ABBREVIATIONS

A.B.	AIR BARRIER
AC	ACOUSTIC
ACT / AT	ACOUSTIC CEILING TILE
ACB	ACOUSTIC CONCRETE BLOCK
AD	AREA DRAIN
ADD'L	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AL / ALUM	ALUMINUM
AO	AUTO OPENER
ARCH.	ARCHITECTURAL
AVB	AIR & VAPOUR BARRIER MEMBRANE
B	BENCH - FOLD-UP BARRIER FREE SHOWER BENCH
BC	BRICK COURSES
BF	BARRIER FREE
BFIN	BROOM FINISH DIRECTION
BMEC	BUILDING MATERIALS EVALUATION COMMISSION
BR	BRICK MASONRY
B/O	BOTTOM OF
CB	CONCRETE BLOCK
C.I.P.	CAST IN PLACE
C.O.J.	CHECK ON JOB
CONC	CONCRETE
CONT	CONTINUOUS
CC	CENTRE TO CENTRE
CJ	CONTROL JOINT
CLR	CLEAR
C/L	CENTRE LINE
CO	CLEAN OUT
CP	CONTROL PANEL
CR	CARD READER
CS	CLEAR SEALER
CPT	CARPET
CT	CERAMIC TILE
CTO	COOKTOP
C/W	COMPLETE WITH
CW / C.W.	CURTAINWALL
DCT	DIAPER CHANGING TABLE
DF	DRINKING FOUNTAIN
DW	DISHWASHER
DWG	DRAWING
EIFS	EXTERIOR INSULATED FINISHING SYSTEM
ELECT	ELECTRICAL
EP	ELECTRICAL PANEL
EPX	EPOXY COATING (FLOORING)
EX. / EXIST.	EXISTING
EXP	EXPOSED
ENCL.	ENCLOSURE
EXT	EXTERIOR
FD	FLOOR DRAIN
FHC	FIRE HOSE CABINET
FIN	FINISH
FL / FLR	FLOOR
FL-#	METAL CLADDING/ FLASHINGS
FO	FINISHED OPENING
FP	FIRE PROTECTION
F.R.R.	FIRE RESISTANCE RATING
GALV	GALVANIZED
GL	GLASS/GLAZING
GW / GWG	GEORGIAN WIRED GLASS
GWB	GYPSUM WALL BOARD
HC	BARRIER FREE DOOR OPERATOR PUSH BUTTON
HB	HOSE BIB
HCW	HOLLOW CORE WOOD
HM	HOLLOW METAL
HO	MAGNETIC HOLD OPEN
HTG	HEATING
I/F	INSIDE FACE
IMP	INSULATED METAL PANEL
INT	INTERIOR
INTK	INTAKE
IR/GWB	IMPACT RESISTANT GWB
JT	JOINT
LF	LIGHT FIXTURE
LIN	LINOLEUM
MAT'L	MATERIAL
MECH.	MECHANICAL
MD	METAL DECK
MFR	MANUFACTURER
MIR	MIRROR
MO	MASONRY OPENING
MS	METAL SIDING
MTL	METAL
MW	MICROWAVE
NBC	NATIONAL BUILDING CODE
NIC	NOT IN CONTRACT
No.	NUMBER
NRC	NATIONAL RESEARCH COUNCIL
OBC	ONTARIO BUILDING CODE
OC	ON CENTRE
O/F	OUTSIDE FACE
O.T.B.	OPEN TO BELOW
PC	PARTICLE CORE
PCT	PORCELAIN TILE
PERIM.	PERIMETER
PERF.	PERFORATED
PL	PLATE
PLAM	PLASTIC LAMINATE
PML	PERFORATED METAL
PREFIN / PR	PREFINISHED
PSC	PLASTER SKIM COAT ON GWB
PT	PAINT
PTD	PAINTED
P.T.	PRESSURE TREATED
PWF	PRESERVED WOOD FOUNDATION GRADE PLYWOOD
RAH	ROOF ACCESS HATCH
RBR	RUBBER FLOORING
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REC.	RECESSED
REFURB	REFURBISHED
RO	ROUGH OPENING
RWL	RAIN WATER LEADER
SAM / S.A.M.	SELF ADHERED MEMBRANE (FORMING PART OF CONTINUOUS AIR/ VAPOUR BARRIER)
SG / SGL	SANDBLASTED GLAZING
SIAM.	SIAMESE CONNECTION
S. SC	SCREEN
SCW	SOLID CORE WOOD
SMD	SMOKE DETECTOR
SPF	SPORTS FLOORING
SPL	SPANDREL PANEL/ GLASS
SS / S.STL	STAINLESS STEEL
SSG	STRUCTURAL SILICONE GLAZING SYSTEM
ST.T	STONE TILE
STL	STEEL
STN	STAIN
STRUCT	STRUCTURAL
SYN.	SYNTHETIC WD POLYMER LUMBER
TB	TACK BOARD
TBI	TO BE ISSUED
TCS	TINTED CONCRETE SEALER
TGL	TEMPERED GLASS
TMP	TEMPERED
TP/TEC	TECTUM PRODUCT PANELS
TWA	TRANSLUCENT WALL ASSEMBLY
TYP	TYPICAL
TCP	TEXTURED CORE PLAST
TYP	TYPICAL
U/S	UNDERSIDE OF
V	VINYL
VCT	VINYL COMPOSITION TILE
W / WIN	WINDOW
WB	WHITE BOARD
WC	WATER CLOSET
WD	WOOD
WF	WATER FOUNTAIN
WV	WOOD VENEER
ZN	ZINC

GENERAL NOTES

1. THE CONTRACTOR SHALL EXAMINE AND BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS IN THEIR ENTIRETY. SURVEY THE PROJECT AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND SCOPE OF WORK. ALL COSTS SUBMITTED SHALL BE BASED ON THE THOROUGH KNOWLEDGE OF ALL WORK AND MATERIALS REQUIRED.

2. ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE FEDERAL, LOCAL, AND PROVINCIAL CODES AND AMENDMENTS.

3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES REQUIRED FOR SAFE EXECUTION AND COMPLETION OF WORK, AND FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. CONTRACTOR SHALL HIRE SUB CONTRACTORS AND SUPPLIERS WITH PROVEN ABILITY TO PROVIDE/PERFORM QUALITY WORKMANSHIP ON THIS TYPE OF PROJECT.

4. ANY ERRORS, OMISSIONS OR INCONSISTENCIES ON THESE DRAWINGS OR ANY VARIATIONS OR AMBIGUITIES BETWEEN THESE DRAWINGS AND ACTUAL SITE AND CONSTRUCTION CONDITIONS AND/OR REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING, IMMEDIATELY.

5. IN THE EVENT A DISCREPANCY IS FOUND IN THE CONTRACT DOCUMENTS, THE OWNER AND ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.

6. ANY DISCREPANCIES BETWEEN ANY DRAWING OR SPECIFICATION ITEM, THE CONTRACTOR SHALL BID, PROVIDE AND INSTALL THE GREATER ITEM IN QUALITY, QUANTITY, STABILITY, DURABILITY, ETC.

7. CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AT SITE AND BE RESPONSIBLE FOR ACCURACY AND CORRECTNESS OF SAME. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

8. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

9. THESE DRAWINGS CONTAIN COMPLETE SPECIFICATIONS, DETAILS AND INFORMATION REQUIRED FOR THE INTERIOR FINISHES OF THE PROJECT. ADDITIONAL INFORMATION SHALL BE OBTAINED FROM THE OWNER.

10. STORE MATERIALS IN SPACES DESIGNATED BY OWNER. REMOVE AND REPLACE ALL DAMAGED MATERIALS.

11. REMOVE RUBBISH FROM PREMISES AS OFTEN AS NECESSARY OR AS DIRECTED TO MAINTAIN A CLEAN AND SAFE PROJECT.

12. ALL WORK AND EQUIPMENT SHALL BE CLEANED TO THE SATISFACTION OF THE OWNER BEFORE TURNING SAME OVER TO OWNER.

13. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND OWNER FOR APPROVAL PRIOR TO ORDERING, FABRICATION AND INSTALLATION FOR ANY EQUIPMENT, MATERIALS, ASSEMBLIES, ECT.

14. THE CONTRACTOR SHALL PAY ALL FEES EXCLUDING BUILDING PERMIT, GIVE ALL NOTICES, FILE ALL NECESSARY DRAWINGS AND OBTAIN ALL PERMITS AND CERTIFICATES OR APPROVAL REQUIRED IN CONNECTION WITH ALL WORK UNDER THESE CONTRACT DOCUMENTS. HE OR SHE SHALL COMPLY WITH ALL LAWS, ORDINANCES, RULES AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION.

15. THERE SHALL BE NO DEVIATION FROM SPECIFICATIONS WITHOUT THE WRITTEN APPROVAL OF THE OWNER, ARCHITECT AND/OR ENGINEER.

16. THE CONTRACTOR SHALL EMPLOY AN APPROVED TESTING LABORATORY TO MAKE ALL TEST FOR ACOUSTICAL, CONCRETE, SOIL COMPACTION, WELDING OF STEEL, SHEER NAILING, WATERPROOF TESTING AND ROOFING TO INSURE COMPLIANCE WITH PLANS, STANDARDS AND CODES. ALSO PROVIDE WRITTEN REPORTS OF THE RESULTS TO ARCHITECT FOR REVIEW.

17. DRYWALL INSTALLATION SHALL BE IN CONFORMANCE WITH THE GYPSUM ASSOCIATION'S RECOMMENDED PRACTICES FOR THICKNESS, NAILING, TAPING AND CORRECT STUD SPACING.

19. THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, OPENINGS AND CHARACTERISTICS OF ALL WORK AND EQUIPMENT TO BE FURNISHED BY THE OWNER OR OTHERS WITH THE MANUFACTURER OR SUPPLIER BEFORE STARTING ANY CONSTRUCTION RELATED TO SAID WORK AND/OR EQUIPMENT.

20. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, MEET U.L.C. REQUIREMENTS, HAVE U.L.C. SEAL OF APPROVAL AND OF DOMESTIC MANUFACTURE AND SHALL BE INSTALLED IN STRICT CONFORMANCE WITH MANUFACTURER'S INSTRUCTIONS AND/OR RECOMMENDATIONS UNLESS INDICATED OTHERWISE IN THE DRAWINGS AND SPECIFICATIONS.

21. LOCATION OF MECHANICAL UNITS ARE APPROXIMATE. INSTALL PER MANUFACTURER'S REQUIREMENTS.

22. REFER TO E-01 OF MEP DRAWING FOR LOCATION OF ELECTRICAL AND GAS METERS, TELEPHONE AND CABLE CLOSETS.

23. THE CONTRACTOR SHALL VERIFY WITH ARCHITECT FOR ANY CHASE AREA NOT SHOWN ON DRAWINGS. ALL SHOP DRAWINGS TO BE SUBMITTED FOR APPROVAL PRIOR TO ORDERING ANY EQUIPMENT.

24. THE CONTRACTORS SHALL BEAR THE TOTAL EXPENSE FOR AND SHALL REPAIR TO EXISTING CONDITION, ANY DAMAGE TO EXISTING UNDERGROUND UTILITIES, PIPING, CONDUIT OR EQUIPMENT.

25. SPECIFIED PRODUCTS HAVE BEEN USED IN PREPARING THE CONTRACT DOCUMENTS TO ESTABLISH MINIMUM QUALITIES. IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE SUBSTITUTIONS THAT ARE EQUAL TO THE SPECIFIED PRODUCTS. ADEQUATE SUPPORTING INFORMATION MUST ACCOMPANY ALL SUBSTATION SUBMITTALS AND MUST BE SUBMITTED TO THE ARCHITECT WITHIN 30 DAYS AFTER CONTRACT AWARD TO RECEIVE CONSIDERATION AND ON THE ARCHITECT'S SUBSTITUTION FORM.

26. EXIT CORRIDORS TO HAVE A MINIMUM RATED 2A:10B:C FIRE EXTINGUISHER WITHIN A 75-FOOT TRAVEL DISTANCE AND MOUNTED ON THE WALL OR IN CABINETS SUCH THAT THE TOP IS NOT MORE THAN 4-FEET ABOVE FLOOR LEVEL.

27. THE CONTRACTOR MUST PROVIDE ALL REQUIRED RATINGS FOR FIRE-RESISTIVE TENANT SEPARATION WALLS, FLOOR/CEILING ASSEMBLIES, IN ACCORDANCE WITH THE LATEST EDITION OF THE GOVERNING CODE AND LOCAL CODES.

28. THE CONTRACTOR SHALL VERIFY ALL ROUGH OPENINGS.

29. THE BOTTOM 250mm OF ALL DOORS EXCEPT SLIDING DOORS SHALL HAVE A SMOOTH, UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.

30. EVERY EXIT WAY OR CHANGE OF DIRECTION IN A EXIT CORRIDOR SHALL BE MARKED WITH WELL-LIGHTED EXIT SIGNS HAVING LETTERS OF AT LEAST 125mm IN HEIGHT.

31. SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SUCH AS SPRINKLER SYSTEM, PRE-FIN. METAL GUARDS, ALUM. ECT. SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL. REFER TO IBC SECTION 106.3.4.2 OR LOCAL CODE SECTIONS.

32. THE TOTAL SQUARE FOOTAGE FIGURES MAY VARY DEPENDING ON THE FORMULA USED BY THE ARCHITECT. THE ARCHITECT SHALL PROVIDE GROSS SQUARE FOOTAGES FOR BUILDING DEPARTMENT PURPOSES.

NAME OF PRACTICE:
Jason Fung Architect INC.
675 King Street W , Unit 211
Toronto, ON M5V 1M9
Contact: Project Architect/Lead

NAME OF PROJECT:
DUNDAS VALLEY SECONDARY SCHOOL UNIVERSAL WASHROOM RENOVATION

LOCATION:
310 GOVERNERS RD. DUNDAS, ONTARIO

ONTARIO ASSOCIATION OF ARCHITECTS
JASON WAYNE FUNG
LICENCE
8013

ITEM		ONTARIO BUILDING CODE DATA MATRIX PART 11: RENOVATION OF EXISTING BUILDING			BUILDING CODE REFERENCE
11.1	Building Classification	Describe Existing Use: GROUP A2			11.2.1.
		Describe Change of Use (if applicable): GROUP A2			T 11.2.1.1A
		Construction Index: x			T 11.2.1.1B to N
		Hazard Index: x			
		■ Not Applicable (no change of major occupancy)			
11.2	Alteration to Existing Building is:	■ Basic Renovation			11.3.3.1.
		□ Extensive Renovation			11.3.3.2.
11.3	Reduction in Performance Level:				11.4.2.
		Structural:	■ No	□ Yes	11.4.2.1.
		By Increase in occupant load:	■ No	□ Yes	11.4.2.2.
		By change of major occupancy:	■ No	□ Yes	11.4.2.3.
		Plumbing:	■ No	□ Yes	11.4.2.4.
		Sewage-system	■ No	□ Yes	11.4.2.5.
11.4	Compensating Construction:				11.4.3.
		Structural:	■ No	□ Yes (explain)	11.4.3.2.
		By Increase in occupant load:	■ No	□ Yes (explain)	11.4.2.3.
		By change of major occupancy:	■ No	□ Yes (explain)	11.4.2.4.
		Plumbing:	■ No	□ Yes (explain)	11.4.2.5.
		Sewage-system	■ No	□ Yes (explain)	11.4.2.6.
11.5	Compliance Alternatives Proposed:	■ No			11.5.1.
		□ Yes (give number(s))			
	Notes				

GENERAL PLAN DRAWING LEGEND:

ROOM NAME
101 — ROOM TAG

+0.00 — SPOT ELEVATION

Name
+ Elevation — LEVEL

D101 — DOOR TYPE

WIN00 — WINDOW TYPE

W1 — WALL TYPE

1hr — WALL FIRE RATING

R1 — ROOF TYPE

F1 — FLOOR TYPE

GB-1
8'-0" — CEILING TYPE

FX1 — FIXTURE / FINISH TAG

1 — REVISION TO DRAWING

SIM
A101 — DETAIL CALLOUT TAG

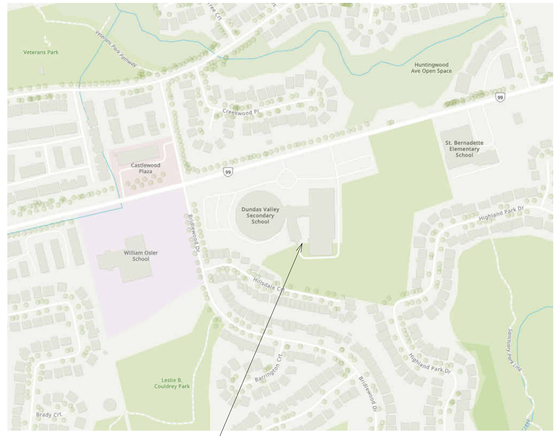
1
A101 — ELEVATION TAG

SIM
1
A101 — SECTION TAG

1
A101 1 — INTERIOR ELEVATION TAG

1
A101 — View Name
Scale: 1/8" = 1'-0"

0 — GRID REFERENCE



SITE

CONTEXT PLAN

DUNDAS VALLEY SECONDARY SCHOOL UNIVERSAL WASHROOM RENOVATION

DRAWING LIST

ARCHITECTURAL

ISSUED FOR TENDER

2026 APRIL 10

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DATE	ISSUED FOR
26/02/05	ISSUED FOR COORDINATION
26/03/10	ISSUED FOR PERMIT
26/04/10	ISSUED FOR TENDER

Architect's Stamp

Project
DUNDAS VALLEY SECONDARY SCHOOL
UNIVERSAL WASHROOM RENOVATION

Address: 310 GOVERNERS RD, DUNDAS, ONTARIO

Client	HWDSB
Project no.	2527
Scale	As indicated
Drawn By	KP
Project North	Print Date 26/04/10

Drawing Title
COVER

Sheet no.
A0.01

FIXTURE SCHEDULE

TAG	DESCRIPTION	MANUFACTURER *	MODEL	NOTES **
FX1	DROP-IN SINK	KOHLER	CIMARRON 22-3/4" RECTANGLE DROP-IN	REFER TO MECHANICAL
FX2	FAUCET	DELTA	591T0290	TOUCHLESS, ELECTRONIC AC SURFACE MOUNT FAUCET,
FX3	FLOOR MOUNT WATER CLOSET	AMERICAN STANDARD	MADERA FLOWISE ELONGATED TOILET	REFER TO MECHANICAL
FX4	HORIZONTAL GRAB BAR	FROST	1003-NP	30" X 30" STAINLESS STEEL
FX5	L-SHAPED GRAB BAR	FROST	1001-NP	18" STAINLESS STEEL
FX6	TOILET PAPER DISPENSER	BY OWNER	-	
FX7	SANITARY NAPKIN DISPOSAL	BOBRICK	B-5270	
FX8	SAFETY COAT HOOK	FROST	1150-SS	STAINLESS STEEL SAFETY COAT HOOK
FX9	OBC COMPLIANT TILTED MIRROR	BOBRICK	B-293	24" X 36"
FX10	SOAP DISPENSER	BY OWNER	-	
FX11	COMBO PAPER TOWEL DISPENSER / GARBAGE	BY OWNER	-	
FX12	6" ROUND AUTOMATIC DOOR OPERATOR PUSH PLATE	-	-	COORDINATE WITH ELECTRICAL
FX13	EMERGENCY CALL BUTTON	-	-	COORDINATE WITH ELECTRICAL
FX14	PUSH TO LOCK BUTTON	-	-	COORDINATE WITH ELECTRICAL

* OR APPROVED ALTERNATIVE
** REFER TO SPECIFICATIONS

ROOM SCHEDULE

NO.	ROOM	FLOOR		CEILING		WALL		BASE FINISH	NOTES
		MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH		
1036A	HALLWAY	CONC.	VCT	CONC & STEEL	ACT	CMU / GB	PT-2	RESILIENT BASEBOARD - MATCH EXISTING	
1036B	UNIVERSAL WASHROOM	CONC.	EPFF	CONC & STEEL	ACT	CMU / GB	PT-1, PCT-1, PCT-2	PORCELAIN WALL BASE	
1036C	STORAGE	CONC.	VCT	CONC & STEEL	ACT	CMU / GB	PT-2	RESILIENT BASEBOARD - MATCH EXISTING	
1036D	JANITOR CLOSET	CONC.	VCT	CONC & STEEL	ACT	CMU / GB	PT-2	RESILIENT BASEBOARD - MATCH EXISTING	

FINISH & MATERIAL SCHEDULE

PT-1 UNIVERSAL WASHROOM PAINT
MANUFACTURER: AS PERMITTED IN MPI APPROVED PRODUCTS LIST
SERIES: AS PERMITTED IN MPI APPROVED PRODUCTS LIST
COLOUR/FINISH: MATCH PORCELAIN TILE (PCT-2) - ACTUAL COLOUR CODE TBD

PT-2 WHITE PAINT
MANUFACTURER: AS PERMITTED IN MPI APPROVED PRODUCTS LIST
SERIES: AS PERMITTED IN MPI APPROVED PRODUCTS LIST
COLOUR/FINISH: WHITE - ACTUAL COLOUR CODE TBD

PROVIDE PAINT MATERIALS FOR PAINT SYSTEMS FROM SINGLE MANUFACTURER
ACCEPTABLE MANUFACTURERS (OR APPROVED ALTERNATIVE)
.1 BENJAMIN MOORE
.2 SHERWIN WILLIAMS
.3 DULUX

PCT-1 PORCELAIN TILE 1 - WALL TILE
MANUFACTURER: OLYMPIA TILE OR EQUIVALENT
SERIES: COLOUR AND DIMENSION
SIZE:
COLOUR: COLOUR TBD
GROUT: COLOUR TBD (MATCH PCT-2)

PCT-2 PORCELAIN TILE 2 - WALL ACCENT TILE
MANUFACTURER: OLYMPIA TILE OR EQUIVALENT
SERIES: COLOUR AND DIMENSIONS
SIZE:
COLOUR: COLOUR TBD
GROUT: WHITE

PORCELAIN WALL BASE
MANUFACTURER: STONE TILE OR EQUIVALENT
SERIES: MATCH FLOOR TILE
COLOUR: MATCH FLOOR TILE
GROUT: MATCH FLOOR TILE

RESILIENT BASEBOARD
MANUFACTURER: JOHNSONITE OR EQUIVALENT
SERIES: TRADITIONAL VINYL W/ TOE
SIZE: 4"
COLOUR: BLACK

PCFF PORCELAIN TILE FLOOR FINISH
MANUFACTURER: STONE TILE OR EQUIVALENT
SERIES: MOONSTONE
SIZE:
COLOUR: LIGHT GREY
GROUT: COLOUR TBD

VCT VINYL COMPOSITE TILE
MANUFACTURER: ARMSTRONG FLOORING OR EQUIVALENT
SERIES: STANDARD EXCELON IMPERIAL TEXTURE
SIZE:
COLOUR: MATCH EXISTING SCHOOL FLOORING

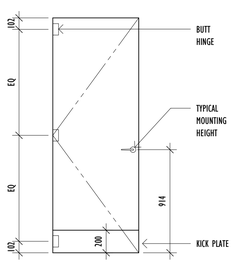
DOOR SCHEDULE

NO.	FIRE RATING	ROOM	DOOR WIDTH	DOOR HEIGHT	DOOR THICKNESS	DOOR PANEL MATERIAL	DOOR PANEL FINISH	DOOR TYPE	FRAME MATERIAL	FRAME FINISH	FRAME TYPE	HARDWARE GROUP	NOTES
D1036B		PROPOSED UNIVERSAL WASHROOM	965	2134	44	HM	PT	D-A	HM	PT	F-1	N-4	
D1036C		PROPOSED STORAGE	965	2134	44	HM	PT	D-B	HM	PT	F-1	N-2	
D1036D		PROPOSED JANITOR CLOSET	762	2134	44	HM	PT	D-A	HM	PT	F-1	N-2	

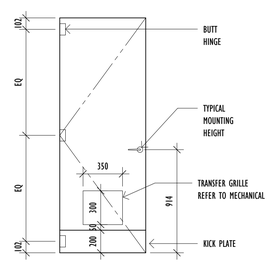
N-1 indicates requirement for privacy lockset
N-2 indicates requirement for keyed lockset
N-3 indicates requirement for weatherstripping
N-4 indicates requirments for universal bathroom lockset with door operator and emergency call system as per OBC

General Note:
Hinge side of door shall be offset 4" from corners unless otherwise noted.

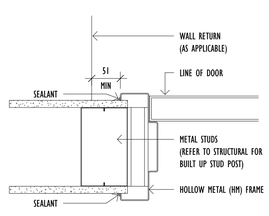
D-A HINGE DOOR



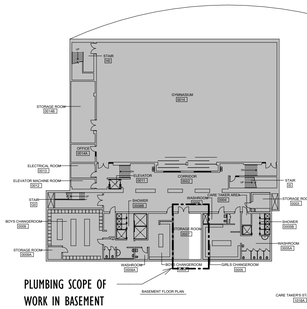
D-B HINGE DOOR - TRANSFER GRILLE



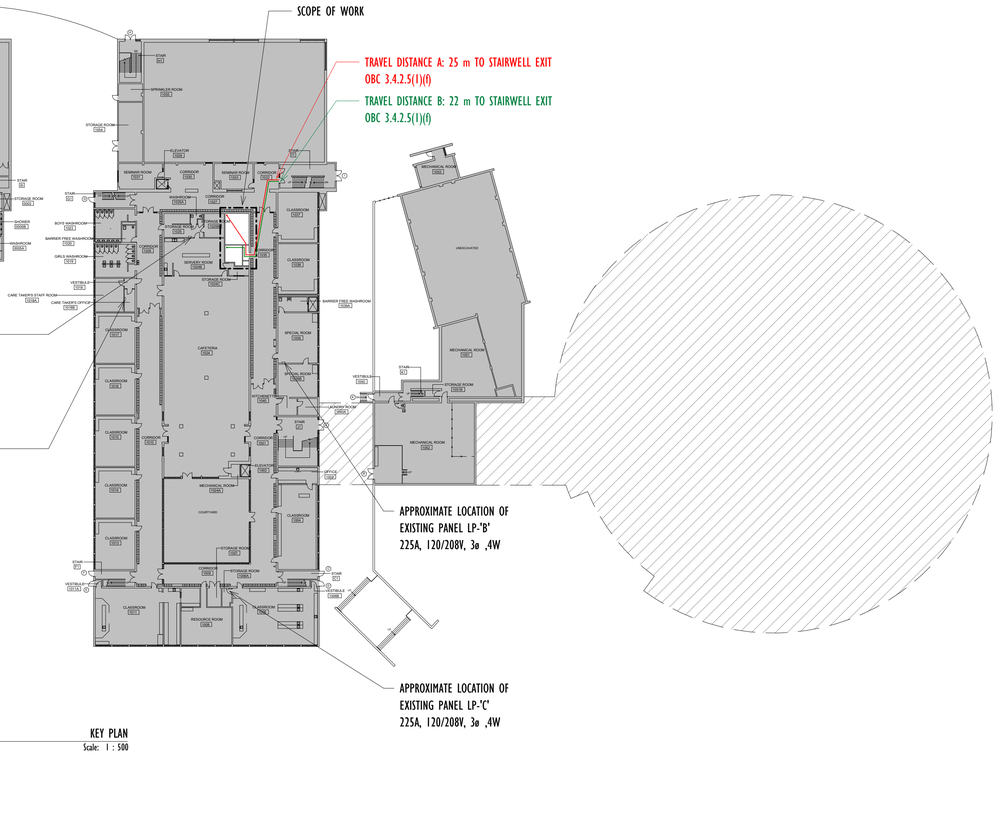
F-1 HOLLOW METAL FRAME



BASEMENT



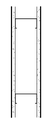
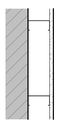
GROUND FLOOR



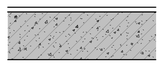
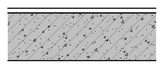
KEY PLAN
Scale: 1 : 500

ASSEMBLIES

INTERIOR PARTITION

P1 P1a		STEEL STUD PARTITION WALL 12.7mm GB 92mm Metal Stud @ 600mm o.c. 12.7mm GB P1a 12.7mm Water and Mold Resistant GB, one side
P2		PLUMBING CHASE 12.7mm Water and Mold Resistant GB 92mm Metal Stud @ 600mm o.c. - Existing Substrate

FLOORS

FL1		NEW FLOOR FINISH - Vinyl Composite Tile - Undertayment - Existing Concrete Slab
FL2		BATHROOM FLOOR FINISH ON SUBSTRATE - Porcelain Tile Floor Finish - Existing Concrete Slab

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DATE	ISSUED FOR
26/02/05	ISSUED FOR COORDINATION
26/03/10	ISSUED FOR PERMIT
26/04/01	ISSUED FOR PERMIT RESPONSE
26/04/10	ISSUED FOR TENDER

Architect's Stamp

Project
DUNDAS VALLEY SECONDARY SCHOOL
UNIVERSAL WASHROOM RENOVATION

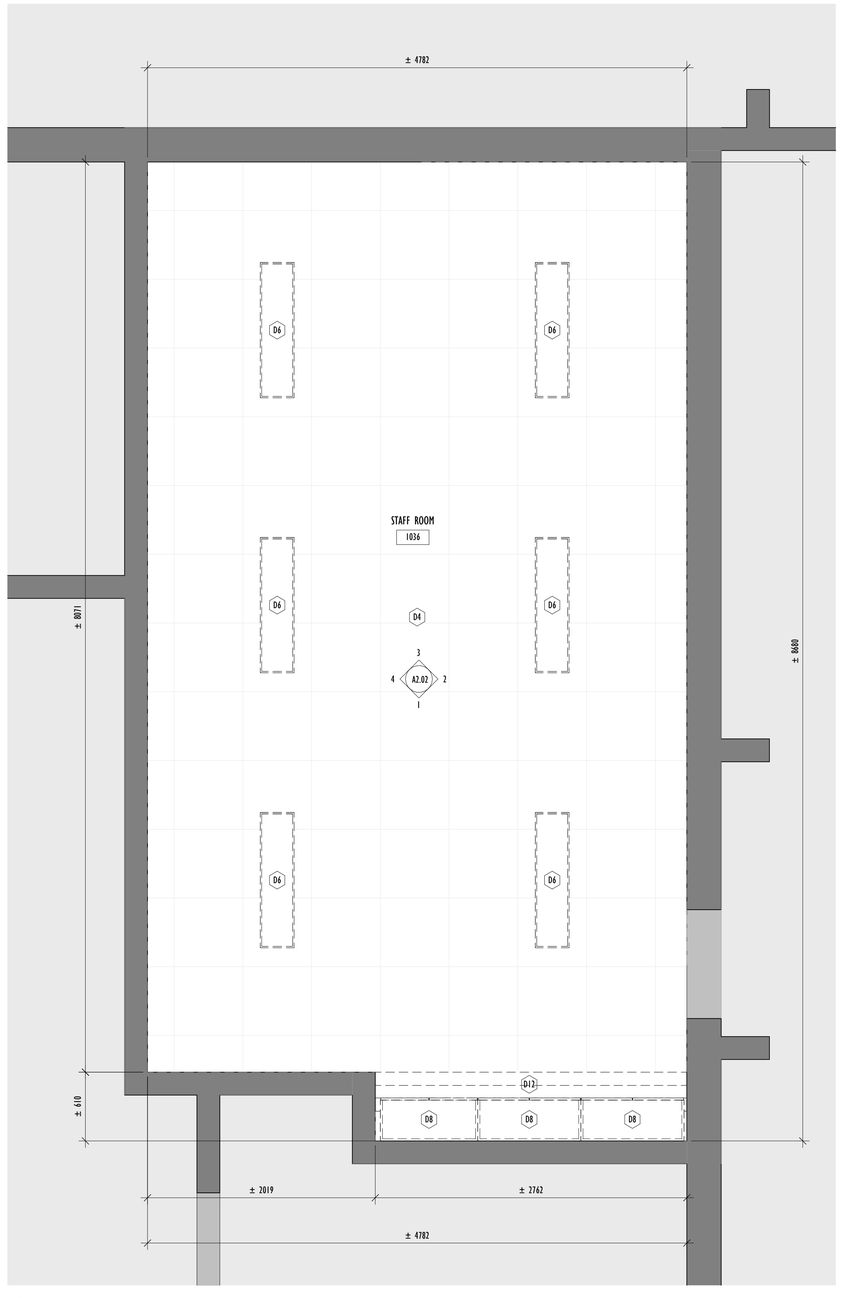
Address 310 GOVERNERS RD, DUNDAS, ONTARIO

Project North

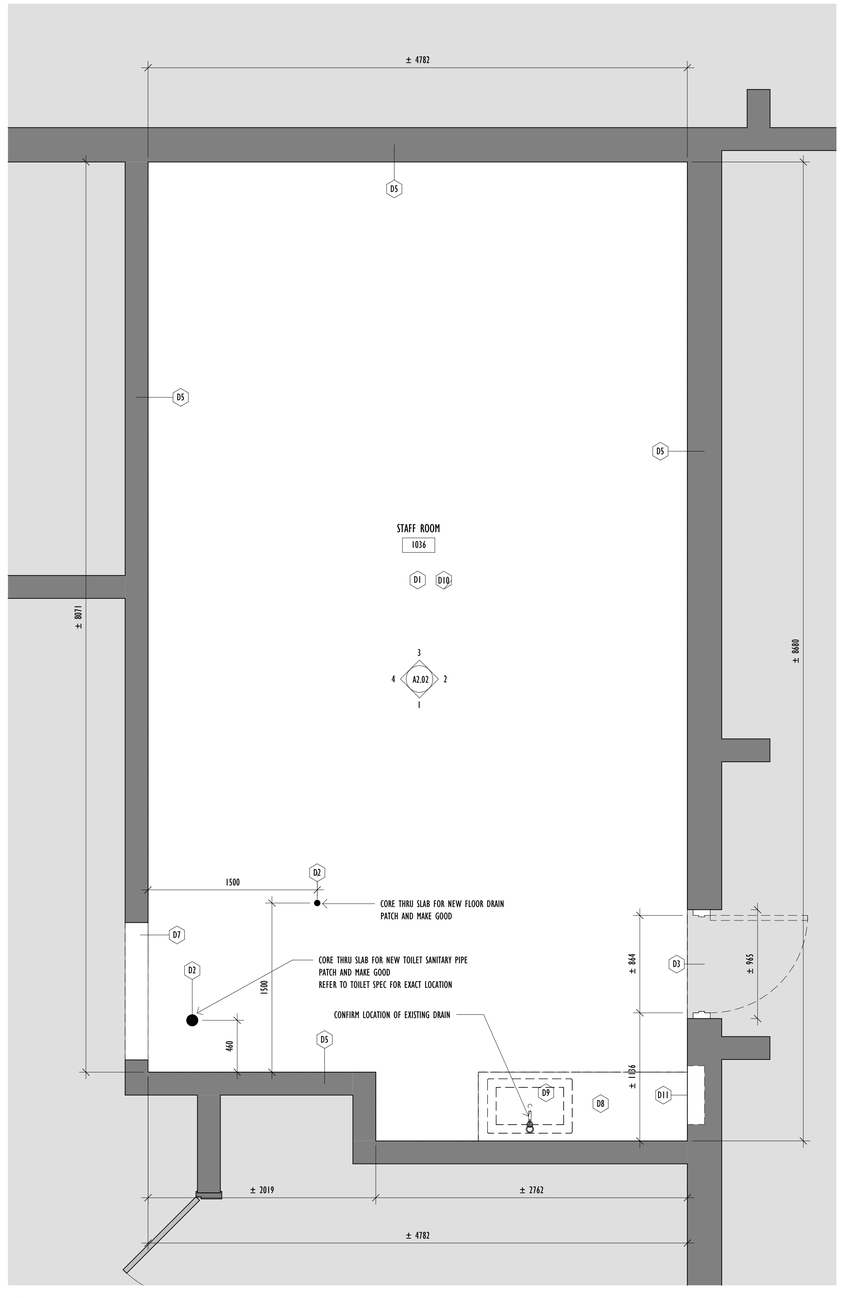
Client	HWDSB
Project no.	2527
Scale	As indicated
Drawn By	KP
Print Date	26/04/10

Drawing Title
PROPOSED KEY PLAN, SCHEDULES, AND ASSEMBLIES

Sheet no.
A1.01



3 A2.01 DEMOLITION PARTIAL RCP
Scale: 1 : 25



1 A2.01 DEMOLITION PARTIAL FLOOR PLAN
Scale: 1 : 25

GENERAL NOTES

1. ALL DIMENSIONS FOR EXISTING BUILDING ELEMENTS ARE APPROXIMATE. CONTRACTOR TO SITE VERIFY PRIOR TO DEMOLITION OR CONSTRUCTION
2. ANY PENETRATIONS THROUGH FIRE SEPARATIONS MUST BE FIRE SEALED.
3. LOCATION OF ALL EXISTING PLUMBING STACKS AND LINES, HVAC DUCTS, AND ELECTRICAL TO BE CONFIRMED ON SITE AND COMMUNICATED TO SCHOOL BOARD AND ARCHITECT
4. CONTRACTOR TO REVIEW CONFLICTS BETWEEN TRADES
5. CONTRACTOR TO NOTIFY ARCHITECT OF ANY SITE DISCREPANCIES

GENERAL DEMOLITION NOTES

1. REFER TO ABATEMENT REPORT AND SPECS REGARDING DESIGNATED SUBSTANCES REMOVAL
2. ARCHITECTURAL DEMOLITION DRAWINGS TO BE READ IN CONJUCTION WITH STRUCTURAL, MECH, AND ELEC DEMOLITION DRAWINGS
3. CONTRACTOR TO PATCH, REPAIR, AND MAKE GOOD ALL HOLES OR DAMAGE DUE TO GENERAL DEMOLITION

DEMOLITION NOTES:

D1 REMOVE AND DISPOSE OF EXISTING FLOOR TILE.
PATCH AND MAKE GOOD AS REQUIRED TO RECEIVE NEW FLOOR FINISH.
REFER TO ENVIRONMENTAL REPORT AND COORDINATE WITH ABATEMENT SUBTRADE.

D2 CORE THROUGH EXISTING CONCRETE SLAB FOR NEW PLUMBING.
COORDINATE WITH MECHANICAL DRAWINGS FOR LOCATION OF NEW SANITARY PIPES.

D3 REMOVE AND DISPOSE OF EXISTING DOOR AND ASSOCIATED HARDWARE.
PATCH AND MAKE GOOD ALL AFFECTED SURFACES.
SAW CUT EXISTING BLOCK EDGE AND PREPARE TO RECEIVE NEW CLEAN-EDGED INFILL

D4 REMOVE AND DISPOSE OF EXISTING ACOUSTIC CEILING TILE.

D5 REMOVE AND DISPOSE OF EXISTING WALL FINISH AND BASEBOARD
PROTECT AND MAINTAIN ANY FIXTURES AND OUTLETS UNLESS NOTED OTHERWISE.
PATCH AND MAKE GOOD TO RECIEVE NEW FINISH AND/OR FIXTURES.

D6 REMOVE AND DISPOSE OF EXISTING LIGHTING FIXTURES AND ASSOCIATED DEVICES.
RELOCATE AS PER PROPOSED RCP ON A2.01.
COORDINATE WITH MECHANICAL DRAWINGS.

D7 REMOVE AND DISPOSE OF EXISTING SHUTTER TO KITCHEN BEYOND.
INFILL WITH BLOCK TO MATCH EXISTING WALL.

D8 REMOVE AND DISPOSE OF MILLWORK.
PATCH WALLS AND MAKE GOOD TO RECEIVE NEW WALL FINISH AND/OR FIXTURES.

D9 REMOVE AND DISPOSE OF EXISTING PLUMBING FIXTURES, DRAINS, AND PIPING.
COORDINATE WITH MECHANICAL DRAWINGS.

D10 REMOVE EXISTING SCHOOL FIXTURES, FURNITURES, AND EQUIPMENTS.
COORDINATE WITH SCHOOL ON WHICH ITEMS WILL BE STORED IN A SEPARATE AREA.

D11 REMOVE AND PROTECT EXISTING PA SPEAKER. STORE IN GOOD CONDITION.
INFILL WITH CONCRETE BLOCK TO MATCH EXISTING WALL
COORDINATE WITH SCHOOL ON RELOCATION.

D12 REMOVE AND DISPOSE OF EXISTING BULKHEAD.
INVESTIGATE FOR DUCTS, PIPES, OR OTHER SERVICES.
PROTECT DURING CONSTRUCTION.

JFA

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TORONTO, ONTARIO M5V 1M9
(647) 948-9176
jason@jasonfung.ca
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HATCH LEGEND:

- EXISTING WALL
- EXISTING AREA
- DEMOLISHED
- PROPOSED

DATE	ISSUED FOR
24/02/05	ISSUED FOR COORDINATION
24/03/18	ISSUED FOR PERMIT
26/04/10	ISSUED FOR TENDER

Architect's Stamp

Project
DUNDAS VALLEY SECONDARY SCHOOL
UNIVERSAL WASHROOM RENOVATION

Address 310 GOVERNERS RD, DUNDAS, ONTARIO

Client	HWDSB
Project no.	2527
Scale	As indicated
Drawn By	KP
Print Date	26/04/10

Project North

Drawing Title
DEMOLITION PARTIAL PLAN AND RCP

Sheet no.
A2.01

4 A2.02 DEMOLITION INTERIOR ELEVATION D
Scale: 1 : 25

3 A2.02 DEMOLITION INTERIOR ELEVATION C
Scale: 1 : 25

2 A2.02 DEMOLITION INTERIOR ELEVATION B
Scale: 1 : 25

1 A2.02 DEMOLITION INTERIOR ELEVATION A
Scale: 1 : 25

GENERAL NOTES

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RELOCATE AS PER PROPOSED RCP ON A3.01.
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DATE	ISSUED FOR

Architect's Stamp

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UNIVERSAL WASHROOM RENOVATION

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Client	HWDSB
Project no.	2527
Scale	As indicated
Drawn By	KP
Project North	Print Date 26/04/10

Drawing Title
DEMOLITION INTERIOR ELEVATIONS

Sheet no.
A2.02

2 A3.01 PROPOSED PARTIAL RCP
Scale: 1 : 25

1 A3.01 PROPOSED PARTIAL FLOOR PLAN
Scale: 1 : 25

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FIXTURE AND FINISH LEGEND

FX1	PROPOSED SINK
FX2	PROPOSED FAUCET
FX3	PROPOSED FLOOR MOUNT WATER CLOSET
FX4	PROPOSED HORIZONTAL GRAB BAR
FX5	PROPOSED L-SHAPE GRAB BAR
FX6	PROPOSED TOILET PAPER DISPENSER
FX7	PROPOSED SANITARY NAPKIN DISPOSAL
FX8	PROPOSED SAFETY COAT HOOKS
FX9	PROPOSED OBC COMPLIANT TILTED MIRROR
FX10	PROPOSED SOAP DISPENSER
FX11	PROPOSED COMBO PAPER TOWEL DISPENSER / GARBAGE
FX12	6" ROUND AUTOMATIC DOOR OPERATOR PUSH PLATE
FX13	EMERGENCY CALL BUTTON
FX14	PUSH TO LOCK BUTTON
PF-1	UNIVERSAL WASHROOM PAINT
PF-2	WHITE PAINT
PCT-1	PORCELAIN TILE 1
PCT-2	PORCELAIN TILE 2 - ACCENT COLOUR
PCFF	PORCELAIN TILE FLOOR FINISH
VCT	VINYL COMPOSITE TILE 1

RCP LEGEND

L1	PROPOSED 600x600 LED PANEL
L2	PROPOSED POT LIGHT
L3	PROPOSED 300x600 LED PANEL
HD	PROPOSED HEAT DETECTOR
E	PROPOSED EXHAUST FAN
OS	PROPOSED OCCUPANCY SENSOR
$D	LIGHTING SWITCH WITH DIMMER

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HATCH LEGEND:

- EXISTING WALL
- EXISTING AREA
- DEMOLISHED
- PROPOSED

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Project
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Project North

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Project no.	2527
Scale	As indicated
Drawn By	KP
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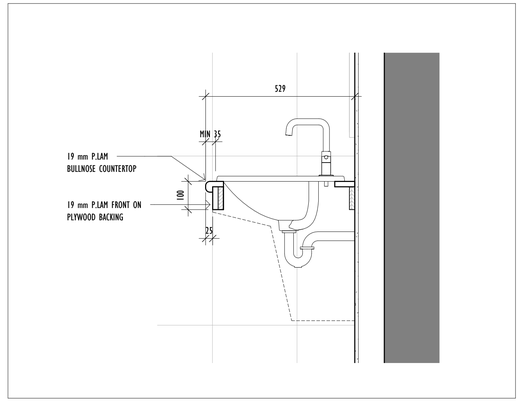
Drawing Title
PROPOSED GROUND FLOOR PLAN

Sheet no.
A3.01



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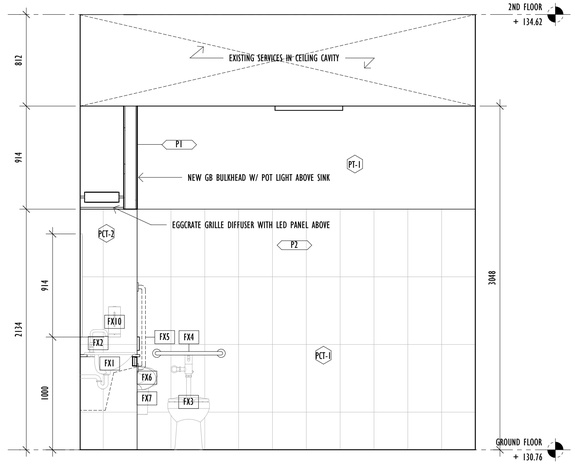
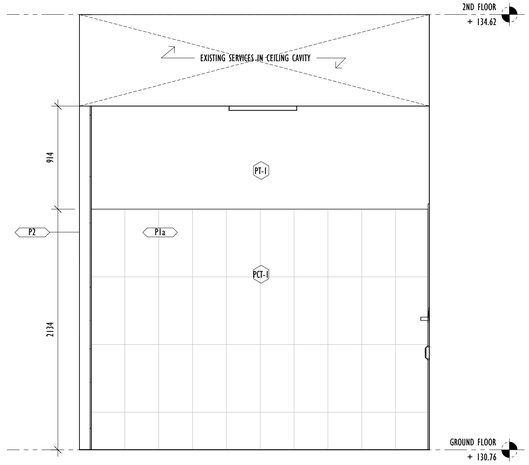
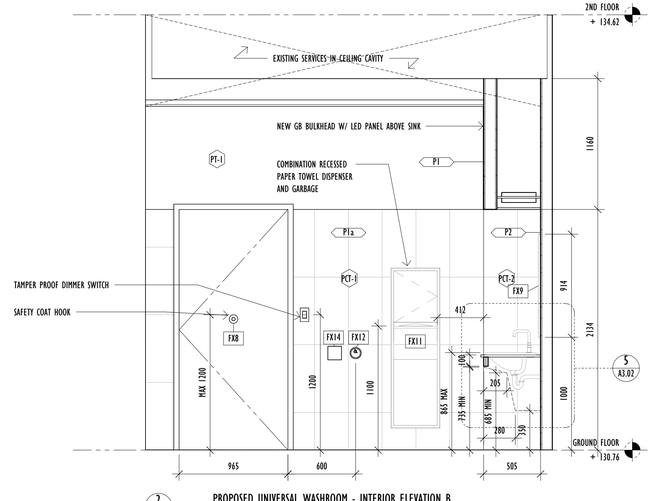
Scale: 1 : 10



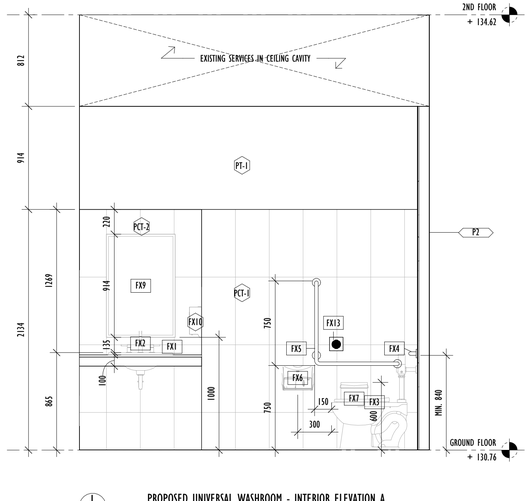
4 A3.02 — PROPOSED UNIVERSAL WASHROOM - INTERIOR ELEVATION D
Scale: 1 : 25



3 A3.02 — PROPOSED UNIVERSAL WASHROOM - INTERIOR ELEVATION C
Scale: 1 : 25



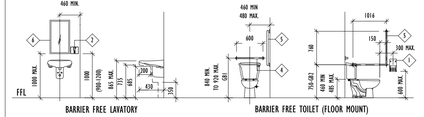
2 A3.02 — PROPOSED UNIVERSAL WASHROOM - INTERIOR ELEVATION B
Scale: 1 : 25



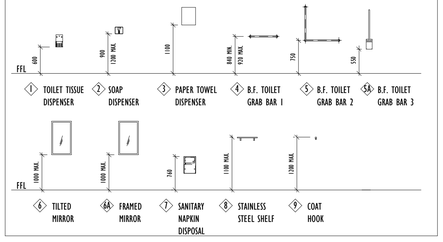
1 A3.02 — PROPOSED UNIVERSAL WASHROOM - INTERIOR ELEVATION A
Scale: 1 : 25

BARRIER FREE MOUNTING HEIGHT REQUIREMENTS

1. GRAB BARS SHALL BE MIN. 35mm ∅, 40mm ∅ MAX.
2. CLEARANCE FOR GRAB BARS TO BE MIN. 38mm, 50mm MAX.
3. GRAB BARS TO HAVE SLIP RESISTANT SURFACE.
4. INSTALL GRAB BARS TO SUPPORT LOADING REQUIRED BY THE ONTARIO BUILDING CODE.
5. LOCATE COAT HOOK ON SIDEWALL OF TOILET STALL DOOR AT 1200mm MAX. ABOVE FINISHED FLOOR AND PROJECTING NOT MORE THAN 50mm.
6. ALL FIXTURES SHALL CONFORM TO BARRIER-FREE HEIGHTS OUTLINED IN THE LATEST EDITION OF THE ONTARIO BUILDING CODE.
7. ALL ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE ONTARIO BUILDING CODE.
8. INSTALL DOOR OPERATOR, PUSH BUTTONS AND PUSH TO LOCK DEVICE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE ONTARIO BUILDING CODE.
9. INSTALL EMERGENCY CALL SYSTEM IN ACCORDANCE WITH THE LATEST EDITION OF THE ONTARIO BUILDING CODE.



WASHROOM ACCESSORIES MOUNTING HEIGHTS



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HATCH LEGEND:

- EXISTING WALL
- EXISTING AREA
- DEMOLISHED
- PROPOSED

GENERAL NOTES

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FX4	PROPOSED HORIZONTAL GRAB BAR
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FX7	PROPOSED SANITARY NAPKIN DISPOSAL
FX8	PROPOSED SAFETY COAT HOOKS
FX9	PROPOSED OBC COMPLIANT TILTED MIRROR
FX10	PROPOSED SOAP DISPENSER
FX11	PROPOSED COMBO PAPER TOWEL DISPENSER / GARBAGE
FX12	6" ROUND AUTOMATIC DOOR OPERATOR PUSH PLATE
FX13	EMERGENCY CALL BUTTON
FX14	PUSH TO LOCK BUTTON
PT-1	UNIVERSAL WASHROOM PAINT
PT-2	WHITE PAINT
PCT-1	PORCELAIN TILE 1
PCT-2	PORCELAIN TILE 2 - ACCENT COLOUR
PCFF	PORCELAIN TILE FLOOR FINISH
VCT	VINYL COMPOSITE TILE 1

26/02/05	ISSUED FOR COORDINATION
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26/04/10	ISSUED FOR TENDER
DATE	ISSUED FOR

Architect's Stamp

Project
DUNDAS VALLEY SECONDARY SCHOOL
UNIVERSAL WASHROOM RENOVATION

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Project North

Client	HWDSB
Project no.	2527
Scale	As indicated
Drawn By	KP
Print Date	26/04/10

Drawing Title
PROPOSED INTERIOR ELEVATIONS

Sheet no.
A3.02

HVAC LEGEND

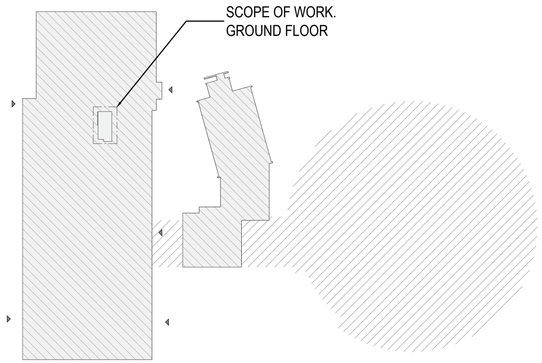
SYMBOL	DESCRIPTION
	NEW RIGID DUCTWORK
	SUPPLY ROUND/SQUARE DIFFUSER
	RETURN/EXHAUST GRILLE
	SUPPLY DUCT DOWN / UP
	RETURN / EXHAUST DUCT DOWN / UP
FD	FIRE DAMPER
BD	BALANCING DAMPER
T	THERMOSTAT
S	FAN SWITCH
EQ TAG	TYPE OF EQUIPMENT EQUIPMENT IDENTIFICATION
TAG ---CFM TYPE SIZE-WXH TYP.	TYPE OF DIFFUSER OR GRILLE AIRFLOW (CFM OR L/S) GRILLE SIZE OR DIFFUSER NECK SIZE QUANTITY
	DOOR UNDERCUT

P & D LEGEND

SYMBOL	DESCRIPTION
	SANITARY ABOVE GRADE
	SANITARY BELOW GRADE
	STORM ABOVE GRADE
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRCULATION
V	SANITARY VENT
M	WATER METER
FD HD	FLOOR DRAIN / HUB DRAIN
	SANITARY TRAP
	ELBOW UP
	ELBOW DOWN
CO	WALL CLEANOUT
CO	FLOOR CLEANOUT
	BALL VALVE
XX 1	TYPE OF EQUIPMENT EQUIPMENT IDENTIFICATION

ABBREVIATIONS

TAG	DESCRIPTION
T/A	TRANSFER AIR
S/A	SUPPLY AIR
R/A	RETURN AIR
N	NEW
EX	EXISTING
EXR	EXISTING TO BE RELOCATED
REM	REMOVE
RP	RELOCATED POSITION
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN



KEY PLAN
N.T.S

DUNDAS VALLEY SECONDARY SCHOOL
UNIVERSAL WASHROOM RENOVATION

310 GOVERNERS RD, DUNDAS, ONTARIO

DRAWING LIST

DWG. NO.	DRAWING NAME
M-01	COVER SHEET, SCHEDULES & DETAILS
M-02	MECHANICAL SPECIFICATIONS
M-03	MECH. LAYOUT
M-04	PLUMBING FIXTURE SCHEDULE

Riser ENGINEERING
115 Apple Creek Blvd. – Unit 208
Markham, Ontario, L3R 6C9, Canada

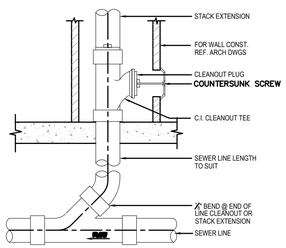
SEAL:

FAN SCHEDULE (APPROVED EQUAL)

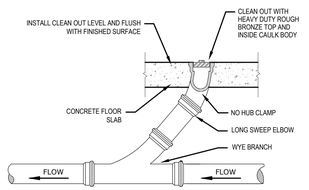
TAG	SERVICE	MANUFACTURER	MODEL NO.	CFM	ESP (IN. W.G.)	MAX. OPERATING AMPS	V/PH/HZ	WEIGHTS (LBS)	REMARKS	NOTES:
EF - 1	STORAGE ROOM	GREENHECK	SP-A290-QD	150 (71L/s)	0.69	0.72	115/1/60	24	C/W BACK DRAFT DAMPER, VIBRATIONAL ISOLATORS, MOUNTING BRACKETS, GRILLE, INTERLOCK WITH LIGHT SWITCH OR OCCUPANCY SENSOR.	1. HVAC CONTRACTOR SHALL INSULATE ALL EXHAUST DUCTS WITH 25mm THERMAL INSULATION FOR THE LAST 3.0m BEFORE LEAVING THE BUILDING. 2. FLEXIBLE DUCT CONNECTIONS SHALL BE PROVIDED ON INTAKE AND DISCHARGE DUCTS AT FANS AND SHALL BE DURO-DYNE OR EQUAL, ULC APPROVED. 3. HVAC CONTRACTOR SHALL PROVIDE FANS WITH STARTERS, ROOF CURBS, SUPPORT HANGARS, VIBRATION ISOLATORS, FLEXIBLE DUCT CONNECTIONS, BACK DRAFT DAMPERS AND DUCTWORK AS REQUIRED.
EF - 2	WASHROOM	GREENHECK	SP-A200	100 (47L/s)	0.5	0.5	115/1/60	25	C/W BACK DRAFT DAMPER, VIBRATIONAL ISOLATORS, MOUNTING BRACKETS, GRILLE, INTERLOCK WITH LIGHT SWITCH OR OCCUPANCY SENSOR.	
EF - 3	JANITOR CLOSET	GREENHECK	SP-A200	100 (47L/s)	0.5	0.5	115/1/60	25	C/W BACK DRAFT DAMPER, VIBRATIONAL ISOLATORS, MOUNTING BRACKETS, GRILLE, INTERLOCK WITH LIGHT SWITCH OR OCCUPANCY SENSOR.	

GRILLES AND DIFFUSER SCHEDULE

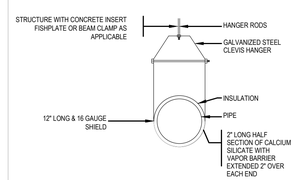
TYPE	MANUFACTURER	MODEL	DESCRIPTION	FACE DIMENSION	NECK DIMENSION	REMARKS	NOTES:
SD-A	E.H.PRICE	SCD	SQUARE SUPPLY DIFFUSER	24" x 24"	AS SHOWN	SQUARE SA PLAQUE DIFFUSER, MATTE FINISH.	1. USE ABOVE LISTED ACCESSORIES OR APPROVED EQUAL 2. COLOUR TO MATCH CEILING COLOR. 3. PROVIDE NECESSARY ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION 4. SUPPLY AND RETURN AIR GRILLE LOCATION SHOULD BE COORDINATED ON SITE WITH OTHER DISCIPLINES.



WALL STACK CLEAN OUT DETAIL — N.T.S

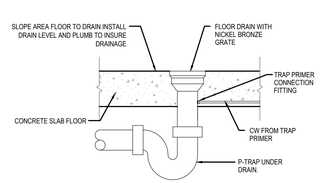


TYPICAL FLOOR CLEANOUT DETAIL — N.T.S

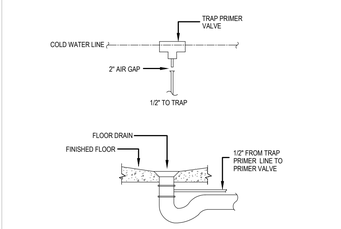


WHERE STRUCTURAL SLAB DOES NOT PERMIT INSERT SUPPORT PIPING FROM STRUCTURE WITH AUXILIARY STEEL IF REQUIRED

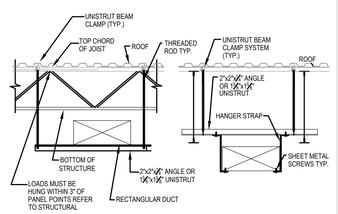
TYPICAL WATER PIPE HANGER DETAIL — N.T.S



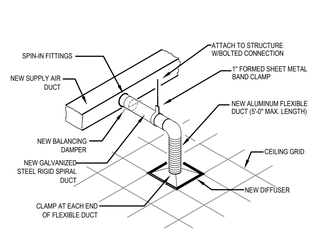
TYPICAL FLOOR DRAIN DETAIL — N.T.S



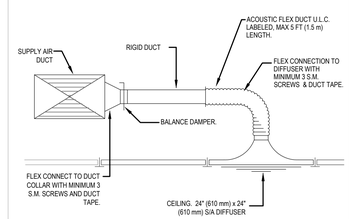
TRAP SEAL PRIMER RE-SEAL DETAIL — N.T.S



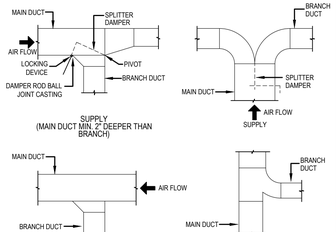
RECTANGULAR DUCT SUPPORT DETAIL — N.T.S



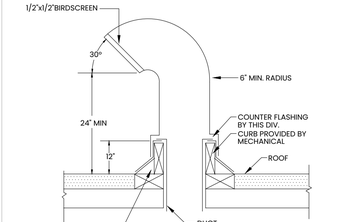
NEW SPIRAL DUCTING (TYP.) — N.T.S



TYPICAL SUPPLY AIR DIFFUSER CONNECTION DETAIL — N.T.S



TYPICAL DUCT FITTING DETAILS — N.T.S



NOTE: REFER TO ARCHITECTURAL FOR ROOF PENETRATIONS AND TIE-INS. (TYP.)

GOOSENECK DETAIL — N.T.S

NO.	ISSUED FOR	BY	DATE
2.	ISSUED FOR TENDER	K.N	10/04/26
1.	ISSUED FOR PERMIT	K.N	19/02/26

REVISION TABLE

PROJECT NAME:

DUNDAS VALLEY SECONDARY SCHOOL

PROJECT:

UNIVERSAL WASHROOM RENOVATION

310 GOVERNERS ROAD.
DUNDAS, ON.

DRAWING TITLE:

COVER SHEET SCHEDULES & DETAILS

PROJECT NO:	DATE:	PROJECT NORTH:
25119	JAN. 2026	
DRAWN BY: J.N.	CHECK BY: K.N/R.I	
SCALE: N.T.S	PAPER SIZE ARCH-D (24X36)	

DRAWING NUMBER:

M - 01

MECHANICAL SPECIFICATIONS

GENERAL REQUIREMENTS FOR MECHANICAL WORK

1.0 SCOPE OF WORK

1.1 CONFORM TO THE APPLICABLE PROVISIONS OF THE GENERAL CONDITIONS OF THE CONTRACT.

1.2 THE GENERAL MECHANICAL SPECIFICATION SHALL APPLY TO AND BE PART OF EACH OF THE SECTIONS COVERING THE MECHANICAL TRADES WORK.

1.3 COMPLY WITH THE REQUIREMENTS OF THE CURRENT EDITION OF THE N.B.C., ALL OTHER APPLICABLE CODES, REGULATIONS, BY-LAWS, AND OFFICIAL STANDARDS ACCORDING TO THE REQUIREMENTS AND INTERPRETATIONS OF THE AUTHORITIES HAVING JURISDICTION. THESE CODES & STANDARDS CONSTITUTE AN INTEGRAL PART OF THESE SPECIFICATIONS. IN CASE OF CONFLICT, THE CODES TAKE PRECEDENCE OVER THE CONTRACT DOCUMENTS.

2.0 EXAMINATION OF SITE AND INFORMATION

2.1 EACH SUBCONTRACTOR MAY EXAMINE THE SITE ONLY DURING WALKTHROUGH. SITE WALK IS NOT MANDATORY FOR ANY TRADES.

2.2 IT SHALL BE THIS SUBCONTRACTOR'S RESPONSIBILITY THAT MATERIAL AND EQUIPMENT BE BROUGHT INTO THE BUILDING IN SUCH ASSEMBLIES AND SIZES AS TO ENTER INTO THE SPACES WHERE THEY ARE TO BE LOCATED AND TO BE SMALL ENOUGH TO BE HOISTED INTO THE BUILDING WITHOUT DIFFICULTY. ANY CUTTING, PATCHING, ETC., INVOLVED IN GETTING LARGE ASSEMBLIES INTO PLACE, SHALL BE THE RESPONSIBILITY OF THIS SUBCONTRACTOR.

3.0 RELATIONSHIP TO OTHER TRADES

3.1 THIS SUBCONTRACTOR SHALL CONFER WITH ALL OTHER CONTRACTORS INSTALLING EQUIPMENT, PLANT PIPING, OTHER WORK, FOUNDATIONS, ETC., WHICH MAY AFFECT HIS INSTALLATION, AND HE SHALL ARRANGE HIS EQUIPMENT, PIPING, ETC., IN PROPER RELATION WITH OTHER APPARATUS, AND WITH THE BUILDING CONSTRUCTION. HE SHALL ALSO CONFIRM THE ELECTRICAL CHARACTERISTICS OF THE PROJECT AND ORDER EQUIPMENT ACCORDINGLY.

3.2 SPECIAL CARE SHALL BE TAKEN IN THE INSTALLATION OF ALL WORK, TO SEE THAT THEY ALL COME WITHIN THE LIMITS ESTABLISHED BY THE FINISH LINES OF ALL WALLS, FLOORS, CEILINGS, ETC.

3.3 THIS SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR AND OTHER SUBCONTRACTORS WHO ARE CONCERNED, OF ALL OPENINGS, FOUNDATION WORK, HANGERS, INSERTS, ANCHORS, OR OTHER PROVISIONS NECESSARY IN THEIR WORK FOR THE INSTALLATION OF HIS WORK, AND HE SHALL FURNISH ALL INFORMATION AND NECESSARY MATERIALS IN AMPLE TIME SO THAT PROPER PROVISIONS CAN BE MADE FOR SAME, AND SHALL SUPPLY AND CORRECTLY AND ACCURATELY PLACE ALL INSERTS, SLEEVES, ANCHORS, ETC.

3.4 FAILURE TO COMPLY WITH THESE REQUIREMENTS ON THE PART OF THIS SUBCONTRACTOR WILL RENDER HIM RESPONSIBLE FOR THE COST OF CUTTING OPENINGS, INSTALLING HANGERS AND OTHER PROVISIONS AT A LATER DATE, AND THE SUBSEQUENT PATCHING, ETC., THEREBY REQUIRED.

3.5 NO CUTTING SHALL BE DONE WITHOUT PERMISSION. ALL SUCH WORK SHALL BE DONE BY TRADESMEN SKILLED IN AND CERTIFIED FOR THIS PARTICULAR TRADE.

4.0 SHOP DRAWINGS

4.1 EACH SUBCONTRACTOR SHALL SUBMIT EIGHT (8) COPIES OF THE SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW OF MATERIAL, EQUIPMENT, AND APPARATUS BEING PROVIDED BY HIM. THESE SHALL SHOW IN DETAIL THE DESIGN AND CONSTRUCTION AND PERFORMANCE OF ALL APPARATUS, ETC.

4.2 THE ENGINEER'S REVIEW OF SHOP DRAWINGS AND MANUFACTURER'S SPECIFICATIONS OF ANY EQUIPMENT IS GENERAL AND IS NOT INTENDED TO SERVE AS FINAL CHECK AND IT SHALL NOT RELIEVE THE SUBCONTRACTOR OF THE RESPONSIBILITY FOR ERRORS OR OF THE NECESSITY OF CHECKING THE DRAWING HIMSELF, OR OF FURNISHING ANY OF THE MATERIALS AND PERFORMING THE WORK REQUIRED BY THE DRAWINGS AND SPECIFICATIONS TO THE FULL INTENT OF THIS SPECIFICATION.

4.3 BEFORE SUBMISSION, THIS SUBCONTRACTOR SHALL CHECK ALL SHOP DRAWINGS FOR ACCURACY OF DETAILS, DIMENSIONS, ETC. AND SHALL BE SATISFIED THAT THE DRAWINGS ARE CORRECT AND THAT THE EQUIPMENT WILL FIT PROPERLY IN THE ALLOTTED SPACE. THE SHOP DRAWINGS SHALL BE STAMPED BY THIS SUBCONTRACTOR WITH THE WORD 'REVIEWED', THE DATE OF APPROVAL, AND THE FIRM'S NAME PRIOR TO SUBMISSION.

5.0 REQUIREMENTS OF INSPECTION DEPARTMENTS

5.1 ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL LAWS AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION IN EACH CASE, PARTICULARLY ALL AFFECTED DEPARTMENTS OF THE MUNICIPALITY AND PROVINCE. ELECTRICAL EQUIPMENT SUPPLIED MUST CONFORM TO THE REGULATIONS OF CSA AND THE LOCAL UTILITY. ANYTHING NECESSARY TO MAKE THE WORK COMPLY WITH THESE REQUIREMENTS SHALL BE PROVIDED BY THIS SUBCONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNERS IF IT REASONABLY COULD HAVE BEEN FORESEEN WHEN TENDERING.

5.2 EACH SUBCONTRACTOR SHALL PREPARE DRAWINGS IN ADDITION TO ENGINEER'S DRAWINGS AS MAY BE REQUIRED BY VARIOUS INSPECTION DEPARTMENTS HAVING JURISDICTION, AND OBTAIN THEIR APPROVAL BEFORE PROCEEDING WITH THE WORK.

5.3 IN THE EVENT THAT THE INSPECTION DEPARTMENT'S REQUEST DEVIATES FROM THE ENGINEER'S LAYOUT, SUBCONTRACTOR SHALL CONSULT THE ENGINEER BEFORE PROCEEDING WITH SAME. IT SHALL BE NOTED THAT ENGINEER'S DRAWINGS ARE GENERALLY ACCEPTABLE TO INSPECTION DEPARTMENTS AND MINOR SUPPLEMENTS NEED ONLY BE MADE BY SUBCONTRACTORS.

6.0 CERTIFICATES, PERMITS, FEES

6.1 SUBCONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES INCLUDING PAYMENT FOR STREET CONNECTIONS TO STORM, SANITARY, WATER AND GAS IN ORDER THAT THE WORK HEREIN SPECIFIED MAY BE CARRIED OUT AND HE SHALL FURNISH ANY CERTIFICATES NEEDED AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH THE LAWS AND REGULATIONS OF THE MUNICIPALITY AND PROVINCE.

6.2 SUBCONTRACTOR SHALL CONTACT THE LOCAL GAS COMPANY AS SOON AS POSSIBLE AND VERIFY THAT GAS SERVICE IS AVAILABLE AT PRESSURE AND CAPACITY REQUIRED FOR THE PROJECT. HE SHALL INFORM ENGINEER IMMEDIATELY, IF THERE IS ANY PROBLEM WITH GAS SERVICE WHATSOEVER. IT SHALL BE THIS SUBCONTRACTOR'S RESPONSIBILITY TO COORDINATE GAS REQUIREMENTS WITH THE GAS COMPANY BEFORE ANY OF HIS WORK PROCEEDS.

7.0 GUARANTEE

7.1 THIS SUBCONTRACTOR SHALL GUARANTEE ALL MATERIAL AND WORKMANSHIP USED IN THE WORK TO BE IN STRICT ACCORDANCE WITH THE SPECIFICATIONS, OF BEST QUALITY AND TYPE OBTAINABLE TO GIVE FIRST-CLASS CONSTRUCTION AND PROPER AND EFFICIENT OPERATION, AND FREE FROM ANY DEFECTS. ANY SUCH DEFECTS WHICH MAY APPEAR IN ANY OF THE WORK WITHIN ONE YEAR AFTER WRITTEN ACCEPTANCE OF HIS WORK, SHALL BE REPAIRED AND REPLACED BY THIS SUBCONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER. WHERE SUCH DEFECTS OCCUR, THIS SUBCONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL COSTS INCURRED IN MAKING THE DEFECTIVE WORK GOOD. THIS SHALL NOT OBSOLETE ANY LONGER WARRANTIES ON SPECIFIC ITEMS OF EQUIPMENT.

7.2 ALL INJURIES TO ADJACENT WORK, PARTICULARLY PLASTER, WOOD FINISHES OR OTHER MATERIALS, OR DAMAGE TO OTHER EQUIPMENT, CAUSED BY SUCH DEFECTS OF THIS SUBCONTRACTOR'S WORK OR BY SUBSEQUENT REPLACEMENTS AND REPAIRS, SHALL BE MADE GOOD AT THE EXPENSE OF THIS SUBCONTRACTOR. ALL REPAIR WORK SHALL BE DONE BY THE TRADES RESPONSIBLE FOR THE ORIGINAL WORK.

9.0 DRAWINGS

9.1 THE DRAWINGS SHOW THE APPROXIMATE LOCATION FOR THE SPECIAL APPARATUS AND THE MATERIALS THROUGHOUT THE BUILDING. THE ARRANGEMENT SHOWN ON THE DRAWINGS IS MORE OR LESS DIAGRAMMATIC AND AS SUCH APPROXIMATE ONLY, AND MAY BE ALTERED, AS APPROVED BY THE ENGINEER, TO MEET THE REQUIREMENTS OF THE APPARATUS, ETC., AND OF THE BUILDING. EACH SUBCONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL MEASUREMENTS FOR HIS WORK THROUGHOUT, AND HE SHALL ARRANGE HIS PIPING, WIRING, AND APPARATUS TO CONFORM TO THE ARCHITECTURAL AND STRUCTURAL DETAILS IN A SATISFACTORY MANNER AND SHALL CO-OPERATE WITH OTHER CONTRACTORS TO ENSURE THAT WORK SHALL MEET ALL REQUIREMENTS OF DIVERSE CONTRACTS.

9.2 THE SUBCONTRACTOR IS PARTICULARLY CAUTIONED THAT SMALL SCALE ENGINEER'S PLANS MUST BE SUPPLEMENTED BY HIS OWN DETAIL DRAWINGS WHERE NECESSARY FOR PROPER CO-ORDINATION OF THE WORK.

9.3 ITEMS OBVIOUSLY REQUIRED TO PROVIDE A COMPLETE WORKING SYSTEM BUT NOT SPECIFIED NOR SHOWN SHALL BE INCLUDED.

10.0 CONTRACTOR'S SHOP

10.1 EACH SUBCONTRACTOR SHALL PROVIDE HIS OWN OFFICE, WORKSHOP, TOOLS AND MATERIALS STORAGE AND BE RESPONSIBLE FOR ANY LOSS OR DAMAGE THERETO. BUILDING SHALL BE ERECTED UNDER THE SUPERVISION OF THE CONTRACTOR.

11.0 RESPONSIBILITY AND LIABILITY

11.1 EACH SUBCONTRACTOR SHALL SUPERVISE THE LAYING OUT OF HIS WORK AND SHALL ARRANGE IT IN CO-OPERATION WITH OTHERS WHO MAY BE WORKING ON THE PREMISES WHILE THE WORK OF THIS CONTRACT IS IN PROGRESS. HE SHALL PROTECT FINISHED AND UNFINISHED WORK OF THIS CONTRACT AND/OR WORK OF OTHERS ON THE PREMISES UNTIL THE COMPLETED WORK HAS BEEN ACCEPTED, OF ANY DISCREPANCIES OR INCONSISTENCIES FOUND IN THE DRAWINGS OR SPECIFICATIONS BEFORE SUBMITTING HIS TENDER. HE SHALL ABIDE BY THE DECISION GIVEN HIM

11.1 IN WRITING WITH REGARD TO SAME. EACH SUBCONTRACTOR IS CAUTIONED THAT THE WORK AS SHOWN IS INTENDED TO BE COMPLETE IN ALL RESPECTS AND THAT FAILURE ON HIS PART TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES WILL NOT RELIEVE HIM OF THE RESPONSIBILITY OF COMPLETING THE WORK AS INTENDED AT THE CONTRACT PRICE.

12.0 CLEAN-UP

12.1 UPON COMPLETION OF HIS WORK EACH CONTRACTOR SHALL LEAVE THE PREMISES IN A BROOM-CLEAN CONDITION.

13.0 PROTECTION

13.1 PROTECT YOUR WORK FROM CONSTRUCTION DIRT OR DAMAGE FROM ANY CAUSE. SECURELY PLUG AND CAP ALL OPENINGS IN PIPE, EQUIPMENT, AND FIXTURES TO PREVENT OBSTRUCTIONS.

14.0 IDENTIFICATION OF EQUIPMENT

14.1 IDENTIFY ALL FANS, PUMPS, MOTOR STARTERS, AND OTHER MECHANICAL EQUIPMENT AS TO SERVICE, BY AN ENGRAVED PLASTIC LAMACOID NAMEPLATE, FIRMLY AFFIXED BY ADHESIVE AND SCREWS TO EACH UNIT. NOTE THAT BOTH UNIT AND ITS REMOTE STARTER SHALL BE TAGGED. PROVIDE PRESSURE SENSITIVE TAPE MARKERS, SHOWING PIPE SERVICE AND ARROWS INDICATING DIRECTION OF FLOW ON EXPOSED PIPES, ON CONCEALED PIPES, PROVIDE MARKERS ADJACENT TO ACCESS DOORS THROUGHOUT THE LENGTH OF PIPES AT INTERVALS NOT EXCEEDING 50 FEET. INSTALL MARKERS AFTER PIPE HAS BEEN PAINTED AND ON BOTH SIDES OF ANY WALL THROUGH WHICH PIPE PASSES.

15.0 OPERATING INSTRUCTIONS AND RECORD DRAWINGS

15.1 FOR EACH ITEM OF SPECIAL APPARATUS, OPERATING AND MAINTENANCE INSTRUCTIONS SHALL BE PROVIDED IN 3 COPIES FOR THE OWNER'S USE. THESE SHALL INCLUDE:
1. GENERAL ARRANGEMENT SHOP DRAWINGS.
2. COMPLETE EXPLANATION OF OPERATING PRINCIPLES AND SEQUENCES.
3. COMPLETE PART LISTS WITH NUMBERS.
4. RECOMMEND MAINTENANCE PRACTICES AND PRECAUTIONS.
5. COMPLETE WIRING AND CONNECTIONS DIAGRAMS.

15.2 OBTAIN TWO SETS OF MECHANICAL DRAWING WHITE PRINTS FROM THE CONTRACTOR AND KEEP A RECORD IN RED PENCIL OF ANY DEVIATION FROM THE DRAWN LOCATION OF PIPES, DUCTS, ETC. ONE SET SHALL BE TURNED TO THE OWNER WITH THE OPERATING INSTRUCTIONS, AND THE OTHER SET SHALL BE HANDED THE THE ENGINEER. ALL BURIED PIPING SHALL BE ADEQUATELY DIMENSIONED FOR FUTURE LOCATION AND DEPTH SHALL BE SHOWN AT MAIN REFERENCE POINTS.

17.0 ELECTRICAL WIRING AND CONTROLS

17.1 ALL POWER WIRING FOR MECHANICAL EQUIPMENT SHALL BE DONE BY THE ELECTRICAL DIVISION. THE MECHANICAL TRADE INVOLVED SHALL PROVIDE STARTERS, THERMOSTATS, VALVES, CONTROL TRANSFORMERS, RELAYS, ETC. ALL CONTROL WIRING SHALL BE DONE BY THE MECHANICAL CONTRACTOR, UNLESS OTHERWISE NOTED ELSEWHERE IN THIS SPECIFICATION.

18.0 TESTS AND BALANCING

18.1 AIR TEST AND BALANCE SHALL BE PERFORMED BY AN INDEPENDENT AIR BALANCING COMPANY. THE AIR BALANCING COMPANY SHALL BE APPOINTED BY THE CONTRACTOR AND REPORT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

18.2 SCOPE OF WORK

1. ALL LISTED AIR HANDLING SYSTEMS SHALL BE BALANCED TO WITHIN 5% OF THE NOTED DESIGN AIR VOLUMES AS PER PLANS AND SPECIFICATIONS.
2. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THE H.V.A.C. SYSTEM FULLY OPERATIONAL TWO (2) WEEKS BEFORE TURNOVER TO THE OWNER. THIS WILL INCLUDE THE REQUIREMENT TO INSTALL CLEAN FILTERS IN ALL RELATED H.V.A.C EQUIPMENT BEFORE TIME OF AIR TESTING AND TO MAKE ALL AIR SYSTEMS FULLY OPERATIONAL.

18.3 PRELIMINARY PROCEDURE FOR AIR BALANCING

BEFORE OPERATING THE SYSTEM, THE FOLLOWING STEPS SHOULD BE PERFORMED:

1. OBTAIN AS-BUILT DESIGN DRAWINGS AND SPECIFICATIONS AND BECOME THOROUGHLY ACQUAINTED WITH THE DESIGN INTENT.
2. OBTAIN COPIES OF APPROVED SHOP DRAWINGS OF ALL AIR-HANDLING EQUIPMENT, OUTLETS (SUPPLY, RETURN, AND EXHAUST), AND TEMPERATURE CONTROL DIAGRAMS INCLUDING PERFORMANCE CURVES. COMPARE DESIGN REQUIREMENTS WITH SHOP DRAWING CAPACITIES.
3. COMPARE DESIGN TO INSTALLED EQUIPMENT AND FIELD INSTALLATION.
4. WALK THE SYSTEM FROM THE AIR HANDLING EQUIPMENT TO TERMINAL UNITS TO DETERMINE VARIATIONS OF INSTALLATION FROM DESIGN.
5. CHECK DAMPERS (BOTH VOLUME AND FIRE) FOR CORRECT AND LOCKED POSITION AND TEMPERATURE CONTROL FOR COMPLETENESS OF INSTALLATION BEFORE STARTING FANS.
6. PREPARE TEST REPORT SHEETS FOR BOTH FANS AND OUTLETS. OBTAIN MANUFACTURER'S OUTLET FACTORS AND RECOMMENDED TESTING PROCEDURE. A SUMMATION OF REQUIRED OUTLET VOLUMES PERMITS A CROSS-CHECKING WITH REQUIRED FAN VOLUMES.
7. DETERMINE BEST LOCATIONS IN MAIN AND BRANCH DUCTWORK FOR MOST ACCURATE DUCT TRAVERSES.
8. PLACE ALL OUTLET DAMPERS IN THE FULL OPEN POSITION.
9. PREPARE SCHEMATIC DIAGRAMS OF SYSTEM AS-BUILT DUCTWORK AND PIPING LAYOUTS TO FACILITATE REPORTING.
10. CHECK FILTERS FOR CLEANLINESS AND PROPER INSTALLATION (NO AIR BYPASS). IF SPECIFICATIONS REQUIRE, ESTABLISH PROCEDURE TO SIMULATE DIRTY FILTERS.

EQUIPMENT AND SYSTEM CHECK

1. PLACE ALL FANS (SUPPLY, RETURN, AND EXHAUST) IN OPERATION AND IMMEDIATELY CHECK THE FOLLOWING ITEMS:
   A) MOTOR AMPERAGE AND VOLTAGE TO GUARD AGAINST OVERLOAD.
   B) FAN ROTATION.
   C) OPERABILITY OF STATIC PRESSURE LIMIT WASH.
   D) AUTOMATIC DAMPERS FOR PROPER POSITION.
   E) AIR & WATER RESETS OPERATING TO DELIVER REQUIRED TEMPERATURES.

1.1 TRAVERSE THE MAIN SUPPLY DUCTWORK WHENEVER POSSIBLE. ALL MAIN BRANCHES SHOULD ALSO BE TRAVERSED WHERE DUCT ARRANGEMENT PERMITS. SELECTION OF TRAVERSE POINTS AND METHOD OF TRAVERSE SHOULD BE AS FOLLOWS:
A) TRAVERSE EACH MAIN OR BRANCH AFTER THE LONGEST POSSIBLE RUN FOR THE DUCT INVOLVED.
B) FOR TEST HOLE SPACING, REFER TO THE LATEST EDITION OF THE ASHRAE HANDBOOK-FUNDAMENTALS.
C) TRAVERSE USING A PITOT TUBE AND MANOMETER WHERE VELOCITIES ARE OVER 600 FPM. BELOW THIS VELOCITY, USE EITHER A MICRO MANOMETER AND PITOT TUBE OR A RECENTLY CALIBRATED THERMAL ANEMOMETER.
D) NOTE TEMPERATURE AND BAROMETRIC PRESSURE TO DETERMINE IF THEY NEED TO BE CORRECTED FOR STANDARD AIR QUANTITY. CORRECTIONS ARE NORMALLY INSIGNIFICANT BELOW 2000 FT. ELEVATION; HOWEVER, WHERE ACCURATE RESULTS ARE DESIRABLE, CORRECTIONS ARE JUSTIFIED.
E) AFTER ESTABLISHING TOTAL AIR BEING DELIVERED, ADJUST FAN SPEED TO OBTAIN DESIGN AIRFLOW, IF NECESSARY. CHECK POWER & SPEED TO SEE THAT MOTOR POWER AND/OR CRITICAL FAN SPEED HAVE NOT BEEN EXCEEDED.
F) PROPORTIONALLY ADJUST BRANCH DAMPERS UNTIL EACH HAS THE PROPER AIR VOLUME.
G) WITH ALL DAMPERS AND REGISTERS IN THE SYSTEM OPEN, AND WITH THE SUPPLY, RETURN, AND EXHAUST BLOWERS OPERATING AT OR NEAR DESIGN SPEED, SET MINIMUM OUTDOOR AND RETURN AIR RATIO. IF DUCT TRAVERSE LOCATIONS ARE NOT AVAILABLE, THIS CAN BE DONE BY MEASURING THE MIXTURE TEMPERATURE WITH THE THERMOMETERS IN THE RETURN AIR, OUTDOOR AIR LOUVER, AND FILTER SECTION. AS AN APPROXIMATION, THE TEMPERATURE OF THE MIXTURE MAY BE CALCULATED FROM EQUATION (1). THE GREATER THE TEMPERATURE DIFFERENCE BETWEEN THE HOT AND COLD AIR, THE EASIER IT IS TO GET ACCURATE DAMPER SETTINGS. TAKE THE TEMPERATURE AT MANY POINTS IN A UNIFORM TRAVERSE TO BE SURE THERE IS NO STRATIFICATION. AFTER THE MINIMUM OUTDOOR AIR DAMPER HAS BEEN SET FOR THE PROPER PERCENTAGE OF OUTDOOR AIR, TAKE ANOTHER TRAVERSE OF MIXTURE TEMPERATURES AND INSTALL BAFFLING IF THE VARIATION FROM THE AVERAGE IS MORE THAN 5% REMEMBER THAT STRATIFIED MIXED AIR TEMPERATURES VARY GREATLY WITH THE OUTDOOR TEMPERATURE IN COLD WEATHER, WHILE RETURN AIR TEMPERATURE HAS ONLY A MINOR EFFECT.

2. CAREFULLY SET THE SYSTEM FOR BALANCE USING THE FOLLOWING PROCEDURE:
   ADJUST THE SYSTEM WITH MIXING DAMPERS POSITIONED FOR MINIMUM DESIGN OUTDOOR AIR QUANTITIES USED.

3. BALANCE THE TERMINAL OUTLETS IN EACH CONTROL ZONE IN PROPORTION TO EACH OTHER. THE FOLLOWING STEPS MAY BE FOLLOWED TO BALANCE THE TERMINALS:
   A) ONCE THE PRELIMINARY FAN QUANTITY IS SET, PROPORTION THE TERMINAL OUTLET BALANCE FROM THE OUTLETS INTO THE BRANCHES TO THE FAN. CONCENTRATE ON PROPORTIONING THE FLOW RATHER THAN THE ABSOLUTE QUANTITY. AS CHANGES ARE MADE TO THE FAN SETTINGS AND BRANCH DAMPERS, THE OUTLET TERMINAL QUANTITIES REMAIN PROPORTIONAL. BRANCH DAMPERS SHOULD BE USED FOR MAJOR ADJUSTING AND TERMINAL DAMPERS FOR TRIM OR MINOR ADJUSTMENT ONLY. IT MAY BE NECESSARY TO INSTALL ADDITIONAL SUB BRANCH DAMPERS TO DECREASE THE USE OF TERMINAL DAMPERS THAT CREATE OBJECTIONABLE NOISE.
   B) NORMALLY, SEVERAL PASSES THROUGH THE ENTIRE SYSTEM ARE NECESSARY TO OBTAIN PROPER OUTLET VALUES.
   C) THE TOTAL TESTED OUTLET AIR QUANTITY COMPARED TO DUCT TRAVERSE AIR QUANTITIES MAY BE AN INDICATOR OF DUCT LEAKAGE.
   D) WITH TOTAL DESIGN AIR ESTABLISHED IN BRANCHES AND AT OUTLETS, PERFORM THE FOLLOWING: (1) TAKE NEW FAN MOTOR AMPERAGE READINGS (2) FIND STATIC PRESSURE ACROSS THE FAN (3) READ AND RECORD STATIC PRESSURE ACROSS EACH COMPONENT (INTAKE, FILTERS, COILS, AND MIXING DAMPERS) AND (4) TAKE A FINAL DUCT TRAVERSE.

HEATING, VENTILATING, AND AIR CONDITIONING

1.0 GENERAL

1.1 ALL HEATING, VENTILATING, AND AIR CONDITIONING EQUIPMENT SHALL BE CSA LISTED, BEAR THE CSA SEAL, AND BE INSTALLED IN ACCORDANCE WITH CSA STANDARDS.

1.2 IN ADDITION TO THE PROVISIONS OF SENTENCE (1), ALL FANS SHALL BE LICENSED TO BEAR THE AMCA SEAL.

1.3 ALL DUCTWORK SHALL BE CONSTRUCTED, INSTALLED, & SUPPORTED IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS.

1.4 IN ADDITION TO THE PROVISIONS OF SENTENCE (3), ALL RIGID DUCTWORK SHALL BE FABRICATED FROM GALVANIZED STEEL SHEETS IN ACCORDANCE WITH NFPA-90A, ULC-S110, AND ASTM-A525; AND OF THE US SHEET GAUGES AS TABLED BELOW.

SHEET GAUGE	RECTANGULAR DUCT	ROUND DUCT
26	UP TO 12"	UP TO 13"
24	13" - 30"	14"-22"
22	31" - 54"	23" - 36"
20	55" - 84"	37" - 50"
18	85" & ABOVE	51" - 60"

FLAT AREAS OF DUCT OVER 18" SHALL BE STIFFENED BY CROSS BREAKING ACROSS THE CORNERS, AND ALL DUCTS SHALL BE SELF-SUPPORTING.

1.5 IN ADDITION TO THE PROVISIONS OF SENTENCE (3), ALL FLEXIBLE DUCTWORK SHALL BE SUBJECT TO NFPA-90A AND ULC-S110 STANDARDS FOR FLAME SPREAD AND SMOKE DEVELOPED, BE ULC LISTED, AND BEAR THE ULC SEAL. ALL CONNECTIONS SHALL USE JOINT TREATMENT TYPE AS DETAILED IN MANUFACTURER'S INSTRUCTIONS. MAXIMUM LENGTH OF FLEXIBLE DUCTWORK SHALL BE 12'-6", USED ONLY IN HORIZONTAL RUNS, AND SHALL NOT PENETRATE FIRE SEPARATIONS.

1.6 DUCTWORK SHALL BE MADE SUBSTANTIALLY AIR TIGHT THROUGHOUT AND SHALL HAVE NO OPENINGS OTHER THAN THOSE REQUIRED FOR PROPER OPERATION AND MAINTENANCE. THE ALLOWABLE LEAKAGE FACTOR SHALL NOT EXCEED 2% THROUGH THE LONGEST DUCT RUN. ALL DUCT JOINTS SHALL BE SEALED WITH JOINT TAPE MEETING THE FLAME RESISTANCE REQUIREMENTS OF ULC-S109.

1.7 ALL AIR HANDLING SYSTEMS SHALL BE TESTED AND BALANCED BY A QUALIFIED TESTING COMPANY TO WITHIN 5% OF THE DESIGN AIR VOLUMES. THREE (3) COPIES OF THE FINAL TESTING AND BALANCING REPORT SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW BY THE ENGINEER.

1.9 BALANCING DAMPERS SHALL BE INSTALLED AT ALL TAKE-OFFS FROM BRANCH DUCTS, AND ALL BRANCH DUCT CONNECTIONS TO MAIN DUCTS. BALANCING DAMPERS SHALL BE MANUALLY OPERATED OPPOSED BLADE TYPE, SPLITTER TYPE, OR BUTTERFLY TYPE, COMPLETE WITH LOCKING QUADRANT OPERATOR.

1.10 FIRE DAMPERS SHALL BE INSTALLED IN THE PLANE OF PENETRATION OF FIRE SEPARATIONS AND IN ACCORDANCE WITH NFPA-90A AND ULC-S505, AND SHALL BEAR THE ULC SEAL. DAMPERS SHALL BE TYPES A OR B, 1.5 HOUR FIRE RATED AND COMPLETE WITH 160 DEG. F REPLACEABLE LINK. A TIGHTLY FITTED ACCESS DOOR SHALL BE INSTALLED FOR EACH FIRE DAMPER TO PROVIDE ACCESS FOR INSPECTION, AND RESETTING OF DAMPER, AND REPLACING OF FUSIBLE LINK. FIRE DAMPERS SHALL BE SUPPORTED INDEPENDENTLY FROM DUCTWORK.

1.11 ALL DUCTWORK SHALL BE INSTALLED TO ALLOW FREEDOM FROM VIBRATION DURING OPERATING CONDITIONS. DUCT HANGERS SHALL BE SUPPORTED FROM STRUCTURAL STEEL AND STRUCTURAL CONCRETE SLAB,BUT NOT FROM ROOF DECK. BENT GALVANIZED IRON HANGERS SHALL BE USED FOR DUCTS UP TO 36" IN WIDTH. FOR WIDER DUCTS, $\frac{3}{8}$" DIAMETER RODS AND $1\frac{1}{2}$" STRUCTURAL ANGLE IRONS SHALL BE USED. DUCT HANGERS SHALL BE SPACED MAXIMUM 8'-6" APART. WHERE DUCTS PASS THROUGH WALLS AND FLOORS, THE SPACE AROUND THE DUCT SHALL BE PACKED AND SEALED WITH FIRE RESISTANT SEALING COMPOUND.

1.12 SPIRAL DUCTWORK SHALL BE SPIRAL HELIX AS MANUFACTURED BY WESBELL HIGH-TEC MANUFACTURING INC.

HEATING, VENTILATING, AND AIR CONDITIONING

INSULATION

1.0 GENERAL

1.1 INSULATION SHALL BE APPLIED ON CLEAN, DRY SURFACES AND ONLY AFTER TESTS AND APPROVALS REQUIRED HAVE BEEN COMPLETED.

1.2 ALL PIPE INSULATION SHALL BE CONTINUOUS THROUGH WALL AND CEILING OPENINGS AND SLEEVES. SUITABLE FIRE STOPS SHALL BE INSTALLED WHERE REQUIRED.

1.3 INSULATION ON ALL COLD SURFACES MUST BE APPLIED WITH A CONTINUOUS, UNBROKEN VAPOUR SEAL.

1.4 HANGERS, SUPPORTS, ANCHORS, ETC., THAT ARE SECURED DIRECTLY TO COLD SURFACES, MUST BE ADEQUATELY INSULATED AND VAPOUR SEALED TO PREVENT CONDENSATION.

1.5 ALL SURFACE FINISHES SHALL BE EXTENDED TO PROTECT ALL SURFACES, ENDS, AND RAW EDGES OF INSULATION.

1.6 ALL DOMESTIC HOT AND COLD WATER PIPING SHALL BE INSULATED.

2.0 PLUMBING AND PIPING INSULATION

PIPE INSULATION: GLASS FIBRE INSULATION WITH FACTORY APPLIED JACKET; JOHNS-MANVILLE MICRO-LOK 650 OR APPROVED EQUAL.

JACKET EXPOSED: CANVAS FREE - A VAPOUR BARRIER JACKET, CONSISTING OF A WHITE GLASS FIBRE SURFACE BONDED TO AN ALUMINIZED FILM.

JACKET CONCEALED: ALL PURPOSE - A VAPOUR BARRIER JACKET, CONSISTING OF A HIGH INTENSITY WHITE KRAFT PAPER SURFACE BONDED TO AN ALUMINIZED FILM AND REINFORCED WITH A GLASS FIBRE YARN.

FITTINGS: PRE-MOULDED ONE PIECE PVC INSULATED FITTING COVERS; JOHNS-MANVILLE ZESTON OR APPROVED EQUAL.

A. DOMESTIC COLD WATER:
DOMESTIC HOT WATER SUPPLY:
DOMESTIC HOT WATER RETURN:

AMBIENT TEMPERATURE	PIPE SIZE	THICKNESS
BELOW 35°F	ALL	$1\frac{1}{2}$"
ABOVE 35°F	ALL	1"

B. HYDRONIC HEATING SUPPLY:
HYDRONIC HEATING RETURN:

PIPE SIZE	THICKNESS
UP TO 2"	1"
$2\frac{1}{2}$" TO 4"	$1\frac{1}{2}$"
OVER 4"	2"

C. AIR CONDITIONING UNIT RUNOUTS AND DRAIN LINES

ALL RUNOUTS FROM RISER OR MAIN TO THE AIR CONDITIONING UNITS AND AIR CONDITIONING UNIT DRAIN LINES SHALL BE INSTALLED WITH FLEXIBLE FOAM, CLOSED CELL STRUCTURE, PLASTIC INSULATION; JOHNS-MANVILLE AEROTUBE OR APPROVED EQUAL.

PIPE SIZE	THICKNESS
UP TO 3"	$\frac{3}{4}$"
4" AND OVER	1"

CUTS AND BUTT JOINTS OF INSULATION SHALL BE JOINED BY SEALING WITH A WATERPROOF VAPOUR BARRIER ADHESIVE.

3.0 DUCTWORK INSULATION

INSULATE ONLY DUCTWORK SHOWN AND/OR NOTED ON THE DRAWINGS.

A. THERMAL:

RECTANGULAR DUCT - RIGID GLASS FIBRE $1\frac{1}{2}$" THICK BOARD; JOHNS-MANVILLE SPIN-GLAS 650 BOARD OR APPROVED EQUAL. VAPOUR BARRIER SHALL CONSIST OF A FOIL SCRIM KRAFT PAPER LAMINATE CONSISTING OF ALUMINUM FOIL REINFORCED WITH GLASS FIBRE YARN AND LAMINATED TO A CHEMICALLY TREATED FIRE RESISTANT KRAFT.

ROUND DUCT - FLEXIBLE GLASS FIBRE $1\frac{1}{2}$" THICK BLANKET; JOHNS-MANVILLE MICROLITE WITH A FOIL SCRIM KRAFT FACING OR APPROVED EQUAL.

ALL EXHAUST DUCTS SHALL BE INSULATED WITHIN 6'-0" OF COLD OUTLET AT ROOF, ATTIC, OR WALL WITH 1" THICK GLASS FIBRE INSULATION WITH FOIL FACED VAPOUR BARRIER (AS ABOVE).

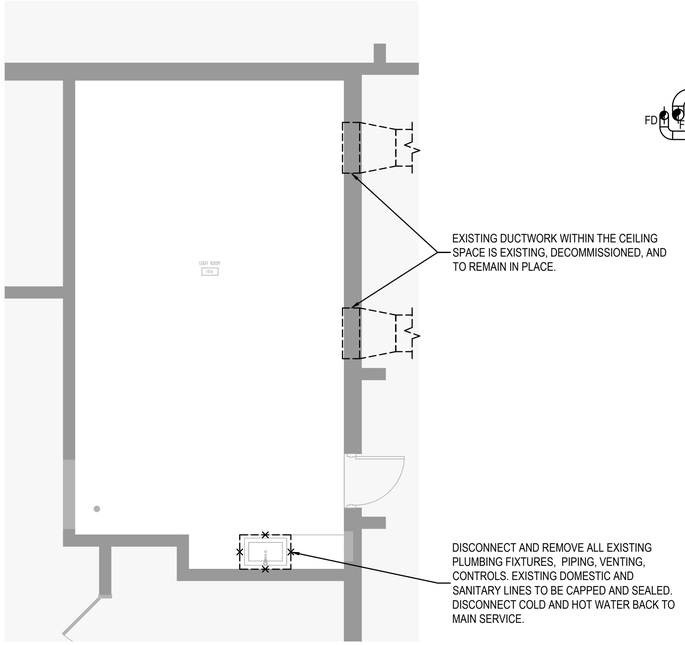
ALL HEATING, A/C, MAKE-UP AIR, AND EXHAUST DUCTWORK WITHIN UNCONDITIONED (ATTIC, ETC.) SHALL BE INSULATED WITH 2" RIGID FIBREGLASS THERMAL INSULATION C/W VAPOUR BARRIER.

INSULATED OUTDOOR OR EXPOSED DUCTWORK SHALL BE FINISHED WITH 6 OZ. FIRE RETARDANT CANVAS LAGGED IN PLACE WITH FIRE RETARDANT LAGGING ADHESIVE, OUTDOOR VAPOUR BARRIER MASTIC FINISH WITH A REINFORCING MEMBRANE, ALL JOINTS SHALL HAVE A MINIMUM OVER

GENERAL NOTES

1. ALL WORK TO CONFROM TO BASE BUILDING STANDARDS & SPECIFICATIONS.
2. EXISTING SERVICES SHOWN ON DRAWINGS ARE BASED ON AVAILABLE DRAWINGS FROM BUILDING MANAGEMENT AND ARE APPROXIMATE. CONTRACTOR TO VERIFY ALL EXISTING SERVICES ON SITE AND MAKE ALL NECESSARY ADJUSTMENTS TO COMPLETE THE WORK AS OUTLINED IN THE CURRENT SCOPE. NO EXTRAS SHALL BE CHARGED FOR ANY ADDITIONAL WORK.
3. COORDINATE WITH OWNER ALL WORK INCLUDING ANY SLAB CUTTING, CORING AND X-RAY.
4. ALL SERVICE PENETRATIONS REQUIRED SHALL BE SCANNED/X-RAYED AS REQUIRED. THE BASE BUILDING STRUCTURAL ENGINEER SHALL BE RETAINED TO REVIEW AND APPROVE THE RESULTS PRIOR TO CUTTING OR CORING.
5. CONTRACTOR SHALL COORDINATE ARCHITECTURAL, STRUCTURAL, LIGHTING, HVAC, SPRINKLER DRAWINGS TO AVOID AREAS OF CONFLICT AND MAINTAIN CEILING HEIGHTS.
6. CONTRACTOR SHALL REPORT ALL DISCREPANCIES AND AREAS OF CONFLICT TO THE ENGINEER PRIOR TO BEGINNING WORK.
7. ALL EQUIPMENT TO BE INSTALLED PER SPECIFICATION AND MANUFACTURER'S INSTALLATION MANUAL.
8. ALL FLOOR DRAIN, FUNNEL FLOOR DRAIN, HUB DRAINS, RUNNING TRAPS SHALL BE PROVIDED WITH TRAP PRIMING DEVICE(S) AS REQUIRED.
9. INSTALL SHUT-OFF VALVES FOR EACH PLUMBING FIXTURE.
10. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY INSPECTIONS AS REQUIRED PER OBC.
11. MAINTAIN MINIMUM CLEARANCE AS REQUIRED FROM OTHER SERVICES.
12. MECHANICAL CONTRACTOR SHOULD LAYOUT, SIZE AND INSTALL SANITARY VENTING SYSTEM AS PER ONTARIO BUILDING CODE. CONNECT VENTING SYSTEM FROM NEW SYSTEM TO EXISTING VENT OR INSTALL NEW VENT AS NECESSARY.
13. IT IS PLUMBING CONTRACTOR RESPONSIBILITY TO SUPPLY AND INSTALL DCW, DHW & DRAIN LINES TO THE BAR AND THE KITCHEN ISLAND EQUIPMENTS AS PER MANUFACTURER REQUIREMENTS. COORDINATE ALL WORK WITH FINAL EQUIPMENT LAYOUT.
14. EXISTING STORM DRAINAGE SYSTEM TO REMAIN AS IS UNLESS OTHERWISE NOTED.
15. PIPING SHALL RUN WITHIN INTERIOR PARTITION WALLS. NO PIPES SHALL RUN THROUGH DEMISING WALLS.
16. INSTALL NECESSARY BACK FLOW PREVENTER DEVICE FOR WATER SERVICE IN ACCORDANCE WITH THE CSA REQUIREMENT OR LOCAL AUTHORITY IN JURISDICTION
17. ALL SANITARY AND STORM PIPING 75MM OR LESS SHALL BE SLOPED AT MINIMUM 2%. ALL SANITARY AND STORM PIPING 100MM OR MORE SHALL BE SLOPED AT MINIMUM 1% UNLESS OTHERWISE NOTED.
18. ALL MATERIALS WITHIN THE CEILING PLENUM SHALL MEET THE OBC REQUIREMENTS FOR FLAME-SPREAD RATING AND SMOKE DEVELOPED CLASSIFICATION.
19. MAINTAIN FIRE RATING AT WHERE APPLICABLE FOR ALL PIPING PENETRATIONS. PROVIDE FIRE STOPPING AND WATERPROOFING IN ALL FLOOR SLEEVES. (TYP.)
20. ALL METERING EQUIPMENTS TO BE INSTALLED WITHIN TENANT SPACE & MATCH BASE BUILDING AND TIED INTO BASE BUILDING BAS, IF REQUIRED.
21. PLUMBING AND DRAINAGE CONTRACTOR SHALL ROUGH IN AND MAKE FINAL CONNECTION TO EQUIPMENT IN TWO STAGES:

    STAGE ONE - ROUGH-IN 6" ABOVE FINISHED FLOOR OR 4" THROUGH WALL
    STAGE TWO - EXTEND SERVICES TO ALL POINTS OF FINAL CONNECTIONS AFTER EQUIPMENT IS IN PLACE (PROVIDE ALL NECESSARY FINAL CONNECTION ADAPTORS, ETC.)
22. ABOVE GROUND SANITARY AND VENT PIPING: COPPER TUBE AND FITTINGS TYPE DWV TO: ASTM B306. CAST IRON PIPING AND FITTINGS TO CAN/CSA-B70. USAGE OF PVC PIPES IS ACCEPTABLE WHERE PERMITTED BY BASE BUILDING (EXCEPT IN RETURN AIR PLENUM).

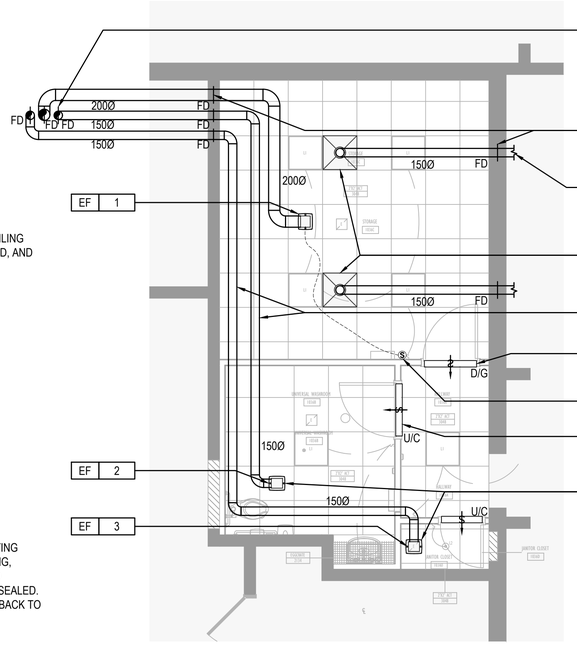


EXISTING DUCTWORK WITHIN THE CEILING SPACE IS EXISTING, DECOMMISSIONED, AND TO REMAIN IN PLACE.

DISCONNECT AND REMOVE ALL EXISTING PLUMBING FIXTURES, PIPING, VENTING, CONTROLS. EXISTING DOMESTIC AND SANITARY LINES TO BE CAPPED AND SEALED. DISCONNECT COLD AND HOT WATER BACK TO MAIN SERVICE.

1 / M-03 PARTIAL GROUND FLOOR PLAN - EXISTING & DEMOLITION LAYOUT

SCALE: 1:50



PROVIDE FIRE DAMPER(S) AT ALL EXHAUST DUCT PENETRATIONS THROUGH FIRE-RATED WALLS AND FLOOR SLABS. (TYP.)

EXHAUST DUCT TO RUN UP THROUGH SECOND FLOOR AND THROUGH ROOF. EXACT ROUTING AND PENETRATIONS TO BE COORDINATED ON SITE. EXHAUST DUCT TO BE C/W EXTERNAL INSULATION 2m FROM ROOF PENETRATION.

EXHAUST DUCT TO TERMINATE AT ROOF-MOUNTED GOOSENECK C/W BIRD SCREEN. COORDINATE EXACT LOCATION ON SITE WITH EXISTING SERVICES AND MAINTAIN A MINIMUM 3 m CLEARANCE FROM ALL OUTDOOR AIR INTAKES AND OPENINGS.

CONTRACTOR TO REVIEW EXISTING WALL ASSEMBLY AND PROVIDE FIRE DAMPER(S) AS REQUIRED TO MAINTAIN FIRE RATING. (TYP.)

NEW SUPPLY DUCT SHALL TIE INTO THE EXISTING SUPPLY DUCT MAIN SERVING THIS ZONE. EXACT ROUTING AND TIE-IN LOCATION SHALL BE FIELD VERIFIED AND COORDINATED ON SITE WITH EXISTING CONDITIONS. PROVIDE RIGID GALVANIZED STEEL DUCTWORK COMPLETE WITH MANUAL BALANCING DAMPERS AT ALL TIE-IN LOCATIONS. (TYP.)

SD	71 L/S
A	150Ø

TYP. OF 2

NEW EXHAUST DUCTWORK SHALL BE ROUTED WITHIN THE CEILING SPACE AND INSTALLED AT HIGH LEVEL TO MAINTAIN REQUIRED CEILING HEIGHT. CONTRACTOR TO COORDINATE WITH EXISTING SERVICES ABOVE CEILING. (TYP.)

PROVIDE 350x300 TRANSFER GRILLE IN DOOR FOR AIR TRANSFER.

EXHAUST FAN CONTROLS TO BE INTERLOCKED WITH LIGHTING CONTROLS AND/OR OCCUPANCY SENSOR.

PROVIDE 25 mm DOOR UNDERCUT AT DOORS. (TYP.)

EXHAUST FAN CONTROLS TO BE INTERLOCKED WITH LIGHTING CONTROLS AND/OR OCCUPANCY SENSOR.

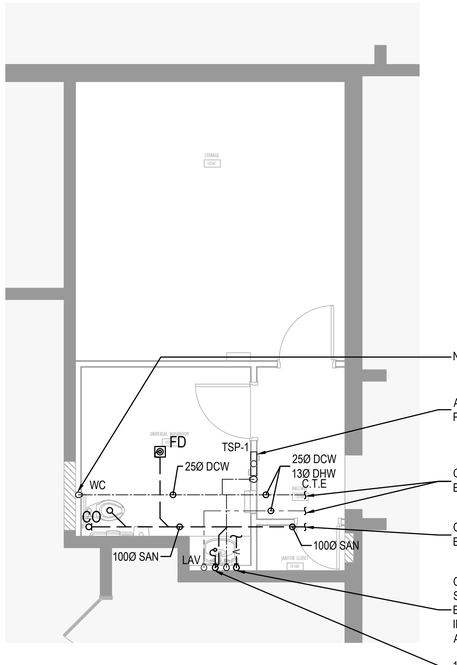
1 / M-03 PARTIAL GROUND FLOOR PLAN - PROPOSED HVAC LAYOUT

SCALE: 1:50

PLUMBING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MINIMUM CONNECTION SIZE				REMARKS
		DCW	DHW	WASTE	VENT	
WC	WATER CLOSET - BARRIER FREE	1 in.	---	3 in.	2 in.	BARRIER FREE
LAV	LAVATORY BARRIER FREE	1/2 in.	1/2 in.	1 1/2 in.	1 1/4 in.	BARRIER FREE
CO	CLEANOUT	---	---	---	---	---
FD	FLOOR DRAIN	1/2 in.	---	2 in.	1 1/2 in.	2" TRAP c/w TRAP PRIMER
TSP-1	PRIMER	1/2 in.	---	---	---	---

REFER TO M-04 FOR PLUMBING FIXTURE SPEC.
ALL PLUMBING FIXTURE SPEC. TO BE REVIEW AND APPROVED ARCHITECT/ID/OWNER AND OWNER PRIOR TO PROCUREMENT AND INSTALLATION.



NEW 25Ø DCW DOWN WITHIN PARTITION WALL TO SERVE (1) WATER CLOSET.

AUTOMATIC TRAP SEAL PRIMER (TSP1-) C/W SOLENOID VALVE TIMER AND ACCESS PANEL FACING INSIDE. COORDINATE EXACT LOCATION ON SITE.

CONNECT NEW 25Ø DCW & 13Ø DHW TO MAIN DCW AND DHW DISTRIBUTION PIPING. EXACT TIE IN LOCATION TO BE COORDINATED ON SITE. (TYP.)

CONNECT 100Ø SAN. LINE TO NEAREST EXISTING SANITARY EXACT LOCATION OF THE EXISTING SANITARY MAIN, SIZE AND INVERT TO BE DETERMINED ON SITE.

CONTRACTOR TO TIE-IN PLUMBING VENTS TO EXISTING BASE BUILDING VENTING SYSTEM. EXACT LOCATION, SIZE AND ROUTING TO BE CONFIRMED WITH BASE BUILDING. ALL PLUMBING SYSTEMS AND VENT PIPING TO BE INSTALLED IN ACCORDANCE WITH PROVINCIAL PLUMBING CODE AND LOCAL AUTHORITY HAVING JURISDICTION.

13Ø DCW AND 13Ø DHW DOWN WITHIN PARTITION WALL TO SERVE HAND SINK.

1 / M-03 PARTIAL GROUND FLOOR PLAN - PROPOSED PD LAYOUT

SCALE: 1:50

Riser ENGINEERING
115 Apple Creek Blvd. – Unit 208
Markham, Ontario, L3R 6C9, Canada

SEAL:

NO.	ISSUED FOR	BY	DATE
2.	ISSUED FOR TENDER	K.N	10/04/26
1.	ISSUED FOR PERMIT	K.N	19/02/26

REVISION TABLE

PROJECT NAME:

DUNDAS VALLEY SECONDARY SCHOOL

PROJECT:

UNIVERSAL WASHROOM RENOVATION

310 GOVERNERS ROAD.
DUNDAS, ON.

DRAWING TITLE:

MECHANICAL LAYOUT

PROJECT NO: 25119	DATE: JAN. 2026	PROJECT NORTH:
DRAWN BY: J.N.	CHECK BY: K.N/R.I	
SCALE: 1: 50	PAPER SIZE ARCH-D (24X36)	

DRAWING NUMBER:

M - 03

WC-1 (WC.000.45774)

Z5665-BWL1-AM

Vitreous china elongated bowl with SmartSilver™ surface (antimicrobial finish), 425 mm (16 3/4 in) in height, siphon jet action, 54 mm (2 1/8 in) completely glazed trapway, bolt caps, 38 mm (1 1/2 in) top spud connection, 6 L (1.6 US gal) or 4.8 L (1.28 US gal) per flush, depending on the flush valve selected.
Department's notes : See flushing devices article 2.6.1.6 in national plumbing code, 6.0 lpf maximum water usage per flush cycle. In the case of washroom renovation, if the existing bowls are kept, ensure that they are compatible with the new water consumption of the selected flush valve. Replacing existing 13 L / flush lavatories for 4.8 L / flush or less can be an issue if the original plumbing is retained. A thorough inspection of the current conditions as well as a camera test of the drain piping is highly recommended. A washroom containing an urinal equipped with an automatic flushing device must have a floor drain article 3.7.2.7 (NBC 2015) and 3.7.2.6 (NBC 2020)

ZER6000AV-1-TM-HET-HW

Hardwired operated exposed quiet flush valve for water closets, TPE chloramine resistant dual seal diaphragm with triple filter by-pass, ADA compliant oscillating handle, control stop with vandal resistant stop cap, cast wall flange, vacuum breaker tube with water supply 406 mm (16 in) above closet bowl, polished chrome finish, dual action of the ceramic disc cartridge and motor gear-driven operation, top mount automatic detection with mechanical manual override button, polycarbonate high resistant casing with a metallic chrome cover, luminating action with low frequence sonor, 4.8 L (1.28 US gal) per flush. Must be installed with electrical power converter 120 VAC/6 VDC (P6000-HW6).
Product's notes : Requires a min. dynamic pression of 25 psi.

P6000-HW6

Hardwired power converter 120VAC/7.6 VDC, 2 amp., capable of supplying for 8 faucets or 8 flush valves or 8 faucets/ flush valves combined. When used with W1 connected products, capable of supplying for 6 faucets or 6 flush valves or 6 faucets/ flush valves combined.

Z5956SS-AM

Solid plastic elongated seat for super-intensive use with anti-microbial protection, open front, coverless, molded bumper guard, stainless steel check hinges and fasteners. (White).

3777-T1-8

Stainless steel tubular backrest of 32 mm (1 1/4 in), satin finish, recessed fasteners, phenolic composite backplate 102 mm (4 in) in height x 254 mm (10 in) in length, antique white. "A" dimension of 203 mm (8 in).

Grab bar supplied by architect

Stainless steel grab bars supplied by architect.

L.000.52914 (L.000.52914)

SLV01-B-DEK-CS

Collective for 1 user wall hung lavatory system, 762 x 546 mm (30 x 21 1/2 in), «Solidsan®» synthetic material composite, complete with satin finish stainless steel short skirt, flexible hose and 1 1/2 in. chrome center drain. Standard Colors: [-AB Adobe Brown] [-AW Ash White] [-BF Black Forest] [-CG Concrete Grey] [-DB Designer Black] [-ES Egyptian Sand] [-MB Midnight Blue] [-MG Misty Grey] [-PB Pearl Black] [-PW Polar White] [-SA Sandstone] [-TG Twilight Grey]. Designer Colors: [-AC Amalfi Coast] [-BB Belgian Blue] [-CA Carrarra Grey] [CC -Cebolla Creek] [-CG Country Green] [-CP Caledonia Pearl] [-PC Portofina Creme] [-PS Paris Stone] [-RS Red Sea Coral] [-SC San Cristobal Silver] [-SR Sydney Rock Oyster] [-UB Ubatuba Brown] [-VM Vienna Mist]
For information or pricing for this product, contact Cardinal Sales at 905 569-1419 or by email at quotes@cardinalsales.ca
Department's notes : According to article 2.2.10.6. of the new 2020 national plumbing code, the maximum water ?ow allowed for private washroom will be 5.7 Lpm, public use 1.9 Lpm. In addition, sinks in public toilets must be ?tted with a device that can automatically stop the ?ow of water when the sink is not in use. Definition of the code for public washrooms (where access is intended for more than one person not of same family). Definition of the code for public washrooms (where access is intended for more than one person not of same family).

ZG6953-CWB-N-SSH

Hardwired electronic sensor faucet with ceramic disc cartridge and motor gear-driven operation, resisting to disinfection (180°F), 6x AA battery back-up, bluetooth, 1.9 L/min. (0.5 usgpm) vandal resistant laminar spout outlet, single hole installation, polished chrome finish, infrared convergence type proximity sensor, on-demand activation with a 30-second run time, in-line filter, premixed water supply. Supplied with 85 in cable wire (CWB).
Standards: ASME A112.18.1/CSA B125.1

ZH8824XL-LKQ-PC/Z8952-58 (2)

Lavatory extra heavy duty quarter turn stops, low lead, DN 1/2 in compression x 3/8 in compression, loose key, flanges chrome plated finish.

P6000-HW6

Hardwired power converter 120VAC/7.6 VDC, 2 amp., capable of supplying for 8 faucets or 8 flush valves or 8 faucets/ flush valves combined. When used with W1 connected products, capable of supplying for 6 faucets or 6 flush valves or 6 faucets/ flush valves combined.

270-LF

Warning! Minimum pressure required for proper operation of the mixer is 35 psi. This does not take into account the minimum pressure required from the device supplied and the loss through the mixer.
Thermostatic point of use mixing valve, 1/2" inlets, 1/2" outlet, (MIPS connections), bronze body, locked temperature adjustment cap (vandal resistant). Copper encapsulated thermostat assembly with polymer thermoplastic shuttle, stainless steel springs, Buna-N: O'rings. Integral check valves on hot and cold inlets. Minimum flow: 0.95 l/min (0.25 usgpm), maximum pressure: 125 PSI (8.6 BAR). Maximum hot water temperature: 93 °C (200 °F). Option DT - Dial thermometer
Product's notes : Note : Pressure regulators will be required if pressure differential between hot and cold water is greater than 10%.
Standards: CSA B125-70, ASSE 1017-1070-2015, NSF/ANSI 61-9*

P trap included

P-trap included

Z1225/SLV01

Concealed wall hung carrier, extra-heavy duty top and bottom adjustable plates, steel uprights with welded feet, mounting fastener.

CO.000.3855 (CO.000.3855)

ZXN1612-SP-VP

Cast iron floor cleanout with a 165 mm (6 1/2") in diam. body with a 102 mm (4") in diam. threaded throat to receive adjustable 130 mm (5 1/8") in diam. nickel bronze strainer combined with a slip proof extra heavy duty traffic cover. ABS threaded seal plug inside body. Vandal proof screws.

FD-1 (FD.000.49485)

ZN415-Y5-P-Y

Cast iron floor drain for membrane with a 213 mm (8 3/8") in diam., reversible clamp collar with lateral openings on top body with a 102 mm (4") in diam. threaded throat to receive adjustable 127 mm (5") in diam. adjustable round strainer combined with 127 mm (5 x 5") square polished nickel bronze regular traffic grate. Trap primer connection . Sediment bucket

TSP-1 (TP.000.26228)

695-ES05

Electronic trap primer with multiple outlets 5. The system injects 59 ml (2 ounces) of water in each drain every 24 hours or as per a factory set program. The system will include a solenoid actuating device with filter, DN 1/2 in copper sweat inlet connection, brass atmospheric vacuum breaker, 5 outlet copper distributing tubing, surface-mount (suffix -S) galvanized steel box, cover supplied. Electrical supply of 120VAC, power consumption is 9.2 watts at 60Hz (maximum distance of 300 ft). Operating pressure 20 psi - 60 psi, Operating temperature 35°F - 140°F (1°C - 60°C).
Product's notes : According to CSA B64, a trap primer is considered high risk hazard. A high risk backflow preventer will be required upstream.

971-1414

Multi-purpose universal access door, 356 x 356 mm (14 x 14 in), designed for flush installation in drywall, block or tile, watts and ceilings. Satin coat steel-primed gray finish. 18 gauge. Concealed hinge.

Riser ENGINEERING
115 Apple Creek Blvd. – Unit 208
Markham, Ontario, L3R 6C9, Canada

SEAL:

NO.	ISSUED FOR.	BY	DATE
2.	ISSUED FOR TENDER	K.N	10/04/26
1.	ISSUED FOR PERMIT	K.N	19/02/26

REVISION TABLE

PROJECT NAME:

DUNDAS VALLEY SECONDARY SCHOOL

PROJECT:

UNIVERSAL WASHROOM RENOVATION

310 GOVERNERS ROAD.
DUNDAS, ON.

DRAWING TITLE:

PLUMBING FIXTURES

PROJECT NO: 25119	DATE: JAN. 2026	PROJECT NORTH:
DRAWN BY: J.N.	CHECK BY: K.N/R.I	
SCALE: NTS	PAPER SIZE ARCH-D (24X36)	

DRAWING NUMBER:

M - 04

GENERAL NOTES:

1. GENERAL SCOPE OF WORK
1.1. FURNISH ALL LABOUR, MATERIALS, EQUIPMENT, TOOLS AND SUPPORTS AS WELL AS SUPERVISION TO PROVIDE A COMPLETE INSTALLATION, TESTED AND IN WORKING ORDER, AS SHOWN ON THE DRAWINGS.
1.2. THE CONTRACTOR SHALL PERFORM THE WORK STIPULATED IN THE CONTRACT AND ANY OR ALL CONTRACT CHANGES AND CHANGE DIRECTIVES, AND SHALL FURNISH, UNLESS OTHERWISE PROVIDED IN THE CONTRACT, EVERYTHING NECESSARY FOR THE PROPER PERFORMANCE AND COMPLETION OF THE WORK.
1.3. ALL WORK SHALL BE FULLY TESTED, COMMISSIONED AND IN GOOD WORKING ORDER AT TIME OF HAND-OVER TO OWNER.
1.4. MAKE GOOD ANY DAMAGES TO EXISTING EQUIPMENT AND/OR SYSTEM(S). COORDINATE WORK AND WORKING HOURS WITH THE OWNER AND OTHER TRADES TO MINIMIZE DISRUPTION.

2. CODES AND STANDARDS
2.1. ALL WORK SHALL CONFORM TO THE MOST RECENT ISSUES OF:
2.1.1. THE ONTARIO BUILDING CODE
2.1.2. THE ONTARIO ELECTRICAL SAFETY CODE
2.1.3. THE MINISTRY OF THE ENVIRONMENT
2.1.4. THE NATIONAL ELECTRICAL CODE
2.1.5. BYLAWS AND REGULATIONS ISSUED BY THE BUILDING AUTHORITY HAVING JURISDICTION
2.1.6. ASHRAE
2.1.7. ASME
2.1.8. SMACNA
2.1.9. NFPA
2.1.10. TSSA
2.1.11. CSA
2.1.12. CGA

3. COORDINATE AND PAY FOR ALL TSSA INSPECTIONS.

4. SPECIFICATIONS
4.1. COMPLY WITH THE GENERAL SECTIONS AND APPLICABLE SECTIONS OF THE GENERAL CONTRACT SPECIFICATIONS.

5. WARRANTY
5.1. WARRANT ALL LABOUR AND MATERIALS INCLUDED IN THIS CONTRACT FOR A PERIOD OF TWO YEARS FROM DATE OF FINAL ACCEPTANCE. ASSUME FULL RESPONSIBILITY FOR LAYOUT OF ALL WORK AND FOR ANY DAMAGE CAUSED TO OWNER OR OTHERS BY IMPROPER CARRYING OUT OF THE WORK.

6. DRAWINGS
6.1. DRAWINGS SHOW GENERAL INTENT OF THE WORK AND PROPOSED ROUTING ONLY.
6.2. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL CONFIRM ALL DIMENSIONS BY FIELD MEASURE BEFORE PROCEEDING WITH THE WORK.
6.3. CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING POSSIBLE INTERFERENCES AND INFORMING THE ENGINEER.

7. SITE CONDITIONS
7.1. EXAMINE SITE CONDITIONS TO ENSURE THAT WORK CAN BE SATISFACTORILY CARRIED OUT AS SHOWN. IF SITE EXAMINATION REVEALS ANY DIFFICULTIES THAT WILL PREVENT THE WORK FROM BEING CARRIED OUT AS DESIGNED THESE MUST BE INDICATED IN THE TENDER PRICE, AND BROUGHT TO THE ATTENTION OF THE ENGINEER.
7.2. THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY ADDITIONAL DIFFICULTIES, INTERFERENCES AND SITE CONSTRAINTS THAT MAY BE IDENTIFIED DURING THE CONSTRUCTION PERIOD.
7.3. REFER TO RFT DOC FOR WORK HOURS.
7.4. COORDINATE SITE ACCESS AND DELIVERIES WITH LANDLORD AND/OR GENERAL CONTRACTOR.

8. CLEANING
8.1. CLEAN PREMISES DAILY AT THE END OF EACH WORK DAY.
8.2. DO NOT ACCUMULATE EQUIPMENT, TOOLS, DEBRIS AND WASTE MATERIALS ON SITE. REMOVE FROM SITE DAILY.
8.3. COMPLETELY REMOVE ALL DEBRIS AND RUBBISH FROM SPACE ONCE WORK IS COMPLETE.
8.4. ALL MATERIALS TO BE DISPOSED OF CONSTRUCTION SITE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

9. MATERIALS
9.1. USE ONLY NEW CSA AND ULC CERTIFIED EQUIPMENT AND MATERIALS UNLESS OTHERWISE INDICATED.
9.2. ONLY FIRST CLASS WORKMANSHIP WILL BE ACCEPTED WITH RESPECT TO STANDARD PRACTICES, SAFETY, ACCESSIBILITY, DURABILITY AND NEATNESS OF INSTALLATION WORK.

10. SHOP DRAWINGS
10.1. SUBMIT 4 COPIES OF SHOP DRAWINGS, UNLESS OTHERWISE INDICATED, FOR ENGINEER'S REVIEW.
10.2. SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR ENGINEER'S REVIEW COVERING ALL RELEVANT DETAILS, DIMENSIONS AND PERFORMANCE.
10.3. SHOP DRAWINGS MUST BE REVIED, STAMPED AND SIGNED BY THE CONTRACTOR AND THE GENERAL CONTRACTOR PRIOR TO SUBMITTING TO CONSULTANT / ENGINEER FOR REVIEW.

11. CUTTING, PATCHING AND PAINTING REQUIREMENTS
11.1. PROVIDE CUTTING, PATCHING AND PAINTING FOR ALL OPENINGS. USE QUALIFIED TRADES FOR THIS WORK. RESTORE FINISHES TO MATCH EXISTING SURROUNDINGS.
11.2. SUPPLY AND INSTALL APPROVED FIRESTOPS AS REQUIRED TO MAINTAIN FIRE RATING.
11.3. PIPING AND VENTS THROUGH WALL AND ROOF SHALL BE BY THE MECHANICAL DIVISION CONTRACTOR, INCLUDING ALL PATCHING.

12. CORING REQUIREMENTS
12.1. FOR ALL CORING LESS THEN 3" DIA. CONTRACTOR SHALL BE RESPONSIBLE FOR SCANNING AREA PRIOR TO CORING THROUGH FLOORS/CEILINGS.
12.2. FOR ALL CORING GREATER THEN 3" DIA. CONTRACTOR SHALL BE RESPONSIBLE FOR X-RAYING AREA PRIOR TO CORING THROUGH FLOORS/CEILINGS.

13. ACCESS PANELS
13.1. PROVIDE ACCESS PANELS FOR INSTALLATION BY THE GENERAL CONTRACTOR AND ALL SUB-TRADES WHERE REQUIRED FOR SERVICE OF CONCEALED EQUIPMENT INSTALLED BY THIS DIVISION.
13.2. PROVIDE 12"x12" (300x300mm) ACCESS PANEL TO ACCESS ANY CONCEALED VALVE AND FETTLING AND 24"x24" (600x600mm) TO ACCESS DUCT BALANCING BALANCING DAMPERS, SMOKE/FIRE DAMPERS ETC.
13.3. PROVIDE FIRE RATED ACCESS PANEL WHERE REQUIRED. RATING TO MATCH WALL OR CEILING.

14. PENETRATIONS THROUGH FLOORS AND WALLS
14.1. UNLESS OTHERWISE SPECIFIED ON DRAWINGS, GLASS FIBRE FIRE RETARDANT INSULATION AND FIRESTOP CAULKING SHALL BE PACKED AROUND PIPE OPENINGS IN FLOORS AND WALLS AT TIME OF PIPE INSTALLATION. FIRESTOP CAULKING SHALL BE "3M FIRE BARRIER" FIRETEMP CAULK OR EQUIVALENT.
14.2. APPLY FIRESTOP SYSTEMS IN ACCORDANCE WITH 3M'S INSTRUCTIONS. ALL SYSTEMS SHALL MEET CSA F-SYSTEM RATINGS FOR THE PARTICULAR FIRE RATING OF THE PENETRATED SURFACE.
14.3. FIRESTOPPING CONTRACTOR MUST BE A LICENSED 3M CERTIFIED INSTALLER (REFER TO LIST IN SPECIFICATION PACKAGE).
14.4. MATERIALS SHALL BE ASBESTOS-FREE ELASTOMERIC MATERIALS, TESTED, LISTED AND LABELED BY ULC IN ACCORDANCE WITH CAN 4-S115-M85, AND CAN/ULC-S101-M FOR INSTALLATION IN ULC DESIGNATED FIRE STOPPING AND SMOKE SEAL SYSTEMS, TO PROVIDE A POSITIVE FIRE, WATER AND SMOKE SEAL AND A FIRE RESISTANCE RATING (FLAME, HOSE STREAM AND TEMPERATURE) NOT LESS THAN THE FIRE RATING FOR SURROUNDING CONSTRUCTION. MATERIALS SHALL BE COMPATIBLE WITH ABUTTING DISSIMILAR MATERIALS AND FINISHES.
14.5. PROVIDE PIPE SLEEVES FOR ALL PIPING PENETRATION THROUGH FLOOR, WALL AND SLAB. PIPE SLEEVE SHALL BE ONE SIZE LARGER THAN PIPE SIZE (MINIMUM).

15. DIELECTRIC ISOLATION
15.1. PROVIDE ISOLATION WHEN USING DISSIMILAR MATERIALS, TO PREVENT GALVANIC ACTION.

16. VIBRATION ISOLATION
16.1. PROVIDE AND INSTALL MINIMUM 3/4" THICK MSN ELASTOMERIC PADS W/MOUNTS UNDER FLOOR MOUNTED HVAC EQUIPMENT AS PER MANUFACTURER RECOMMENDATIONS.

17. ELECTRICAL
17.1. ALL LOW VOLTAGE CONTROL WIRING (<50V) SHALL BE BY THIS DIVISION, TO ELECTRICAL DIVISION STANDARDS.

18. PRESSURE TESTING
18.1. ALL PIPING SYSTEMS SHALL BE PRESSURE TESTED TO 860 kPa OR 1.5 TIMES SYSTEM OPERATING PRESSURE FOR A DURATION OF 24 HRS UNLESS OTHERWISE INDICATE.

19. AS BUILT DRAWINGS
19.1. MAINTAIN A RECORD OF ALL REVISIONS. PREPARE RECORD DRAWINGS IN A NEAT MANNER SHOWING ALL DEVIATIONS IN WORK. ON COMPLETION OF WORK, SUBMIT TO THE ENGINEER ONE HARD COPY OF AS BUILT DRAWINGS AND ELECTRONIC FORMAT DRAWINGS (IN AUTOCAD).
19.2. AUTOCAD FILES WILL BE PROVIDED BY THE ENGINEER AT A COST OF $50 FOR THE FIRST DRAWING, AND $25 EACH FOR ALL OTHER DRAWINGS.

20. OPERATION AND MAINTENANCE MANUALS
20.1. SUBMIT FOUR (4) COPIES OF O&M MANUALS TO ENGINEER FOR REVIEW. ALSO INCLUDE 1 COPY IN PDF FORMAT. MANUALS SHALL INCLUDE AS BUILT DRAWINGS (CAD AND PDF FORMAT), APPROVED SHOP DRAWINGS OF ALL NEW EQUIPMENT, TEST AND BALANCING REPORTS, COMMISSIONING REPORTS, WARRANTIES, TRAINING RECORDS, AND OPERATION & MAINTENANCE PROCEDURES.

21. TESTING, ADJUSTING AND BALANCING (T.A.B.)
21.1. INCLUDE REPORT IN THE OPERATION AND MAINTENANCE MANUALS
21.2. NOTIFY ENGINEER OF ANY DISCREPANCIES GREATER THAN ±5% OF DESIGN VALUES PRIOR OF SUBMISSION OF REPORT.

22. REMOVE ALL ABANDONED PIPES, HANGERS, INSERTS, CONDUITS, DUCTS AND SERVICES. FIRESTOP AND SEAL ALL AFFECTED AREAS.

23. SEAL AND FIRESTOP ALL WALL, FLOOR AND ROOF PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.

24. CONTRACTOR MUST ASSURE THAT REFRIGERANT PIPING CROSSING PASSAGEWAY SHALL NOT BE LESS THAN 7.25 ft ABOVE THE FLOOR UNLESS THE PIPING IS LOCATED AGAINST THE CEILING OF SUCH SPACE AND PERMITTED BY THE AUTHORITY HAVING JURISDICTION.

25. DUCT FLEXIBLE CONNECTIONS MUST BE INSTALLED AT INLETS AND OUTLETS OF SUPPLY AND EXHAUST AIR UNITS.

26. CO-CORDINATE ALL DIMENSIONS WITH EQUIPMENT SHOP DRAWINGS.

27. THOROUGHLY INSPECT EXISTING STRUCTURE AND CHECK SITE CONDITIONS WITH CONDITION SHOWN ON CONTRACT DRAWINGS BEFORE PROCEEDING WITH WORK. MAKE ADJUSTMENTS TO WORK TO SUIT EXISTING CONDITION AND IN CONFORMANCE WITH DESIGN INTENT. REPORT ANY DISCREPANCIES TO THE ENGINEER.

28. WELDING SHALL BE UNDERTAKEN BY A COMPANY CERTIFIED BY CANADIAN WELDING BUREAU UNDER REQUIREMENTS OF DIVISION 1 OR DIVISION 2.1 OR W47.1.

29. MATERIALS AND WORK WHICH FAILS TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED BY THE ENGINEER WHENEVER FOUND AT ANY TIME PRIOR TO FINAL ACCEPTANCE AND REGARDLESS OF PREVIOUS INSPECTIONS. WHEN REJECTED, DEFECTIVE MATERIALS OR WORK SHALL BE PROMPTLY REMOVED, REPLACED OR REPAIRED TO THE SATISFACTION OF THE ENGINEER AT NO EXPENSE TO THE OWNER.

ELECTRICAL SPECIFICATIONS:

1. GENERAL CONDITIONS
1.1. THE INSTRUCTIONS TO BIDDERS AND THE SUPPLEMENTARY GENERAL CONDITIONS, AS ISSUED SHALL FORM A PART OF THIS SPECIFICATION.

2. SCOPE OF WORK
2.1. PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT AND LABOUR SHOWN, NOTED, SPECIFIED OR REQUIRED TO COMPLETE THE WORK. THESE TOGETHER WITH ALL OTHER ITEMS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS IMPLIED AND INTENDED SHALL BE INCLUDED IN THE CONTRACT EXCEPT SUCH ITEMS AS MAY BE HEREINAFTER SPECIFICALLY EXCLUDED FROM THE CONTRACT.
2.2. THE WORK SHALL GENERALLY CONSIST OF THE FOLLOWING:
2.2.1. MAIN SERVICE AND DISTRIBUTION.
2.2.2. PANELS AND BRANCH CIRCUIT WIRING.
2.2.3. WIRING DEVICES.
2.2.4. WIRING FOR AND CONNECTION OF MECHANICAL EQUIPMENT.
2.2.5. PROVISIONS FOR BELL CANADA.
2.2.6. INSTALLATION AND CONNECTION OF ELECTRICAL HEATING.
2.2.7. SUPPLY AND INSTALLATION OF EMERGENCY LIGHTING SYSTEM.
2.2.8. SUPPLY AND INSTALLATION OF LIGHTING FIXTURES AND LAMPS.

3. WORKMANSHIP & MATERIALS
3.1. ENTIRE WORK SHALL BE EXECUTED USING ONLY SPECIFIED MATERIAL AND APPARATUS, EXCEPT WHERE THE WORDS "OR APPROVED EQUAL" OCCUR.
3.2. MATERIALS ARE HEREIN SPECIFICALLY DESCRIBED AND NAMED FOR THE PURPOSE OF ESTABLISHING A STANDARD OF MATERIALS AND WORKMANSHIP TO WHICH THIS DIVISION SHALL ADHERE AND THE CONTRACT PRICE SUBMITTED SHALL BE BASED ON THE USE OF MATERIALS AND EQUIPMENT AS SPECIFIED HEREIN.
3.3. WHERE THE WORDS "OR APPROVED EQUAL" OCCUR, THIS DIVISION MAY USE MATERIALS OTHER THAN THOSE SPECIFIED PROVIDING THAT THE ENGINEER APPROVED OF THE MAKE AND QUALITY OF THE SUBSTITUTE MATERIALS.
3.4. IF THIS DIVISION WISHES TO QUOTE ON ALTERNATE MATERIALS AND EQUIPMENT, HE MUST INCLUDE IN HIS TENDER THE NAME OF THE MANUFACTURER OR SUPPLIER, A COMPLETE DESCRIPTION OF THE SUBSTITUTE MATERIALS & ANY DIFFERENCE IN PRICE. ALTERNATE MATERIALS WILL NOT BE CONSIDERED OR APPROVED AFTER RECEIPT OF TENDERS.
3.5. SAMPLES OF ALL MATERIALS SHALL BE PRESENTED UPON REQUEST BEFORE MATERIALS ARE ORDERED AND ALL APPROVED MATERIALS USED IN THE JOB SHALL BE IDENTICAL TO THE APPROVED SAMPLES.
3.6. MATERIALS NOT SPECIFIED SHALL BE OF A HIGH STANDARD OF QUALITY AT LEAST EQUAL TO OTHER MATERIALS WHICH ARE SPECIFIED.

4. DRAWINGS
4.1. DRAWINGS FOR ELECTRICAL WORK ARE IN PART DIAGRAMATIC, INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENT OF EQUIPMENT AND CONDUITS, AND APPROXIMATE SIZES AND LOCATIONS OF EQUIPMENT AND OUTLETS. THIS DIVISION SHALL FOLLOW THESE DRAWINGS IN LAYING OUT HIS WORK. CONSULT GENERAL CONSTRUCTION DRAWINGS AFFECTING HIS WORK AND SHALL VERIFY SPACES IN WHICH HIS WORK WILL BE INSTALLED.
4.2. WHERE JOB CONDITIONS REQUIRE REASONABLE CHANGES TO INDICATED LOCATIONS AND ARRANGEMENT, THIS DIVISION SHALL MAKE SUCH CHANGES WITHOUT EXTRA COST TO THE OWNER.
4.3. DRAWINGS ARE IN GENERAL MADE TO SCALE BUT THIS DIVISION SHALL CHECK AND VERIFY ALL DIMENSIONS ON THE JOB.

5. SHOP DRAWINGS
5.1. SHOP DRAWINGS SHALL BE SUBMITTED (6 COPIES) FOR ITEMS SUCH AS SWITCHBOARDS, PANEL TRANSFORMERS, LIGHTING FIXTURES, AND EMERGENCY LIGHTING SYSTEMS.

6. RECORD DRAWINGS
6.1. MAINTAIN IN THE JOB SITE OFFICE, AN UP TO DATE SET OF DRAWINGS. THESE DRAWINGS SHALL BE MARKED CLEARLY & INDELIBLY IN RED, INDICATING DEVIATIONS FROM & REVISIONS TO ORIGINAL DESIGN OR INTENT. UPON COMPLETION OF CONSTRUCTION, SUBMIT TO THE CONSULTANT THIS SET OF AS-BUILT DRAWINGS FOR REVIEW.
6.2. AFTER A REVIEW OF THE MARKED UP SET OF DRAWINGS IS COMPLETE, SUBMIT A SET OF AS-BUILT DRAWINGS TO THE CONSULTANT / LANDLORD FOR TRANSFER TO CADD FILES. INCLUDE FOR CONSULTANTS COST TO UPDATE DRAWINGS TO AS BUILT & PLOT.

7. OTHER TRADES
7.1. BEFORE TENDERING, THIS DIVISION SHALL REVIEW THE EXISTING DRAWING AVAILABLE , THE ARCHITECTURAL, MECHANICAL & STRUCTURAL DRAWINGS, & SHALL MAKE HIMSELF FAMILIAR WITH THE BUILDING CONSTRUCTION, ARCHITECTURAL FINISHES ETC., IN ORDER THAT HIS PRICE MAY INCLUDE EVERY THING NECESSARY FOR THE COMPLETE INSTALLATION OF THE WORK.
7.2. THIS DIVISION SHALL CONFER WITH THE OTHER DIVISIONS INSTALLING EQUIPMENT WHICH MAY AFFECT HIS WORK, AND HE SHALL ARRANGE HIS EQUIPMENT IN PROPER RELATION WITH THE OTHER APPARATUS, THE BUILDING CONSTRUCTION AND WITH THE ARCHITECTURAL FINISH. SPECIAL CARE SHALL BE TAKEN IN THE INSTALLATION OF ALL EQUIPMENT WHERE SAME IS CONCEALED, TO SEE TO IT THAT IT COMES WITHIN THE SPECIFIED OR PRESCRIBED FINISHED LINES OF FLOORS, WALLS AND CEILINGS.
7.3. THIS DIVISION SHALL PROVIDE ALL NECESSARY SLEEVES, INSERTS AND HANGERS, ETC. LOCATE AND SECURELY PLACE SAME.
7.4. INSTALL AND CONNECT ALL MOTOR STARTERS TO BOTH LINE AND LOAD SIDES. MOTORS SHALL BE CONNECTED WITH LIQUID-TITE FLEXIBLE CONDUIT AND STRANDED WIRE.
7.5. ALL REMOTE CONTROL WIRING SHALL BE DONE UNDER DIVISION 15, UNLESS OTHERWISE NOTED. INSTALLATION AND CONNECTIONS OF THERMOSTATS SHALL BE PROVIDED UNDER DIVISION 16.
7.6. SUPPLY DISCONNECTS FOR MECHANICAL & OWNERS EQUIPMENT WHERE REQUIRED BY CODE.

8. TEMPORARY ELECTRICAL SUPPLY
8.1. TEMPORARY ELECTRICAL SUPPLY TO BE ARRANGED AND PROVIDED BY DIVISION 16. COORDINATE & VERIFY LOCATION & SIZE WITH PROJECT MANAGER PRIOR TO CLOSING OF TENDER. PROVIDE ALL NECESSARY & PAY ALL ASSOCIATED COSTS.

9. CODES & REGULATIONS
9.1. THE WORK COVERED BY THIS DIVISION SHALL BE EXECUTED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE PROVINCIAL BUILDING AUTHORITY, ELECTRICAL SAFETY AUTHORITIES, THE CANADIAN ELECTRICAL CODE AND THE LOCAL MUNICIPAL AUTHORITIES.
9.2. IN THE EVENT THAT ANY DEVIATIONS FROM THE ELECTRICAL DRAWINGS ARE NECESSARY, THIS DIVISION SHALL CONSULT WITH THE ENGINEER AND OBTAIN WRITTEN APPROVAL BEFORE PROCEEDING.
9.3. SUBMIT THE REQUISITE NUMBER OF SETS OF PLANS AND SPECIFICATIONS BOTH TO THE PROVINCIAL AUTHORITY INSPECTION DEPARTMENT AND TO THE LOCAL UTILITY.

10. CERTIFICATES & FEES
10.1. THIS DIVISION SHALL GIVE ALL NECESSARY NOTICES AND OBTAIN ALL NECESSARY PERMITS AND PAY ALL FEES IN ORDER THAT THE WORK HEREIN SPECIFIED MAY BE CARRIED OUT. HE SHALL FURNISH ALL USUAL CERTIFICATES NEEDED AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH THE LAWS AND REGULATIONS OF THE AUTHORITIES HAVING JURISDICTION BEFORE FINAL PAYMENT OF CONTRACT IS MADE.

11. WORKSHOP & SUPERVISION
11.1. THIS DIVISION SHALL PROVIDE HIS OWN WORKSHOP AND STORAGE SPACE EQUIPPED WITH HEAT, LIGHT AND TELEPHONE.
11.2. THE LOCATION, DESIGN, CONSTRUCTION AND TYPE OF FINISH OF ALL ACCOMMODATION SHALL BE TO OWNER'S APPROVAL.
11.3. THE CONTRACTOR SHALL AT ALL TIMES HAVE A RESPONSIBLE FOREMAN ON THE PROJECT SITE WHO IS EXPERIENCED WITH THE SIZE OF THE PROJECT AND IT'S COMPLEXITIES.

12. CUTTING & PATCHING
12.1. WHERE CUTTING OR DRILLING OF STRUCTURAL MEMBERS IS NECESSARY FOR THE INSTALLATION OF SLEEVES, CONDUITS, OUTLET BOXES, ETC., THE WORK SHALL BE DONE BY THIS DIVISION IN A MANNER SATISFACTORY TO THE ARCHITECT.
12.2. ALL PATCHING AND REPAIRS TO RESTORE THE CUT SURFACES TO THEIR ORIGINAL CONDITION SHALL BE DONE BY THIS DIVISION AT HIS OWN EXPENSE AND UNDER THE DIRECTION AND SUPERVISION AND SUBJECT TO APPROVAL OF THE ENGINEER AND ARCHITECT.

13. CLEANING UP
13.1. DURING CONSTRUCTION, THIS DIVISION SHALL KEEP THE PREMISES REASONABLY CLEAR OF RUBBISH, WASTE MATERIALS, ETC., AFTER COMPLETION OF THIS WORK HE SHALL REMOVE ALL RUBBISH, DEBRIS ETC., DUE TO HIS WORK OR HIS EMPLOYEES, SUB-CONTRACTORS, AGENTS, ETC., AND SHALL LEAVE THE PREMISES AND ALL PARTS OF THIS WORK IN GOOD ORDER.
13.2. THE OWNER MAY, IF HE CONSIDERS IT DESIREABLE, AND ON NOTICE TO THIS DIVISION, PROTECT, CLEAN, ETC., AND WORK IN THE COURSE OF CONSTRUCTION AND CHARGE TO EACH OR ANY SUB-TRADE A PROPORTIONATE SHARE OF SUCH WORK AND PROVISION.

14. EXTRAS & OMMISSIONS
14.1. SHOULD ADDITIONAL WORK BE REQUIRED, BEYOND THE SCOPE OF THIS CONTRACT, THE DIVISION SHALL SUBMIT A QUOTATION, IN WRITING OUTLINING THE NATURE OF THE WORK AND THE COSTS WITH A COMPLETE BREAKDOWN OF LABOUR & MATERIALS.
14.2. IT MUST BE CLEARLY UNDERSTOOD THAT NO 'EXTRAS' WILL BE RECOGNIZED FOR PAYMENT UNLESS THE WORK HAS BEEN QUOTED ON, AND A WRITTEN ORDER OBTAINED FOR THE OWNER.

15. IDENTIFICATION
15.1. THIS DIVISION SHALL CLEARLY IDENTIFY ALL ELECTRICAL EQUIPMENT SUPPLIED AND/OR INSTALLED BY HIM. ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN AND ALL OTHER EQUIPMENT SHALL BE PERMANENTLY IDENTIFIED WITH ETCH LAMICOID PLATES SECURELY FASTENED. ADHESIVE TAPE, SUCH AS 'DYMO' WILL NOTE BE ACCEPTED.

16. NOISE & VIBRATION
16.1. ALL EQUIPMENT SUPPLIED AND/OR INSTALLED BY THIS DIVISION SHALL OPERATE WITHOUT OBJECTIONABLE NOISE OR VIBRATION AND TO THE SATISFACTION OF THE ENGINEER AND OWNER.
16.2. THIS DIVISION SHALL BE RESPONSIBLE FOR CHANGES AND/OR ADDITIONS NECESSARY TO ELIMINATE SUCH OBJECTIONABLE NOISES AND VIBRATIONS WITHOUT EXTRA COST TO THE OWNER.

17. TESTING
17.1. TEST ALL ELECTRICAL SYSTEMS AND SUBMIT REPORTS TO THE OWNER SHOWING ALL TEST DATA AND RESULTS ENSURING THAT ALL COMPONENTS ARE FUNCTIONING PROPERLY.
17.2. AUXILIARY SYSTEMS SHALL BE INSPECTED, TESTED AND VERIFIED BY THE MANUFACTURER (OR OTHERS) AND ORIGINAL REPORTS SHALL BE SUBMITTED TO THE OWNER.
17.3. COST OF ALL TESTING SHALL BE BORNE BY THIS DIVISION.

18. GUARANTEE
18.1. ALL EQUIPMENT SHALL GUARANTEE AND HEREWITH DOES GUARANTEE:
18.1.1. THAT ALL MATERIAL AND WORKMANSHIP USED ON THE JOB ARE IN STRICT ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
18.1.2. THAT THE ENTIRE INSTALLATION IS OF THE BEST QUALITY AVAILABLE TO ENSURE FIRST CLASS CONSTRUCTION AND EFFICIENT OPERATION, FREE OF MECHANICAL AND ELECTRICAL DEFECTS. ANY SUCH DEFECTS, WHICH MAY APPEAR IN ANY OF THE WORK WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE SAME BY THE OWNER (ORDINARY WEAR AND TEAR AND WILFULL DAMAGE EXCEPTED), SHALL BE REPAIRED AND REPLACED BY THIS DIVISION WITHOUT ANY ADDITIONAL EXPENSE TO THE OWNER. WHERE SUCH DEFECTS OCCUR, THIS DIVISION SHALL BE HELD RESPONSIBLE FOR ALL COSTS INCURRED IN MAKING THE DEFECTIVE WORK GOOD.

19. METHOD OF WIRING
19.1. EXCEPT WHERE OTHERWISE SPECIFIED ON THE DRAWINGS ALL WIRING IN WALL FLOORS AND CEILINGS SHALL BE WITH TWH INSULATED CABLES IN THINWALL CONDUIT WITH APPROVED FITTINGS.
19.2. UNDERGROUND WIRING SHALL BE "TWU" INSULATED CABLES IN RIGID, HEAVY WALL PLASTIC CONDUIT SUCH AS "SCEPTRE" OR APPROVED EQUAL.
19.3. MINIMUM CABLE SIZE FOR ALL BRANCH CIRCUIT WIRING SHALL BE NO. 12 B & S GUAGE FOR 347/600V CIRCUITS AND NO. 12 B & S GUAGE FOR 120/208V CIRCUITS. ALL WIRE AND CABLE SHALL HAVE COPPER CONDUCTORS. ELECTRICAL CONTRACTOR TO UPSIZE WIRING AS REQUIRED TO ENSURE VOLTAGE DROP IS IN COMPLIANCE WITH ELECTRICAL AUTHORITIES.
19.4. PROVIDE BOND GROUND WIRE IN EVERY CONDUIT. ALL GROUNDING TO COMPLY WITH THE LATEST ELECTRICAL SAFETY CODE.

20. CONDUITS.
20.1. ALL CONDUITS SHALL BE CONCEALED IN FLOOR SLABS, WALLS, CEILING AND FURRED SPACES EXCEPT IN 'SERVICE' ROOMS WHERE CONDUITS MAY BE EXPOSED.
20.2. CONDUITS RUN IN EARTH OR FILL WHERE SUBJECT TO DAMAGE FOR CIRCUITS OVER 30V SHALL BE RIGID PLASTIC SUCH AS 'SCEPTRE'. ALL OTHER CONDUITS MAY BE THINWALL. IN CONCRETE, USE APPROVED WATER-TITE COUPLINGS AND FITTINGS. CONDUITS STUB-UPS IN EXPOSED AREAS OR SUBJECT TO MECHANICAL DAMAGE SHALL BE RIGID THICK WALL.
20.3. CONDUIT MUST CLEAR HEATING PIPES, FLUES, ETC., BY AT LEAST 6".
20.4. CONDUITS SHALL BE INSTALLED TO PERMIT DRAINAGE OF ACCUMULATED MOISTURE.
20.5. CONDUITS SHALL BE SUPPORTED WITH SOLID CLAMPS. PERFORATED STRAP SHALL NOT BE USED.

21. OUTLETS
21.1. AN OUTLET BOX OF CODE QUALITY AND INDEPENDENTLY SUPPORTED SHALL BE INSTALLED FOR EACH LIGHT SWITCH, DUPLEX RECEPTACLE, ETC.
21.2. ALL OUTLETS IN FINISHED AREAS SHALL BE MOUNTED WITHIN THE FINISHED LINES OF PLASTER, ETC., AND MUST BE PLUMB. NO UNUSED OPENINGS SHALL BE LEFT IN OUTLET BOXES.
21.3. OUTLET BOXES PROVIDED TO CARRY A LIGHTING FIXTURE SHALL BE OF A DESIGN CAPABLE OF SUPPORTING THE FIXTURE AND SHALL BE EQUIPPED WITH SUITABLE FIXTURE STUDS. RECESSED OUTLET BOXES AND ALL JUNCTION BOXES SHALL BE USED. OUTLET BOXES TO BE USED WITH CONDUITS SHALL BE CONDULET ITS TYPE.
21.4. THE EXACT HEIGHT AND POSITION OF ALL OUTLETS MUST CONFORM WITH OTHER WORK IN THE AREA AND IT IS THIS SUB-CONTRACTOR'S RESPONSIBILITY TO MOUNT OUTLETS IN SUCH A MANNER TO AVOID INTERFERENCE WITH ALL PIPING, DUCTS, CONDUITS, ETC. OUTLETS FOR LOCAL SWITCHES NEAR SINGLE DOORS SHALL BE ON THE STRIKE SIDE OF THE DOOR, AS FINALLY HUNG.
21.4.1. MOUNTING HEIGHTS ABOVE FINISHED FLOOR TO CENTER LINE FOR OUTLET BOXES SHALL BASED ON MOUNTING HEIGHT SCHEDULE, UNLESS OTHERWISE SHOWN ON THE DRAWINGS OR OTHERWISE REQUIRED BY THE OWNER

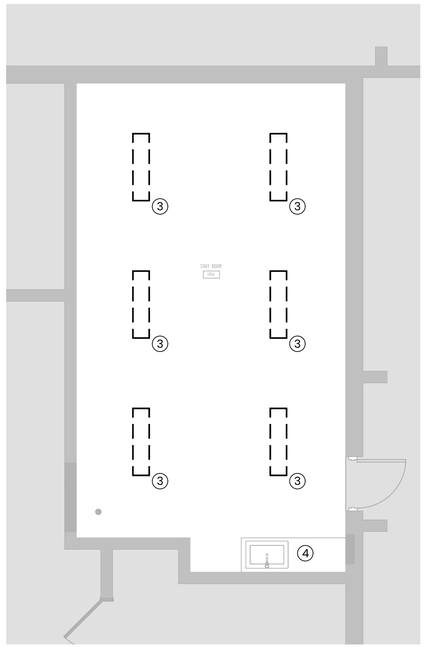
22. JUNCTION BOXES
22.1. STANDARD JUNCTION AND CABLE SUPPORT BOXES SHALL BE INSTALLED WHERE SPECIFIED OR WHERE FOUND NECESSARY FOR THE PROPER PULLING AND ANCHORING OF CABLES, WIRES, ETC., AND WHERE INDICATED ON THE DRAWINGS. WHERE LARGER THAN OUTLET BOXES, THEY SHALL BE OF AN APPROVED DESIGN. IN ALL CASES, THEY SHALL BE ACCESSIBLE AFTER BUILDING IS COMPLETED. THESE BOXES ARE SUBSTANTIALLY CONNECTED TO THE BUILDING CONSTRUCTION AND MUST BE PROVIDED WITH SUITABLE CABLE SUPPORTS 'RUSSELL & STOLL' OR EQUAL.

23. LIGHTING SWITCHES.
23.1. ALL SINGLE POLE LIGHTING SWITCHES SHALL BE OF THE 'FLUSH TUMBLER' TYPE, WHERE 2 OR MORE SWITCHES ARE LOCATED TOGETHER, GANG BOXES AND GANG PLATES SHALL BE USED.
23.2. HANDLES OF ALL SWITCHES SHALL BE OF A SUITABLE COLOUR TO SUIT THE ARCHITECTURAL TREATMENT IN THE AREA AND THE PLATES USED, AND THE SWITCH SHALL BE MOUNTED SO THAT WHEN HANDLE IS UP, SWITCH SHALL BE IN "ON" POSITION.
23.3. SINGLE POLE LIGHT SWITCHES (FOR 120V.) SHALL BE 'SMITH & STONE' # 1-4621-1.
23.4. THREEWAY LIGHT SWITCHES (FOR 120V.) SHALL BE 'SMITH & STONE' # 1-4623-1
23.5. SINGLE POLE LIGHT SWITCHES (FOR 347V.) SHALL BE 'SMITH & STONE' # 1-3721-1.

24. DUPLEX RECEPTACLES
24.1. DUPLEX RECEPTACLES SHALL BE 'SMITH & STONE' #1-1144.
24.2. RECEPTACLES FOR DESIGNATED EQUIPMENT (SEPARATE GROUND) SHALL BE HUBBELL # IG-5262H (OR APPROVED EQUAL).
24.3. OUTDOOR RECEPTACLES SHALL BE 'SMITH & STONE' # 4-5262 WITH 5 & 5 WATERPROOF COVER, # 1-1044 OR 'LEVITON' # 5096 (OR APPROVED EQUAL).
24.4. ACCEPTABLE ALTERNATES TO ABOVE MANUFACTURERS (23 & 24) SHALL BE HUBBELL OR PASS & SEYMOUR.

25. COVER PLATES
25.1. ALL COVER PLATES FOR SWITCHES AND RECEPTACLES IN FINISHED AREAS SHALL BE STAINLESS STEEL. (ALL SWITCHES AND RECEPTACLE DEVICES SHALL BE IVORY PLASTIC).
25.2. COVER PLATES IN UNFINISHED AREAS (SERVICE AND EQUIPMENT ROOMS, ETC.) SHALL BE "GALVANIZED" METAL READY TO ACCEPT PAINT.

26. ELECTRICAL DISTRIBUTION & EQUIPMENT
26.1. PROVIDE AND INSTALL ALL NECESSARY SWITCHGEAR, SPLITTERS, PANELS, CONTACTORS, TIME SWITCHES, AND DISTRIBUTION EQUIPMENT, ETC., TO PROVIDE A COMPLETE ELECTRICAL SYSTEM IN THE BUILDING. PROVIDE AL GROUND FELD CONSISTING OF JUMPERS, GROUND RODS, BUS BARS, & CONNECTION TO ALL METAL EQUIPMENT IN ACCORDANCE WITH THE E.S.A, INCLUDING CONNECTIONS TO GAS & WATER LINES.
26.2. ALL SWITCHGEAR AND PANEL ETC., SHALL BE OF THE SAME MANUFACTURER THROUGHOUT THE BUILDING.
26.3. SECONDARY SWITCHGEAR AND PANELS SHALL BE SCHNEIDER



1 E-02 PARTIAL GROUND FLOOR PLAN - EXISTING & DEMOLITION LAYOUT

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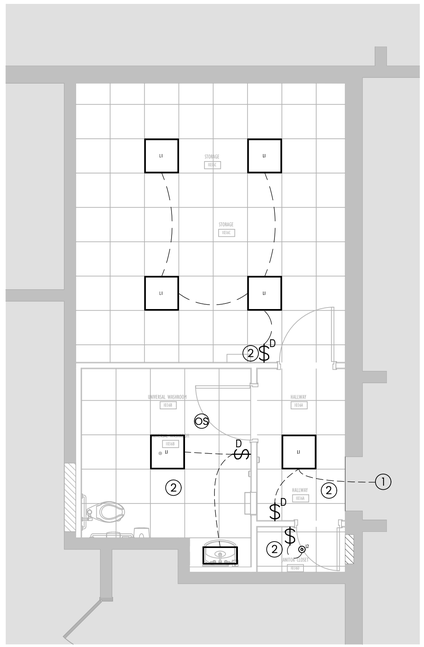
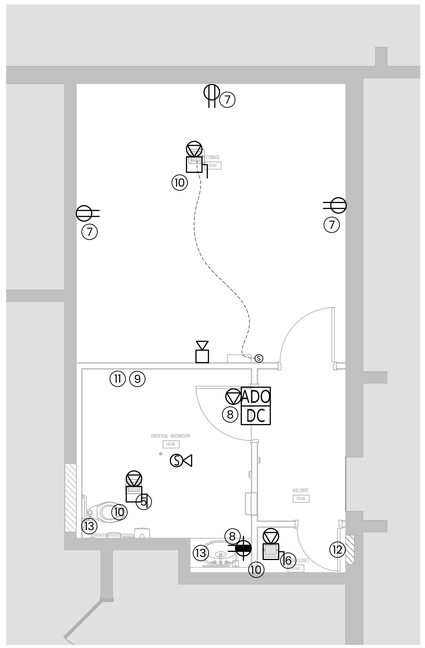


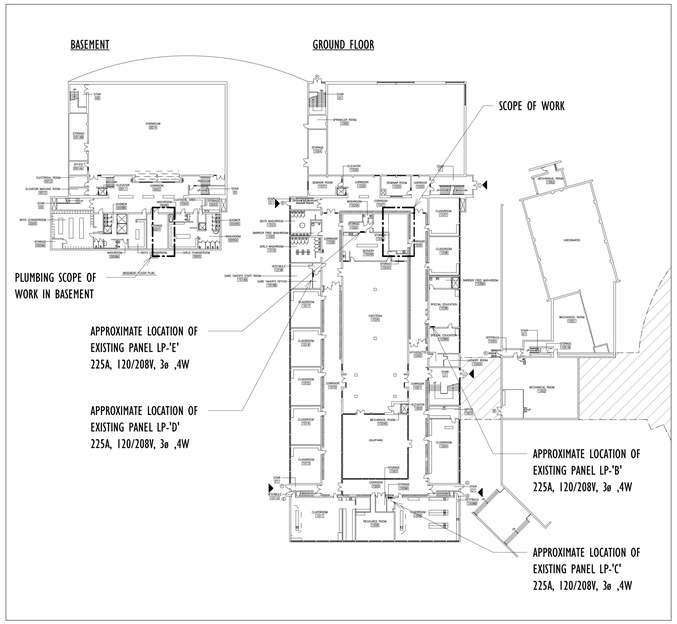
2 E-02 PARTIAL GROUND FLOOR PLAN - PROPOSED LIGHTING LAYOUT

SCALE: 1:50



3 E-02 PARTIAL GROUND FLOOR PLAN - PROPOSED POWER LAYOUT

SCALE: 1:50



4 E-02 KEY PLAN FOR PANEL LOCATION - REFER TO REVISED ARCHITECTURAL DRWAING FOR DETAIL

SCALE: NTS

GENERAL NOTES:

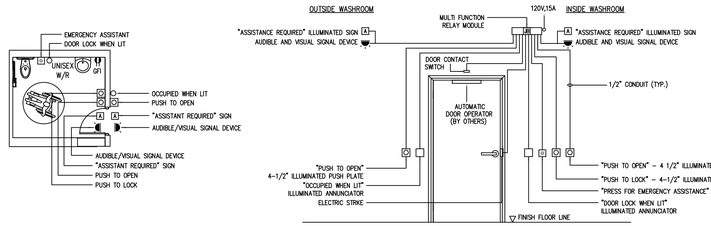
1. ALL DRAWING DOCUMENTS LISTED IN THIS SET ARE FOR INFORMATION PURPOSES ONLY UNTIL ISSUED FOR PERMIT AND/OR CONSTRUCTION.
2. THESE DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNLESS NOTED OTHERWISE.
3. ALL AREAS AND DIMENSIONS TO BE SITE VERIFIED PRIOR TO ANY WORK.
4. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
5. ALL WORK SHALL MEET AND/OR EXCEED BASE BUILDING STANDARD.
6. THE GENERAL CONTRACTOR TO SITE VERIFY AND RE-USE EXISTING ELECTRICAL OUTLETS THAT ARE WITHIN CLOSE PROXIMITY OF PROPOSED AS SHOWN.
7. ELECTRICAL CONTRACTOR SHALL REFER TO INTERIOR DESIGNER DRAWING FOR ALL DIMENSIONS AND LOCATION INFORMATION AND COMPLY WITH ALL APPLICABLE NOTES.
8. UNLESS OTHERWISE NOTED, ALL OUTLETS TO BE MOUNTED AT 12" O.C. AFF
9. IF DEMISING WALL IS CONCRETE BLOCK, CONTRACTOR TO FURR OUT WALL AS NECESSARY FOR ELECTRICAL REQUIREMENTS
10. UNLESS OTHERWISE INDICATED EXACT LOCATIONS FOR ALL ELECTRICAL WORK TO BE DETERMINED ON SITE.
11. ALL FIRE ALARM DEVICES INSTALLED OR RELOCATED AS A RESULT OF THIS PROJECT SHALL BE VERIFIED BY CERTIFIED BASE BUILDING FIRE ALARM VERIFICATION COMPANY.
12. GENERAL CONTRACTOR SHALL COORDINATE GANG BOX AND JUNCTION BOX LOCATIONS AND REQUIREMENTS WITH FIXTURE/MILLWORK VENDOR PRIOR TO INSTALLATION.
13. EXISTING OUTLETS TO BE REUSED IF THEY FALL IN CLOSE PROXIMITY TO NEW OUTLETS SHOWN ON PLAN - REWIRE TO NEW POWER SOURCE AS REQUIRED.
14. ALL FIRE ALARM DEVICES AND SYSTEM FOUND IN THIS PREMISES SHALL BE CONNECTED TO THE BASE BUILDING FIRE ALARM CONTROL PANEL (FACP). ADD NEW ZONE AT FACP IF REQUIRED.
15. CONTRACTOR TO VERIFIED ONSITE BREAKER, CONDUIT, WIRING CONDITION, REPLACE IF NECESSARY.
16. CONTRACTOR TO VERIFIED ALL EXISTING SERVICE.
17. CONTRACTOR TO PROVIDE OPENINGS IN DRYWALL CEILING TO ACCOMMODATE EXIT LIGHTS, ACCESS PANELS, RECESSED DOWN LIGHTS, AIR DIFFUSERS. CONTRACTOR TO REFER TO REFLECTED CEILING PLAN AND ENGINEERING DRAWINGS AND SPECIFICATIONS.
18. LIGHT FIXTURES AND SWITCHES TO BE LOCATED IN ACCORDANCE WITH DESIGNER DRAWINGS. REPORT DISCREPANCIES TO DESIGNER PRIOR TO INSTALLATION.
19. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR TO RETURN UNUSED BASE BUILDING FIXTURES TO BUILDING LANDLORD.
20. EXISTING CEILING AND LIGHTS TO REMAIN. REPAIR AND/OR REPLACE ANY DAMAGED T-BAR AND CEILING TILES. REPLACE ANY BROKEN LIGHT FIXTURES, AS NEEDED.

KEY NOTES:

1. CONTRACTOR TO TIE-IN TO EXISTING BAS SYSTEM FOR LIGHTING CONTROL.
2. CONTRACTOR TO RE-USING EXISTING LIGHTING CIRCUIT.
3. CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING LIGHTING FIXTURES AND ASSOCIATED DEVICES.
4. CONTRACTOR TO REMOVE ALL EXISTING ELECTRICAL OUTLET.
5. EXHAUST FAN CONTROLS TO BE INTERLOCKED WITH OCCUPANCY SENSOR.
6. EXHAUST FAN CONTROLS TO BE INTERLOCKED WITH LIGHTING CONTROLS.
7. CONTRACTOR TO REUSE EXISTING RECEPTACLE CIRCUIT FOR THIS CONNECTION.
8. CONTRACTOR TO PULL A NEW 120V, 15A CIRCUIT FROM THE NEAREST POWER PANEL FOR BATHROOM ADO AND PLUG.
9. PROVIDE ELECTRICAL OUTLET FOR FUTURE CHANGE TABLE, 120V, 15A CIRCUIT FROM THE PANEL E.
10. CONTRACTOR TO PULL A NEW 120V, 15A CIRCUIT FROM THE PANEL E FOR NEW EF.
11. PROVIDE ELECTRICAL OUTLET FOR FUTURE CEILING HOIST, 120V, 15A CIRCUIT FROM THE PANEL E.
12. EXISTING PA SPEAKER LOCATION
13. PROVIDE POWER TO ALL FIXTURE HARDWARE.

UNIVERSAL WASHROOM DETAIL:

1. LIGHTING SHALL BE CONTROLLED BY AN OCCUPANCY SENSOR TO ENSURE ENERGY EFFICIENCY AND AUTOMATIC OPERATION BASED ON ROOM OCCUPANCY.
2. PROVIDE AN EMERGENCY SIGN WITH THE TEXT: "IN THE EVENT OF AN EMERGENCY, PRESS BUTTON TO ACTIVATE AUDIBLE AND VISUAL SIGNAL." THE LETTERS MUST BE 25MM HIGH WITH A 5MM STROKE AND SHOULD BE POSTED ABOVE THE EMERGENCY BUTTON.
3. WHEN THE OUTSIDE ACCESSIBLE PUSH PLATE IS PRESSED, THE ELECTRICAL DOOR STRIKE SHALL REMAIN DE-ENERGIZED WHILE THE DOOR OPERATOR CYCLES OPEN AND CLOSED.
4. WHEN THE DOOR IS CLOSED AND THE "PUSH TO LOCK" BUTTON INSIDE THE WASHROOM IS PRESSED, THE ELECTRICAL DOOR STRIKE WILL BECOME ENERGIZED, AND THE DOOR WILL SECURELY LOCK.
5. PRESSING THE "PUSH TO OPEN" BUTTON INSIDE THE WASHROOM WILL DE-ENERGIZE THE ELECTRICAL DOOR STRIKE, ALLOWING THE DOOR OPERATOR TO OPEN AND CLOSE THE DOOR.
6. AFTER THE DOOR IS CLOSED FOLLOWING EXIT, THE ELECTRICAL DOOR STRIKE WILL REMAIN DE-ENERGIZED, ENSURING THE DOOR STAYS LOCKED.
7. A WALL-MOUNTED "OCCUPIED WHEN LIT" INDICATOR LIGHT SHALL ILLUMINATE WHEN THE "PUSH TO LOCK" BUTTON IS PRESSED, AND TURN OFF WHEN THE "PUSH TO OPEN" BUTTON IS PRESSED.
8. UPON ACTIVATION OF THE EMERGENCY CALL BUTTON, BOTH AUDIBLE AND VISUAL ALARMS WILL BE TRIGGERED, AND THE DOOR WILL BE DE-ENERGIZED AND UNLOCKED FOR EMERGENCY ACCESS.
9. IN THE EVENT OF AN EMERGENCY, THE DOOR CAN ALSO BE OPENED FROM THE OUTSIDE USING A MASTER KEY.
10. UNLESS OTHERWISE NOTED, THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL A COMPLETE DOOR OPERATION SYSTEM, INCLUDING ALL NECESSARY HARDWARE, WIRING, CONDUIT, AND BACKBOXES. ALL WIRING SHALL BE INSTALLED IN CONDUIT, IN ACCORDANCE WITH THE DOOR HARDWARE MANUFACTURER'S REQUIREMENTS.



Riser ENGINEERING
115 APPLE CREEK BLVD - UNIT 208
MARKHAM, ONTARIO, L3R 6C9, CANADA

SEAL:

NO.	ISSUED FOR.	BY	DATE
2.	ISSUED FOR TENDER	T.M	26/04/10
1.	ISSUED FOR PERMIT	T.M	26/02/19

REVISION TABLE

PROJECT NAME:

DUNDAS VALLEY SECONDARY SCHOOL

PROJECT:

UNIVERSAL WASHROOM RENOVATION

310 GOVERNERS ROAD.
DUNDAS, ON.

DRAWING TITLE:

PROPOSED ELECTRICAL LAYOUT

PROJECT NO:	DATE:	PROJECT NORTH:
25105	DCE. 2025	
DRAWN BY: J.N	CHECK BY: T.M	
SCALE: N.T.S	PAPER SIZE ARCH-D (24X36)	

DRAWING NUMBER:

E - 02