

PACIFIC ENVIRONMENTAL SCIENCE CENTRE

2645 DOLLARTON HIGHWAY, NORTH VANCOUVER, B.C. V7H 1B1

BLOCK 'B' - SEDIMENT ROOM RENOVATION

ISSUED FOR TENDER

CONTACTS:

ARCHITECTURAL

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#110-1281 WEST GEORGIA ST.
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MECHANICAL

FWD ENGINEERING LTD.
#208 - 340 BROOKSBANK AVE.
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ELECTRICAL

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LIST OF DRAWINGS:

ARCHITECTURAL

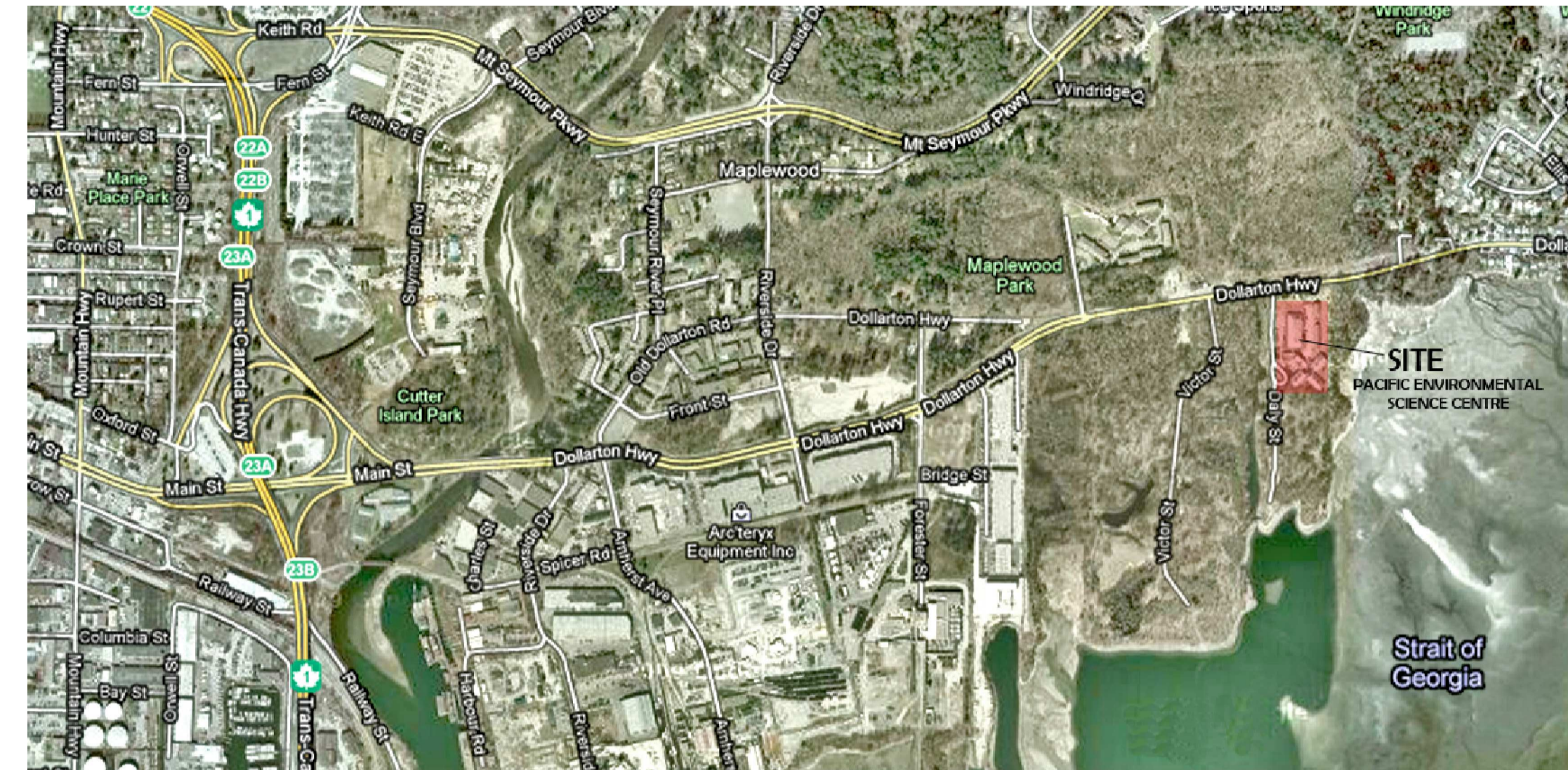
A00 COVER PAGE, LOCATION & KEY PLAN
A01 OVERALL PLAN
A02 DEMOLITION, NEW FLOOR PLAN AND CEILING PLAN

MECHANICAL

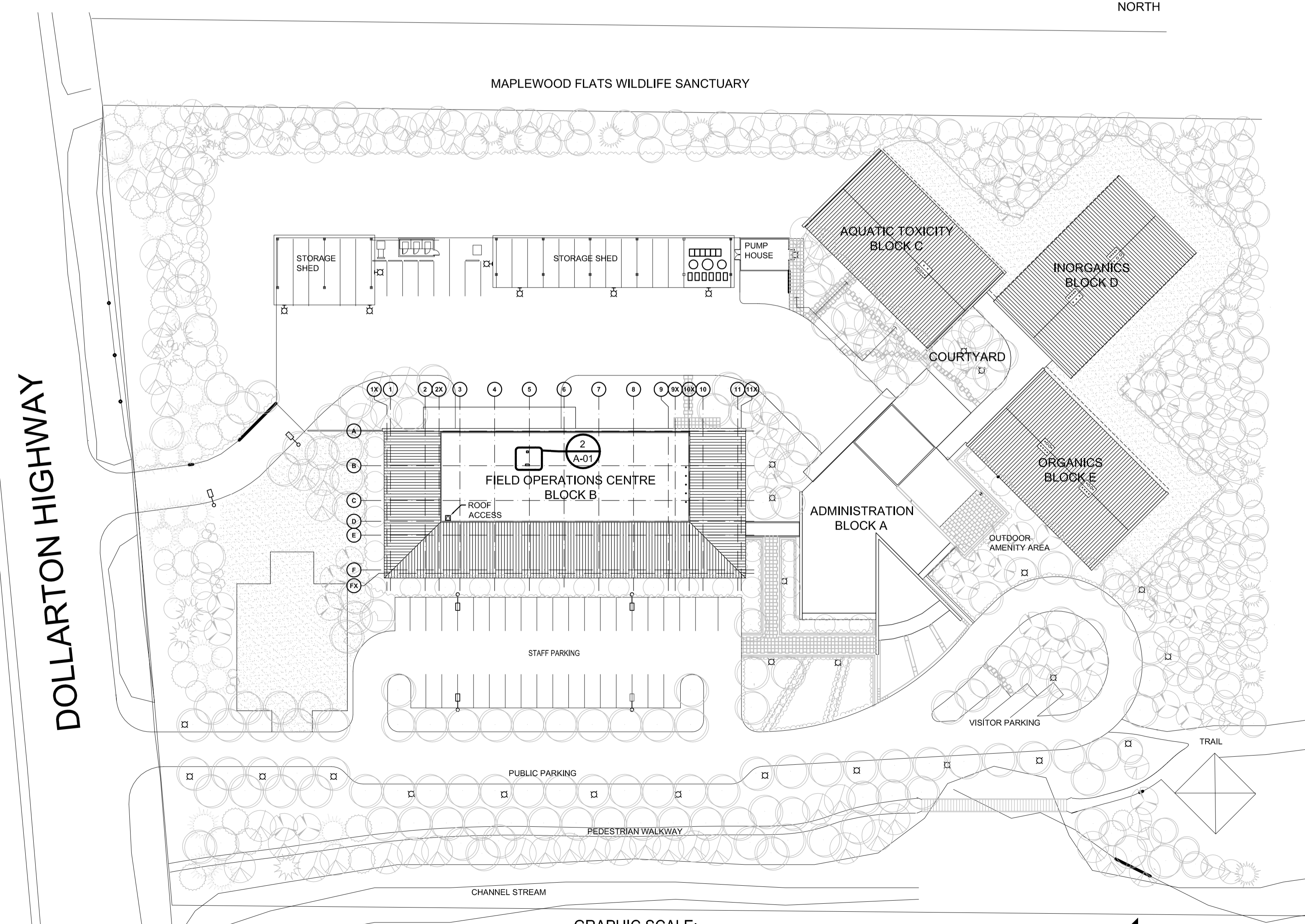
M1.0 MECHANICAL SCHEDULE AND DETAILS
M2.0 MECHANICAL DEMOLITION PLANS
M3.0 MECHANICAL PLANS

ELECTRICAL

E1 ELECTRICAL AND LIGHTING PLANS
E2 CONSTRUCTION DETAILS



1 LOCATION PLAN
A-00
SCALE: N.T.S.

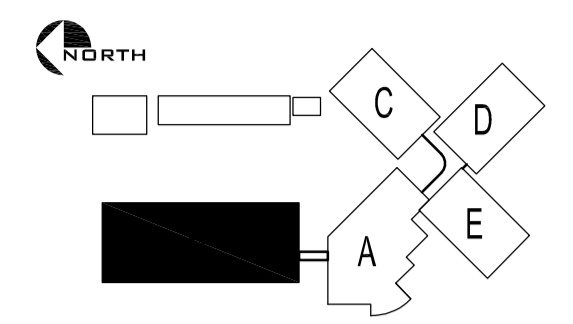


GRAPHIC SCALE:
0m. 10m. 20m. 30m. 40m. 50m.

2 KEY PLAN
A-00
SCALE: 1:500

Environment Canada
Environnement Canada

Real Property Management Division
Technical Services
Division Gestion des biens immobilier
Services Techniques



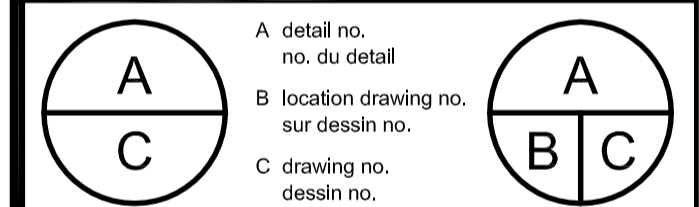
BUILDING KEY PLAN

CHERNOFF THOMPSON
ARCHITECTS

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Fax: 604 683-7684

LEGEND

REV	Description	Date
3	ISSUED FOR TENDER	07/29/15
2	ISSUED FOR REVIEW	05/22/15
1	ISSUED FOR REVIEW	04/28/15
1	ISSUED FOR 66% REVIEW	2015-05-25



project
**PESC BLOCK B
SEDIMENT
PREPARATION ROOM**
PACIFIC ENVIRONMENTAL SCIENCE CENTRE
2645 Dollarton Hwy.
North Vancouver, B.C.

drawing
**COVER PAGE
LOCATION & KEY
PLANS**
dessin

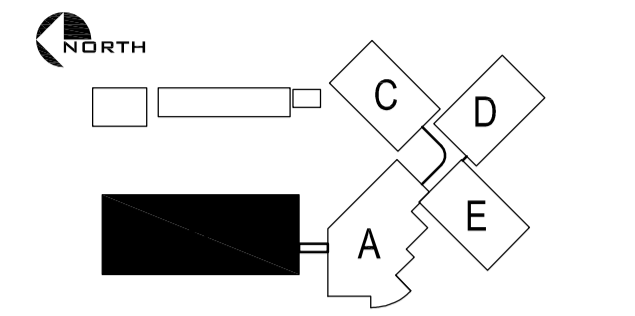
Designed By	BT	Conçu par
Date	2015-04-02	(yyyy/mm/dd)
Drawn By	BT	Dessiné par
Date	2015-04-02	(yyyy/mm/dd)
Reviewed By	NG	Examiné par
Date	2015-04-02	(yyyy/mm/dd)
Approved By	GP	Approuvé par
Date	2015-07-24	(yyyy/mm/dd)
Tender	2015-07-29	Soumission

Project Manager
EC PMDI Proj no.
PESC-028-Ji258

Administrateur de projets
Consultant Proj no.
35001

Drawing no.
No. du dessin

A-00



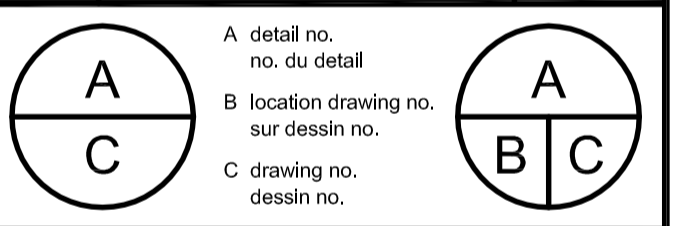
BUILDING KEY PLAN

CHERNOFF THOMPSON ARCHITECTS

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Tel. 604 689-9460
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LEGEND

REV	Description	Date
3	ISSUED FOR TENDER	07/29/15
2	ISSUED FOR REVIEW	05/22/15
1	ISSUED FOR REVIEW	04/28/15



project **PESC BLOCK B
SEDIMENT
PREPARATION ROOM**
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2645 Dollarton Hwy.
North Vancouver, B.C.

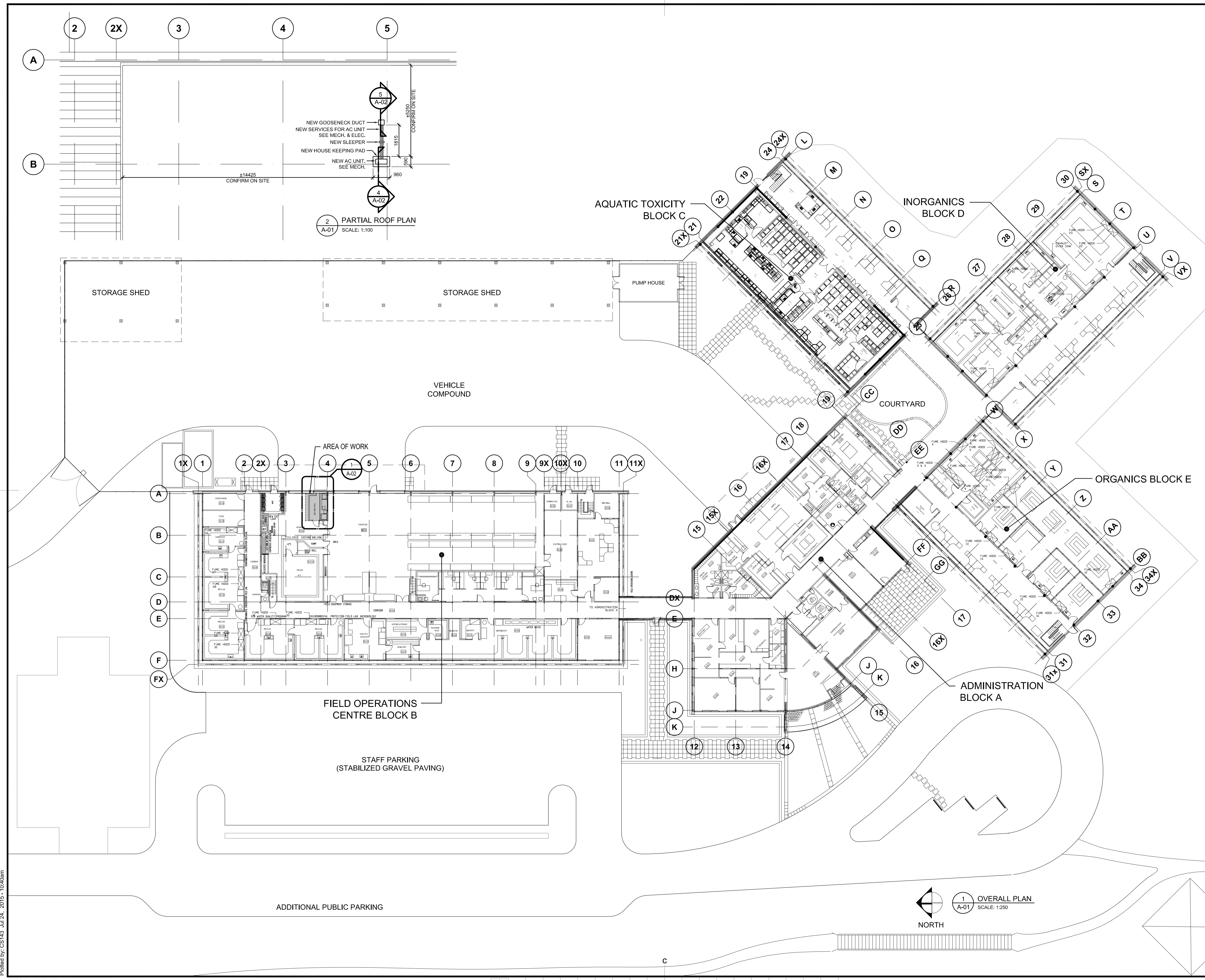
drawing **EXISTING AND
PROPOSED
FLOOR PLANS** dessin

Designed By	BT	Conçu par	Conçu par
Date	2015-04-02	no. du détail	(yyyy/mm/dd)
Drawn By	BT	Dessiné par	Dessiné par
Date	2015-04-02	sur dessin no.	(yyyy/mm/dd)
Reviewed By	NG	Examiné par	Examiné par
Date	2015-04-02	dessin no.	(yyyy/mm/dd)
Approved By	GP	Approuvé par	Approuvé par
Date	2015-07-24	no. du dessin	(yyyy/mm/dd)
Tender	2015-07-29	Soumission	Soumission

Project Manager	Administrateur de projets
EC PMDI Proj no.	Consultant Proj no.
PESC-028-Ji258	35001

Drawing no. No. du dessin

A-01



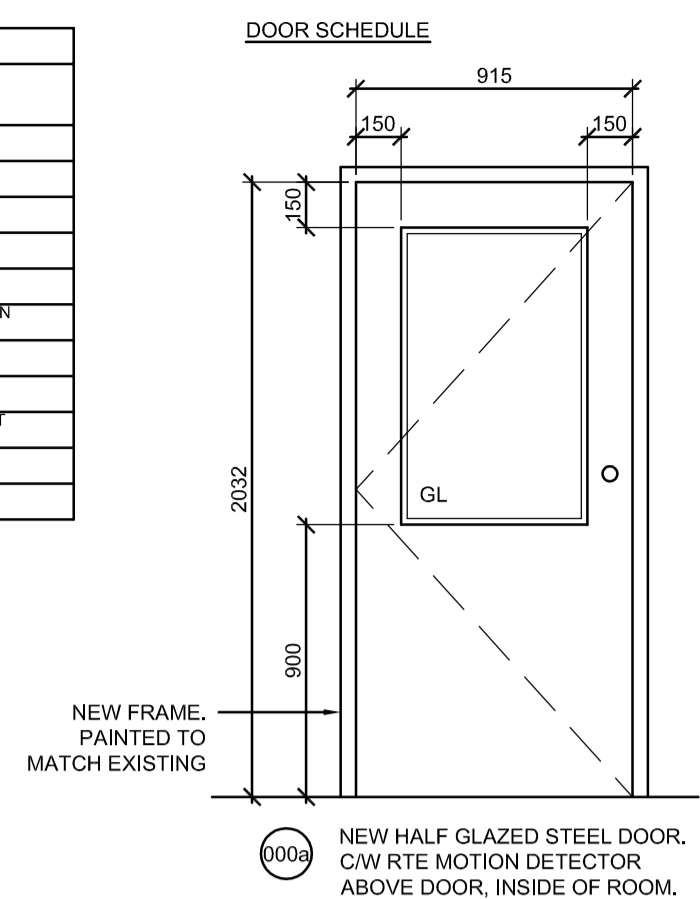
Plotted by: CS143 Jul 24, 2015 - 10:40am

EQUIPMENT LIST							
I.D. #	EQUIPMENT DESCRIPTION	MANUFACTURER	WIDTH (in)	DEPTH (in)	HEIGHT (in)	POWER (amp)	NOTE
1	OVEN		26	24	39		SITS ON TOP OF BENCH
2	FREEZE DRYER		32	32	64		
3	EXISTING GRINDING STATION		EXIST.	EXIST.	EXIST.		TO BE REMOVED
4	LAB FRIDGE		32	30	72		
5	BALANCE TABLE		35	24	31		
6	SINK		16	16	-		NO STAINLESS, EPOXY AND ACID RESISTANT W/PULL OUT HEAD ON FAUCET
7	VENT HOOD		39	18	-		SEE MECHANICAL.
8	LAPTOP COMPUTER		-	-	-		
9	EXISTING DRILL PRESS		EXISTING	EXISTING	EXISTING	120/120V 15A	PROVIDE NEW OUTLET FOR RELOCATED EXISTING DRILL PRESS AT LOCATION SHOWN ON 2/A-02
10	RETRACTABLE COMPRESSED AIR HOSE REEL		-	-	-		WALL MOUNTED
11	ANTI-FATIGUE MAT		-	-	-		

- GENERAL NOTES:**
- PROVIDE TASK LIGHTING UNDER ALL CABINETS
 - USE ONLY LED FIXTURES THROUGHOUT AND REUSE EXISTING LED LIGHT FIXTURES WHERE POSSIBLE.

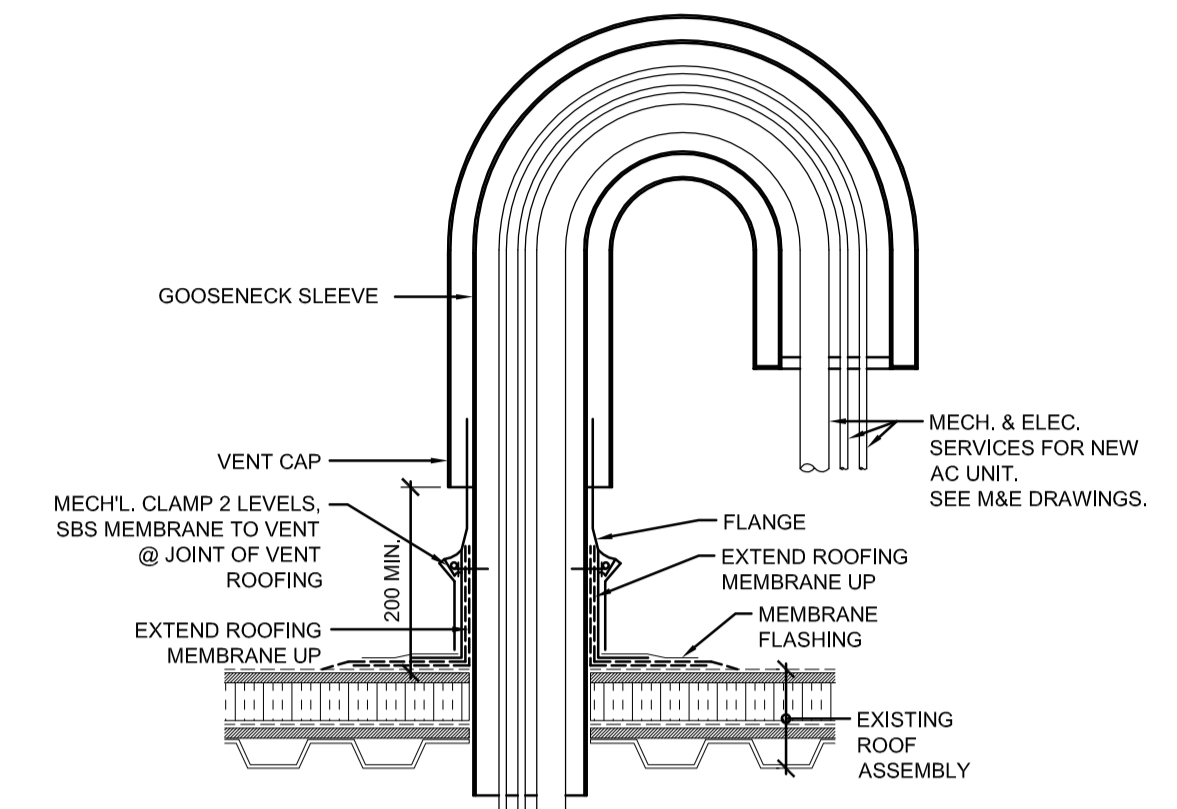
WALL TYPE:

	INTERIOR PARTITION WALL
	- 15.9 mm GYPSUM WALL BOARD
	- 92 STEEL STUDS AT 600mm O.C.
	- 15.9 mm GYPSUM WALL BOARD

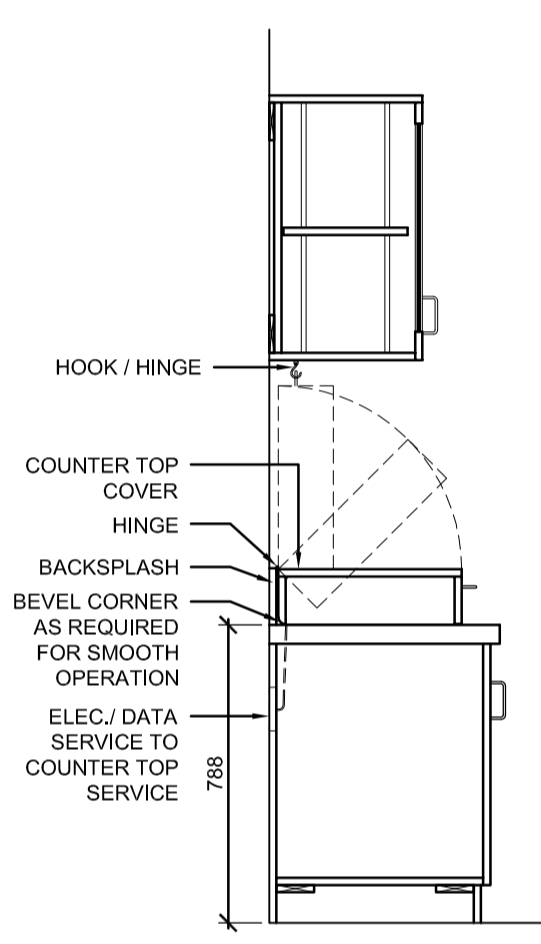


- DOOR HARDWARE**
- 3 ea. Hinges BB179 114 X 101 26D Stanley
 - 1 ea. Lockset ND70PD RHO 626 Schlage
 - 1 ea. Closer 4040 XP EDA 689 LCN
 - 1 ea. Stop/Holder GSH 289 C26D Gallery
 - 1 ea. Kickplate 80A 254 X 864 C32D Gallery
- Key lockset to existing master key system.

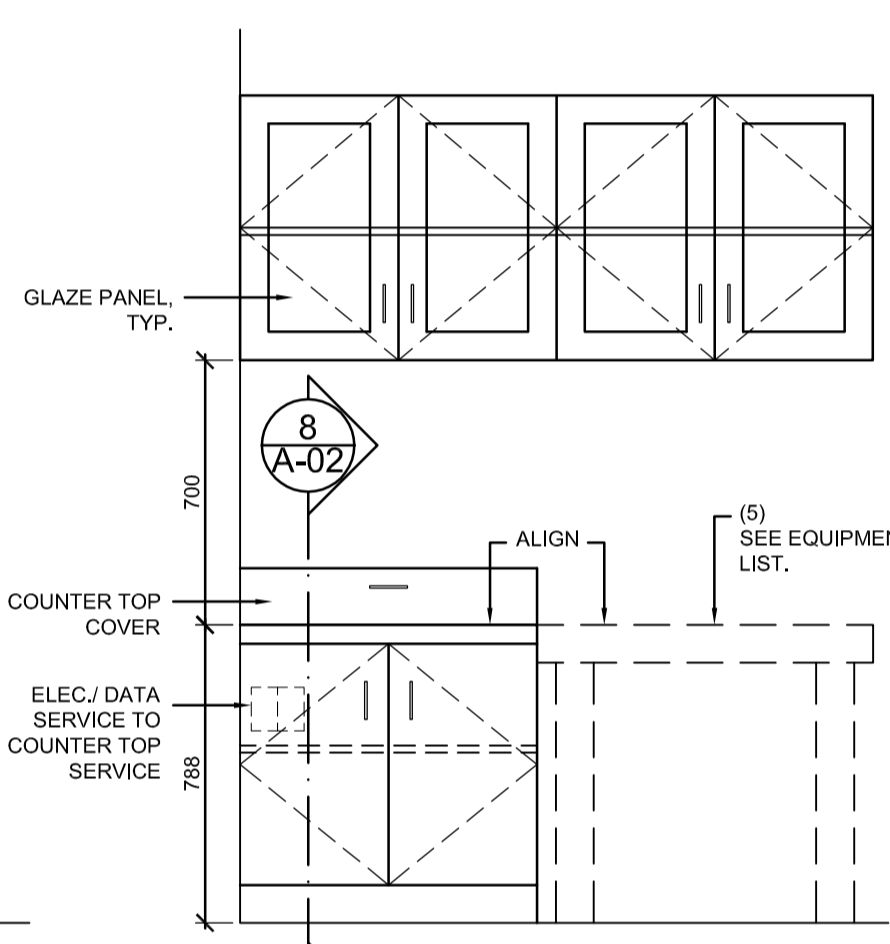
- CONSTRUCTION NOTES:**
- MAKE GOOD OF EXISTING WALL
 - ATTACH NEW ROOF-TO-AC UNIT SERVICES ALONG EXISTING WALL. SEE MECHANICAL.



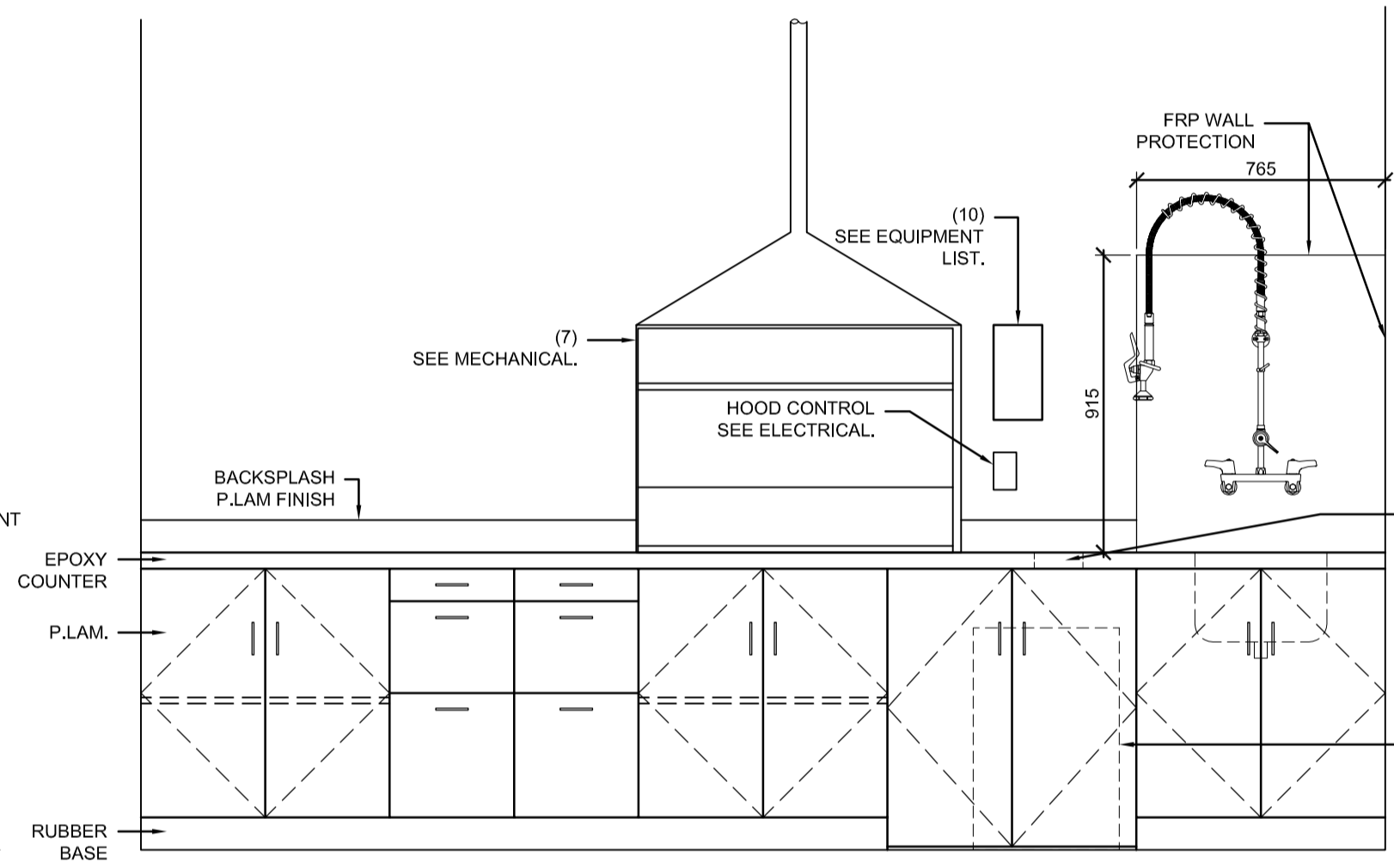
5 NEW ROOF GOOSENECK DETAIL.
A-02 SCALE: 1:10



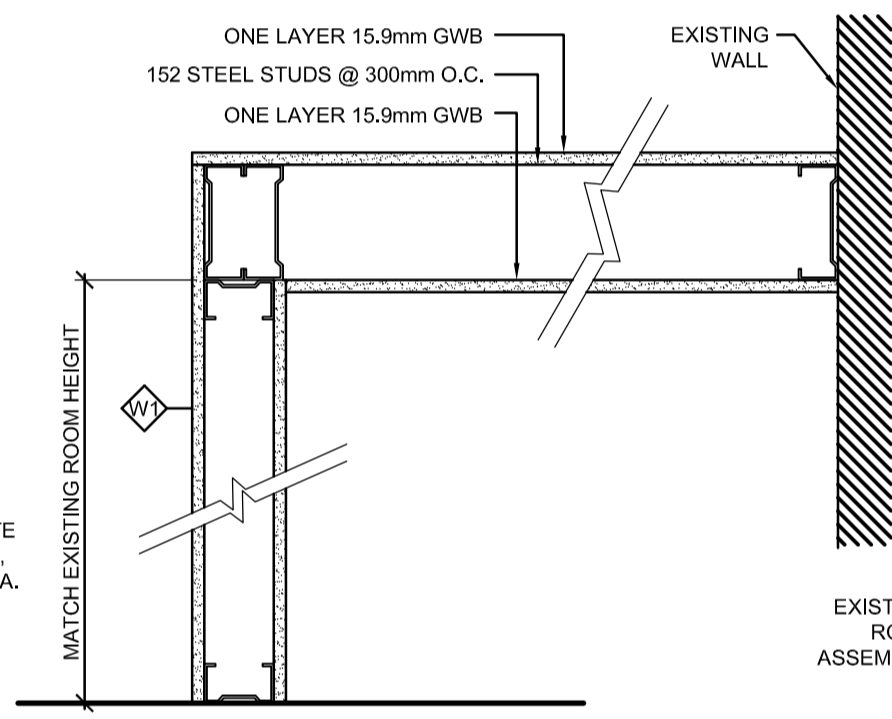
8 NEW MILLWORK
A-02 SCALE: 1:20



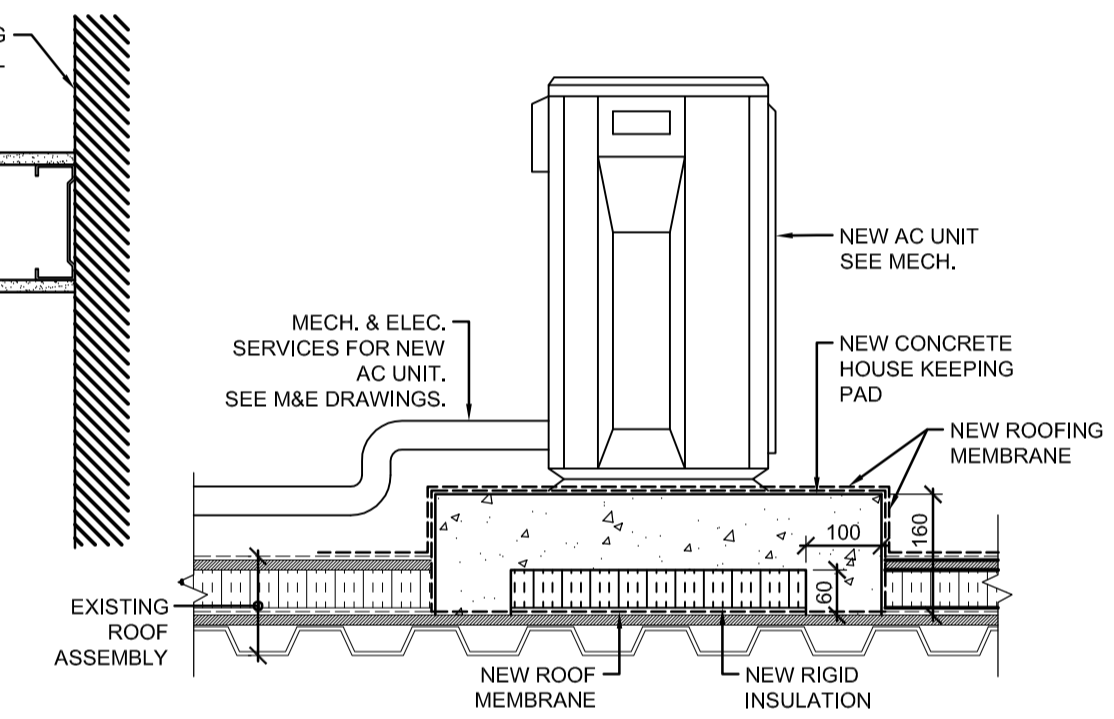
7B NEW MILLWORK
A-02 SCALE: 1:20



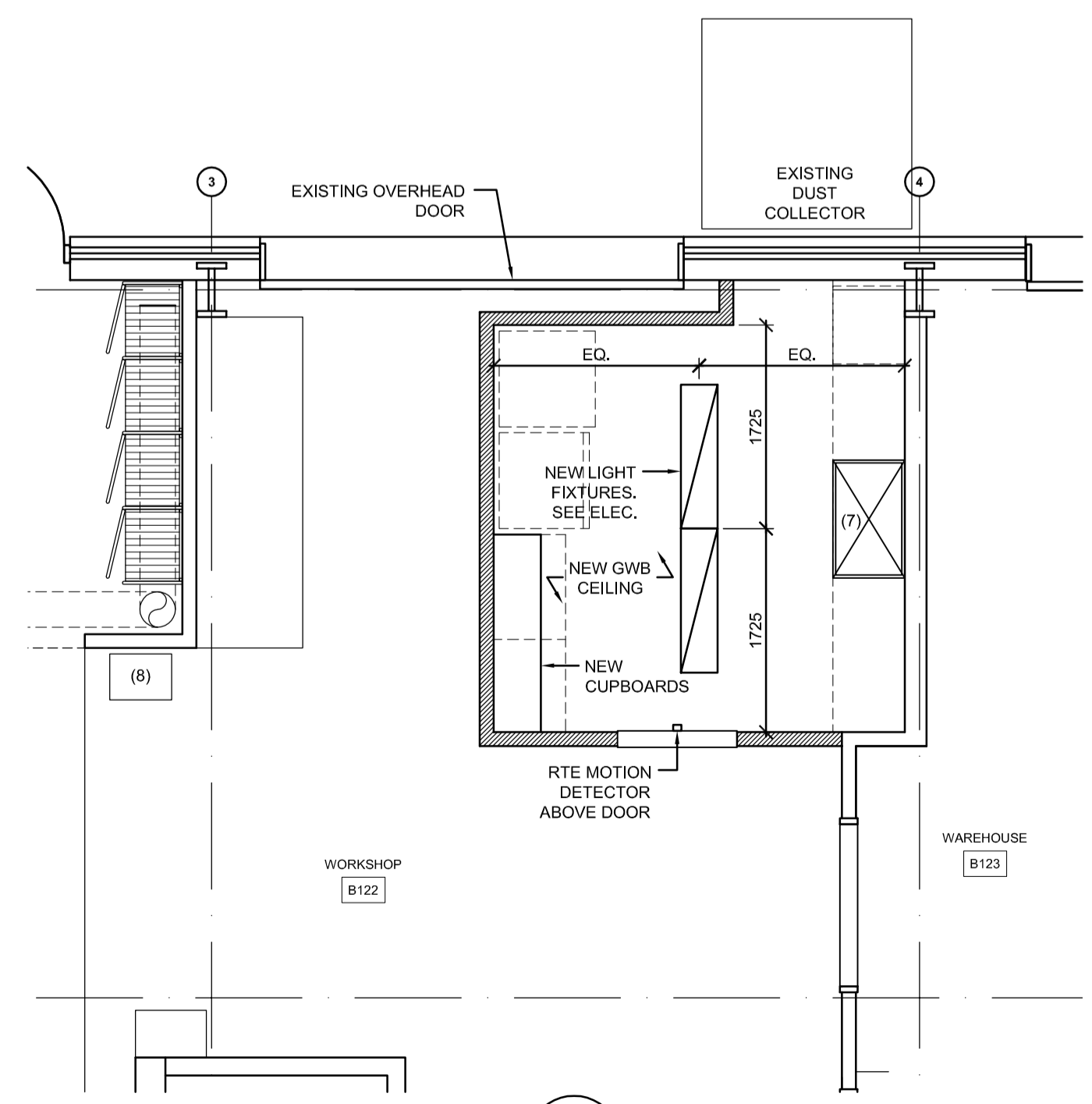
7A NEW MILLWORK
A-02 SCALE: 1:20



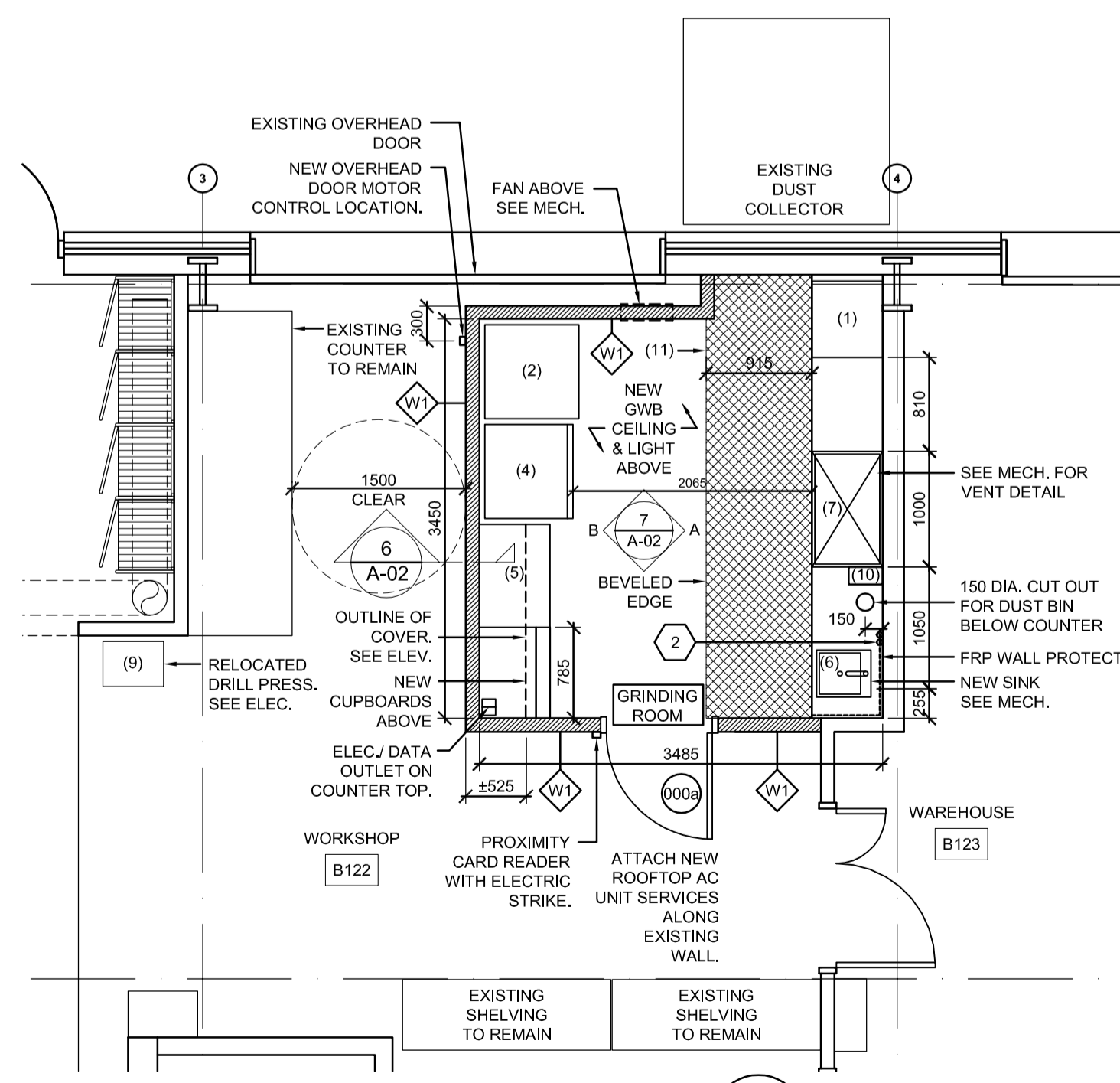
6 WALL AND SECTION DETAIL
A-02 SCALE: 1:10



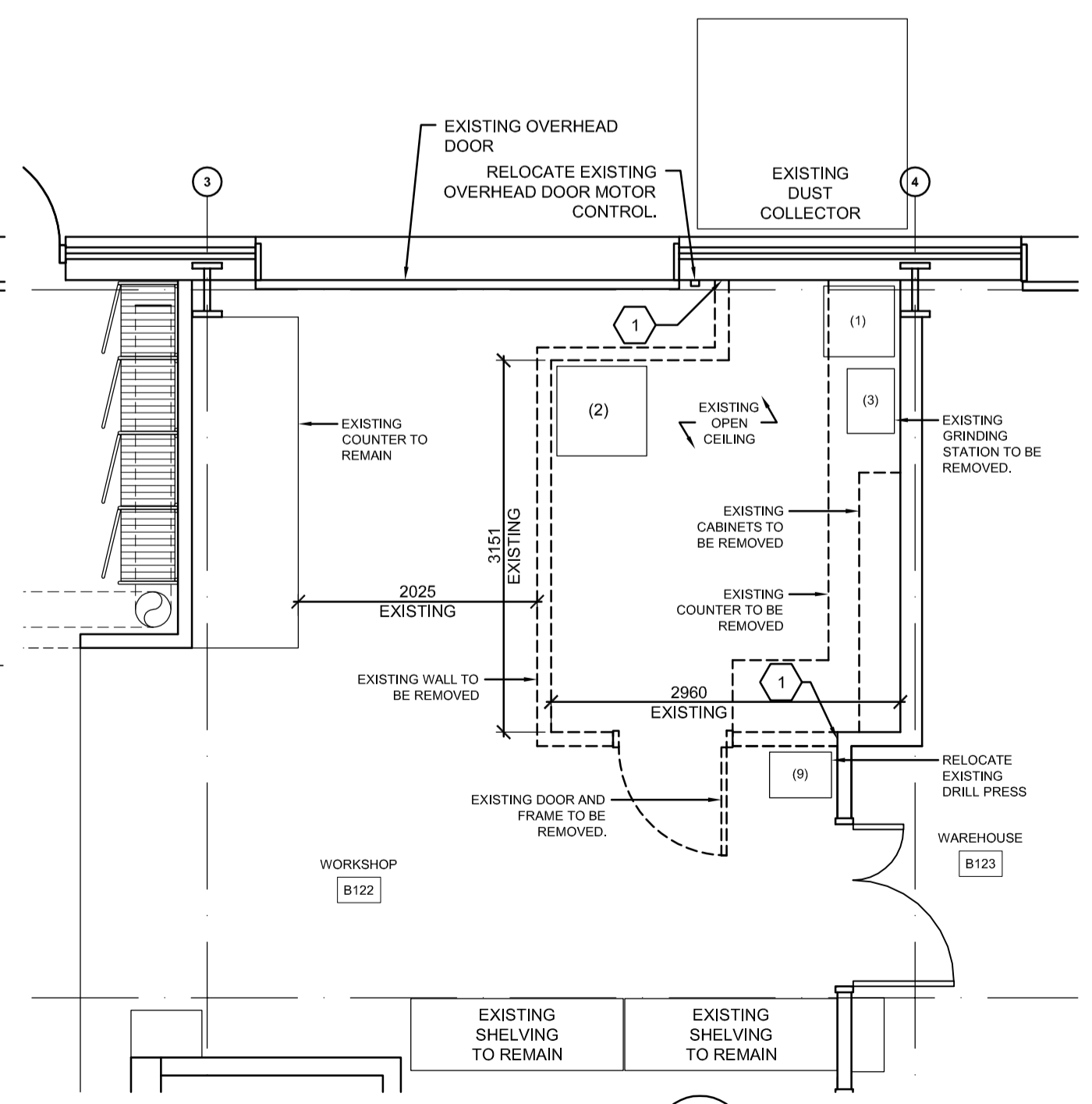
4 NEW HOUSEKEEPING DETAIL.
A-02 SCALE: 1:10



3 REFLECTED CEILING PLAN
A-02 SCALE: 1:50



2 NEW FLOOR PLAN
A-02 SCALE: 1:50



1 DEMOLITION PLAN
A-02 SCALE: 1:50

Environment Canada
Environnement Canada

Real Property Management Division
Technical Services

Division Gestion des biens immobiliers
Services Techniques

BUILDING KEY PLAN

CHERNOFF THOMPSON ARCHITECTS

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Fax 604 683-7684

LEGEND

	A detail no. du detail
	B location drawing no. sur dessin no.
	C drawing no. dessin no.

REV	Description	Date
3	ISSUED FOR TENDER	07/29/15
2	ISSUED FOR REVIEW	05/22/15
1	ISSUED FOR REVIEW	04/28/15

project

**PESC BLOCK B
SEDIMENT
PREPARATION ROOM**

PACIFIC ENVIRONMENTAL SCIENCE CENTRE
2645 Dollarton Hwy.
North Vancouver, B.C.

drawing

**EXISTING AND
PROPOSED
FLOOR PLANS**

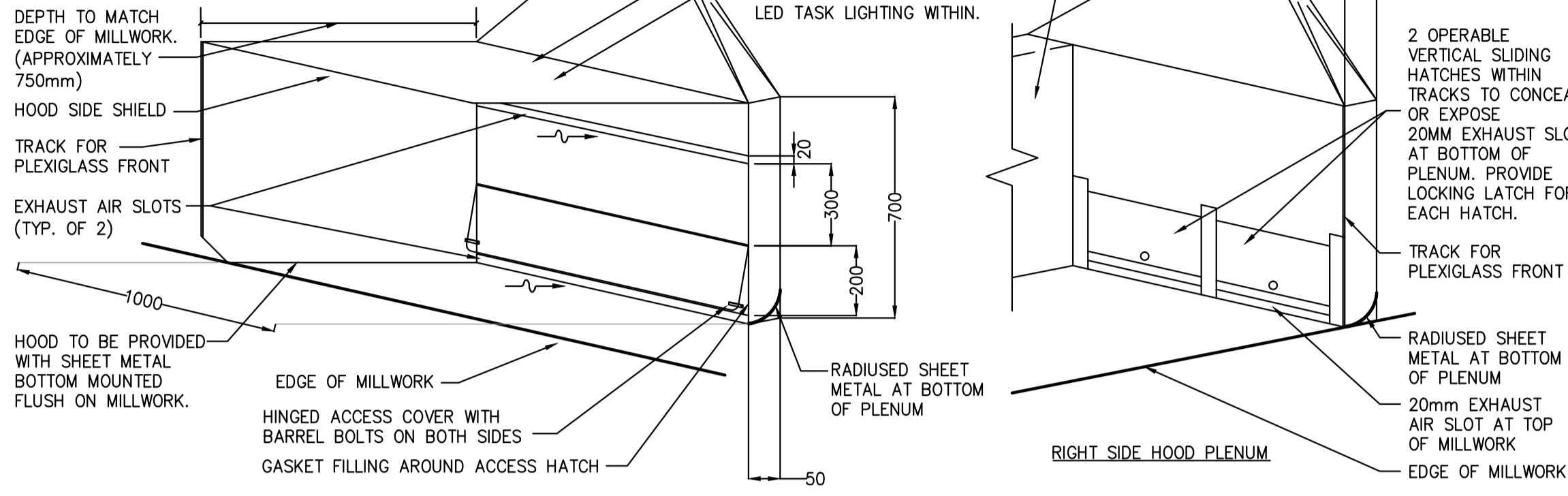
dessin

Designed By	BT	Conçu par	
Date	2015-04-02	(yyyy/mm/dd)	
Drawn By	BT	Dessiné par	
Date	2015-04-02	(yyyy/mm/dd)	
Reviewed By	NG	Examiné par	
Date	2015-04-28	(yyyy/mm/dd)	
Approved By	GP	Approuvé par	
Date	2015-07-24	(yyyy/mm/dd)	
Tender	2015-07-29	Soumission	
Project Manager		Administrateur de projets	
EC PMDI Proj no.		Consultant Proj no.	
PESC-028-Ji258		35001	
Drawing no.		No. du dessin	

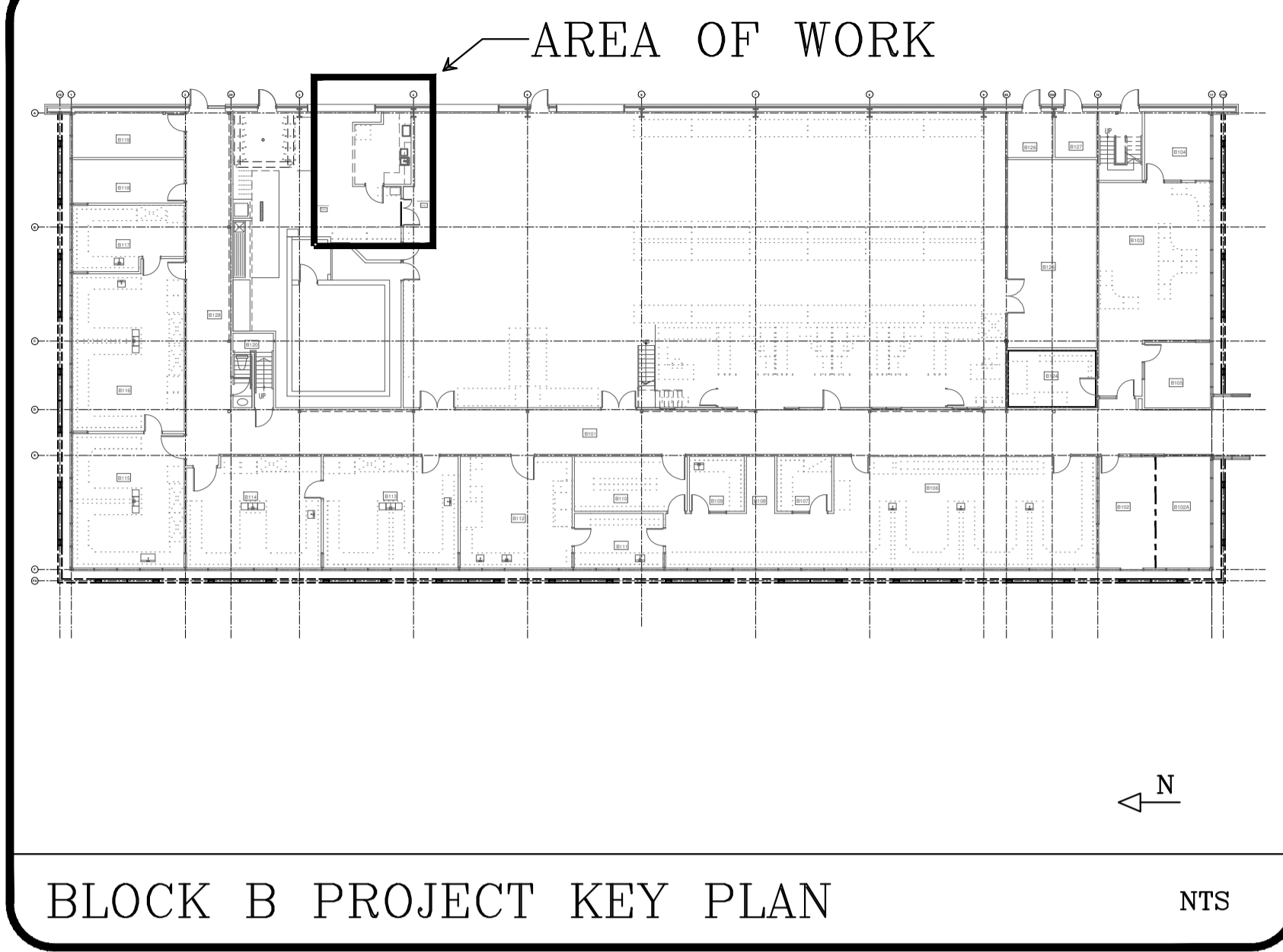
A-02

NOTES:

- HOOD TO BE OF SHEET METAL CONSTRUCTION. PROVIDE ALL REQUIRED SUPPORTS AND BRACING FOR HOOD TO SMACNA STANDARDS. HOOD TO BE RIGIDLY CONSTRUCTED.
- FOLD BACK FRONT EDGES OF SHEET METAL AS NOT TO PROVIDE HAZARD TO USERS.
- FRONT OPENING OF HOOD TO BE PROVIDED WITH PLEXIGLASS COVER WHICH SHALL SLIDE OPEN VERTICALLY WITHIN TRACK ON LEFT AND RIGHT SIDE. PROVIDE STOPS TO HOLD OPEN FRONT COVER AT HALF OPEN AND FULL OPEN POSITIONS.
- SUBMIT SHOP DRAWINGS FOR HOOD PRIOR TO CONSTRUCTING.



HOOD DETAIL



BLOCK B PROJECT KEY PLAN

MECHANICAL DRAWING LIST	
DRAWING NUMBER	DRAWING DESCRIPTION
M1.0	MECHANICAL SCHEDULE AND DETAILS
M2.0	MECHANICAL DEMOLITION PLANS
M3.0	MECHANICAL PLANS

SYMBOL SCHEDULE	
	SUPPLY OR OUTDOOR AIR DUCT UP
	SUPPLY OR OUTDOOR AIR DUCT DOWN
	RETURN AIR DUCT UP
	RETURN AIR DUCT DOWN
	EXHAUST AIR DUCT UP
	EXHAUST AIR DUCT DOWN
	TURNING VANES
	ACOUSTIC INSULATION
	BALANCING DAMPER
	BACK DRAFT DAMPER
	MOTORIZED DAMPER
	ACCESS PANEL
	DUCT OR PIPE CAP-OFF
	EXISTING DUCT OR PIPE TO BE CAPPED
	SUPPLY AIR GRILLE OR DIFFUSER
	RETURN OR EXHAUST AIR GRILLE
	REMOVE EXISTING SUPPLY AIR GRILLE
	DOMESTIC COLD WATER (DCW)
	EXISTING DOMESTIC COLD WATER
	REMOVE EXISTING DOMESTIC COLD WATER
	DOMESTIC HOT WATER (DHW)
	DOMESTIC HOT WATER RECIRC. (DHWR)
	CONDENSATE PIPING
	SANITARY VENT
	SANITARY SEWER
	EXISTING SANITARY SEWER
	PIPE CLEAN-OUT
	PIPE CLEAN-OUT TO GRADE
	NATURAL GAS - LOW PRESSURE
	COMPRESSED AIR
	DIRECTION OF FLOW
	SLOPE PIPE OR DUCT
	PIPE DROP
	PIPE RISE
	PIPE TEE DOWN
	PIPE TEE UP
	PIPE UNION
	ISOLATION VALVE (NORMALLY OPEN)
	ISOLATION VALVE (NORMALLY CLOSED)
	BALL VALVE
	PUMP
	COMPRESSED AIR OUTLET
	FLOOR DRAIN
	FIRE EXTINGUISHER
	NEW / RELOCATED CONCEALED SPRINKLER HEAD
	EXISTING PENDANT SPRINKLER HEAD
	REMOVE EXISTING PENDANT SPRINKLER HEAD
	RELOCATE EXISTING SPRINKLER HEAD
	LOCATION PROVIDE CONCEALED HEAD U.N.O.
	UPRIGHT SPRINKLER HEAD
	THERMOSTAT
	EQUIPMENT / FIXTURE TYPE
	DRAWING NOTE
	DETAIL NUMBER
	DRAWING NUMBER
	GRILLE / DIFFUSER TAG
	GRILLE SIZE / NECK SIZE
	FLOW (cfm / l/s)
	SUPPLY AIR
	RETURN AIR
	EXHAUST AIR
	OUTDOOR AIR
	NOT IN CONTRACT
	NOT TO SCALE
	UNLESS NOTED OTHERWISE
	ALL EQUIPMENT TAGS BEGINNING WITH THE LETTER X ARE EXISTING. ALL OTHER TAGS SHALL BE CONSIDERED AS NEW UNO.

Environment Canada
 Real Property Management Technical Services
 Division Gestion des biens immobiliers Services Techniques

BUILDING KEY PLAN

CHERNOFF THOMPSON ARCHITECTS
 110-1281 West Georgia
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 Fax 604 683-7684

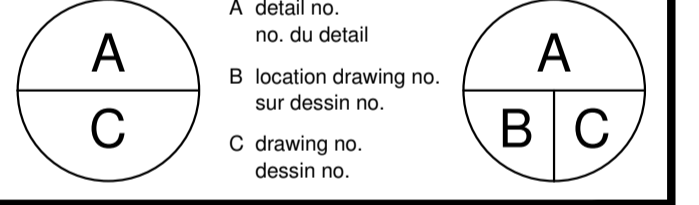
FWD ENGINEERING LTD
 #208-340 Brooksbank Avenue
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 Canada V7J 2C1
 ph: 604.904.2039 Fax: 604.904.2049

Mechanical drawings to be read in conjunction with and in compliance with the mechanical specifications. Plot size of this drawings is 841x594.

These drawings are for the purposes specifically identified in the revision and issue columns. These drawings are not for pricing or construction unless indicated as such.

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REV	Description	Date
4	ISSUED FOR TENDER	07/23/15
3	ISSUED FOR 99% REVIEW	06/22/15
2	ISSUED FOR REVIEW	05/22/15
1	ISSUED FOR REVIEW	04/28/15



project **PESC BLOCK B SEDIMENT PREPARATION ROOM** projet

PACIFIC ENVIRONMENTAL SCIENCE CENTRE
 2645 Dollarton Hwy.
 North Vancouver, B.C.

drawing **MECHANICAL SCHEDULES AND DETAILS** dessin

Designed By KH Conçu par
 Date 2015-04-28 (yyyy/mm/dd)

Drawn By SF Dessiné par
 Date 2015-04-28 (yyyy/mm/dd)

Reviewed By KH Examiné par
 Date 2015-04-28 (yyyy/mm/dd)

Approved By KH Approuvé par
 Date (yyyy/mm/dd)

Tender Soumission

Project Manager Administrateur de projets
 EC PMDI Proj no. Consultant Proj no.

PESC-028-Ji258 0128-003

Drawing no. No. du dessin

M1.0

APPROVED ALTERNATES LITS	
ITEM	ACCEPTABLE ALTERNATE MANUFACTURERS
Air Conditioning Units	Carrier, Trane, McQuay, York, Lennox, Sanyo, Mitsubishi, LG, Ruud, Fujitsu
Balance Dampers	Ruskin, Ecco, AMI
Balancing	KD Engineering, Western Mechanical Services, Design Intent Balancing Services, West Rockies Services
Counter Mounted Hood	Constructed by Sheet Metal Contractor
Fabricated Sheet Metal Hood	Sheet metal Contractor
Fire Protection - Sprinklers	Tyco, Viking, Victaulic, Reliable
Grilles, Registers & Diffusers	Price, Titus, Krueger, Tuttle & Bailey, Nailor Hart, Carnes
Hangers & Supports	Anvil, Unistrut, Myatt, Sarco, Crane
Insulation Pipe and Duct Thermal and Acoustic	Manson, Knaf, Fiberglas, Certainteed, Johns-Manville, Atlas, PPG
Mixing Valves	Bradley, Lawler, Leonard
Plumbing Fixtures (All to be CSA approved)	Crane, American Standard, Kohler, K.I.L., Fiat, Eljer, Stern Williams, Metcraft, Wessan/Elkay, Haws, Aquarius, Jacuzzi, Sunroc, Swan, Bradley, Speakman, Valley, Hytec, Briggs, Venco, Toto, Intersan, AMI, Acorn,Watts Drainage, Zurn, JR Smith
Plumbing Trim (All to be CSA approved)	Crane, Cambridge Brass, American Standard, Kohler, Eljer, Alsons, Powers, Symmons, Moen, Delta, Brasscraft, T&S Brass, Acorn, Swan, Bradley, Chicago, Zurn, Briggs, Aquaspec, Gerber, Toto, Intersan
Pressure Balancing & Thermostatic Mixing Valves (All to be CSA approved)	Crane, Kohler, Powers, Symmons, Leonard, American Standard
Valves - Ball	Red and White, Anvil, Watts, Crane, Milwaukee, Apollo, Kitz
Vibration Control	Mason, Vibro-Acoustics, Vibron/Kintetics, Korfund, AirMaster, Amber Booth

SPLIT HEAT PUMP SCHEDULE												
UNIT REF.	MANUFACTURER	MODEL	NOMINAL TONNAGE	AIR FLOW L/S	ESP	HEATING OUTPUT	COOLING OUTPUT	FIRST BREAKER			WEIGHT (KG)	ACCESSORIES
								VOLTAGE	MCA	MOCP		
FC-1	FUJITSU	ASU9RLF	.75 TONS	85-208	-	3.5kW	2.6kW	208/1/60	0.4	-	9	ALL LISTED
HP-1		AOU9RLFW						208/1/60	7.5	15	70	

SUMMER TEMPERATURE DATA: 78.8°F DB, 66.2°F WB; WINTER DESIGN TEMPERATURE: 19.4°F

NOTES:
 • HEAT PUMPS AND FAN COILS TO BE ULC OR CSA LISTED

ACCESSORIES:
 1) R410A REFRIGERANT
 4) DISCONNECT SWITCH (SUPPLIED AND INSTALLED BY DIVISION 16)
 5) WALL MOUNTED 7 DAY TOUCH SCREEN PROGRAMMABLE THERMOSTAT (SUPPLIED AND INSTALLED BY DIVISION 15)

GENERAL NOTES	
1. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE MECHANICAL SPECIFICATIONS. CONTRACTOR TO COORDINATE ALL REQUIRED PROJECT PHASING WITH THE GENERAL CONTRACTOR.	CONFIRM REQUIRED RATINGS PRIOR TO START OF WORK AND SUBMIT SHOP DRAWINGS. NOTIFY THE ENGINEER PRIOR TO CONCEALMENT FOR SITE INSPECTION. RETAIN FIRE STOPPING MINERAL WOOL AND SEALANT ON SITE WITH MANUFACTURER'S PACKAGING FOR REVIEW. FIRE STOPPING TO BE IN COMPLIANCE WITH ALL LOCAL CODES.
2. ALL MECHANICAL EQUIPMENT, PIPING, DUCTWORK, ETC. INSTALLED ON THIS PROJECT SHALL BE SEISMICALLY RESTRAINED IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA AND AS DETAILED IN THE SPECIFICATIONS.	9. ALL NEW SPRINKLER HEADS SHALL BE SEMI-RECESSED TYPE WITH CHROME ESCUTCHEON PLATES. SPRINKLERS SHALL BE INSTALLED IN ACCORDANCE WITH LATEST NFPA 13 (ORDINARY HAZARD GROUP 2).
3. ROUTING AND LAYOUT OF ALL SERVICES IS DIAGRAMMATIC. THE CONTRACTOR IS RESPONSIBLE FOR FIELD MEASUREMENTS AND MATERIAL COORDINATION PRIOR TO INSTALLATION, AND IS TO OFFSET AS REQUIRED TO AVOID CONFLICTS WITH NEW AND EXISTING SERVICES.	10. ALL WATER PIPING SHALL BE INSULATED AND VAPOUR SEALED FOR ENTIRE LENGTH OF SERVICE, INCLUDING CEILINGS AND WALL VOIDS.
4. THE MECHANICAL CONTRACTOR IS TO LIAISE WITH ALL OTHER TRADES TO ENSURE REQUIRED SERVICE AND ADEQUATE SPACE IS PROVIDED FOR THE INSTALLATION OF SERVICES.	11. ALL PLUMBING FIXTURES TO BE INSTALLED COMPLETE WITH ISOLATION VALVES ON DOMESTIC WATER SERVICES.
5. ALL MATERIALS SHALL BE "NEW" AND ULC LISTED. INSTALLATION OF MATERIALS SHALL BE BY APPROVED CONTRACTOR.	12. ALL WORK IS TO BE IN COMPLIANCE WITH ALL APPLICABLE LOCAL CODES AND LANDLORD REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR BEING AWARE OF AND ADHERING TO ALL LANDLORD REQUIREMENTS.
6. ALL GRILLES AND DIFFUSERS TO BE BALANCED TO AIR QUANTITIES NOTED ON THE DRAWINGS.	13. UNLESS SPECIFICALLY IDENTIFIED OTHERWISE, ALL EQUIPMENT CAPACITIES AND PERFORMANCE DATA (IE: COOLING OUTPUT, HEATING OUTPUT, FLOW, HEAD LOSS, ETC.) ARE NET VALUES AND UNDERSTOOD TO BE EXTERNAL TO ANY INTERNAL LOSSES OR GAINS ASSOCIATED WITH EQUIPMENT.
7. REVISE SPRINKLER HEAD ELEVATIONS AS REQUIRED TO SUIT SUSPENDED CEILING HEIGHTS.	14. ALL EQUIPMENT SHALL BE INSTALLED IN FULL COMPLIANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND REQUIREMENTS.
8. FIRESTOP ALL PIPING SLEEVES THROUGH FIRE SEPARATIONS TO MATCH RATINGS.	

GRILLE AND DIFFUSER SCHEDULE				
UNIT REFERENCE	MANUFACTURER	MODEL	DESCRIPTION AND DETAILS	BORDER AND FRAMING
R-1	E.H. PRICE	530	20mm FIXED BLADE SINGLE DEFLECTION GRILLE. B12 FINISH	DRYWALL CEILING INSTALLATION

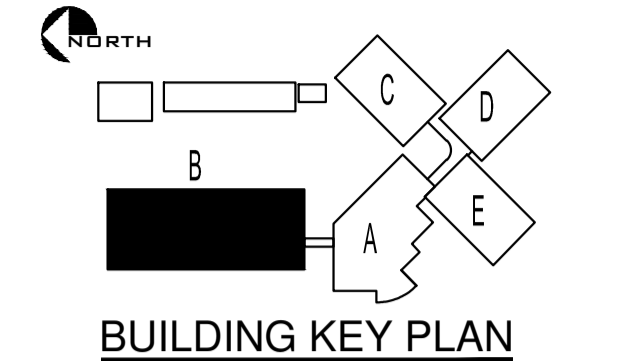
PLUMBING FIXTURE CONNECTION SCHEDULE							
TAG REFERENCE	DESCRIPTION	WATER CONNECTION			COMBINED DCW FU	COMMENTS	
		DCW	DHW	VENT			
SK-1	SINK	12ø	12ø	40ø	50ø	4	TO SUIT STANDARD INSTALLATION

PROJECT CLOSE-OUT REQUIREMENTS	
CLOSE OUT INFORMATION REQUIRED AT COMPLETION OF CONSTRUCTION.	
GENERAL	
1- OPERATING AND MAINTENANCE MANUALS.	
2. A LIST OF OUTSTANDING ITEMS. IF THE LIST IS DEEMED EXCESSIVE SUBSTANTIAL COMPLETION WILL NOT BE CONSIDERED.	
3. CONTRACTOR'S GUARANTEE LETTER.	
PLUMBING	
4. LETTER CONFIRMING ALL WATER PIPING HAS BEEN THOROUGHLY FLUSHED AND CLEANED.	
5. FIRE STOPPING LETTER OF COMPLETION.	
HVAC	
6. BALANCING REPORT	
7. EQUIPMENT COMMISSIONING REPORT.	
FIRE PROTECTION SPRINKLERS	
8. LETTER STATING ALL INSTALLATIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH NFPA 13 REQUIREMENTS.	

PLUMBING FIXTURE SCHEDULE			
TAG REFERENCE	PLUMBING FIXTURE	PLUMBING TRIM	COMMENTS
SK-1	SINK TO BE ORION MODEL ARLS-15 ADA LABORATORY SINK, OVERALL 520 x 445 x 381 DEEP, SINK DIMENSIONS TO BE 458 x 381 x 305 DEEP, REAR RIGHT INTEGRAL THREADED OUTLET, TO BE VIRGIN CORROSION RESISTANT HIGH DENSITY POLYETHYLENE CONFORMING TO ASTM D 1248.	FAUCET TO BE DELTA MODEL 55TI-5-8-3, WALL MOUNTED 8" O.C., CAST BRASS BODY WITH POLISHED CHROME FINISH, SPRAY WITH STAINLESS STEEL SPRING LOADED HOSE, HIGH GOOSENECK FAUCET, BLADE HANDLES, AND ALL REQUIRED SUPPLIES, INSTALLATION ACCESSORIES AND ANGLE STOP WHEEL HANDLES.	PROVIDE ALL ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION.
TP-1	PRECISION PLUMBING PRODUCTS "PRIME-PRO" MODEL PR04-500 TRAP PRIMER WITH LEAD FREE BRASS CONSTRUCTION AND STAINLESS STEEL SCREEN.		PROVIDE ALL ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION.
XSI-1	REUSE EXISTING. SEDIMENT INTERCEPTOR FOR NEW INSTALLATION.		PROVIDE ALL ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION.
XAO-1	REUSE EXISTING AIR OUTLET REGULATOR FOR NEW INSTALLATION.		PROVIDE ALL ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION.
P-1	LITTLE GIANT MODEL VCMY-20UL CONDENSATE PUMP RATED AT 284 LITERS PER HOUR AT 1.5m HEAD PRESSURE. PROVIDE ALL REQUIRED MOUNTING ACCESSORIES, CHECK VALVE ON DISCHARGE, THERMALLY PROTECTED MOTOR, AND 1.8m LONG POWER CORD WITH 3 PRONG PLUG FOR CONNECTION TO 115/1/60 POWER SOURCE.		PROVIDE ALL ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION.

GENERAL SPECIFICATIONS:

- ALL PLUMBING FIXTURES AND TRIM ARE TO HAVE CSA CERTIFICATION.
- FIXTURES SUPPLIES (HOT AND COLD WATER) ARE TO BE STAINLESS STEEL BRAIDED SUPPLIES WITH STAINLESS STEEL BALL VALVE AND CHROME PLATED WALL ESCUTCHEON.
- ALL P-TRAPS (STANDARD AND OFFSET) TO BE CHROME PLATED CAST BRASS WITH CLEANOUT PLUG, UNION JOINTS, AND WALL ESCUTCHEON.
- ALL FLOOR AND HUB DRAINS TO BE PROVIDED WITH TRAP PRIMERS AS PER CODE REQUIREMENTS



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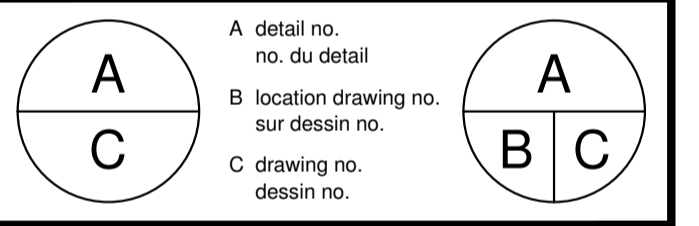
#208-340 Brooksbank Avenue
North Vancouver, BC
Canada V7J 2C1
ph: 604.904.2039 Fax: 604.904.2049

Mechanical drawings to be read in conjunction with and in compliance with the mechanical specifications. Plot size of this drawings is 841x594.

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REV	Description	Date
4	ISSUED FOR TENDER	07/23/15
3	ISSUED FOR 99% REVIEW	06/22/15
2	ISSUED FOR REVIEW	05/22/15
1	ISSUED FOR REVIEW	04/28/15



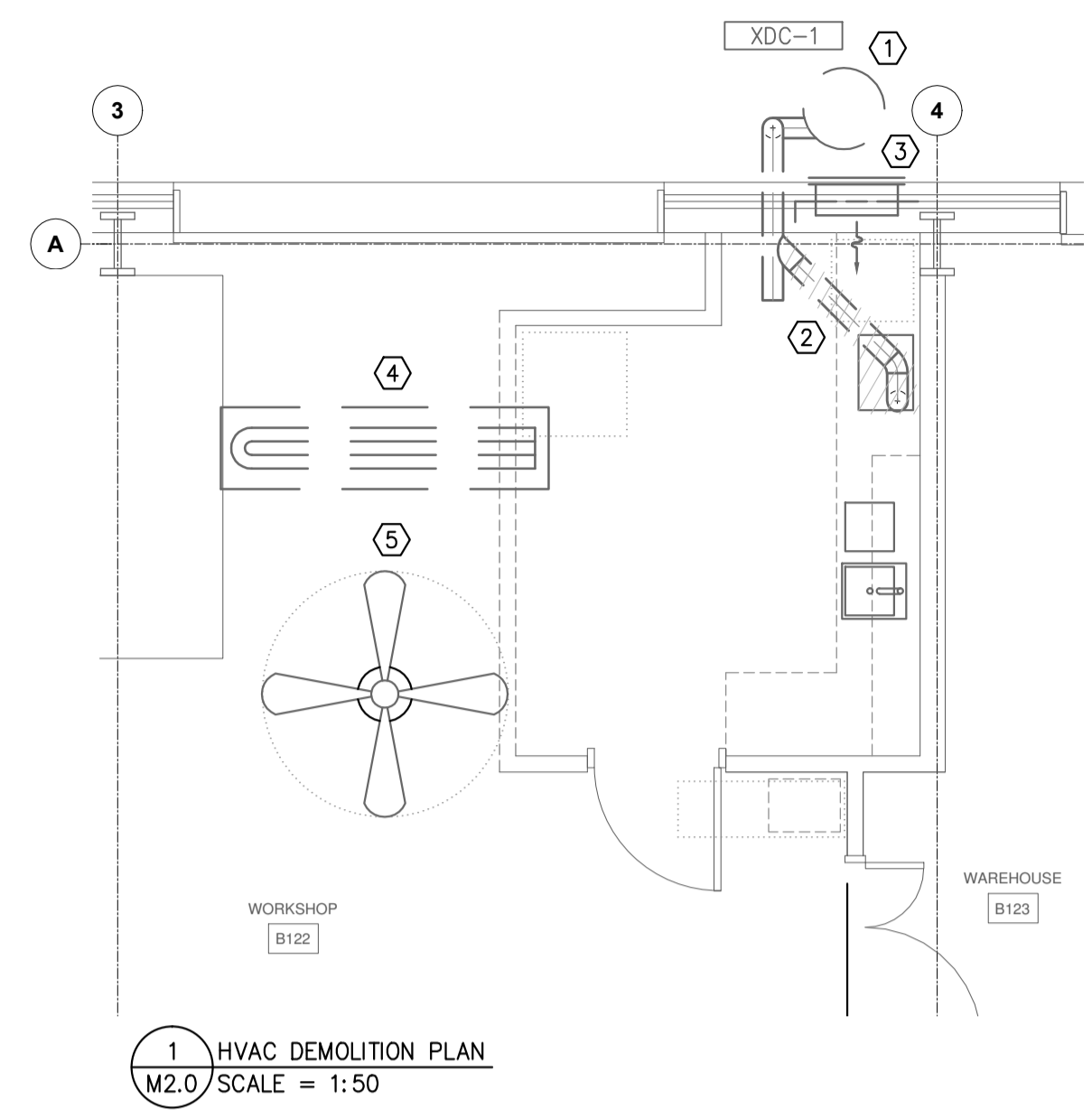
project **PESC BLOCK B SEDIMENT PREPARATION ROOM** projet
PACIFIC ENVIRONMENTAL SCIENCE CENTRE
2645 Dollarton Hwy.
North Vancouver, B.C.

MECHANICAL DEMOLITION PLANS

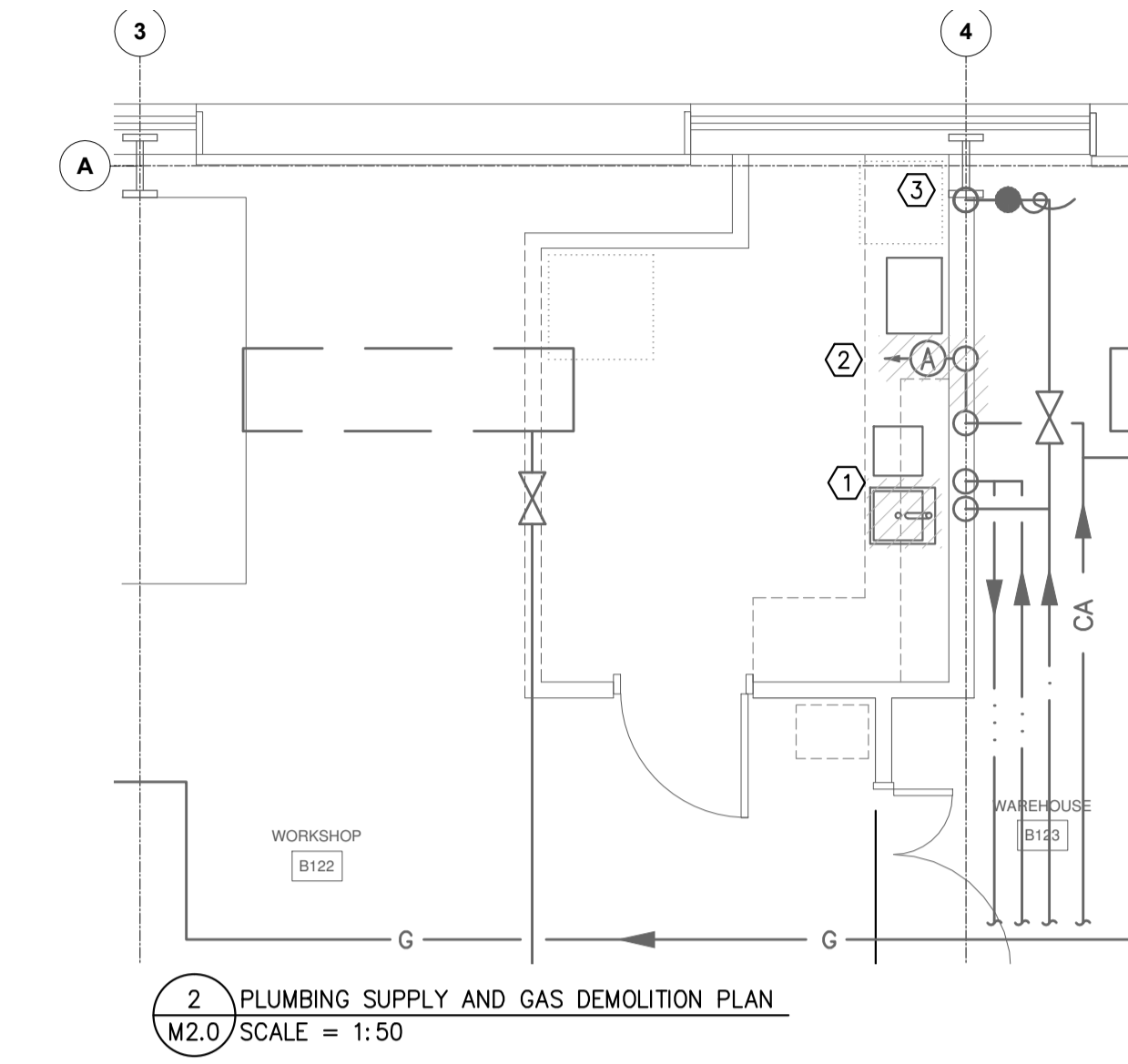
Designed By	KH	Conçu par	
Date	2015-04-28	(yyyy/mm/dd)	
Drawn By	SF	Dessiné par	
Date	2015-04-28	(yyyy/mm/dd)	
Reviewed By	KH	Examiné par	
Date	2015-04-28	(yyyy/mm/dd)	
Approved By		Approuvé par	
Date		(yyyy/mm/dd)	
Tender		Soumission	

Project Manager	Administrateur de projets
EC PMDI Proj no.	Consultant Proj no.
PESC-028-Ji258	0128-003

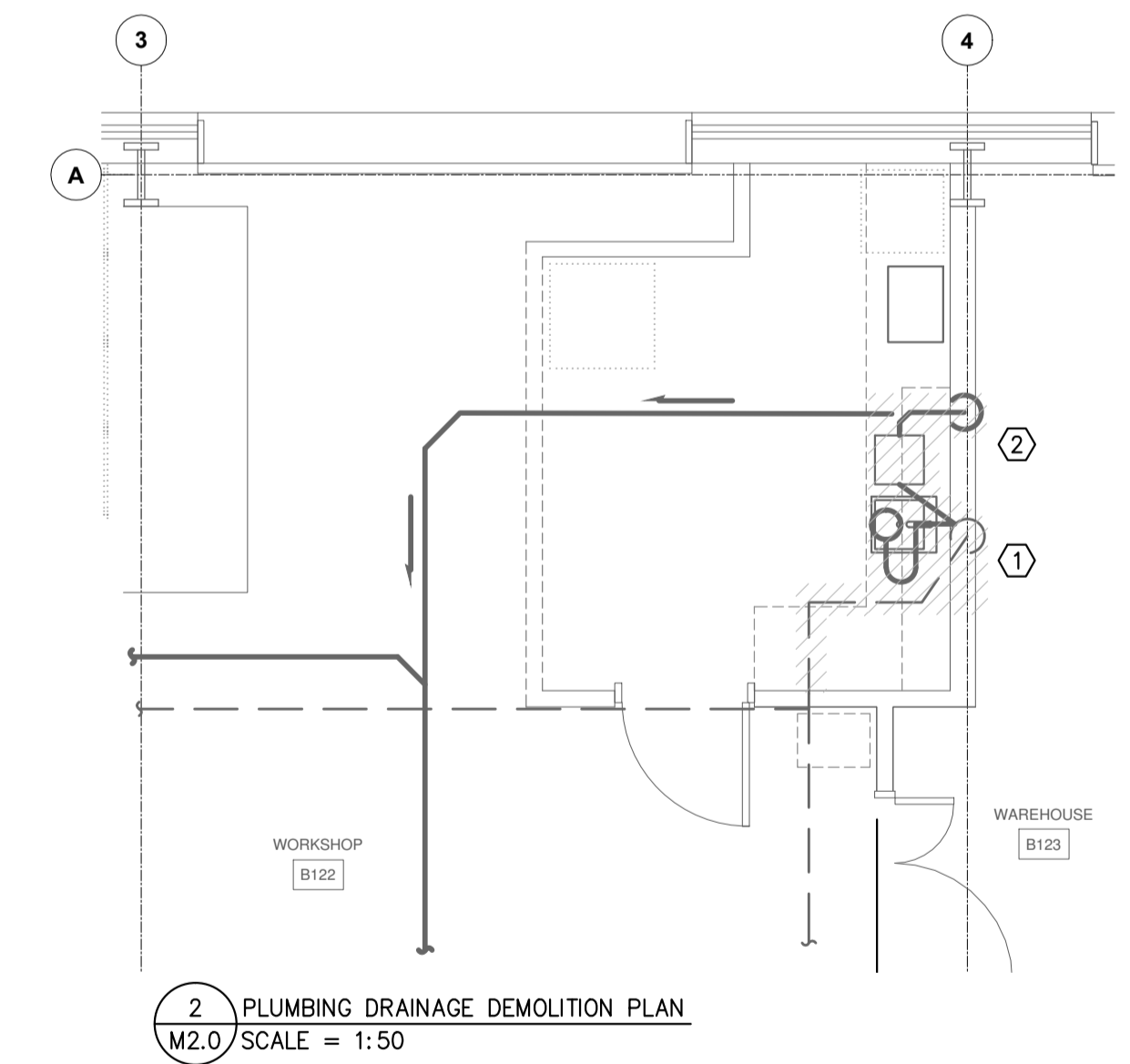
Drawing no. **M2.0** No. du dessin
of 3



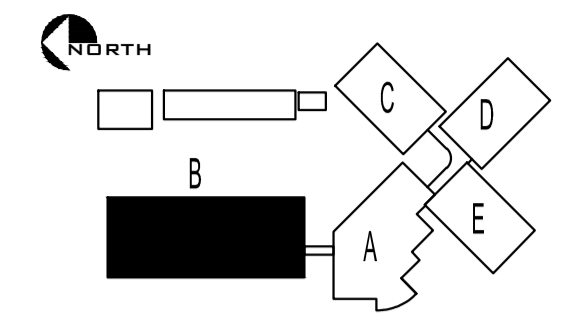
- ### HVAC DEMOLITION NOTES
- ① EXISTING DUST COLLECTION SYSTEM OUTSIDE OF BUILDING TO REMAIN.
 - ② REMOVE EXISTING DUCTWORK DOWN TO MILLWORK LEVEL. REMOVE EXISTING EXHAUST HOOD AT MILLWORK LEVEL..
 - ③ EXISTING OUTDOOR AIR INTAKE AT HIGH LEVEL TO REMAIN.
 - ④ EXISTING RADIANT HEATER AT HIGH LEVEL TO REMAIN.
 - ⑤ EXISTING CIRCULATION FAN AT HIGH LEVEL TO REMAIN.



- ### PLUMBING SUPPLY AND GAS DEMOLITION NOTES
- ① REMOVE EXISTING SINK. DISCONNECT HOT AND COLD WATER SUPPLIES. RETAIN SERVICES FOR REUSE.
 - ② REMOVE EXISTING COMPRESSED AIR HOSE, OUTLET AND REGULATOR. RETAIN SERVICE AND REGULATOR FOR REUSE.
 - ③ EXISTING HOSE BIBB TO REMAIN.



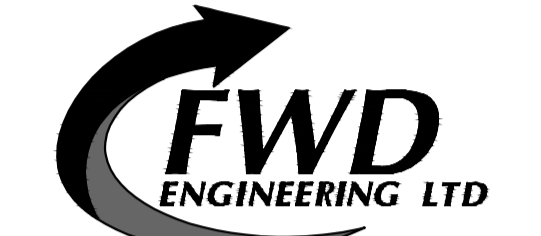
- ### PLUMBING DRAINAGE DEMOLITION NOTES
- ① REMOVE EXISTING SINK. DISCONNECT SANITARY DRAINAGE AND VENT PIPING.
 - ② REMOVE EXISTING SEDIMENT INTERCEPTOR. RETAIN FOR REUSE.



BUILDING KEY PLAN

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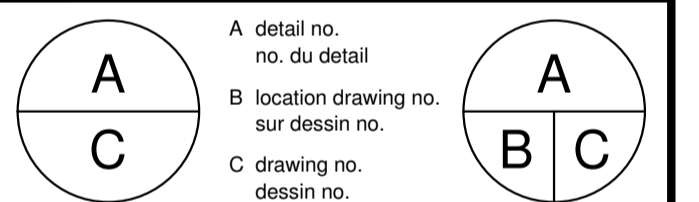
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project **PESC BLOCK B SEDIMENT PREPARATION ROOM** projet
PACIFIC ENVIRONMENTAL SCIENCE CENTRE
2645 Dollarton Hwy.
North Vancouver, B.C.

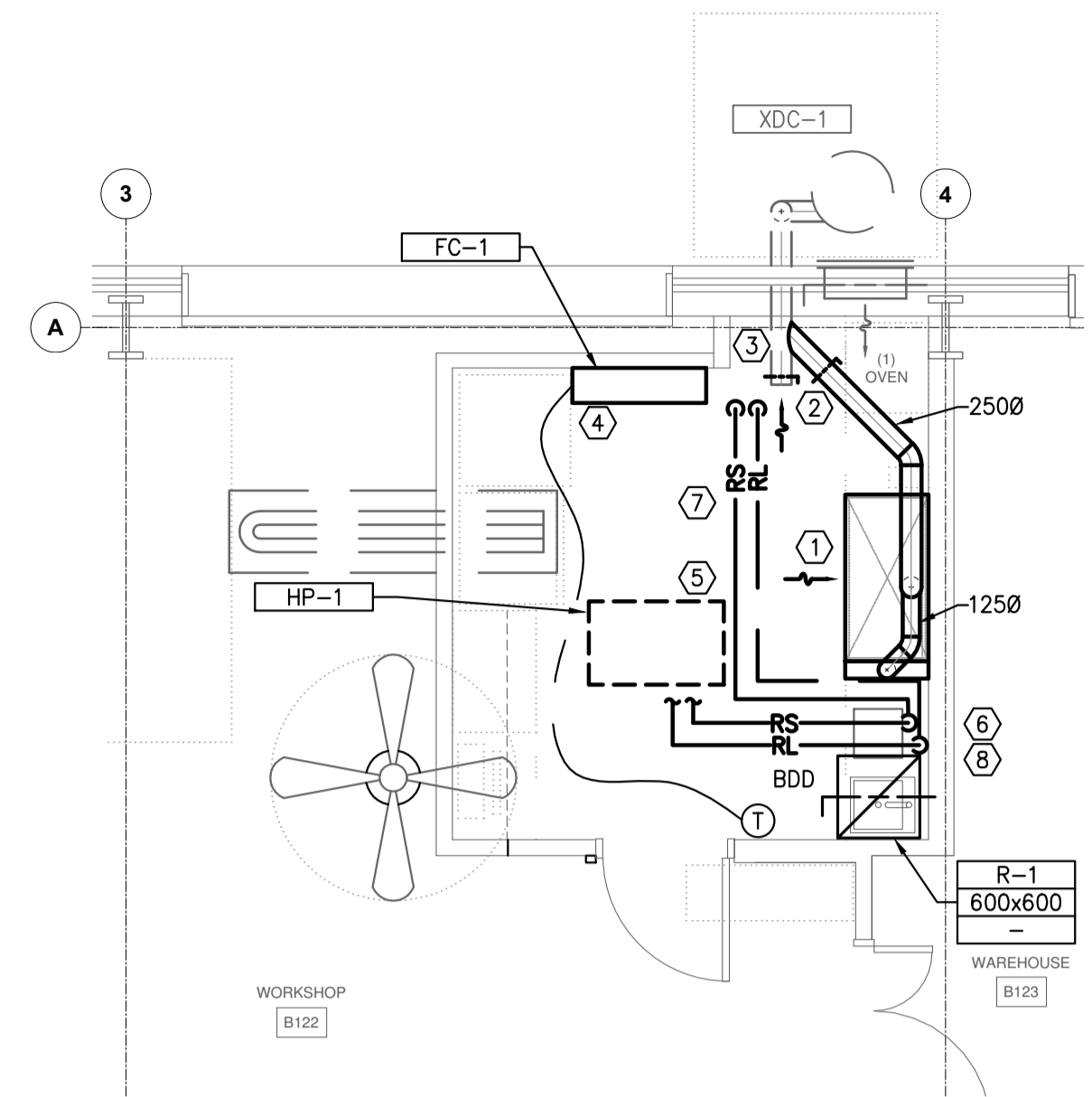
drawing **MECHANICAL PLANS** dessin

Designed By	KH	Conçu par	
Date	2015-04-28	(yyyy/mm/dd)	
Drawn By	SF	Dessiné par	
Date	2015-04-28	(yyyy/mm/dd)	
Reviewed By	KH	Examiné par	
Date	2015-04-28	(yyyy/mm/dd)	
Approved By		Approuvé par	
Date		(yyyy/mm/dd)	
Tender		Soumission	

Project Manager	Administrateur de projets
EC PMDI Proj no.	Consultant Proj no.
PESC-028-Ji258	0128-003

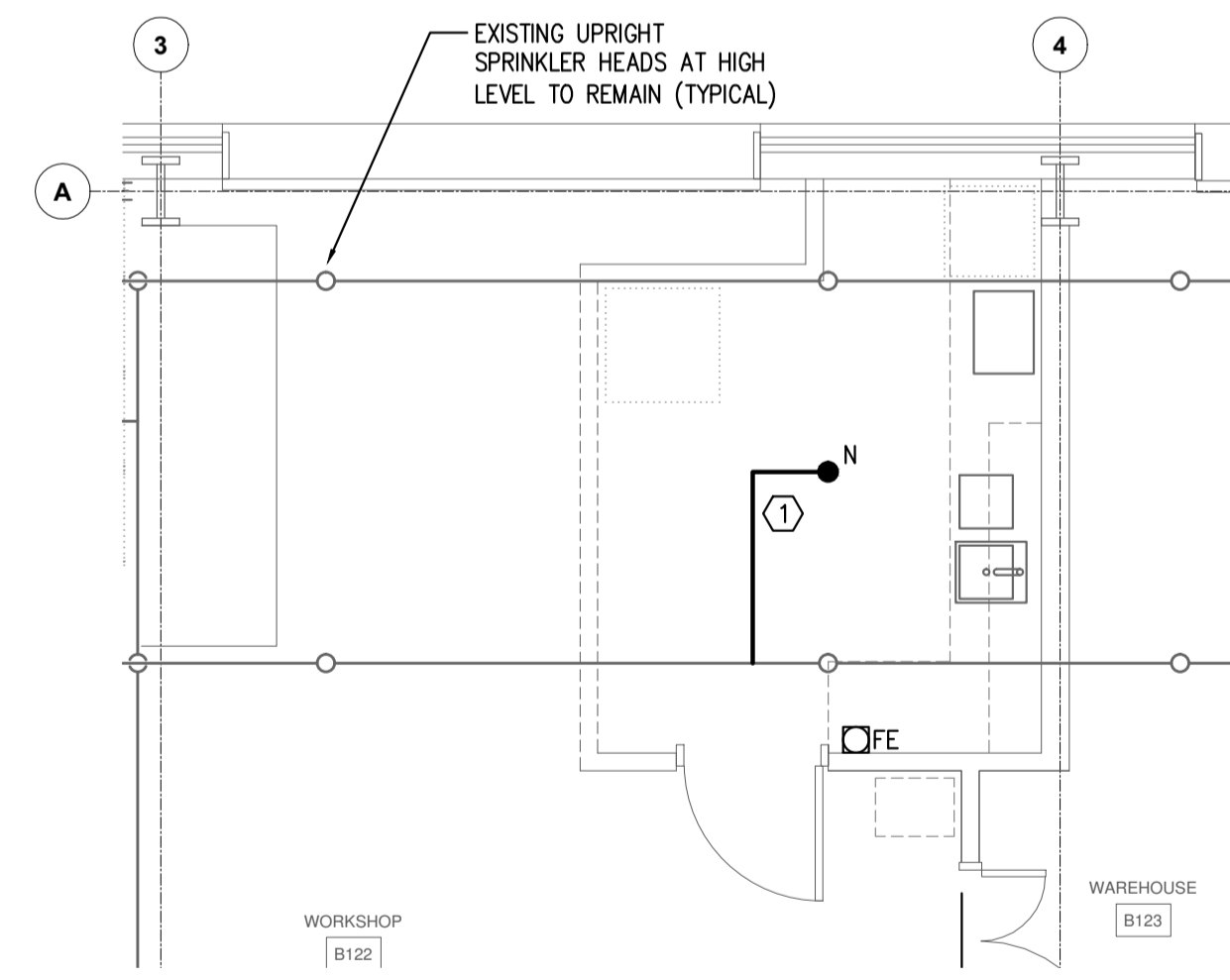
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M3.0



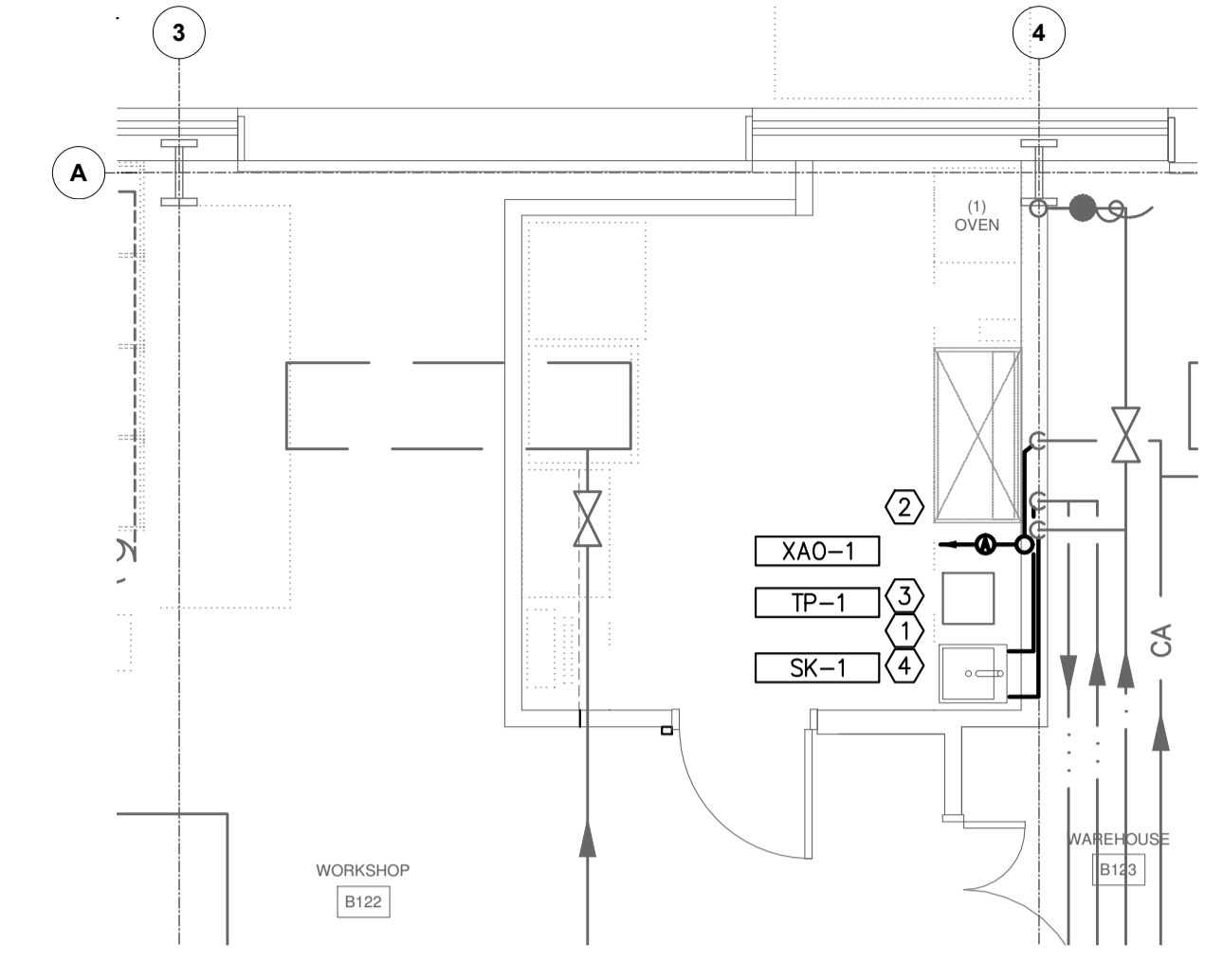
1 HVAC PLAN
M3.0 SCALE = 1:50

- ### HVAC NOTES
- DUCTWORK DOWN TO NEW EXHAUST HOOD MOUNTED ON COUNTERTOP. REFER TO DETAIL.
 - CONNECT NEW EXHAUST DUCTWORK TO EXISTING AT HIGH LEVEL.
 - INSTALL BALANCE DAMPER IN EXISTING DUCTWORK TO ALLOW FOR BALANCING OF EXHAUST SYSTEM BALANCE SYSTEM.
 - WALL MOUNTED FAN COIL UNIT.
 - HEAT PUMP UNIT MOUNTED ON ROOF. COORDINATE INSTALLATION OF UNIT ON SLEEPERS/ROOF CURB WITH THE GENERAL CONTRACTOR. LOCATE MINIMUM 3m FROM EDGE OF ROOF.
 - REFRIGERANT TUBING UP THROUGH ROOF VIA WEATHER PROOF ROOF JACK. SUPPORT TUBING ON ROOF BY FLOATING SLEEPER BLOCKS.
 - REFRIGERANT TUBING ABOVE NEW SUSPENDED CEILING. TUBING TO RAISE TO ROOF LEVEL AT FULL HEIGHT PARTITION WALL.
- INSTALL COUNTER ABOVE WEIGHTED BACKDRAFT DAMPER ABOVE TRANSFER AIR GRILLE IN SUSPENDED CEILING.



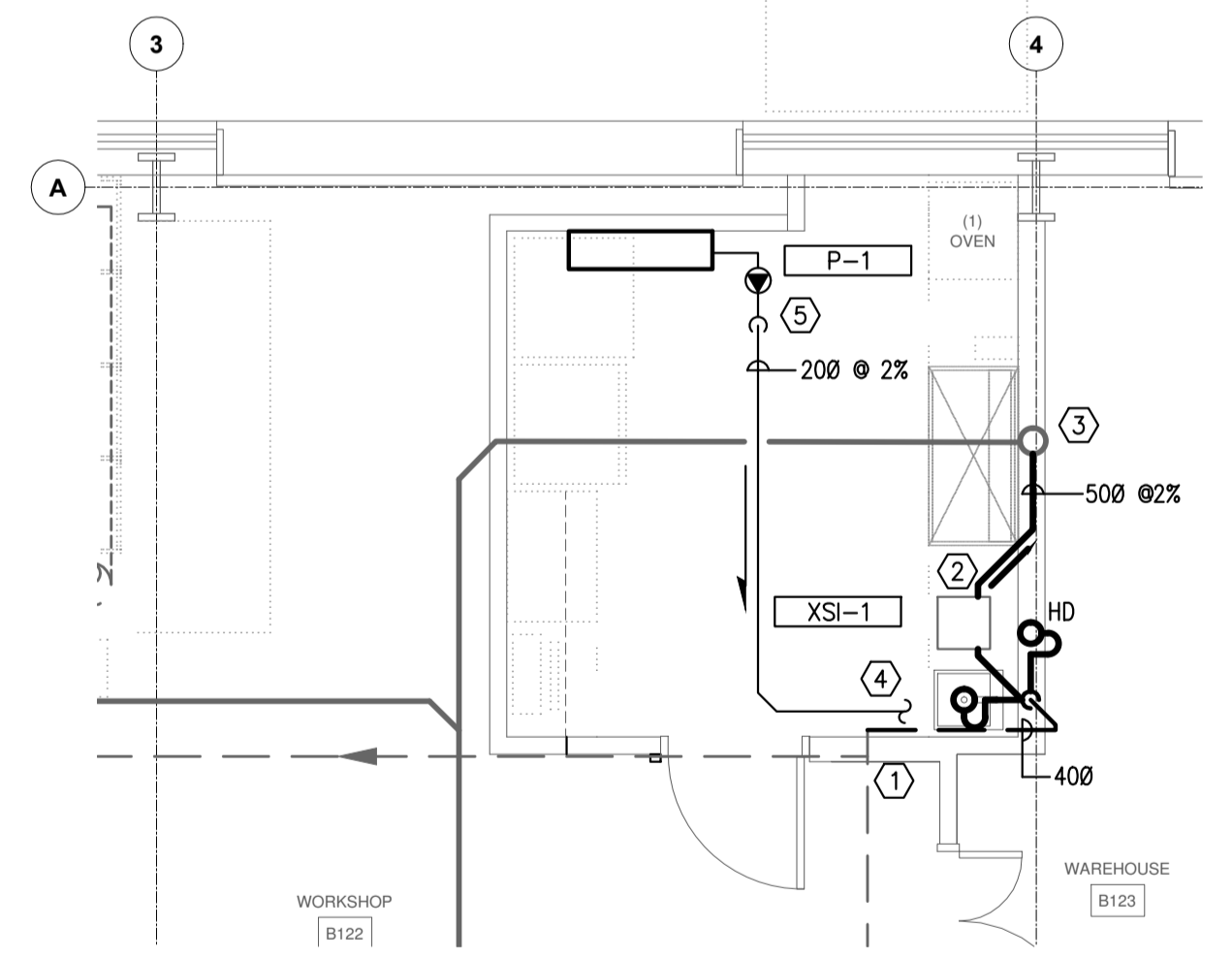
4 FIRE SUPPRESSION PLAN
M3.0 SCALE = 1:50

- ### FIRE SUPPRESSION NOTES
- PROVIDE NEW SEMI-RECESSED SPRINKLER HEAD C/W CHROME ESCUTCHEON PLATE IN NEW SUSPENDED DRYWALL CEILING. CONNECT TO SPRINKLER MAIN AT HIGH LEVEL.



2 PLUMBING PLAN
M3.0 SCALE = 1:50

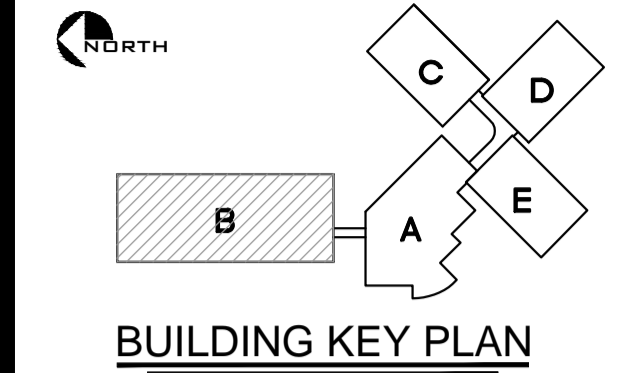
- ### PLUMBING SUPPLY AND GAS NOTES
- EXTEND EXISTING 150 DCW & DHW PIPING PARTITION WALL TO NEW SINK LOCATION.
 - EXTEND EXISTING 150 COMPRESSED AIR PIPING WITHIN PARTITION WALL TO RELOCATED WALL MOUNTED OUTLET AND REGULATOR ABOVE MILLWORK.
 - INSTALL TRAP PRIMER ON DCW SERVICE AND TERMINATE TO HUB DRAIN BELOW MILL WORK.
 - OUTLET OF WALL MOUNTED SINK FAUCET TO BE INSTALLED APPROXIMATELY 50mm ABOVE THE MILLWORK COUNTERTOP. CONTRACTOR TO REVIEW INSTALLED HEIGHT WITH THE CLIENT PRIOR TO ROUGH-IN WORK.



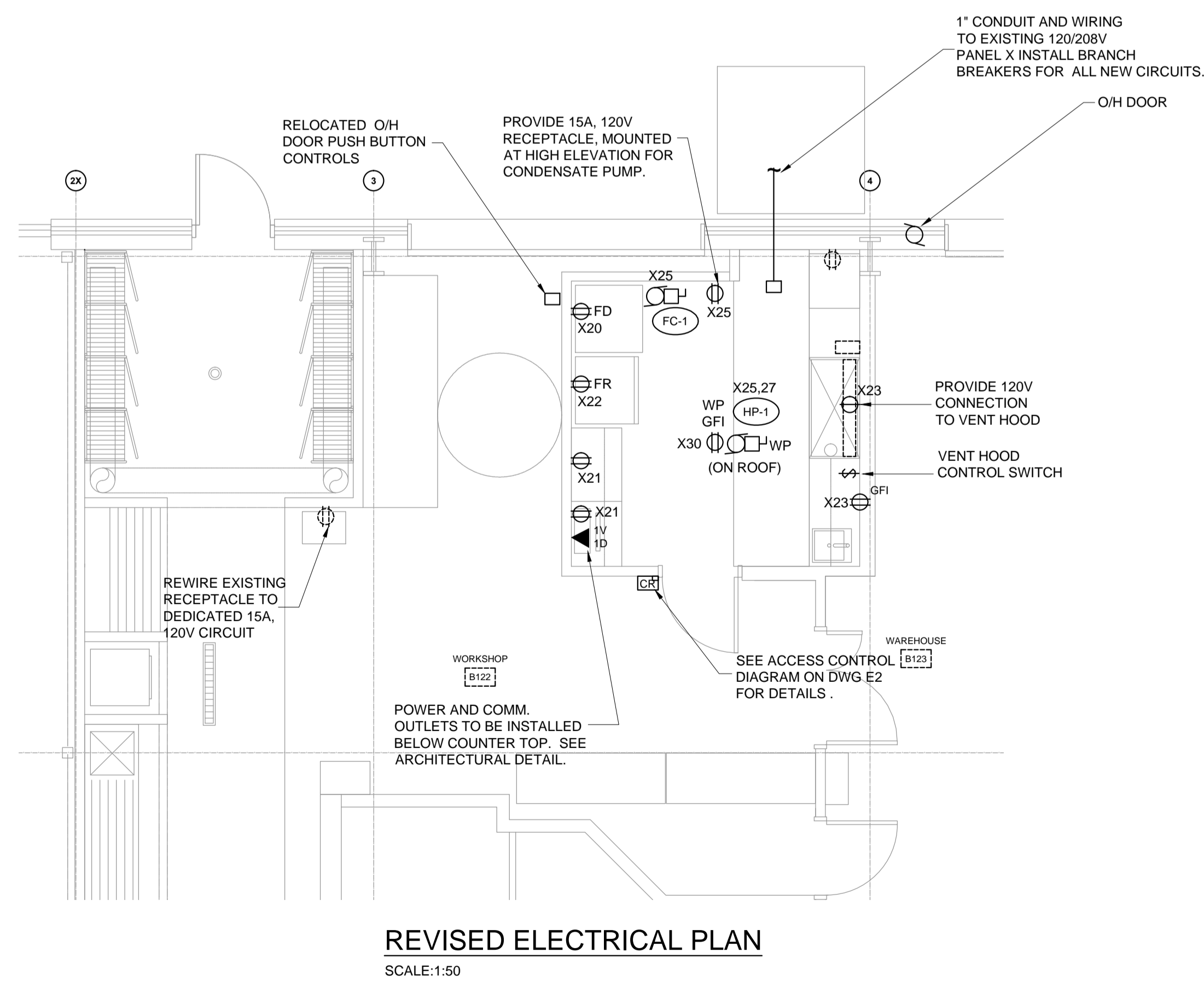
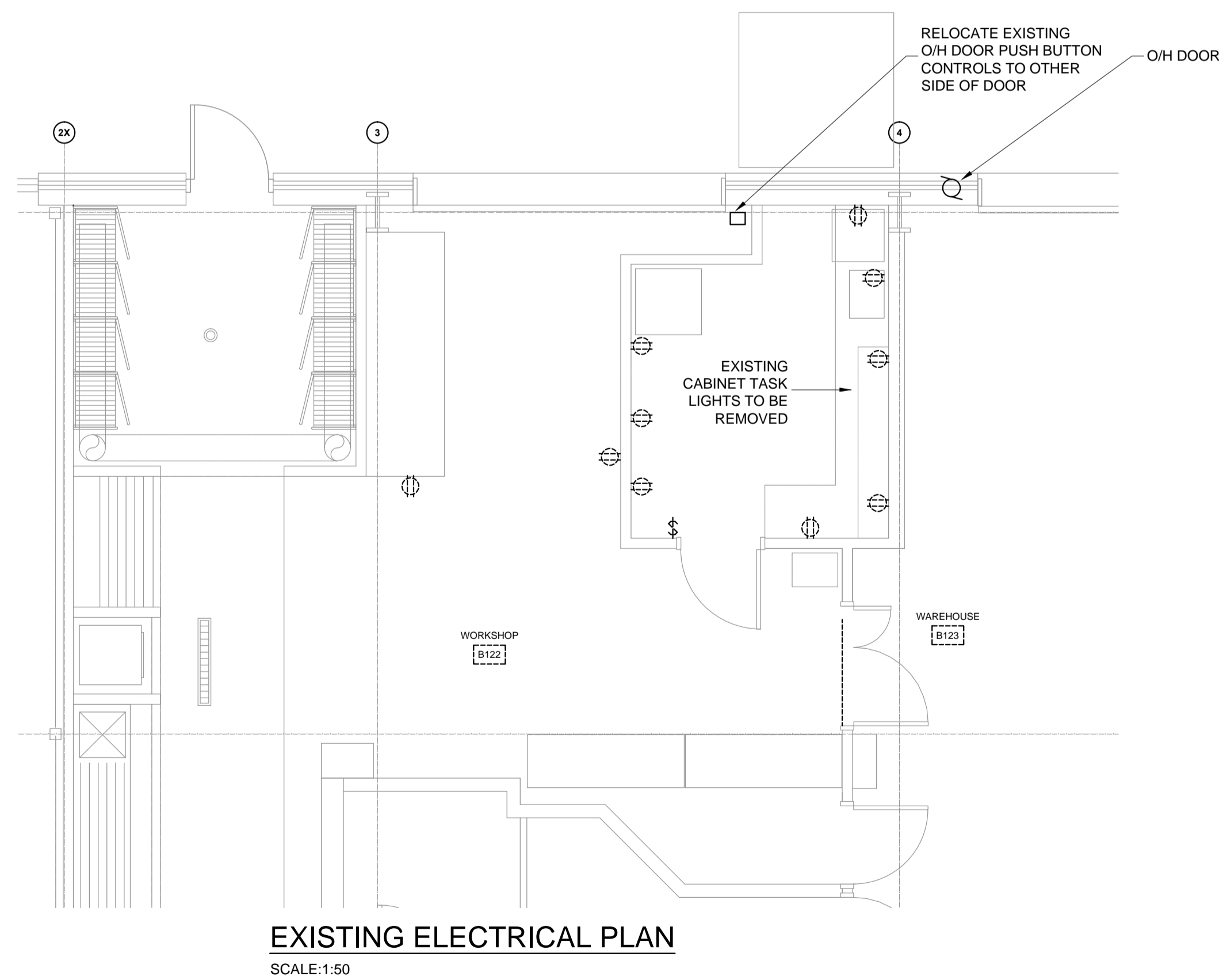
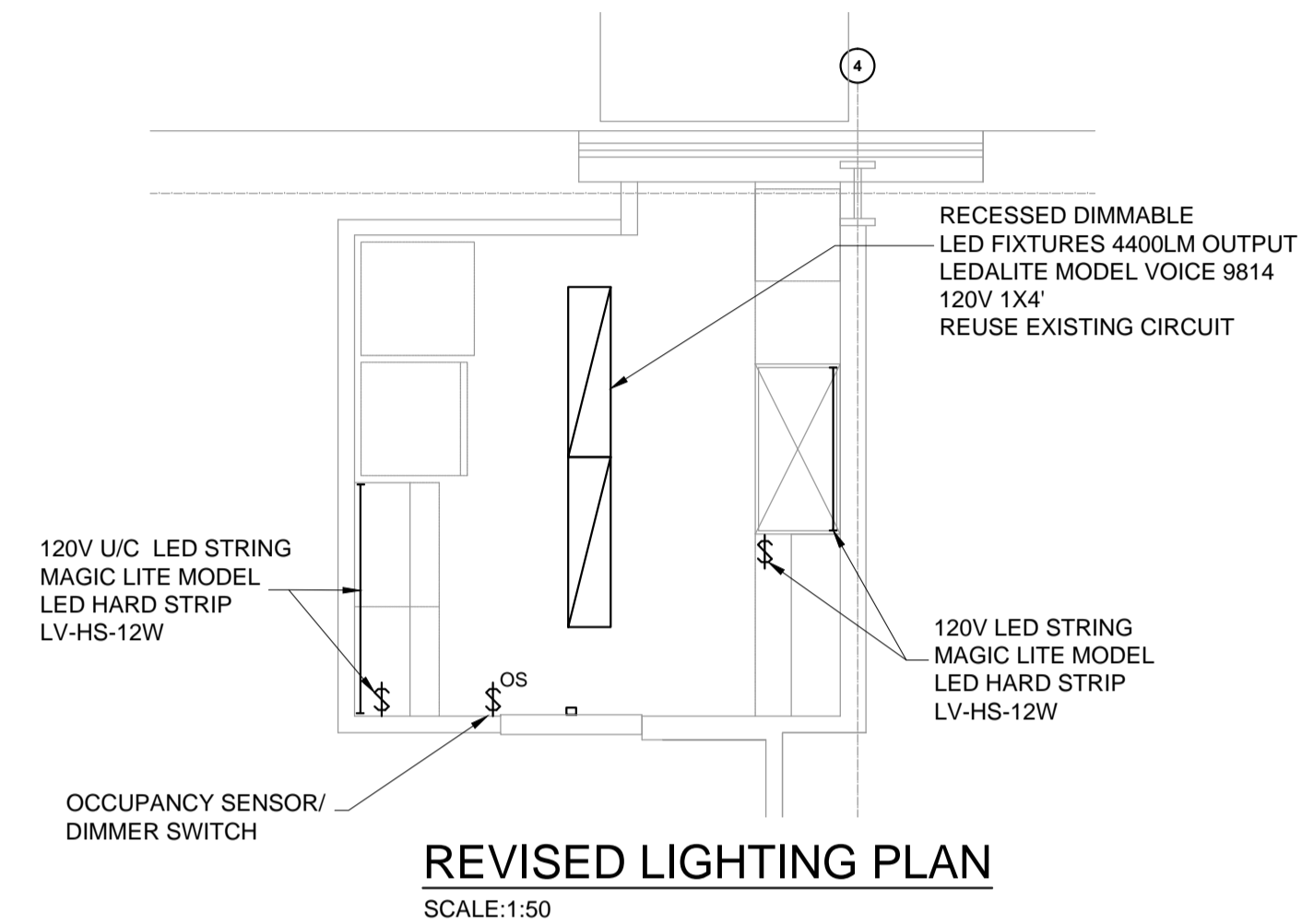
3 PLUMBING DRAINAGE PLAN
M3.0 SCALE = 1:50

- ### PLUMBING DRAINAGE NOTES
- CONNECT TO EXISTING PLUMBING VENT AT HIGH LEVEL.
 - REUSE EXISTING SEDIMENT INTERCEPTOR. INSTALL WITHIN MILLWORK. PROVIDE ADEQUATE ACCESS ABOVE TO ALLOW FOR INTERCEPTOR TO BE CLEANED.
 - CONNECT TO EXISTING SANITARY DRAINAGE SERVICE ABOVE SLAB.
 - CONDENSATE PIPING TO DROP DOWN PARTITION WALL AND TERMINATE INDIRECTLY TO HUB DRAIN IN MILLWORK.
 - CONDENSATE PUMP TO SERVE NEW AIR CONDITIONING UNIT. PIPING TO EXTEND ABOVE SUSPENDED CEILING AND RUN HORIZONTALLY TO SINK LOCATION.

Western Element Project No. 1519	
DRAWING NUMBER	DRAWING TITLE
E1	ELECTRICAL AND LIGHTING PLANS
E2	CONSTRUCTION DETAILS



SYMBOL LEGEND	
	LED LIGHTING FIXTURE
	DUPLEX RECEPTACLE
	ELECTRICAL PANEL
	LIGHTING SWITCH (OS OCCUPANCY SENSOR)
	STRIP LIGHT (UNDER CABINET)
	MECHANICAL EQUIPMENT LABEL
	MOTOR
	DISCONNECT SWITCH / EQUIPMENT CONNECTION
COMMUNICATIONS DEVICES	
	INDICATES NUMBER OF VOICE CABLES AND PORTS
	NEW COMMUNICATION OUTLET BY CONTRACTOR
	INDICATES NUMBER DATA CABLES AND PORTS
NOTATIONS	
	DASHED LINES INDICATE EXISTING ELECTRICAL DEVICES
	FD FREEZER RECEPTACLE
	FR FRIDGE RECEPTACLE
	WP WEATHER PROOF RECEPTACLE
	GFI GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	X## DEVICE CIRCUIT NUMBER



ISSUED FOR TENDER	29-JUL-2015
ISSUED FOR REVIEW	02-JUN-2015
ISSUED FOR REVIEW	22-MAY-2015
ISSUED FOR REVIEW	28-APR-2015

REV	Description	Date

project **PESC BLOCK B SEDIMENT PREPARATION ROOM** projet

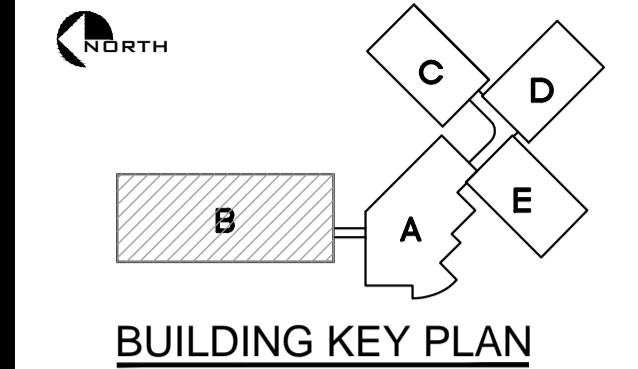
PACIFIC ENVIRONMENTAL SCIENCE CENTRE
2645 DOLLARTON HWY
NORTH VANCOUVER, B.C.

drawing **ELECTRICAL AND LIGHTING PLANS** dessin

Designed By	P.K.	Conçu par	Conçu par
Date			(yyyy/mm/dd)
Drawn By	P.K.	Dessiné par	Dessiné par
Date			(yyyy/mm/dd)
Reviewed By		Examiné par	Examiné par
Date			(yyyy/mm/dd)
Approved By		Approuvé par	Approuvé par
Date			(yyyy/mm/dd)
Tender		Submission	Submission

Project Manager	Administrateur de projets
EC PMDI Proj no.	Consultant Proj no.
PESC-028-Ji258	1519
Drawing no.	No. du dessin

E1



MECHANICAL MOTOR LIST																	
UNIT No.	UNIT DESCRIPTION	LOCATION	LOAD	V	PH	DISCONNECT			STARTER			PILOT DEVICE			BREAKER	FEEDER	NOTES
						SUPPLIED BY:	INSTALLED BY:	WIRING BY:	SUPPLIED BY:	INSTALLED BY:	WIRING BY:	SUPPLIED BY:	INSTALLED BY:	WIRING BY:			
HP-1	EXHAUST FAN	ROOF	7.5KW	208	1	E	E	E	M	E	E	M	E	E	2P-15A	2#12	INSTALL WIRING BETWEEN FC1 AND HP1
FC-1	FAN COIL	LAB	FRAC.	208	1	E	E	E	M	E	E	M	E	E		2#12	

(a) SUPPLY INSTALL AND WIRING E - ELECTRICAL DIV.16 M - MECHANICAL DIV.15 C - CONTACT O - OTHERS	(b) STARTER TYPE MG - MAGNETIC STARTER MN - MANUAL STARTER C/W PILOT LIGHT VSD - VARIABLE SPEED DRIVE MS - MOTOR SWITCH VS - VARIABLE SPEED SWITCH	(c) STARTER CONTROL DEVICE SS - START/STOP OA - OFF/AUTO HOA - HAND/OFF/AUTO 2S - OFF/LO/HI	(e) REMOTE CONTROL DEVICE P - PRESSURE SWITCH F - FLOW SWITCH C - TIME CLOCK T - THERMOSTAT I - INTERLOCK	S - MANUAL SWITCH TS - TAMPER SWITCH TR - REVERSE-ACTING THERMOSTAT D - DEHUMIDSTST DDC-EMS SYSTEM
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REV	Description	Date

	A detail no. no. du detail B location drawing no. sur dessin no. C drawing no. dessin no.	
project PESC BLOCK B project SEDIMENT PREPARATION ROOM PACIFIC ENVIRONMENTAL SCIENCE CENTRE 2645 DOLLARTON HWY NORTH VANCOUVER, B.C.		

drawing **CONSTRUCTION** dessin
DETAILS

Designed By	P.K.	Conçu par	
Date		(yyyy/mm/dd)	
Drawn By	P.K.	Dessiné par	
Date		(yyyy/mm/dd)	
Reviewed By		Examiné par	
Date		(yyyy/mm/dd)	
Approved By		Approuvé par	
Date		(yyyy/mm/dd)	
Tender		Soumission	
Project Manager		Administrateur de projets	
EC PMDI Proj no.		Consultant Proj no.	
PESC-028-Ji258		1519	
Drawing no.		No. du dessin	

E2

