICAL OUTLET BOXES THAT PENETRATE A FIRE SEPARATION OR A MEMBRANE FORMING PART OF AN ASSEMBLY REQUIRED TO HAVE A FIRE-RESISTANCE RATING. FIRE STOPS NOT REQUIRED PROVIDED. BOXES DO NOT EXCEED: 100cm<sup>2</sup> (15.5 inch<sup>2</sup>) EACH IN AREA, AND AN AGGREGATE AREA OF 650cm<sup>2</sup> (100.75 inch<sup>2</sup>) IN ANY 9.3m<sup>2</sup> (100ft<sup>2</sup>) OF SURFACE AREA, AND THE ANNULAR SPACE BETWEEN THE MEMBRANE AND THE BOX DOES NOT EXCEED 3mm.

**ISSUED FOR  
TENDER/CONSTRUCTION**  
SUBJECT TO ADDENDA



CONTRACTOR TO CHECK AND VERIFY ALL PROJECT DIMENSIONS, CONDITIONS, AND QUANTITIES.

ALL DISCREPANCIES ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.

DO NOT SCALE THIS DRAWING.

Project

UNIVERSAL WASHROOM MODERNIZATION  
MANOTICK PUBLIC LIBRARY  
5499 SOUTH RIVER DRIVE  
MANOTICK, ONTARIO

CITY PROJECT NO.: CR013011

Subject

MECHANICAL AND ELECTRICAL  
SPECIFICATIONS (2 OF 2)

Date	Scale	Drawn By	Checked By
JAN 17/20	1:50	TT	EL JS

Filename	Drawing #
163302835_ME	ME05