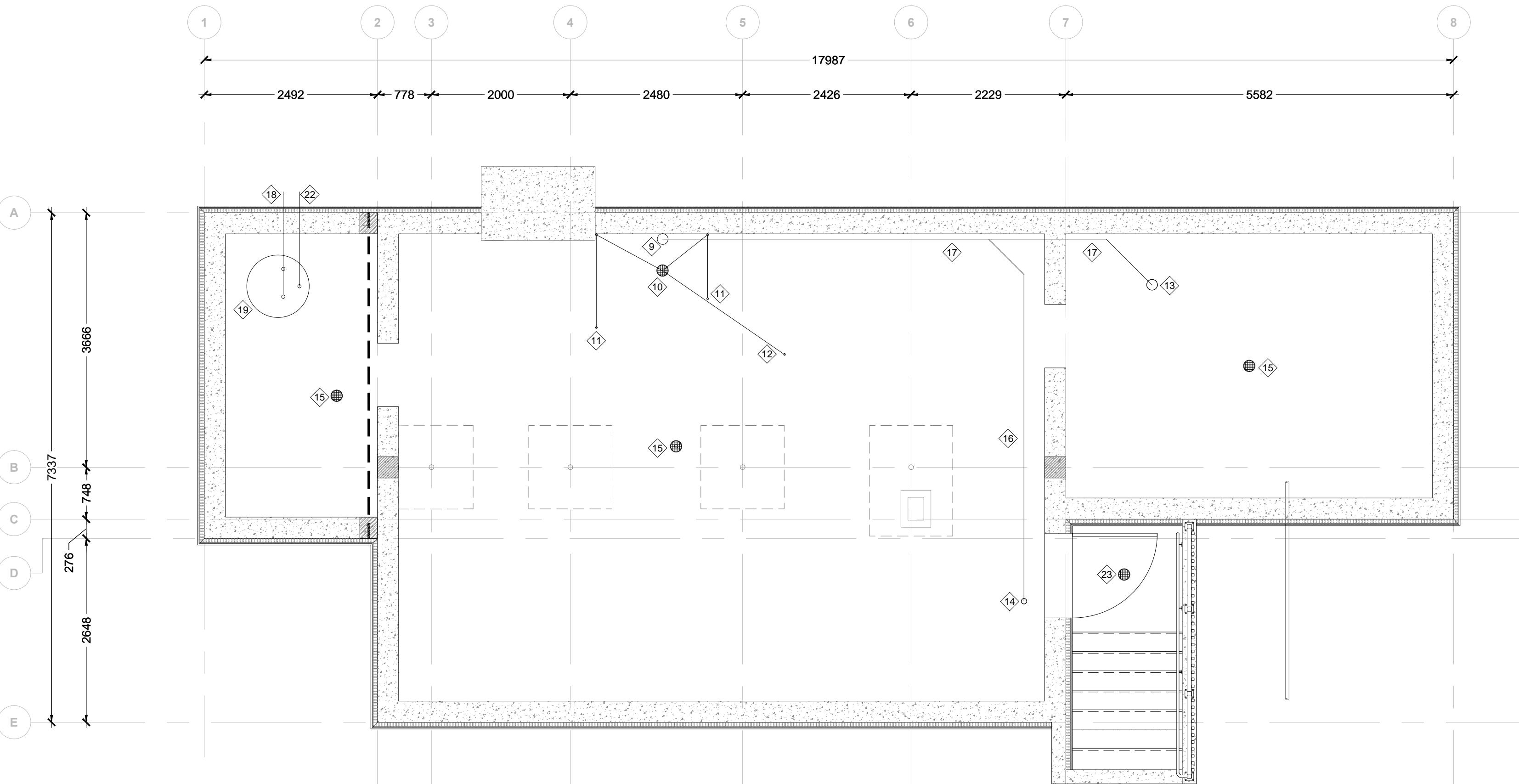


1 PROPOSED BELOW SLAB SANITARY SEWER PLAN
M3 1:50



2 PROPOSED SANITARY SEWER BASEMENT FLOOR PLAN
M3 1:50

GENERAL NOTES:

- 1) INSTALLATION TO BE IN ACCORDANCE WITH NPCC 2015, NBCC 2015 AND ALL OTHER APPLICABLE CODES AND STANDARDS. WHERE CONFLICT ARISES BETWEEN THE CODES AND STANDARDS THE MOST STRINGENT REQUIREMENTS SHALL APPLY.
- 2) ALL ITEMS SHOWN ARE BASED UPON INFORMATION GATHERED DURING SITE VISITS AND ARE SHOWN THE BEST OF OUR KNOWLEDGE.
- 3) DIMENSIONS ARE IN MM AND ARE TAKEN FROM GRID LINES AND FACE OF CONCRETE FOUNDATION.
- 4) GRID LINES ARE COINCIDENT WITH EXTERIOR FACE OF NEW CONCRETE FOUNDATION AND CENTERLINE OF EXISTING TELEPOST COLUMNS.
- 5) REFER TO STRUCTURAL, ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL NOTES AND DETAILS.

KEYNOTES:

- 1 NEW SECTION OF BUILDING DRAIN TO CONNECT AT LOCATION OF CUT SHOWN IN DEMOLITION PLAN. REFER DRAWING D7.
- 2 NEW LOCATION OF MAIN BUILDING DRAIN. TIE NEW Ø75MM DRAIN PIPE TO EXTEND TO THE NEW FLOOR HEIGHT. INSTALL NEW BACKFLOW PREVENTER AND BUILDING CLEAN OUT. SEE ARCHITECTURAL DRAWINGS FOR NEW FLOOR HEIGHT DIMENSIONS.
- 3 NEW Ø75 MM DRAIN PIPE WITH 1% SLOPE. TIE TO MAIN BUILDING DRAIN.
- 4 NEW Ø50 MM DRAIN PIPE WITH 1% SLOPE FROM FLOOR DRAIN. TIE TO MAIN BUILDING DRAIN.
- 5 NEW Ø50 MM DRAIN WITH 1% SLOPE FROM FLOOR DRAIN. TIE TO SUMP PIT.
- 6 NEW FIELD INSTALLED SUMP PIT. TO BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS.
- 7 SLOPE Ø150 MM NEW WEEPING TILE TO NEW SUMP PIT.
- 8 NEW Ø150 MM PERFORATED WEEPING TILE C/W PARTICULATE FILTER SOCK.
- 9 NEW Ø75 MM SANITARY SEWER DRAIN WITH 1% SLOPE PIPE TO RUN FROM CEILING TO TIE TO MAIN BUILDING SEWER. RUN PIPE CLOSE TO WALL.
- 10 NEW FLOOR DRAIN TO COLLECT CONDENSATE DRAIN FROM HVAC EQUIPMENT & EXISTING GEO THERMAL FURNACE..
- 11 NEW CONDENSATE LINE FROM EXISTING AND NEW HRV TO DRAIN TO THE FLOOR DRAIN.
- 12 NEW CONDENSATE LINE FROM EXISTING GEOTHERMAL FURNACE TO DRAIN TO FLOOR DRAIN.
- 13 NEW Ø75 MM DRAIN PIPE TO TIE TO THE EXISTING CUT DRAIN PIPE BELOW UNDERSIDE SHEATHING SERVING FIXTURES IN MAIN FLOOR.
- 14 NEW Ø38 MM DRAIN PIPE TO TIE TO THE EXISTING CUT DRAIN PIPE BELOW UNDERSIDE SHEATHING SERVING STAINLESS STEEL SINK IN MAIN FLOOR.
- 15 NEW FLOOR DRAIN.
- 16 NEW Ø38 MM SANITARY SEWER PIPE TO RUN IN CEILING SPACE TO TIE TO MAIN Ø75MM DRAIN PIPE.
- 17 NEW Ø75MM SANITARY SEWER PIPE TO RUN IN CEILING SPACE .
- 18 NEW Ø50 MM DRAIN PIPE FROM SUMP PIT TO DRAIN OUT. INSULATE TO EXTERIOR WALL, PENETRATE BELOW FLOOR JOISTS. SEE ARCHITECTURAL DRAWINGS FOR SPLASH PAD DETAILS.
- 19 NEW SUMP PUMP IN SUMP PIT.
- 20 NEW 100MM PERFORATED SOIL GAS COLLECTION PIPE UNDER SLAB. CAP PIPE 150MM FROM EDGE OF FOUNDATION WALL AT SLAB LEVEL AND LABEL "RADON, NOT A DRAIN". ENSURE 100MM AREA OF GRANULAR MATERIAL AROUND PIPE.
- 21 NEW Ø100 MM DRAIN PIPE FROM EXTERIOR FLOOR DRAIN WITH 1% SLOPE. TIE TO FIELD INSTALLED SUMP PIT INLET WHICH IS AT A MINIMUM OF 355MM BELOW FINISHED FLOOR. INSULATE 1500MM LENGTH OF DRAIN PIPE WITH 25MM INSULATION FOR HEAT TRACE. .
- 22 NEW Ø50 MM VENT PIPE FROM SUMP PIT.
- 23 NEW EXTERIOR FLOOR DRAIN.

PLUMBING SPECIALTIES & ACCESSORIES SCHEDULE

ITEM	QTY.	DESCRIPTION
SUMP PIT AND PUMP	1	NEW FIELD INSTALLED , FIBRE GLASS, NON PERFORATED TANK SUMP PUMP PACKAGE. SUMP PIT: Ø762 X 914MM DEEP. POLYETHYLENE CONSTRUCTION. MULTIPLE INLET CONNECTIONS FOR Ø100MM FLOOR DRAIN & Ø150MM WEEPING TILE CONNECTION. TORQUE- STOPS TO RETAIN PUMP IN POSITION. HEAVY DUTY STEEL PLATE COVER , Ø863MM WITH 2 , 406 MM PUMP OPENING. Ø254 MM INSPECTION COVER. Ø50MM DISCHARGE. PUMP: 0.4 HORSEPOWER MOTOR. 115 VOLT CORDED SUPPLY. 75 LITERS PER MINUTE AT 5.7 METERS HEAD. INTEGRATED HIGH LEVEL WATER SENSOR AND CONTROL. ORDER WITH SPLASH PADS..
BACK FLOW PREVENTER	1	SEWER BACKFLOW VALVE, ABS CONSTRUCTION. INTEGRAL CLEANOUT, CLEAR COVER, NORMALLY OPEN DESIGN, INTEGRAL 2% SLOPE.
FLOOR DRAIN	4	Ø50 MM FLOOR DRAIN WITH ADJUSTABLE STRAINER HEAD, CAST IRON BODY, ROUND AND VANDAL PROOF SCREWS.
EXTERIOR FLOOR DRAIN	1	Ø100 MM DUCO CAST IRON BODY AND FLASHING COLLAR WITH ADJUSTABLE TOP AND BAR GRATE & Ø200 MM STRAINER HEAD FLOOR DRAIN WITH SLOTTED CAST IRON SEDIMENT BUCKET, ROUND AND VANDAL PROOF SCREWS.
CLEAN OUT	1	WALL CLEAN OUT, ROUND, NICKEL BRONZE ACCESS COVER, PVC BODY

SANITARY SEWER - FIXTURE UNIT LOAD

ITEM #	SIZE	QTY.	FIX UNIT (FU)	TOTAL FIX UNIT (FU)
STAINLESS STEEL SINK	Ø38 MM	1	1.5	1.5
LAVATORY	Ø38 MM	1	1.5	1.5
WATER CLOSET	Ø75 MM	1	4	4
UTILITY SINK	Ø38 MM	1	1.5	1.5
FLOOR DRAIN	Ø50 MM	1	2	2
TOTAL			10.5	10.5

PLUMBING LEGEND

ITEM	DESCRIPTION
—	SANITARY SEWER
---	WEEPING TILE
⊙	FLOOR DRAIN
↗	CLEAN OUT

LINE LEGEND

SYMBOL	DESCRIPTION
—	NEW PLUMBING CONSTRUCTION
---	EXISTING PLUMBING TO REMAIN

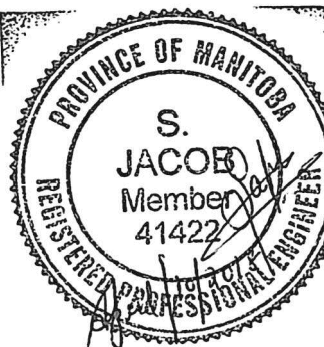
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Certificate of Authorization

Samson Engineering Inc.

No. 3050 Expiry: April 30, 2018



5		
4		
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2		2018/04/10
1	ISSUED FOR CONSTRUCTION	
0	ISSUED FOR REVIEW	2018/01/31
Revision	Description	Date
Client		client

PARKS CANADA AGENCY

135 WASAGAMING DR.

Project title

WASAGAMING, MB
154 COLUMBINE ST.

FOUNDATION REPLACEMENT

Designed by

DH

Drawn by

DH

Approved by

SJ

PWSSC Project Manager

Administrateur de Projets TPSGC

Drawing title

Titre du dessin

**SANITARY SEWER
BASEMENT
FLOOR PLAN**

Project no./No. du projet

PRO1272

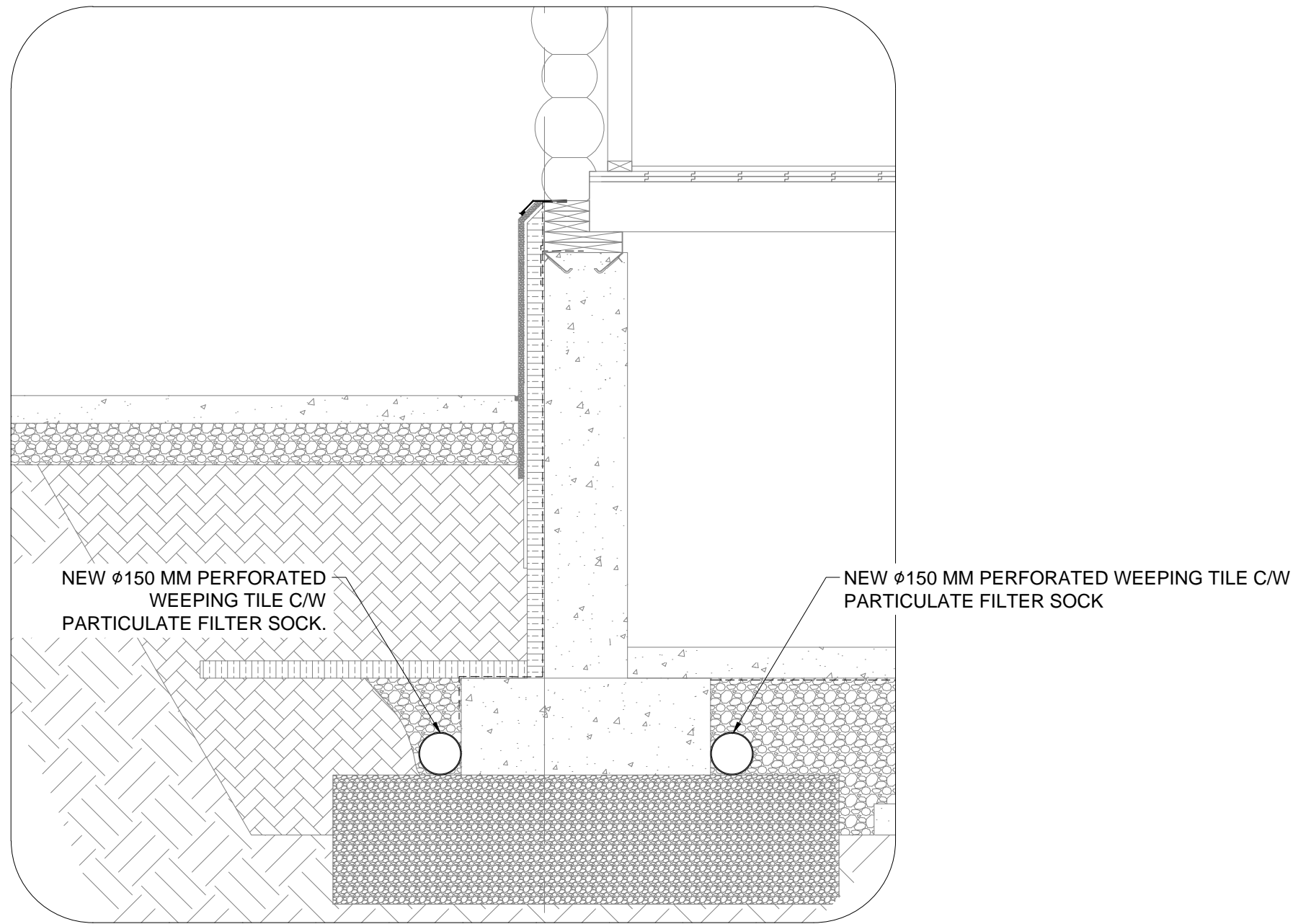
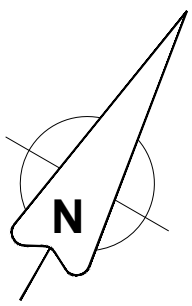
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M3

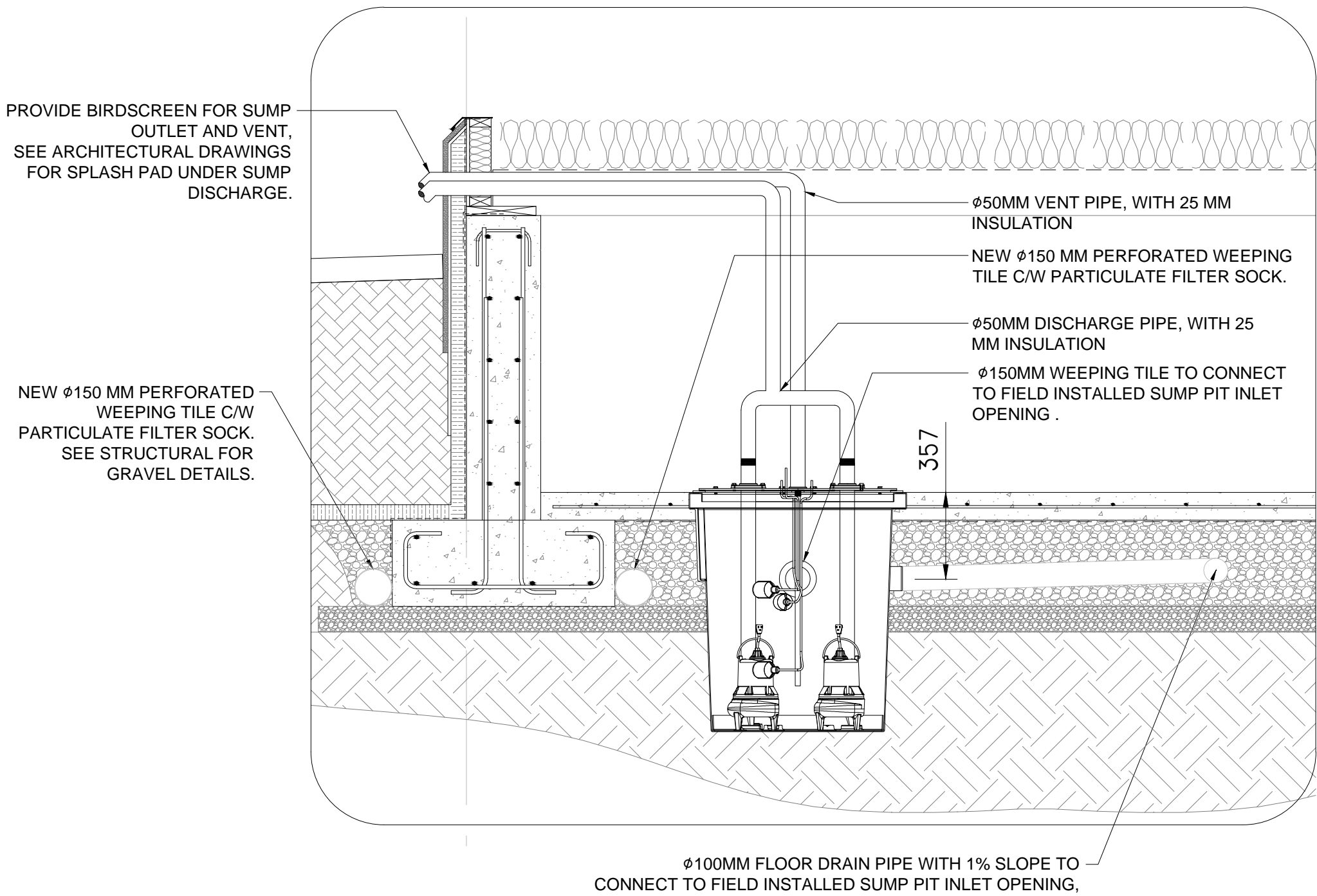
OF 4

Revision no.

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1 TYPICAL WEEPING TILE DETAIL
M4 1:20



2 SUMP PIT DETAIL
M4 1:20

GENERAL NOTES:

- 1) INSTALLATION TO BE IN ACCORDANCE WITH NPCC 2015, NBCC 2015 AND ALL OTHER APPLICABLE CODES AND STANDARDS. WHERE CONFLICT ARISES BETWEEN THE CODES AND STANDARDS THE MOST STRINGENT REQUIREMENTS SHALL APPLY.
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- 4) GRID LINES ARE COINCIDENT WITH EXTERIOR FACE OF NEW CONCRETE FOUNDATION AND CENTERLINE OF EXISTING TELEPOST COLUMNS.
- 5) REFER TO STRUCTURAL, ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL NOTES AND DETAILS.



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135 WASAGAMING DR.

Project title
WASAGAMING, MB
154 COLUMBINE ST.

FOUNDATION REPLACEMENT

Designed by
DH

Conçu par

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Approuvé par

PWGSC Project Manager
Administrateur de Projets TPSGC

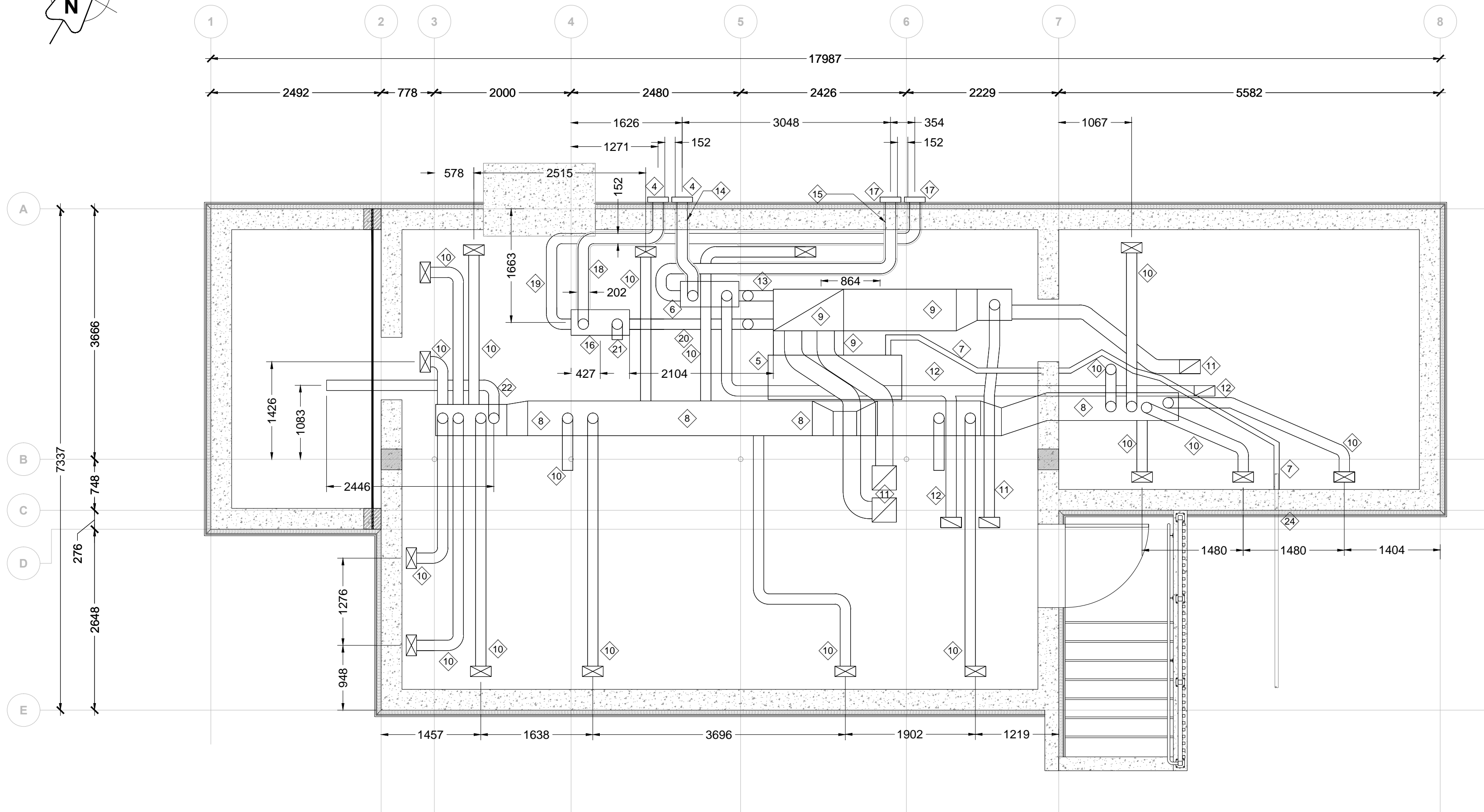
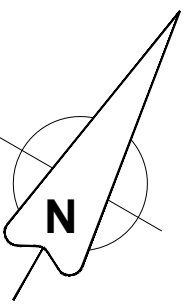
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Titre du dessin

PLUMBING DETAILS

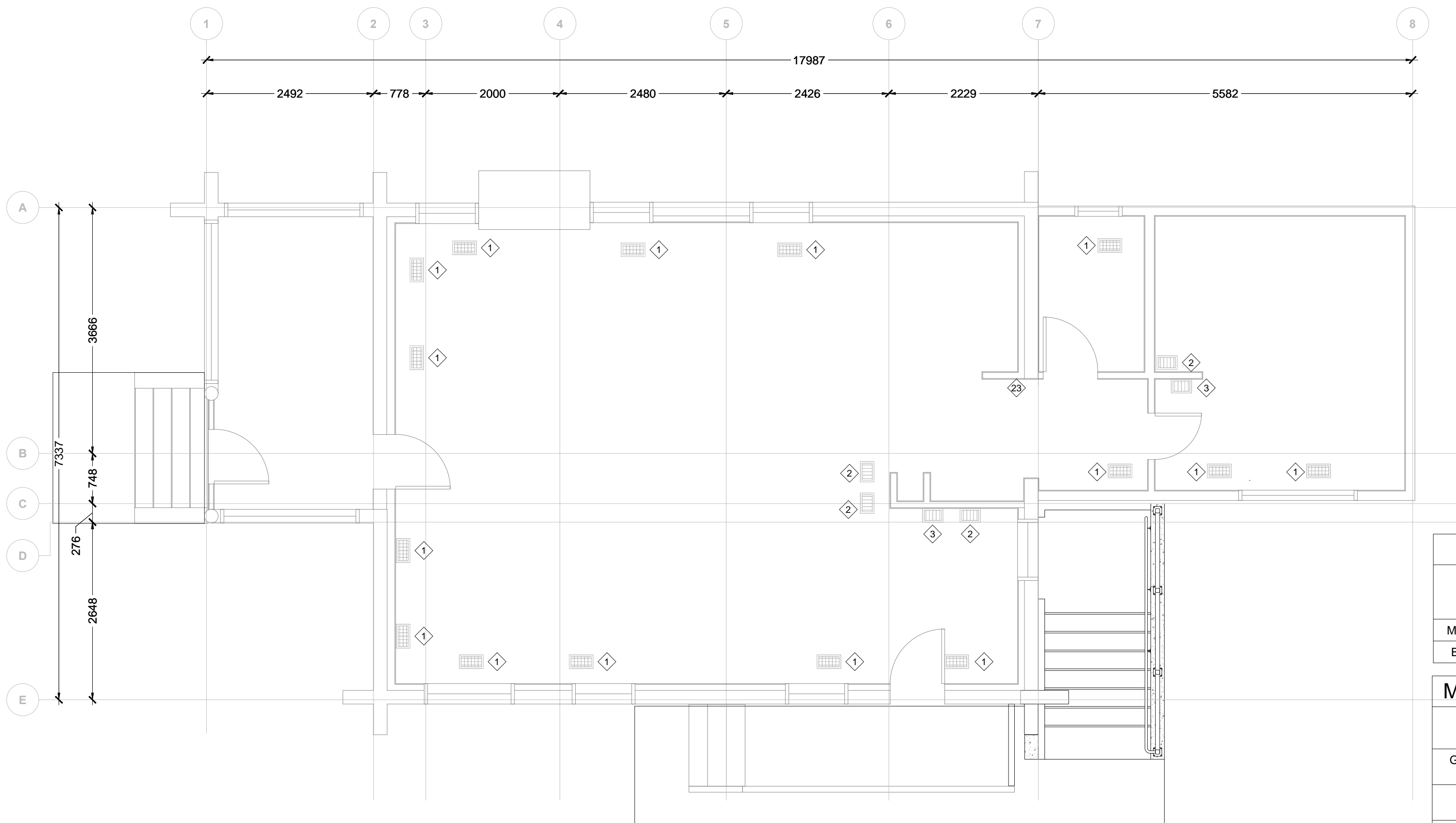
Project no./No. du projet
SEI2017-028

Drawing no./No. du dessin
M4
OF M4

Revision no.
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1 PROPOSED HVAC BASEMENT FLOOR PLAN
M1 1:50



2 PROPOSED HVAC MAIN FLOOR PLAN
M1 1:50

GENERAL DEMOLITION NOTES - HVAC:

- ALL ITEMS SHOWN ARE BASED UPON INFORMATION GATHERED DURING SITE VISITS AND ARE SHOWN THE BEST OF OUR KNOWLEDGE.
- DIMENSIONS ARE IN MM AND ARE TAKEN FROM GRID LINES AND FACE OF CONCRETE FOUNDATION.
- GRID LINES ARE COINCIDENT WITH EXTERIOR FACE OF NEW CONCRETE FOUNDATION AND CENTERLINE OF EXISTING TELEPOST COLUMNS.
- REFER TO STRUCTURAL, ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL NOTES AND DETAILS.

KEYNOTES:

- RE-INSTALL EXISTING FLOOR SUPPLY GRILLE .
- RE-INSTALL EXISTING RETURN GRILLE.
- RE-INSTALL EXISTING FLOOR HRV RETURN GRILLE.
- INSTALL NEW HRV FRESH AIR INTAKE LOUVER IN NEW Ø200MM WALL OPENING. SEE ARCHITECTURAL DRAWINGS FOR COLOR.
- RE-INSTALL EXISTING GEOTHERMAL FURNACE.
- RE-INSTALL EXISTING LIFE BREATH HRV .
- PROVIDE ADDITIONAL ANTIFREEZE FLUID IN EXISTING GEOTHERMAL GROUND LOOP TO REPLACE FLUID LOST DURING DEMOLITION WORK. ANTI FREEZE FLUID AS SPECIFIED BY GEOTHERMAL MANUFACTURER'S INSTRUCTIONS. RECONNECT GEOTHERMAL GROUND LOOPS TO FURNACE AND EXISTING THERMAL EXPANSION TANK TO EXISTING GEO THERMAL FURNACE.
- RE -CONNECT MAIN SUPPLY PLENUM TO THE FURNACE.
- RE -CONNECT MAIN EXHAUST PLENUM TO THE FURNACE.
- RE-CONNECT EXISTING Ø150MM BRANCH SUPPLY DUCT TO THE MAIN DUCT.
- RE-CONNECT EXISTING BRANCH RETURN DUCT TO THE MAIN DUCT.
- RE-CONNECT EXISTING HRV RETURN DUCT TO HRV.
- RE-CONNECT EXISTING HRV SUPPLY AIR DUCT TO THE HRV AND TO THE RETURN DUCT OF THE FURNACE.
- RE-CONNECT EXISTING FRESH AIR DUCT TO HRV FROM THE NEW WALL OPENING. PROVIDE 25MM INSULATION.
- RE-CONNECT EXISTING EXHAUST AIR DUCT TO HRV TO THE NEW OPENING IN THE WALL WITH EXTENSION NEW DUCT. INSULATE FULL LENGTH OF DUCT WITH 25MM INSULATION.
- NEW HRV TO BE INSTALLED AS PER MANUFACTURERS INSTRUCTIONS AND COORDINATE THE INSTALLATION TO FIT WITHIN THE SPACE ALLOWED BY ARCHITECTURAL AND STRUCTURAL CONDITIONS.
- INSTALL NEW HRV EXHAUST AIR OUTLET LOUVER IN NEW Ø200MM WALL OPENING.
- NEW Ø150 MM HRV FRESH AIR DUCT. INSULATE FULL LENGTH OF DUCT WITH 25MM INSULATION.
- NEW Ø150 MM HRV EXHAUST AIR DUCT. INSULATE FULL LENGTH OF DUCT WITH 25MM INSULATION.
- NEW Ø150 MM HRV SUPPLY AIR DUCT TO CONNECT TO THE RETURN DUCT OF THE EXISTING GEO THERMAL FURNACE.
- NEW Ø150 MM HRV RETURN OPENING.
- NEW Ø150MM BRANCH SUPPLY DUCT FROM THE MAIN DUCT.
- INSTALL NEW HRV CONTROLLER NEAR EXISTING THERMOSTAT AND EXISTING HRV CONTROLLER.
- NEW OPENING FOR EXISTING GEOTHERMAL GROUND LOOP PIPING

LINE LEGEND

SYMBOL	DESCRIPTION
	NEW HVAC CONSTRUCTION

REQUIRED VENTILATION- ASHRAE 62.1-2010

ZONE	AREA (SQ .M)	PEOPLE	OUT DOOR AIR REQUIRED (L/S)	SUPPLIED OUT DOOR AIR (L/S)
MAIN FLOOR	99.8	10	102	103
BASEMENT	59.3	-	18	29

MECHANICAL EQUIPMENT SCHEDULE

ITEM	QTY.	MODEL #
GEO THERMAL FURNACE	1	ENVISION NSH048A101CSR (EXISTING)
HRV-1	1	LIFEBREATH 155 MAX, 69 L/S@ 0.3 IN.WC (EXISTING)
HRV -2 (NEW)	1	155MAX HRV, 69 L/S@ 0.3 IN.WC. CSA CERTIFIED.

HVAC LEGEND

ITEM	DESCRIPTION
	SUPPLY AIR DUCT
	RETURN AIR DUCT
	FLOOR SUPPLY GRILLE
	FLOOR RETURN GRILLE



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Revision	Description	Date
Client		client

PARKS CANADA AGENCY

135 WASAGAMING DR.

Project title

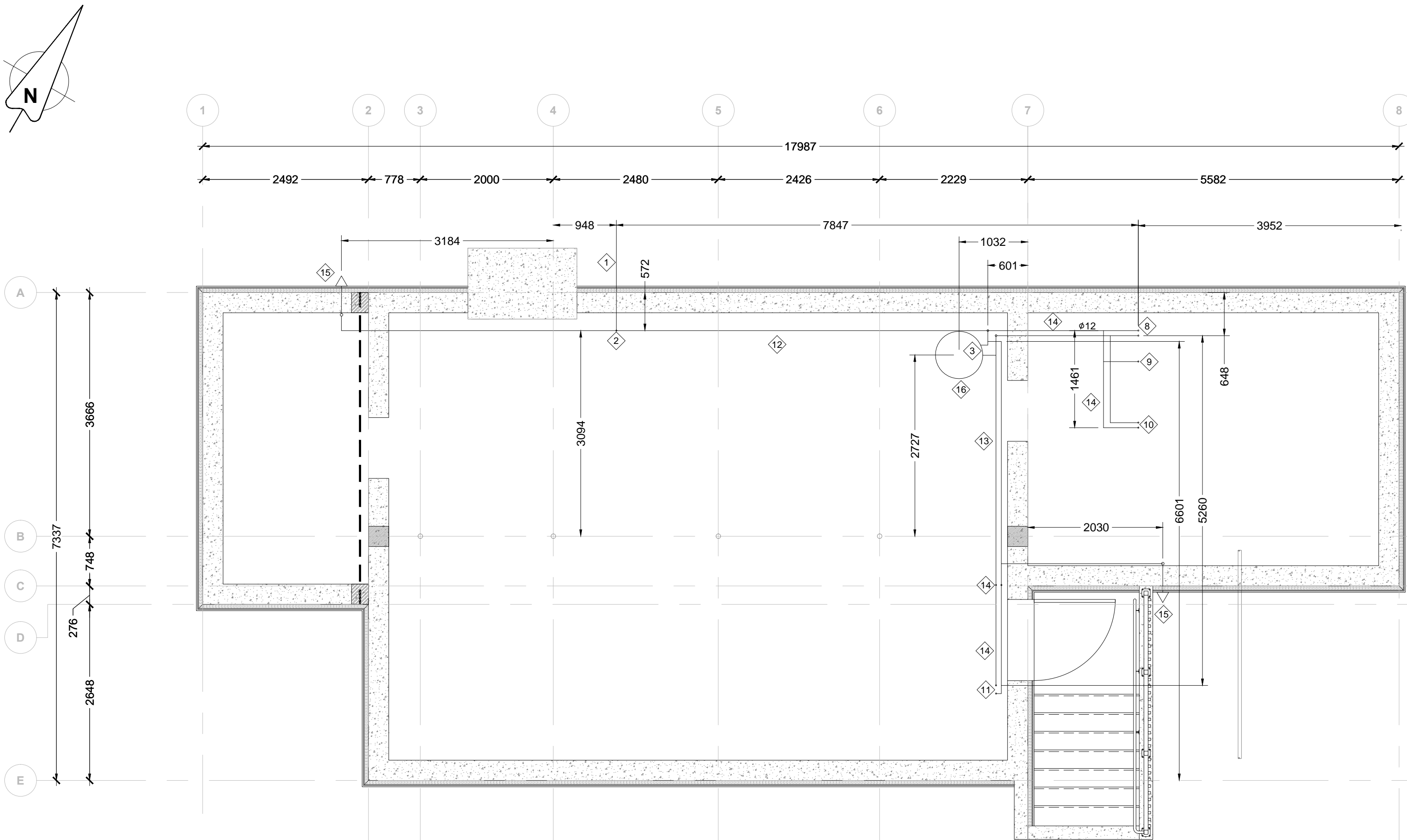
WASAGAMING, MB
154 COLUMBINE ST.

FOUNDATION
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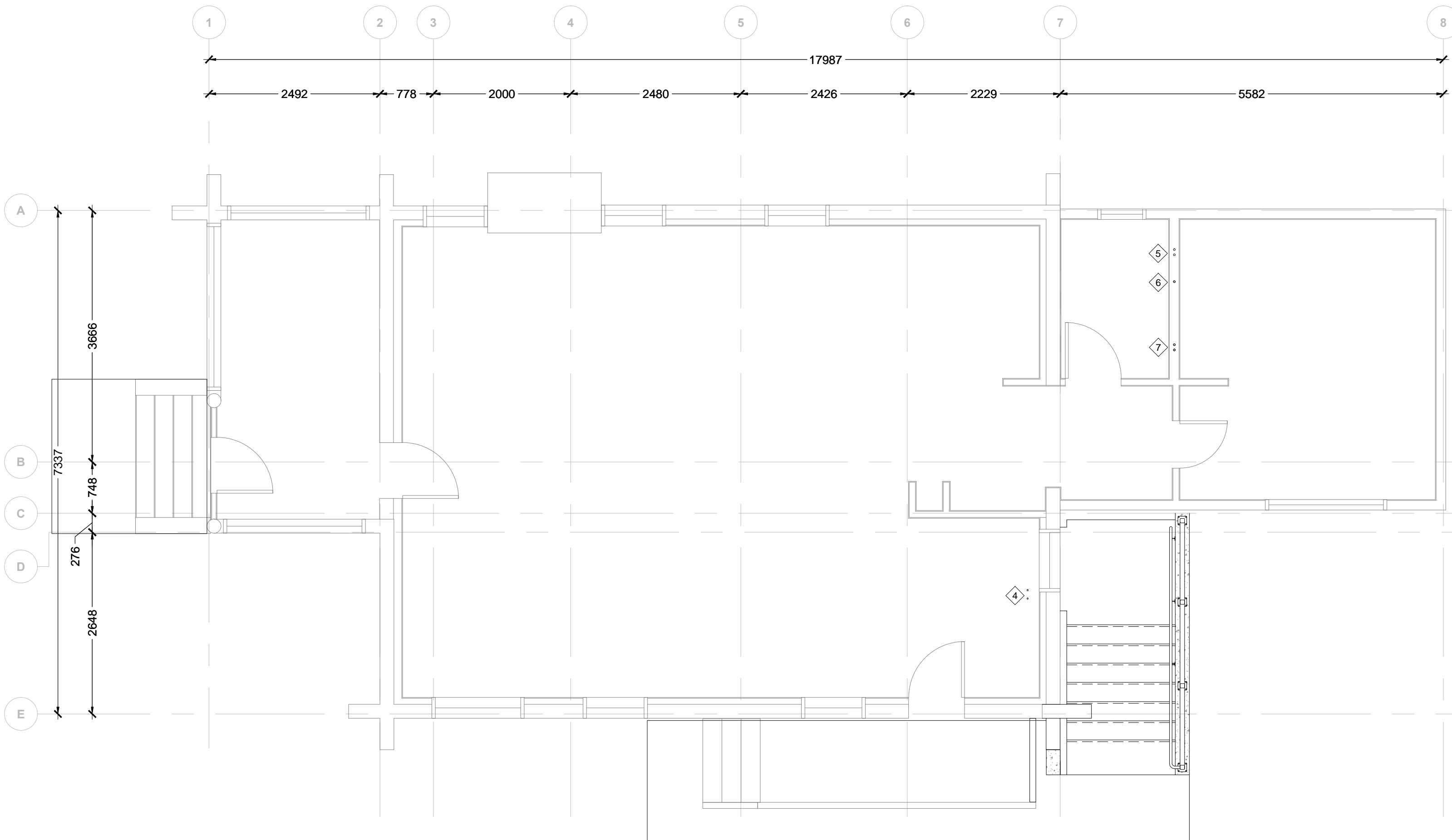
Designed by DH	Conçu par
Drawn by DH	Dessiné par
Approved by SJ	Approuvé par
PWGSC Project Manager	Administrateur de Projets TPSGC
Drawing title	Titre du dessin

HVAC
BASEMENT & MAIN
FLOOR PLAN

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
PRO1272	M1 OF 4	0



1 PROPOSED POTABLE WATER BASEMENT FLOOR PLAN
M2 1:50



2 PROPOSED POTABLE WATER MAIN FLOOR PLAN
M2 1:50

GENERAL NOTES:

- 1) INSTALLATION TO BE IN ACCORDANCE WITH NPCC 2015, NBCC 2015 AND ALL OTHER APPLICABLE CODES AND STANDARDS. WHERE CONFLICT ARISES BETWEEN THE CODES AND STANDARDS THE MOST STRINGENT REQUIREMENTS SHALL APPLY.
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- 3) DIMENSIONS ARE IN MM AND ARE TAKEN FROM GRID LINES AND FACE OF CONCRETE FOUNDATION.
- 4) GRID LINES ARE COINCIDENT WITH EXTERIOR FACE OF NEW CONCRETE FOUNDATION AND CENTERLINE OF EXISTING TELEPOST COLUMNS.
- 5) REFER TO STRUCTURAL, ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL NOTES AND DETAILS.

CONSTRUCTION KEYNOTES:

- 1 NEW SECTION OF MAIN WATER SERVICE PIPE TO CONNECT AT LOCATION OF CUT SHOWN IN DEMOLITION PLAN.
- 2 NEW LOCATION OF MAIN WATER SERVICE PIPE IN THE BUILDING. CONNECT NEW 15 MM PIPE TO THE NEW WATER SERVICE LINE TO EXTEND TO THE NEW HEIGHT OF FLOOR. INSTALL SHUTOFF VALVE. REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR ELEVATION.
- 3 CONNECT NEW 12MM COLD AND HOT WATER LINE TO NEW HOT WATER TANK.
- 4 EXISTING STAINLESS STEEL SINK WITH NEW NEW 9 MM COLD & HOT WATER LINE CONNECTION TO BASEMENT BELOW.
- 5 EXISTING LAVATORY SINK WITH NEW NEW 9 MM COLD & HOT WATER LINE CONNECTION TO BASEMENT BELOW.
- 6 EXISTING WATER CLOSET WITH NEW NEW 9 MM COLD WATER LINE CONNECTION TO BASEMENT BELOW.
- 7 EXISTING UTILITY SINK WITH NEW NEW 12 MM COLD & HOT WATER LINE CONNECTION TO BASEMENT BELOW.
- 8 NEW 9 MM COLD & HOT WATER PIPE TO CONNECT TO THE EXISTING CUT PIPE BELOW UNDERSIDE SHEATHING SERVING LAVATORY IN MAIN FLOOR.
- 9 NEW 9 MM COLD WATER PIPE TO CONNECT TO THE EXISTING CUT PIPE BELOW UNDERSIDE SHEATHING SERVING WATER CLOSET IN MAIN FLOOR.
- 10 NEW 12 MM COLD & HOT WATER PIPE TO CONNECT TO THE EXISTING CUT PIPE BELOW UNDERSIDE SHEATHING SERVING UTILITY SINK IN MAIN FLOOR.
- 11 NEW 9 MM COLD & HOT WATER PIPE TO CONNECT TO THE EXISTING CUT PIPE BELOW UNDERSIDE SHEATHING SERVING STAINLESS STEEL SINK IN MAIN FLOOR.
- 12 NEW 15MM COLD WATER LINE TO RUN IN CEILING SPACE TO AVOID DUCTS
- 13 NEW 12MM COLD & HOT WATER LINE TO RUN DOWN AGAINST WALL TO AVOID DUCTS AND ELECTRIC PANEL
- 14 NEW 12MM COLD & HOT WATER LINE TO RUN IN CEILING SPACE.
- 15 NEW 12 MM COLD WATER LINE FOR HOSEBIBB.SUPPLY WITH INTERIOR SHUTOFF VALVE.CORE THROUGH NEW FOUNDATION. INSTALL MINIMUM 150MM ABOVE GRADE.
- 16 INSTALL NEW HOT WATER TANK AS PER MANUFACTURERS RECOMMENDATIONS.

PLUMBING FIXTURE SCHEDULE			
ITEM	QTY.	MODEL #	NOTES
HOSE BIBB	2	NEW	HOSE BIBB, EXPOSED, NON FREEZE, AUTODRAINING, ANTI-SIPHON, VACUUM BREAKER, 12MM NPT, BRONZE INTERIOR PARTS, COPPER CASING
STAINLESS STEEL SINK	1	EXISTING	TO REMAIN, PROTECT DURING WORK
LAVATORY	1	EXISTING	TO REMAIN,PROTECT DURING WORK
WATER CLOSET	1	EXISTING	TO REMAIN,PROTECT DURING WORK
UTILITY SINK	1	EXISTING	TO REMAIN,PROTECT DURING WORK

PLUMBING EQUIPMENT SCHEDULE			
ITEM	QTY.	MODEL #	DESCRIPTION
HOT WATER TANK	1	NEW	SURFACE MOUNTED, 1500 W, 45L, 4100MM DIAMETER, 5100 MM HIGH, FIBRE GLASS INSULATION, CSA CERTIFIED

HOT & COLD WATER - FIXTURE UNIT LOAD					
ITEM #	SIZE	QTY.	FIX UNIT (FU) COLD	FIX UNIT (FU) HOT	TOTAL FIX UNIT (FU)
STAINLESS STEEL SINK	ø9 MM	1	1	1	1.4
LAVATORY	ø9 MM	1	1.5	1.5	2
WATER CLOSET	ø9 MM	1	2.2	-	2.2
UTILITY SINK	ø12 MM	1	2.25	2.25	3
HOSE BIBB	ø12 MM	2	2.5	-	5
TOTAL			9.45	4.75	13.6

LINE LEGEND	
SYMBOL	DESCRIPTION
	NEW PLUMBING CONSTRUCTION
	EXISTING PLUMBING TO REMAIN

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1	ISSUED FOR CONSTRUCTION	2018/04/10
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PARKS CANADA AGENCY
135 WASAGAMING DR.

Project title
**WASAGAMING, MB
154 COLUMBINE ST.**

**FOUNDATION
REPLACEMENT**

Designed by DH	Conçu par
Drawn by DH	Dessiné par
Approved by SJ	Approuvé par
PWGSC Project Manager	Administrateur de Projets TPSGC

Drawing title
Titre du dessin

**POTABLE WATER
BASEMENT & MAIN
FLOOR PLAN**

Project no./No. du projet PRO1272	Drawing no./No. du dessin M2	Revision no. 0
	OF 4	