MCW Consultants Ltd.

PIPING VALVES

- GATE VALVE
- BALL VALVE
- BUTTERFLY VALVE
- GLOBE VALVE
- ANGLE GLOBE VALVE
- BALANCING VALVE
- CONTROL BALANCING VALVE
- PLUG VALVE
- THREE-WAY VALVE
- TWO-WAY CONTROL VALVE
- THREE-WAY CONTROL VALVE
- NEEDLE VALVE
- CHECK VALVE
- ALARM CHECK VALVE
- PRESSURE REDUCING VALVE
- PRESSURE REGULATING VALVE
- PRESSURE REGULATING VALVE
- RELIEF OR SAFETY VALVE
- RELIEF OR SAFETY VALVE
- RELIEF OR SAFETY VALVE
- SEASONAL CHANGE OVER VALVE
- CHANGE OVER VALVE
- MOTOR CONTROL VALVE
- STRAINER
- STRAINER w/ BALL VALVE
- STRAINER w/ GATE VALVE
- AIR VALVE
- BACK FLOW PREVENTER
- SINGLE GAS SUPPLY VALVE
- DOUBLE GAS SUPPLY VALVE
- GEAR OPERATED MANUAL VALVE
- SOLENOID OPERATING VALVE
- LOCK SHIELD

SINGLE LINE GAUGES

- TS — TEMPERATURE SENSOR
- PS — PRESSURE SENSOR
- FS — FLOW SENSOR
- TEMPERATURE GAUGE
- PRESSURE GAUGE
- PRESSURE GAUGE
- AV — AIR VENT
- AIR VENT
- TW (E) — ENERGY MANAGEMENT SYSTEM (EMS) THERMOWELL

PLUMBING & DRAINAGE

- ROOF DRAIN
- FLOOR DRAIN
- FLOOR DRAIN
- HUB DRAIN
- FUNNEL DRAIN
- CATCH BASIN
- SCUPPER DRAIN
- CLEAN OUT PLUG
- CLEAN OUT FLOOR
- TRAP

SINGLE LINE PIPE FITTINGS

- CONTINUATION
- PIPE CAP
- TEE
- TEE UP
- TEE DOWN
- 90 DEGREE ELBOW
- 45 DEGREE ELBOW
- ELBOW UP
- ELBOW DOWN
- BOTTOM BRANCH
- TOP BRANCH
- PIPE TRANSITION
- FLOW ARROW

STEAM VALVES & GAUGES

- FL — FLOW & REGULATING VALVE
- HAND WHEEL RISE STEM VALVE
- VB — VACUUM BREAKER
- IB — INVERTED BUCKET STEAM TRAP
- F&T — FLOAT AND THERMOSTATIC STEAM TRAP
- T — THERMOSTATIC STEAM BIMETAL AND BELLOWS
- TD — THERMODYNAMIC STEAM TRAP
- VO — VARIABLE ORIFICE STEAM TRAP
- SIGHT GLASS
- FO — FIXED ORIFICE STEAM TRAP

MISCELLANEOUS - PIPING

- PUMP
- M — METER
- M — METER
- METER
- FLANGE
- SCREWED UNION
- HOSE BIBB
- FLEX CONNECTION
- EXPANSION COMPENSATOR
- THRUST BLOCK
- HEAT TRACE
- FUEL OIL FILTER STRAINER
- DEMOLITION 'X'
- PIPE INSULATION

PLUMBING FIXTURES

- TANK WC
- WALL WC (FLUSH VALVE)
- FLOOR WC (FLUSH VALVE)
- URINAL
- SERVICE SINK / LAUNDRY TUB
- SINGLE BOWL SINK
- DOUBLE BOWL SINK
- WALL HUNG LAVATORY
- COUNTER MOUNT LAVATORY
- WASH FOUNTAIN
- WALL HUNG HANDICAPPED SINK
- DRINKING FOUNTAIN
- EMERGENCY EYEWASH
- BATHTUB
- SHOWER

PIPING DESIGNATIONS

Line	Description
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RECIRCULATION
SAN	SANITARY DRAIN ABOVE
SAN	SANITARY DRAIN BELOW
SD	STORM DRAIN ABOVE
SD	STORM DRAIN BELOW
V	VENT
AW	ACID WASTE
AV	ACID VENT
WT	WEEPING TILE
NPW	NON-POTABLE WATER
CA	COMPRESSED AIR
G	LOW PRESSURE GAS
MG	MEDIUM PRESSURE GAS
HG	HIGH PRESSURE GAS
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FOF	FUEL OIL FILL
FOV	FUEL OIL VENT
HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
H/C S	DUAL TEMPERATURE SUPPLY
H/C R	DUAL TEMPERATURE RETURN
HPWS	HEAT PUMP WATER SUPPLY
HPWR	HEAT PUMP WATER RETURN
GS	GLYCOL SUPPLY
GR	GLYCOL RETURN
RS	REFRIGERANT SUCTION
RL	REFRIGERANT LIQUID
CWS	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
CTWS	COOLING TOWER WATER SUPPLY
CTWR	COOLING TOWER WATER RETURN
ST (info)	STEAM (w/ DETAIL)
LPS	LOW PRESSURE STEAM
MPS	MEDIUM PRESSURE STEAM
HPS	HIGH PRESSURE STEAM
LPC	LOW PRESSURE STEAM CONDENSATE
MPC	MEDIUM PRESSURE STEAM CONDENSATE
HPC	HIGH PRESSURE STEAM CONDENSATE
CD	CONDENSATE DRAIN
PC	PUMPED CONDENSATE DRAIN
BBD	BOILER BLOW DOWN
BFW	BOILER FEED WATER

DUCTWORK

- SUPPLY AIR FLOW ARROW
- RETURN/EXHAUST AIR FLOW ARROW
- SUPPLY/OUTSIDE AIR DUCT UP
- SUPPLY/OUTSIDE AIR DUCT DOWN
- RETURN AIR DUCT UP
- RETURN AIR DUCT DOWN
- EXHAUST AIR DUCT UP
- EXHAUST AIR DUCT DOWN
- RECTANGULAR DUCT
- ROUND DUCT
- MITERED ELBOW - RECTANGULAR DUCT
- BEVELED THROAT ELBOW - RECTANGULAR DUCT
- 45° RADIUS ELBOW - RECTANGUALR DUCT
- 45° RADIUS ELBOW - ROUND DUCT
- 90° RADIUS ELBOW - RECTANGULAR DUCT
- 90° RADIUS ELBOW - ROUND DUCT
- FLEX DUCT
- TAKE OFF CONNECTION
- SPIN-ON CONNECTION
- EXTERNALLY INSULATED DUCTWORK
- INTERNALLY LINED DUCTWORK
- SQUARE TO ROUND DUCT TRANSITION
- TYP SQUARE DIFFUSER
- TYP LINEAR BAR GRILLE
- TYP LINEAR S/R DIFFUSER w/ PLENUM
- TYP NON DUCTED LINEAR RETURN DIFFUSER
- CENTRIFUGAL FAN
- PARALLEL BLADE CONTROL DAMPER
- OPPOSED BLADE CONTROL DAMPER
- FD — FIRE DAMPER
- BD — BALANCING DAMPER
- T — THERMOSTAT
- H — HUMIDISTAT
- CO — CARBON MONOXIDE SENSOR
- CO2 — CARBON DIOXIDE SENSOR

FIRE PROTECTION

- UPRIGHT SPRINKLER
- CONCEALED SPRINKLER
- DRY PENDENT SPRINKLER
- PENDENT SPRINKLER
- RECESSED SPRINKLER
- PRE-ACTION SPRINKLER
- SIDEWALL SPRINKLER
- WINDOW SPRINKLER
- FIRE HOSE CABINET
- SURFACE FIRE EXTINGUISHER
- CABINET FIRE EXTINGUISHER
- SUPERVISED VALVE
- POST INDICATOR VALVE
- FIRE DEPT. PUMPER CONNECTION
- FIRE DEPT. TEST CONNECTION
- FIRE HYDRANT
- W/A — WET SYSTEM ALARM VALVE
- D/A — DRY SYSTEM ALARM VALVE
- P/A — PRE-ACTION SYSTEM ALARM VALVE
- FSP — FIRE STANDPIPE
- F — WET SPRINKLER LINE
- F - DRY — DRY SPRINKLER LINE

HVAC DESIGNATIONS

Code	Description
S/A	SUPPLY AIR
O/A	OUTSIDE AIR
R/A	RETURN AIR
E/A	EXHAUST AIR
MD	MOTORIZED DAMPER
FD	FIRE DAMPER
BD	BALANCING DAMPER
FSD	SMOKE & FIRE DAMPER
SA	SOUND ATTENUATOR
AP	ACCESS PANEL
AS	AIR SEPARATOR
SAV	SUPPLY AIR VALVE
EAV	EXHAUST AIR VALVE
F	AIR FILTER
FTR	FINNED TUBE RADIATOR
BBH	BASEBOARD HEATER
PRV	PRESSURE REDUCING VALVE
SRV	SAFETY RELIEF VALVE
CC-	COOLING COIL
HC-	HEATING COIL
RHC	REHEAT COIL
SC	STEAM COIL
H-	HUMIDIFIER
SL-	SILENCER
CF-	CEILING FAN
ACU-	AIR CONDITIONING UNIT
AHU-	AIR HANDLING UNIT
RTU-	ROOF TOP UNIT
MAU-	MAKE UP AIR UNIT
HRU-	HEAT RECOVERY UNIT
HVU-	HEATING & VENTILATING UNIT
HRW-	HEAT RECOVERY WHEEL
HRV-	HEAT RECOVERY VENTILATOR
ERV-	ENERGY RECOVERY VENTILATOR
FCU-	FAN COIL UNIT
VFC-	VERTICAL FAN COIL UNIT
HFC-	HORIZONTAL FAN COIL UNIT
CAV-	CONSTANT AIR VOLUME TERMINAL UNIT
VAV-	VARIABLE AIR VOLUME TERMINAL UNIT
SF-	SUPPLY FAN
RAF-	RETURN AIR FAN
EX-	EXHAUST FAN
CUH-	CABINET UNIT HEATER
UH-	UNIT HEATER
EH-	ENTRANCE HEATER
CH-	CHILLER
CT-	COOLING TOWER
FC-	FLUID COOLER
EFC-	EVAPORATIVE FAN COOLER
CP-	CONDENSATE PUMP
P-	PUMP
ET-	EXPANSION TANK
HX-	HEAT EXCHANGER
VFD	VARIABLE FREQUENCY DRIVE
VSD	VARIABLE SPEED DRIVE

DRAWING LIST

DWG NO.	DRAWING NAME	SCALE
M0-00	MECHANICAL SYMBOL LEGEND. DRAWING LIST & GENERAL NOTES	N.T.S.
M0-01	SITE PLAN - MECHANICAL	1:200
M1-00	FOUNDATION & LEVEL P4 FLOOR PLANS MECHANICAL	1:100
M1-01	LEVEL P3 & LEVEL P2 FLOOR PLANS MECHANICAL	1:100
M1-02	LEVEL P1 & LEVEL P1 MEZZANINE FLOOR PLANS - MECHANICAL	1:100
M2-01A	LEVEL 1 FLOOR PLAN NORTH - MECHANICAL	1:50
M2-01B	LEVEL 1 FLOOR PLAN SOUTH - MECHANICAL	1:50
M2-02A	LEVEL 1 MEZZANINE FLOOR PLAN NORTH MECHANICAL	1:50
M2-02B	LEVEL 1 MEZZANINE FLOOR PLAN SOUTH MECHANICAL	1:50
M2-03A	LEVEL 2 FLOOR PLAN NORTH - MECHANICAL	1:50
M2-03B	LEVEL 2 FLOOR PLAN SOUTH - MECHANICAL	1:50
M2-04A	LEVEL 3 FLOOR PLAN NORTH - MECHANICAL	1:50
M2-04B	LEVEL 3 FLOOR PLAN SOUTH - MECHANICAL	1:50
M2-05A	LEVEL 4-5 FLOOR PLAN NORTH - MECHANICAL	1:50
M2-05B	LEVEL 4-5 FLOOR PLAN SOUTH - MECHANICAL	1:50
M2-06A	LEVEL 6 FLOOR PLAN NORTH - MECHANICAL	1:50
M2-06B	LEVEL 6 FLOOR PLAN SOUTH - MECHANICAL	1:50
M2-07A	LEVEL 7 FLOOR PLAN NORTH - MECHANICAL	1:50
M2-07B	LEVEL 7 FLOOR PLAN SOUTH - MECHANICAL	1:50
M2-08A	LEVEL 8 FLOOR PLAN NORTH - MECHANICAL	1:50
M2-08B	LEVEL 8 FLOOR PLAN SOUTH - MECHANICAL	1:50
M2-09A	LEVEL 9 FLOOR PLAN NORTH - MECHANICAL	1:50
M2-09B	LEVEL 9 FLOOR PLAN SOUTH - MECHANICAL	1:50
M2-10A	LEVEL 10 FLOOR PLAN NORTH - MECHANICAL	1:50
M2-10B	LEVEL 10 FLOOR PLAN SOUTH - MECHANICAL	1:50
M2-11A	LEVEL 11 FLOOR PLAN NORTH - MECHANICAL	1:50
M2-11B	LEVEL 11 FLOOR PLAN SOUTH - MECHANICAL	1:50
M2-12A	LEVEL PH1 FLOOR PLAN NORTH - MECHANICAL	1:50
M2-12B	LEVEL PH1 FLOOR PLAN SOUTH - MECHANICAL	1:50
M2-13A	LEVEL PH2 FLOOR PLAN NORTH - MECHANICAL	1:50
M2-13B	LEVEL PH2 FLOOR PLAN SOUTH - MECHANICAL	1:50
M3-01	Unnamed	
M4-01	STORM SCHEMATIC	N.T.S.
M4-02	NATURAL GAS SCHEMATIC	N.T.S.
M4-11	CONDO - AIR DISTRIBUTION SCHEMATIC	N.T.S.
M4-12	CONDO - HEATING & COOLING SCHEMATIC	N.T.S.
M4-13A	CONDO - FAN COIL RISER DIAGRAM	N.T.S.
M4-14	CONDO - DOMESTIC WATER RISER DIAGRAM	N.T.S.
M4-15A	CONDO - DOMESTIC WATER RISER DIAGRAM	N.T.S.
M4-16A	CONDO - SANITARY RISER DIAGRAM	N.T.S.
M4-21	ARTSCAPE - AIR DISTRIBUTION SCHEMATIC	N.T.S.
M4-22	ARTSCAPE - HEATING & COOLING SCHEMATIC	N.T.S.
M4-23A	ARTSCAPE - FAN COIL RISER DIAGRAM	N.T.S.
M4-24	ARTSCAPE - DOMESTIC WATER SCHEMATIC	N.T.S.
M4-25A	ARTSCAPE - DOMESTIC WATER RISER DIAGRAM	N.T.S.
M4-26A	ARTSCAPE - SANITARY RISER DIAGRAM	N.T.S.
ME-11	CONDO - EQUIPMENT SCHEDULES #1	N.T.S.
ME-12	CONDO - EQUIPMENT SCHEDULES #2	N.T.S.
ME-13	CONDO - EQUIPMENT SCHEDULES #3	N.T.S.
ME-14	CONDO - EQUIPMENT SCHEDULES #4	N.T.S.
ME-21	ARTSCAPE - EQUIPMENT SCHEDULES #1	N.T.S.
ME-22	ARTSCAPE - EQUIPMENT SCHEDULES #2	N.T.S.
ME-31	RETAIL - EQUIPMENT SCHEDULES #1	N.T.S.
ME-32	RETAIL - EQUIPMENT SCHEDULES #2	N.T.S.

DRAWING SYMBOLS

X / X - X — SECTION NUMBER / SHEET NUMBER

X / X - X — DETAIL NUMBER / SHEET NUMBER

NOTES

GENERAL NOTES:

ALL EQUIPMENT AND MATERIALS LOCATED IN ANY CONCEALED SPACE USED AS A RETURN AIR PLENUM SHALL CONFORM TO THE REQUIREMENTS OF ONTARIO BUILDING CODE SECTION 3.6.4.3

THE POTABLE WATER SYSTEM SHALL BE PROTECTED AGAINST BACK SIPHONAGE FROM ANY MACHINERY OR EQUIPMENT BY A CERTIFIED CAN/CSA B64.10-94 BACKFLOW PREVENTER AS PER THE ONTARIO BUILDING CODE SUBSECTION 7.6.2.

ALL DOMESTIC WATER MANIFOLDS AND ALL IN SLAB DOMESTIC WATER PIPING TO BE SIZED AND INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. ALL IN SLAB PIPING AND RELATED MATERIALS TO BE INSTALLED IN COMPLIANCE WITH THE ONTARIO BUILDING CODE.

FOR PIPE OFF-SETS (e.g.: WASHROOMS LOCATED ABOVE SENSITIVE AREAS, etc.) PROVIDE 25mm (1") THICK FIBERGLASS, COVERED WITH 2mm 'ACUSEAL' TO SANITARY OR STORM ELBOWS FROM DRAINS OR PIPES ABOVE AND THE FIRST 1.5m (5'-0") OF HORIZONTAL RUN AFTER THE ELBOW.

TRANSITE PIPES FOR HORIZONTAL STORM DRAINS ARE NOT ALLOWED TO BE INSTALLED ABOVE FINISHED AND SENSITIVE AREAS. MUST USE 'VICTAULIC' GALVANIZED IRON PIPES.

PROVIDE BALANCING DAMPERS AT BRANCH DUCTS.

PROVIDE FIRE DAMPER(S) ON ALL DUCTWORK THAT PENETRATE THROUGH FIRE RATED WALL PARTITIONS.

ALL PIPE ANCHORS, EXPANSION JOINTS AND PIPE GUIDES TO BE INSTALLED IN COMPLIANCE WITH THE ONTARIO BUILDING CODE AND THE REQUIREMENTS OF THE LOCAL MUNICIPALITY.

COMPLETE VENTING SYSTEM INCLUDING SIZING AND TERMINAL POINTS TO BE PROVIDED AND INSTALLED BY CONTRACTOR IN COMPLIANCE WITH THE ONTARIO BUILDING CODE

NOTE:
NOT ALL SYMBOLS SHOWN ON THIS LEGEND ARE NECESSARILY USED ON THIS PROJECT.

TYPICAL EQUIPMENT DUCT SIZES:

LAUNDRY DRYER
- 150mm (6") DIAMETER AND THE LAST 1500mm (5'-0") FROM OUTSIDE WALL MUST BE 200mm (8") DIAMETER INCLUDING 25mm THICK THERMAL INSULATION.

KITCHEN BOOSTER FAN
- 150mm (6") DIAMETER AND THE LAST 1500mm (5'-0") FROM OUTSIDE WALL MUST BE 200mm (8") DIAMETER INCLUDING 25mm THICK THERMAL INSULATION.

ENERGY RECOVERY VENTILATOR - ERV
- ALL FOUR (4) DUCTS IN/OUT OF UNITS ARE 150mm (6") DIAMETER.
- ENTIRE OUTSIDE AIR INTAKE DUCT MUST BE 200mm (8") DIAMERER INCLUDING 25mm THICK THERMAL INSULATION AND EXHAUST DUCT IS 200mm (8") DIAMETER INCLUDING 25mm THICK THERMAL INSULATION FOR THE LAST 1500mm (5'-0") FROM OUTSIDE WALL.
- ERV MAIN CONTROLLER MUST BE LOCATED INSDE MAIN BATHROOM. ERV AUXILLIARY CONTROLLER (IF REQUIRED) MUST BE LOCATED INSIDE SECONDARY WASHROOM OR POWDER ROOM.

SUITES SIDEWALL SUPPLY AIR DIFFUSERS:

- ALL SIDEWALL SUPPLY AIR DIFFUSERS MUST BE INSTALLED AS HIGH AS POSSIBLE. TOP SIDE OF SIDEWALL DIFFUSERS MUST BE MAXIMUM 150mm BELOW FISIHSED CEILING OR BULKHEADS.

HAZARD/GROUP DESIGNATION:

ASTERISK ADJACENT TO ROOM NUMBER INDICATES COVERAGE, ALL OTHER AREAS TO BE LIGHT HAZARD COVERAGE WITH A MAXIMUM SQUARE FOOT COVERAGE PER HEAD OF 225 (20.9 SQ. M.)

* ORDINARY HAZARD GROUP 1
** ORDINARY HAZARD GROUP 2

ALL FIRE EXTINGUISHER TO BE TYPE 3A-10BC

Contractor Must Check And Verify All Dimensions On The Job.

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Date: 12/08/09

LICENSED PROFESSIONAL ENGINEER
8489D
D. C. M. BELLAMY
PROVINCE OF ONTARIO

MCW Consultants Ltd.
207 Queen's Quay West, Suite 615, Toronto, ON, M5J 1A7
E-Mail: mcw_tor@mcw.com www.mcw.com
Tel: 416-598-2920 Fax: 416-598-5394
Toronto Vancouver Winnipeg Moncton Ottawa Halifax Dauphin Kelowna Trail Saint John

No.:	Revision	Date

No	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

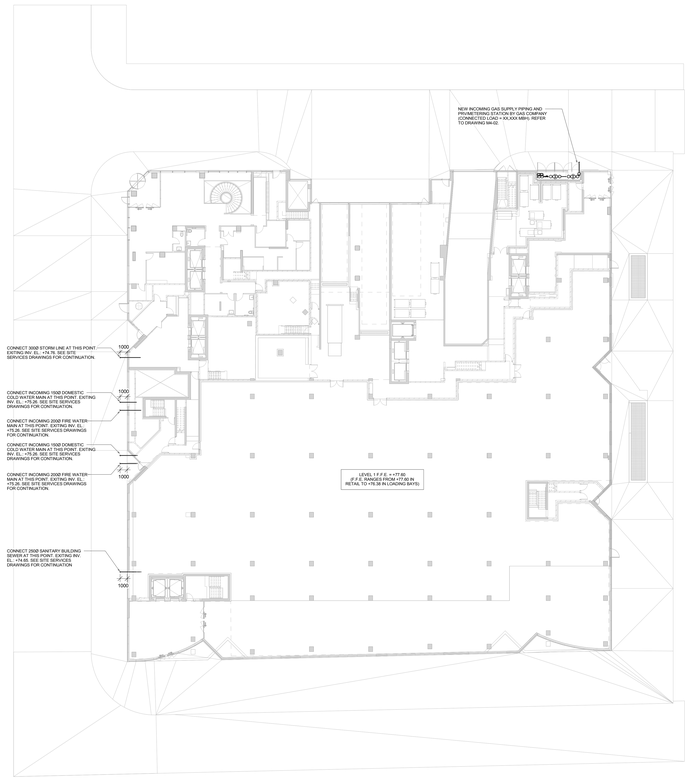
Drawing Title

MECHANICAL SYMBOL LEGEND. DRAWING LIST & GENERAL NOTES

Project

Hines TRIDEL®
AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: NTS.
Drawn by: Author
Checked by: Checker
Project No.: 8489D
Date: 12/08/09
N
Drawing No.: M0-00



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MCW Consultants Ltd.
207 Queen's Quay West, Suite 810, Toronto, ON, M5J 1A7
E-Mail: mcw_toronto.com www.mcw.com
Tel: 416-598-2820 Fax: 416-598-5384
Toronto Vancouver Windsor Moncton Ottawa Halifax
Dauphin Kitchener Trail Saint John

No.	Revision	Date

No.	Issued For	Date

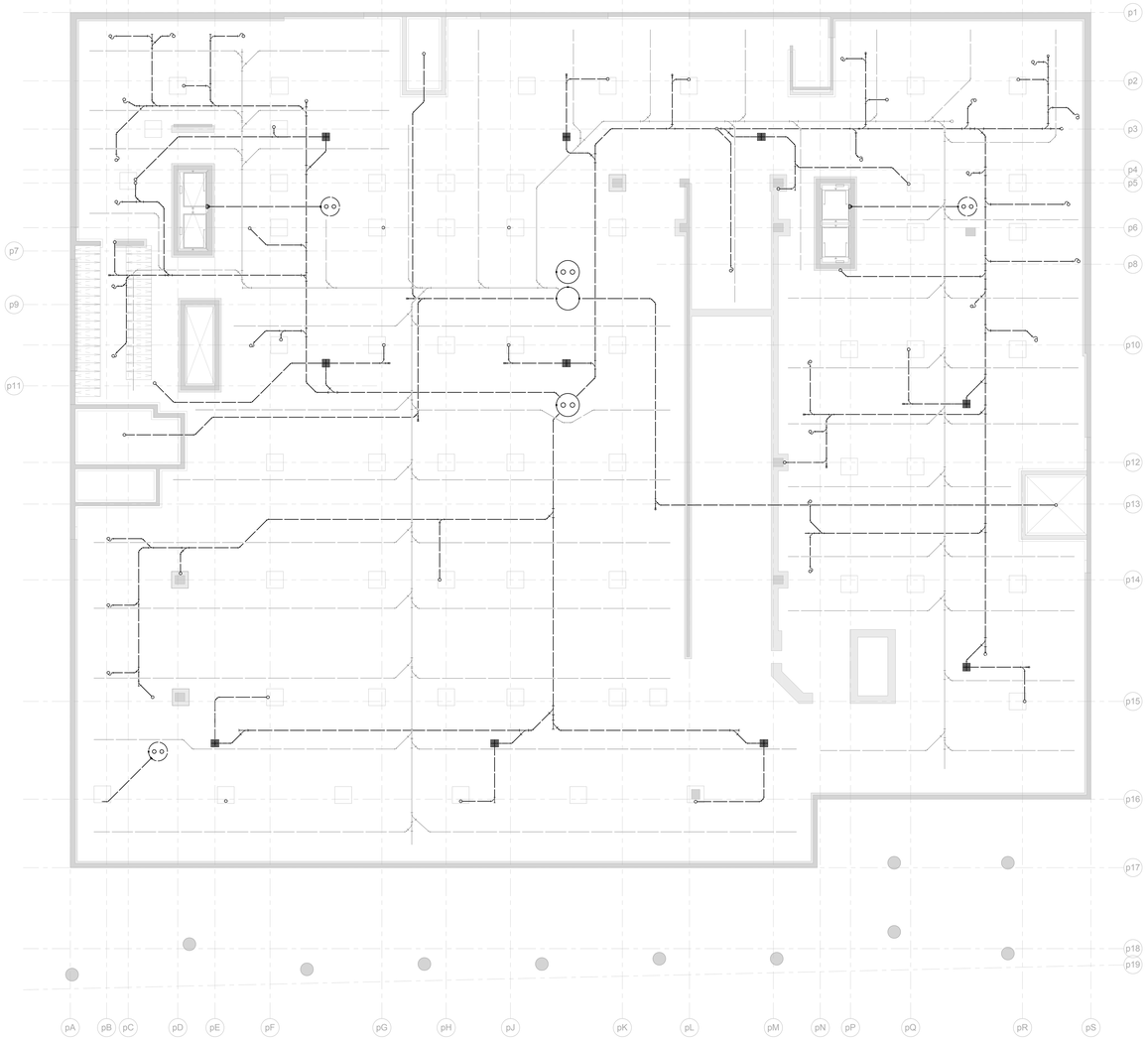
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
SITE PLAN - MECHANICAL

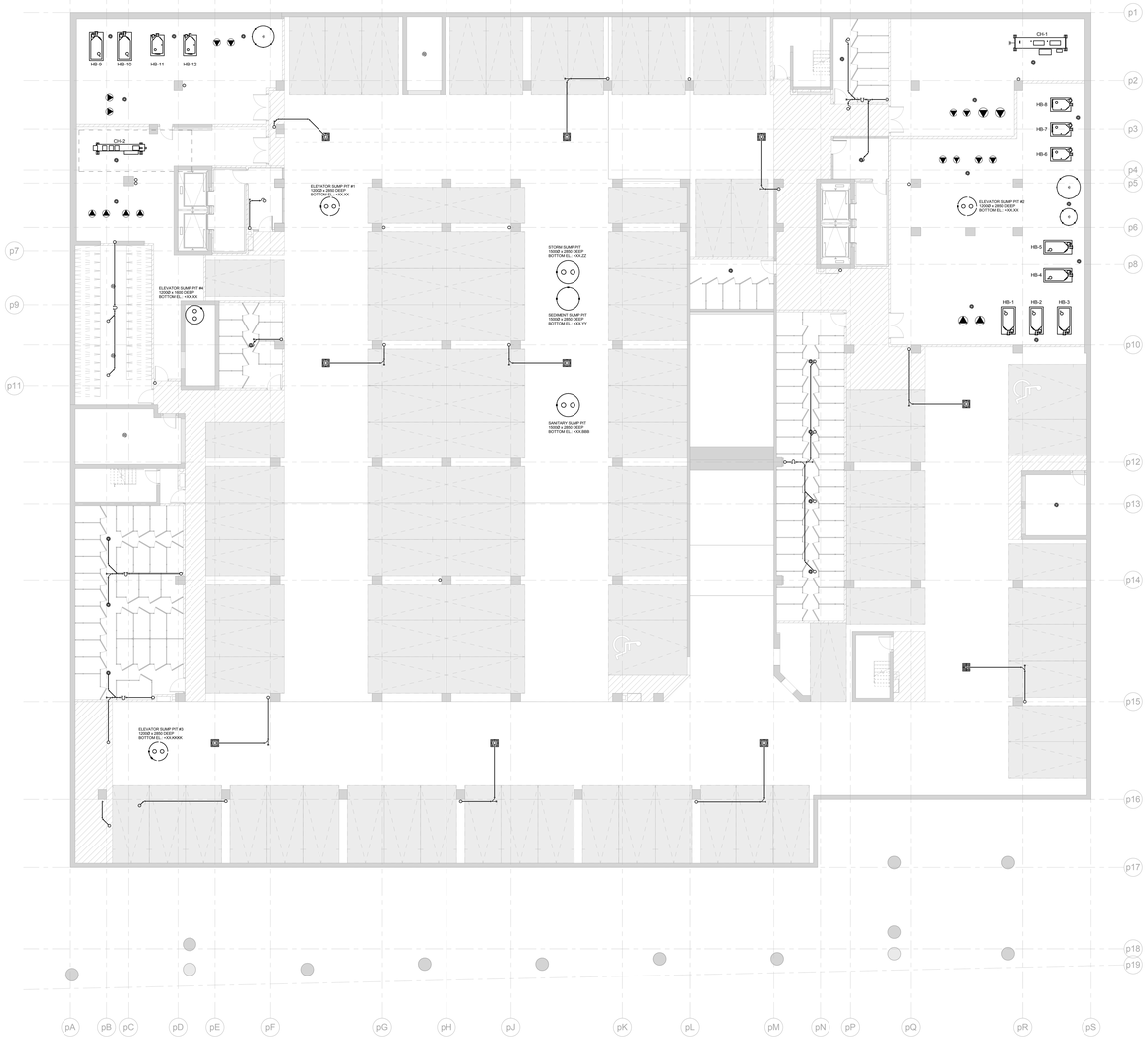
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale 1 : 200
Drawn by Author
Checked by Checker
Project No. 8489D
Date 08/28/12
Drawing No. M0-01

N



1 FOUNDATION FLOOR PLAN - MECHANICAL
1 : 100



2 LEVEL P4 FLOOR PLAN - MECHANICAL
1 : 100

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MCW Consultants Ltd.
207 Queen's Quay West, Suite 816, Toronto, ON, M5J 1A7
E-Mail: mcw_toronto.com www.mcw.com
Tel: 416-598-2820 Fax: 416-598-5304
Toronto Vancouver Winnipeg Moncton Ottawa Halifax
Dauphin Kelowna Trail Saint John

No.	Revision	Date

No.	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

FOUNDATION & LEVEL P4
FLOOR PLANS
MECHANICAL

Project

Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale	1 : 100
Drawn by	M.F.
Checked by	M.H.
Project No.	8489D
Date	03/04/15
Drawing No.	M1-00

N

1 LEVEL P3 FLOOR PLAN - MECHANICAL

1 : 100

2 LEVEL P2 FLOOR PLAN - MECHANICAL

1 : 100

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Date: 03/04/15

ONTARIO ASSOCIATION OF ARCHITECTS
Sealed
D. C. M. BELLAMY
LICENCE OF ARCHITECT

MCW Consultants Ltd.
207 Queen's Quay West, Suite 816, Toronto, ON, M5J 1A7
E-Mail: mcw_toronto.com www.mcw.com
Tel: 416-598-2820 Fax: 416-598-5384
Toronto Vancouver Windsor Moncton Ottawa Halifax
Dauphin Kitchener Trail Saint John

No.	Revision	Date

No.	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL P3 & LEVEL P2
FLOOR PLANS
MECHANICAL

Project

Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 100

Drawn by: Author

Checked by: Checker

Project No: 8489D

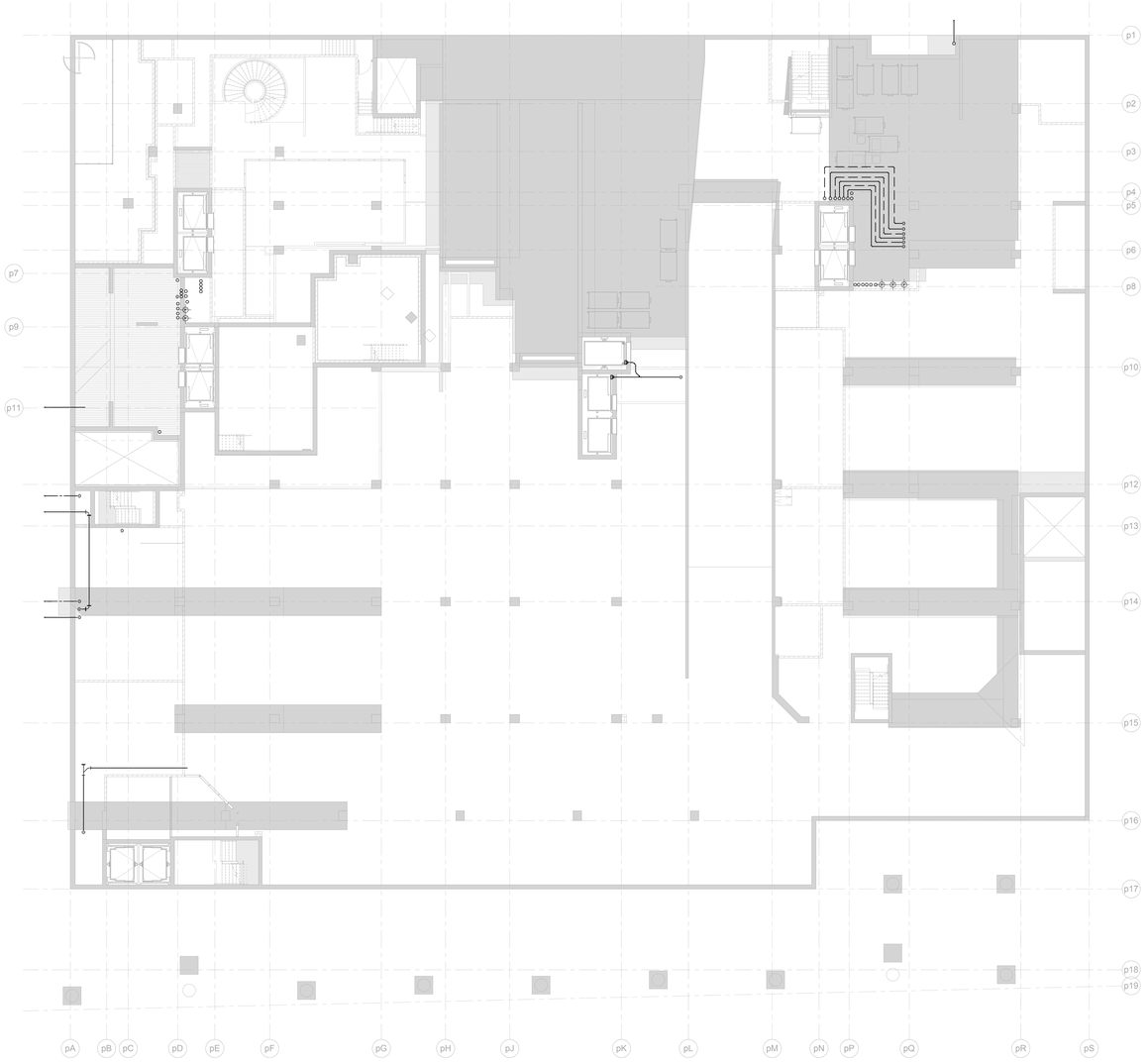
Date: 03/04/15

N

Drawing No:

M1-01

1 LEVEL P1 FLOOR PLAN - MECHANICAL
1 : 100



2 LEVEL P1 MEZZANINE FLOOR PLAN - MECHANICAL
1 : 100

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E-Mail: mcw_toronto.com www.mcw.com
Tel: 416-598-2820 Fax: 416-598-5384
Toronto Vancouver Windsor Moncton Ottawa Halifax
Dauphin Kitchener Trail Saint John

No.	Revision	Date

No.	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL P1 & LEVEL P1 MEZZANINE FLOOR PLANS - MECHANICAL

Project

Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale	1 : 100
Drawn by	Author
Checked by	Checker
Project No.	8489D
Date	03/04/15
Drawing No.	M1-02

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Dauphin Kitchener Trail Saint John

No.	Revision	Date

No.	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 1 FLOOR PLAN
NORTH - MECHANICAL

Project

Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 50

Drawn by: Author

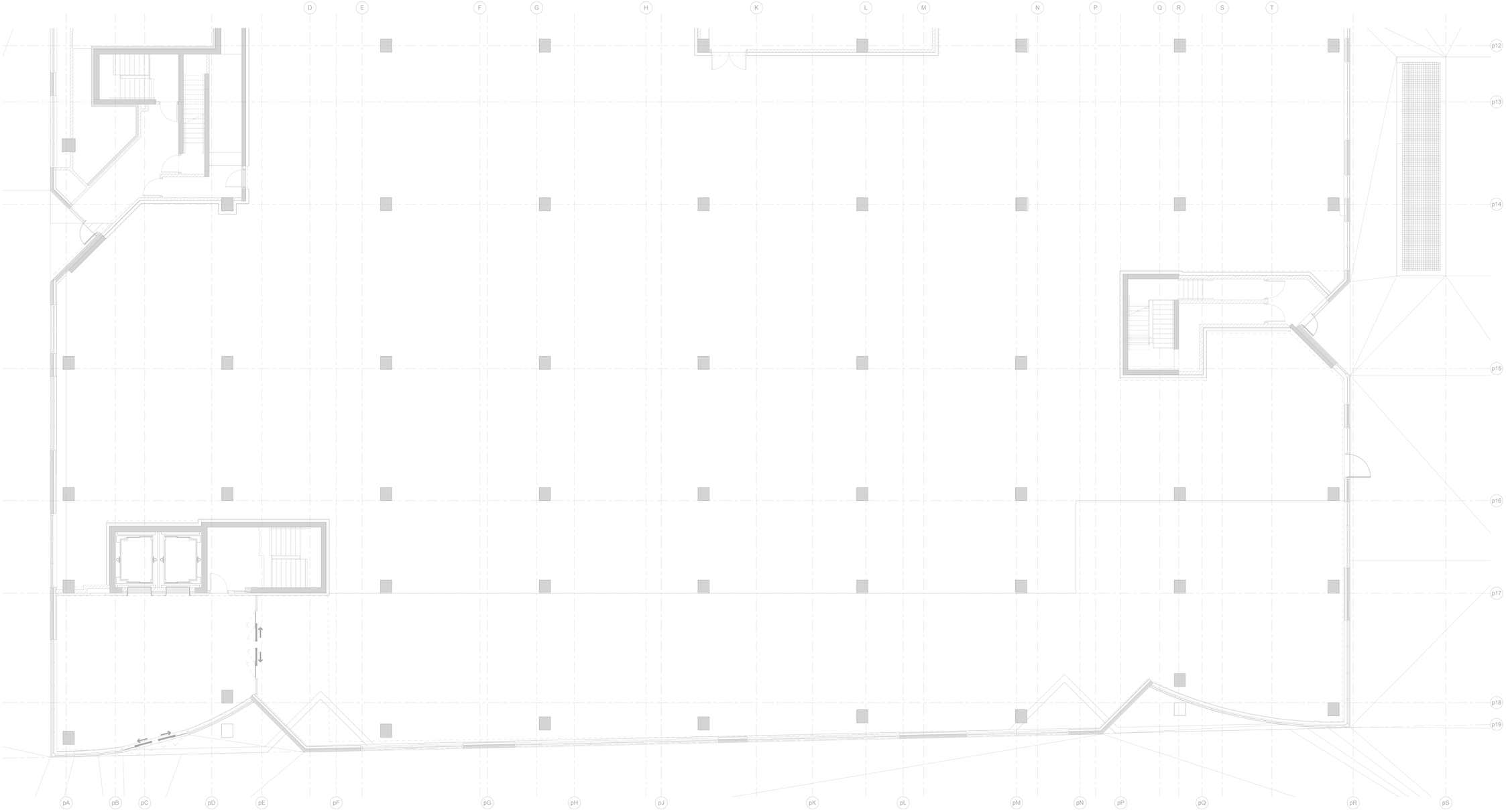
Checked by: Checker

Project No: 8489D

Date: 03/04/15

Drawing No: M2-01A

N



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No.	Revision	Date

No.	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 1 FLOOR PLAN
SOUTH - MECHANICAL

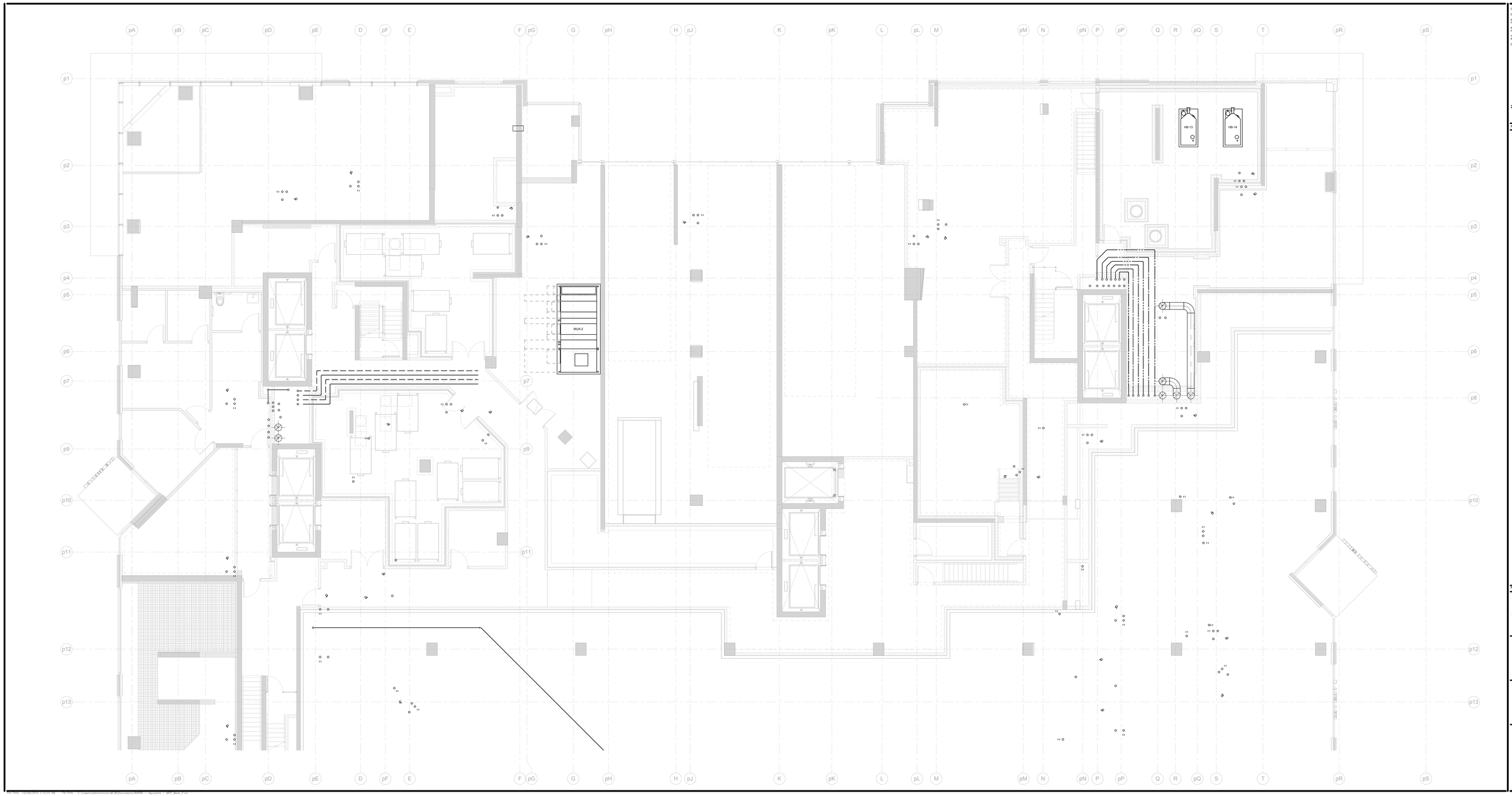
Project

Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale	1 : 50
Drawn by	Author
Checked by	Checker
Project No.	8489D
Date	03/04/15
Drawing No.	M2-01B

N



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No.	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 1 MEZZANINE
FLOOR PLAN NORTH
MECHANICAL

Project

Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 50
Drawn by: Author
Checked by: Checker
Project No: 8489D
Date: 03/04/15
Drawing No: M2-02A

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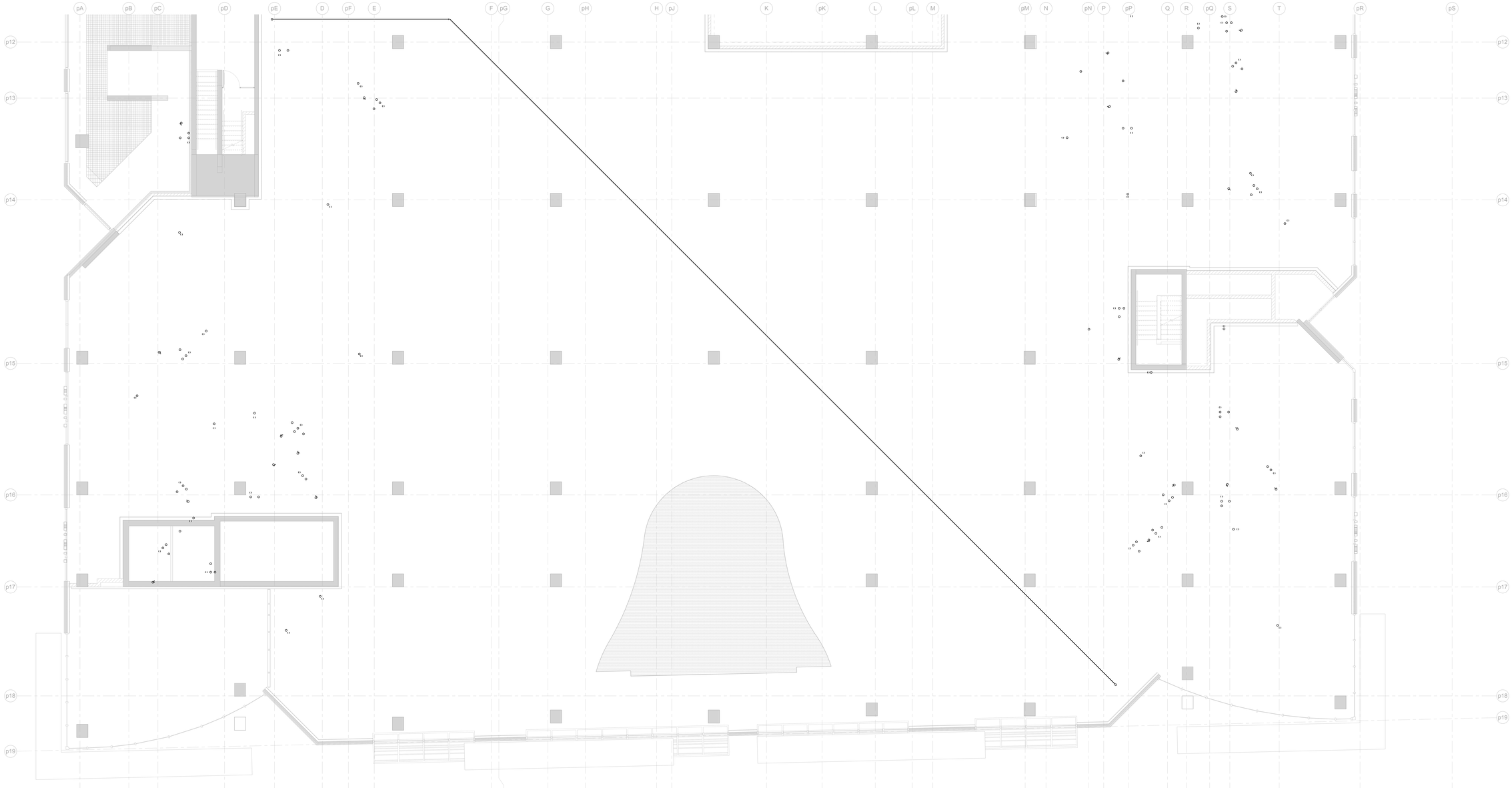

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D. C. M. BELLAMY
LICENCE OF ARCHITECT

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E-Mail: mcw_toronto.com www.mcw.com
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No.	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 1 MEZZANINE
FLOOR PLAN SOUTH
MECHANICAL

Project

Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale	1 : 50
Drawn by	Author
Checked by	Checker
Project No.	8489D
Date	03/04/15
Drawing No.	M2-02B

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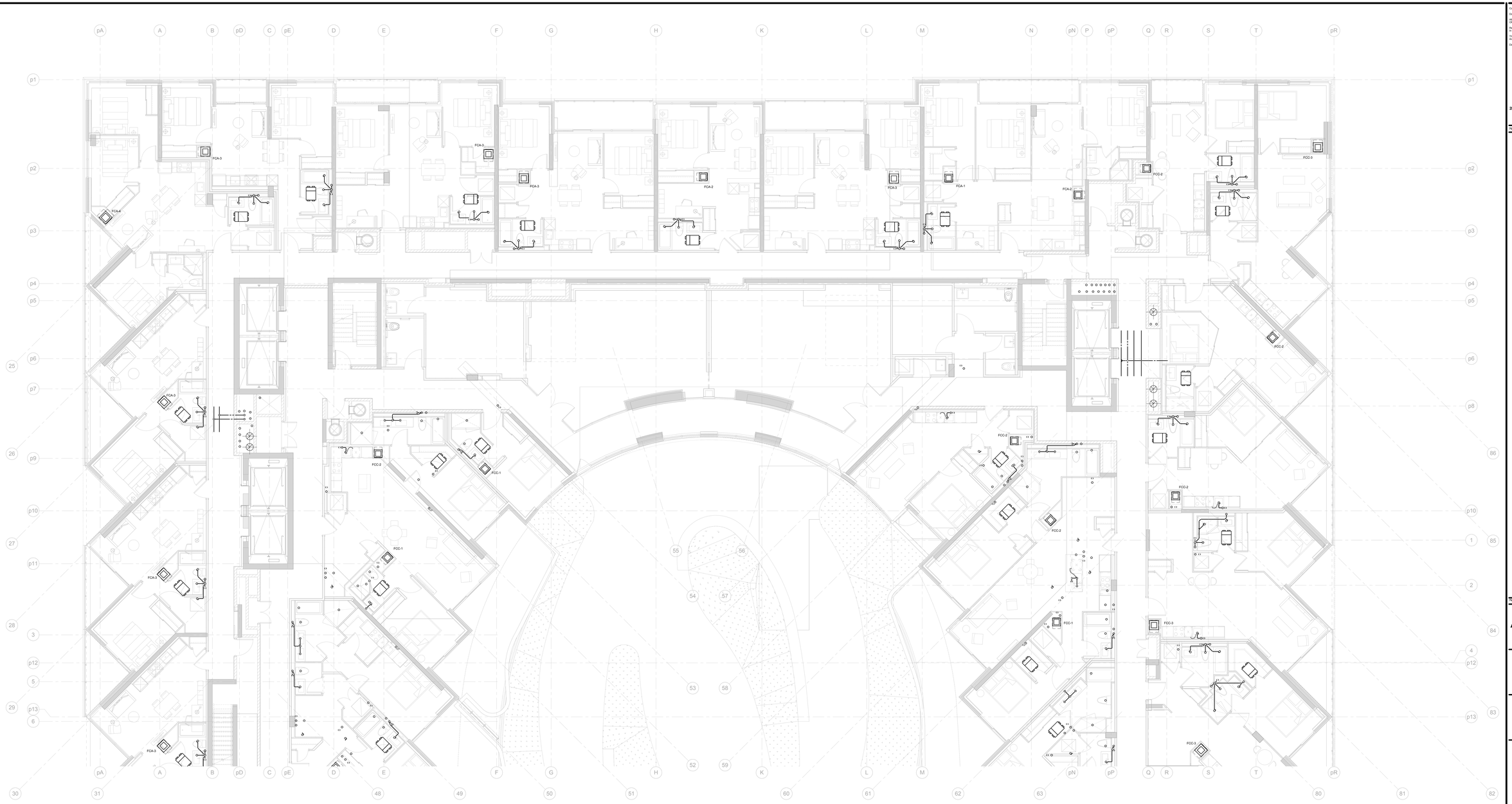

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No.	Revision	Date

No.	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 2 FLOOR PLAN
NORTH - MECHANICAL

Project

Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 50
Drawn by: Author
Checked by: Checker
Project No: 8489D
Date: 03/04/15
Drawing No: M2-03A

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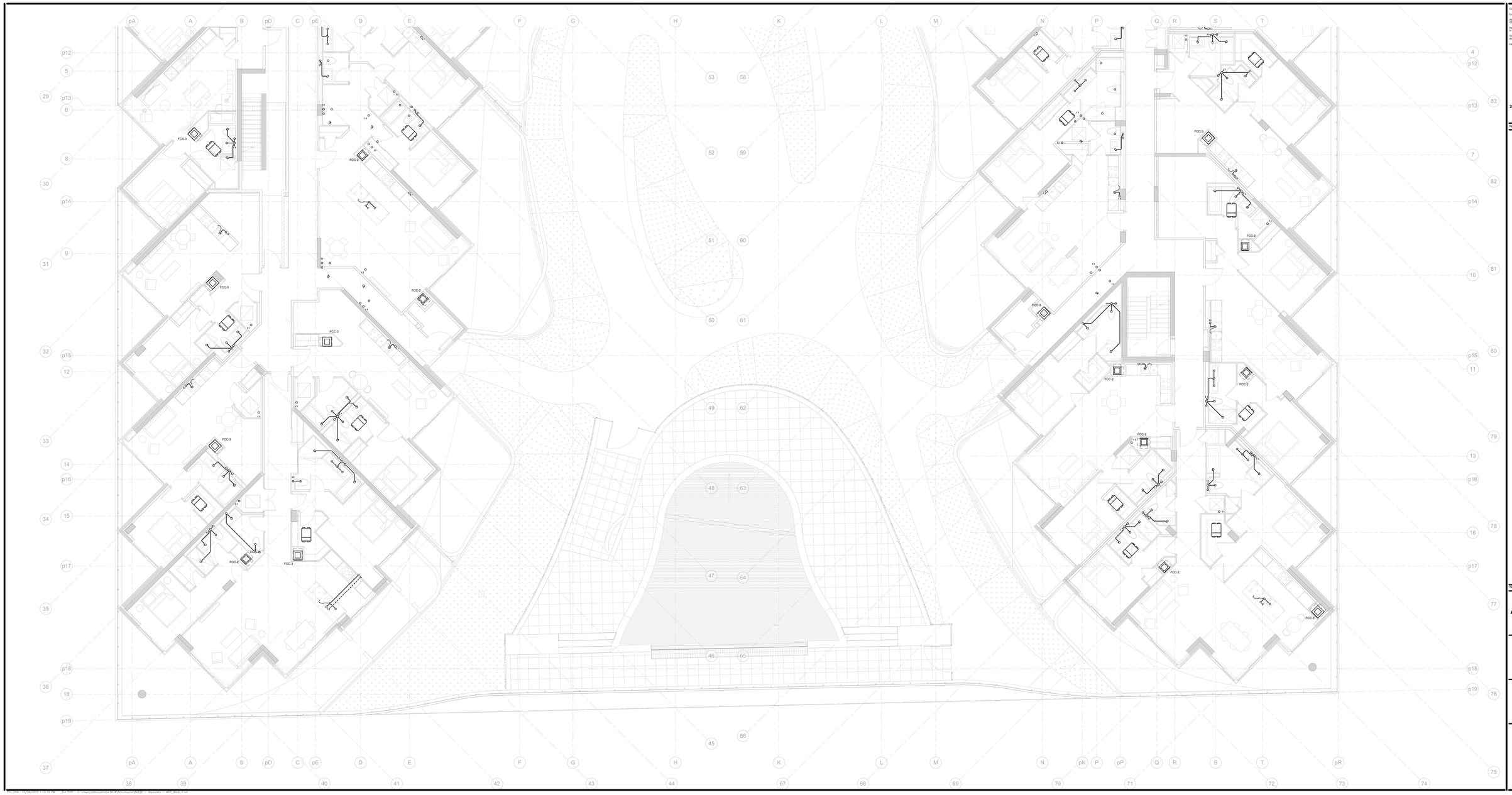

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Dauphin Kitchener Trail Saint John

No.	Revision	Date

No.	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 2 FLOOR PLAN
SOUTH - MECHANICAL

Project

Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale	1 : 50
Drawn by	Author
Checked by	Checker
Project No.	8489D
Date	03/04/15
Drawing No.	M2-03B

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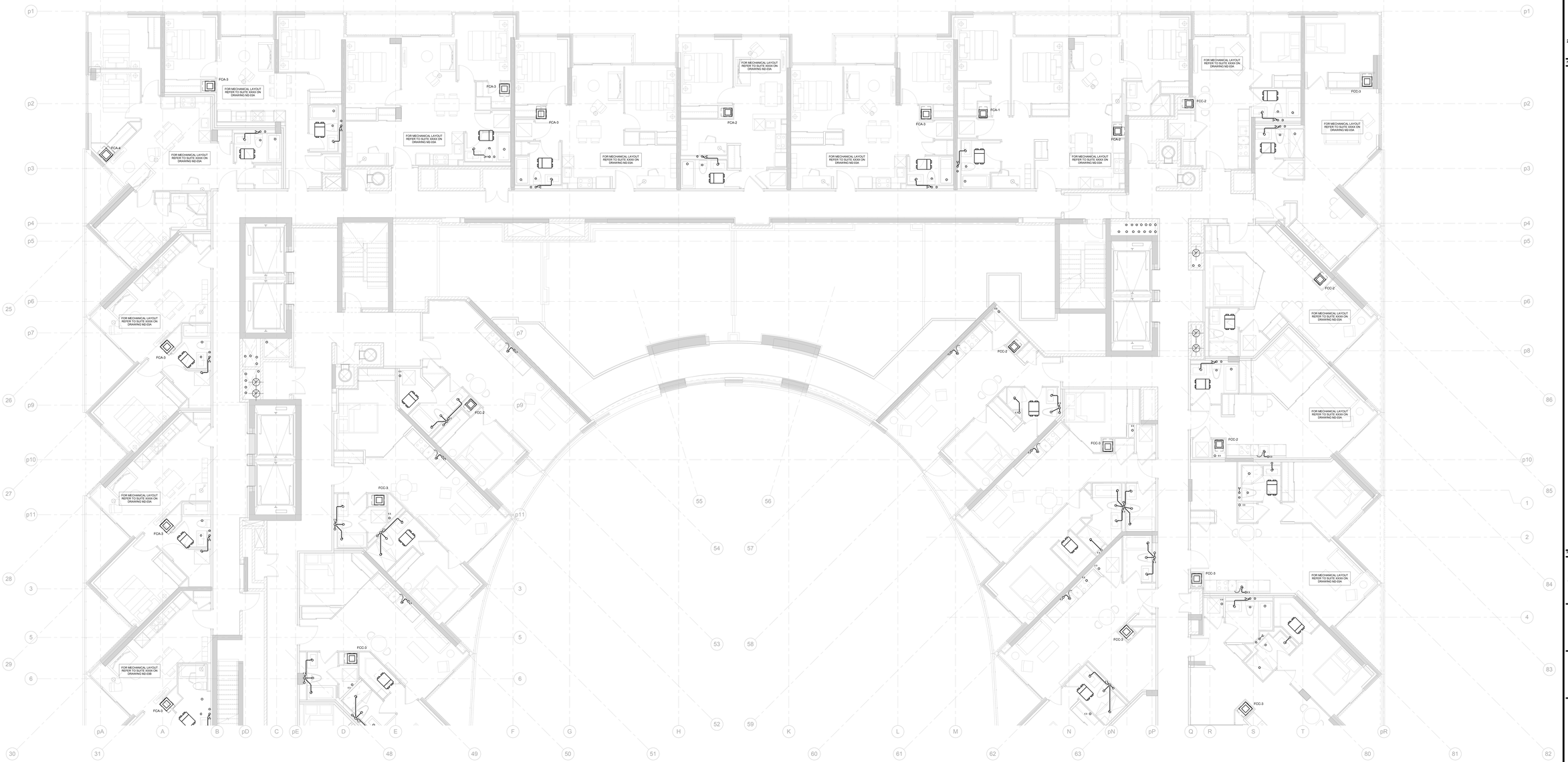

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No.	Revision	Date

No.	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 3 FLOOR PLAN
NORTH - MECHANICAL

Project

Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 50

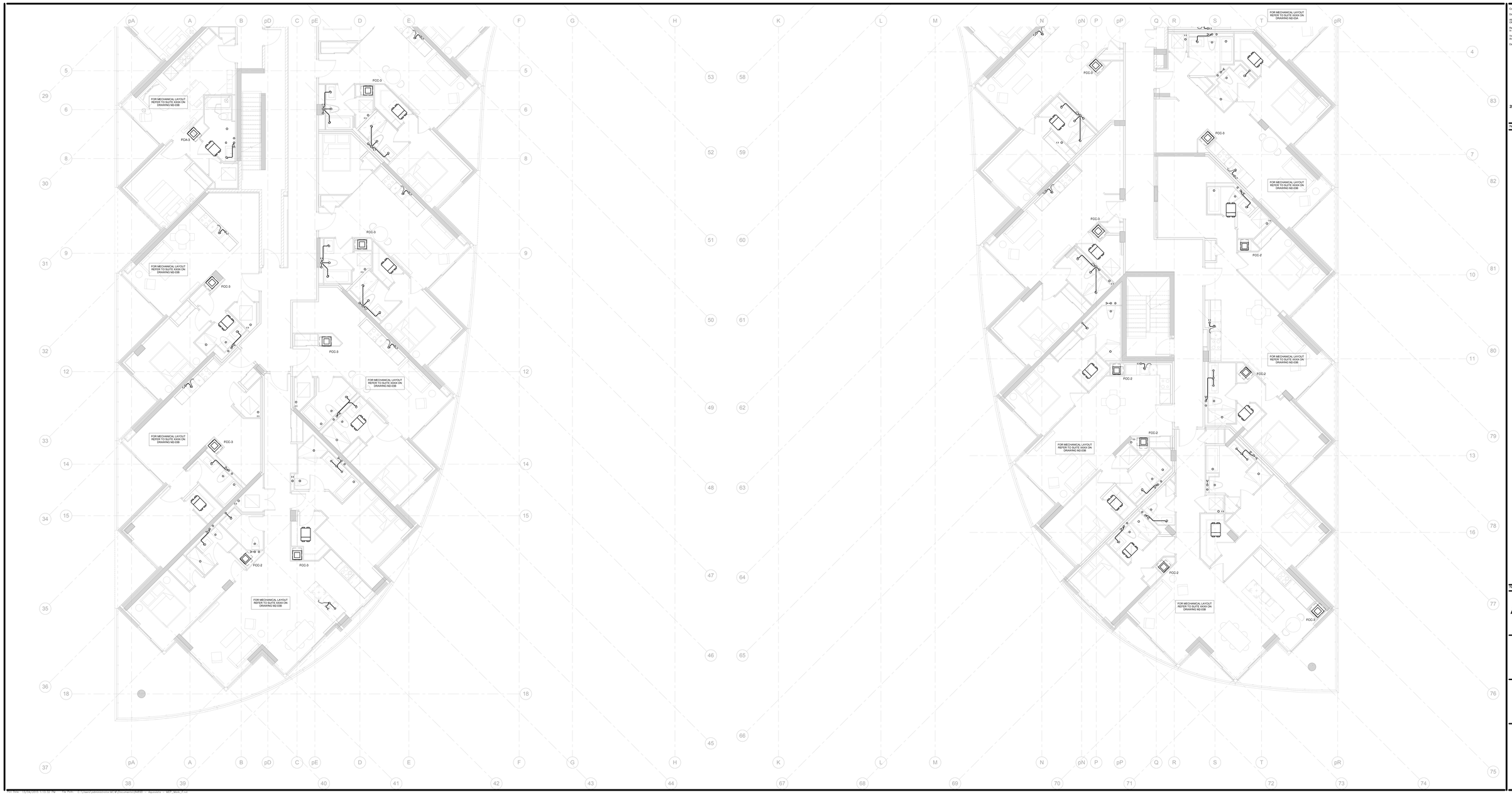
Drawn by: Author

Checked by: Checker

Project No: 8489D

Date: 03/04/15

Drawing No: M2-04A



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No.	Revision	Date

No.	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 3 FLOOR PLAN
SOUTH - MECHANICAL

Project

Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 50
Drawn by: Author
Checked by: Checker
Project No: 8489D
Date: 03/04/15
Drawing No: M2-04B

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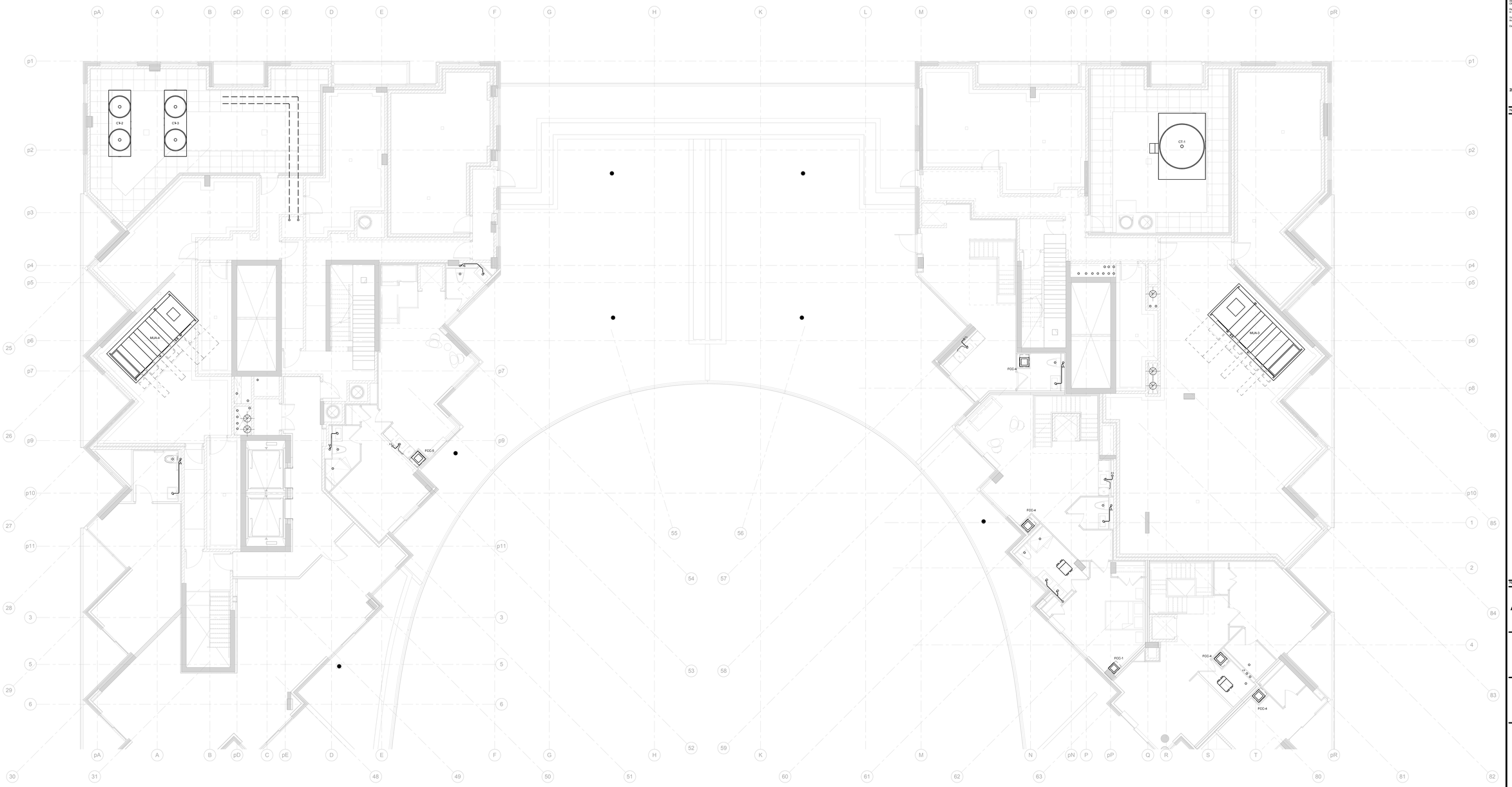

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No.	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL PH2 FLOOR PLAN
NORTH - MECHANICAL

Project

Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 50

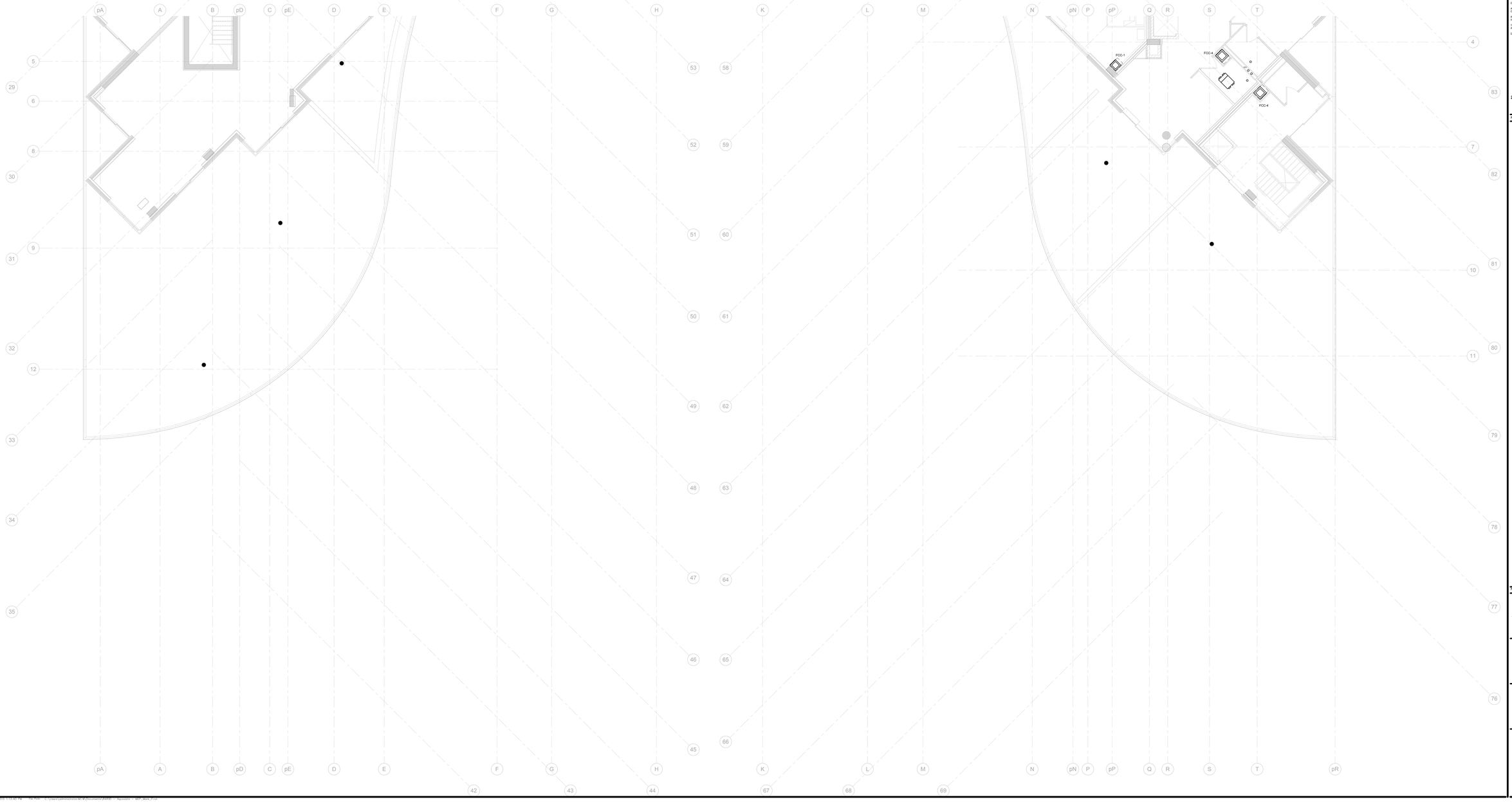
Drawn by: Author

Checked by: Checker

Project No: 8489D

Date: 03/04/15

Drawing No: M2-13A



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No.	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL PH2 FLOOR PLAN
SOUTH - MECHANICAL

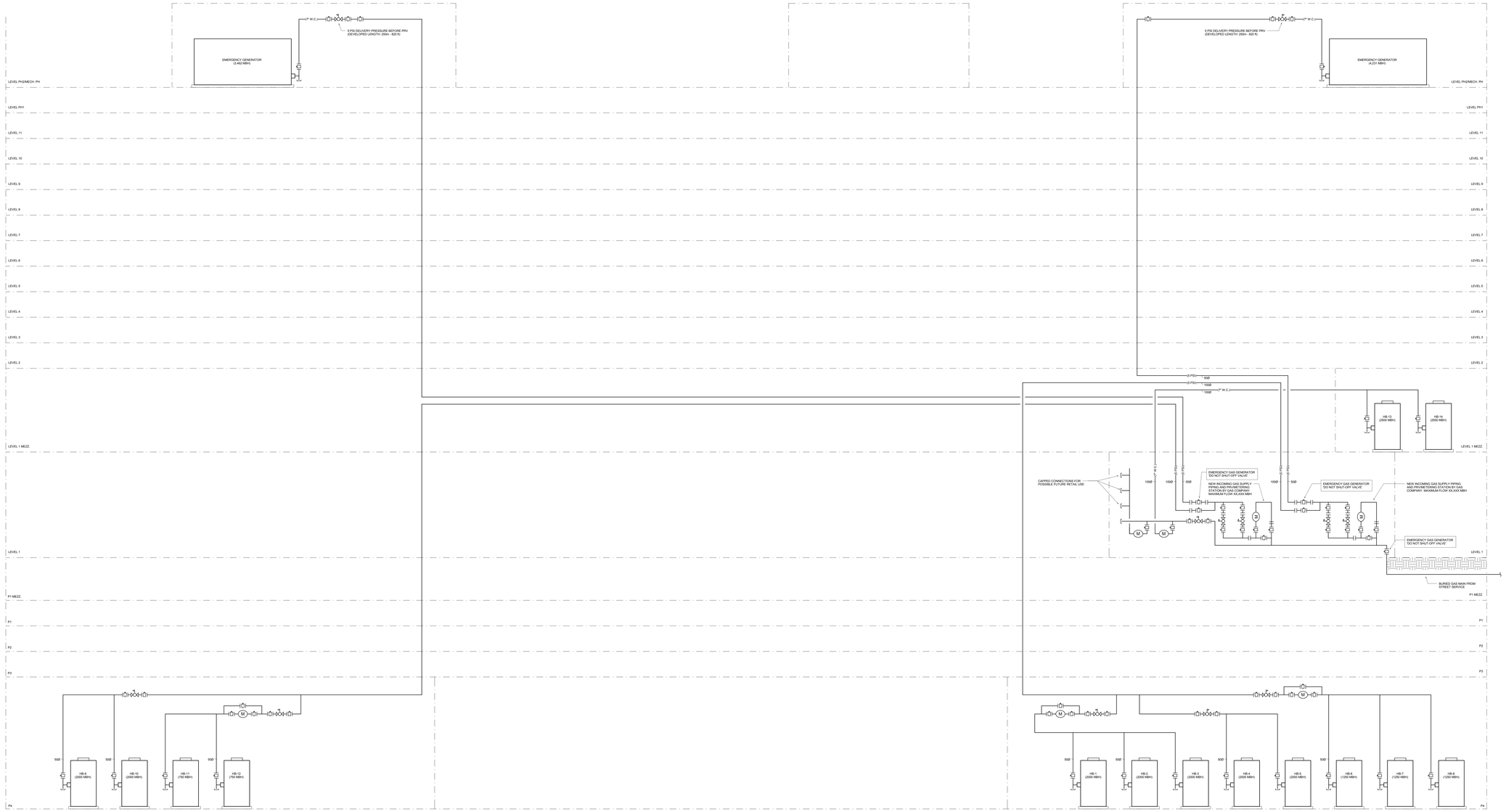
Project

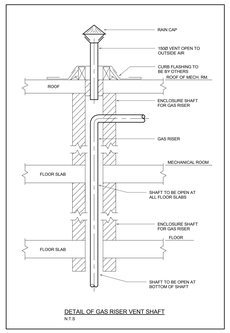
Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 50
Drawn by: Author
Checked by: Checker
Project No: 8489D
Date: 03/04/15

Drawing No: M2-13B





DETAIL OF GAS RISER VENT SHAFT
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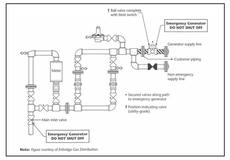

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No.	Revision	Date

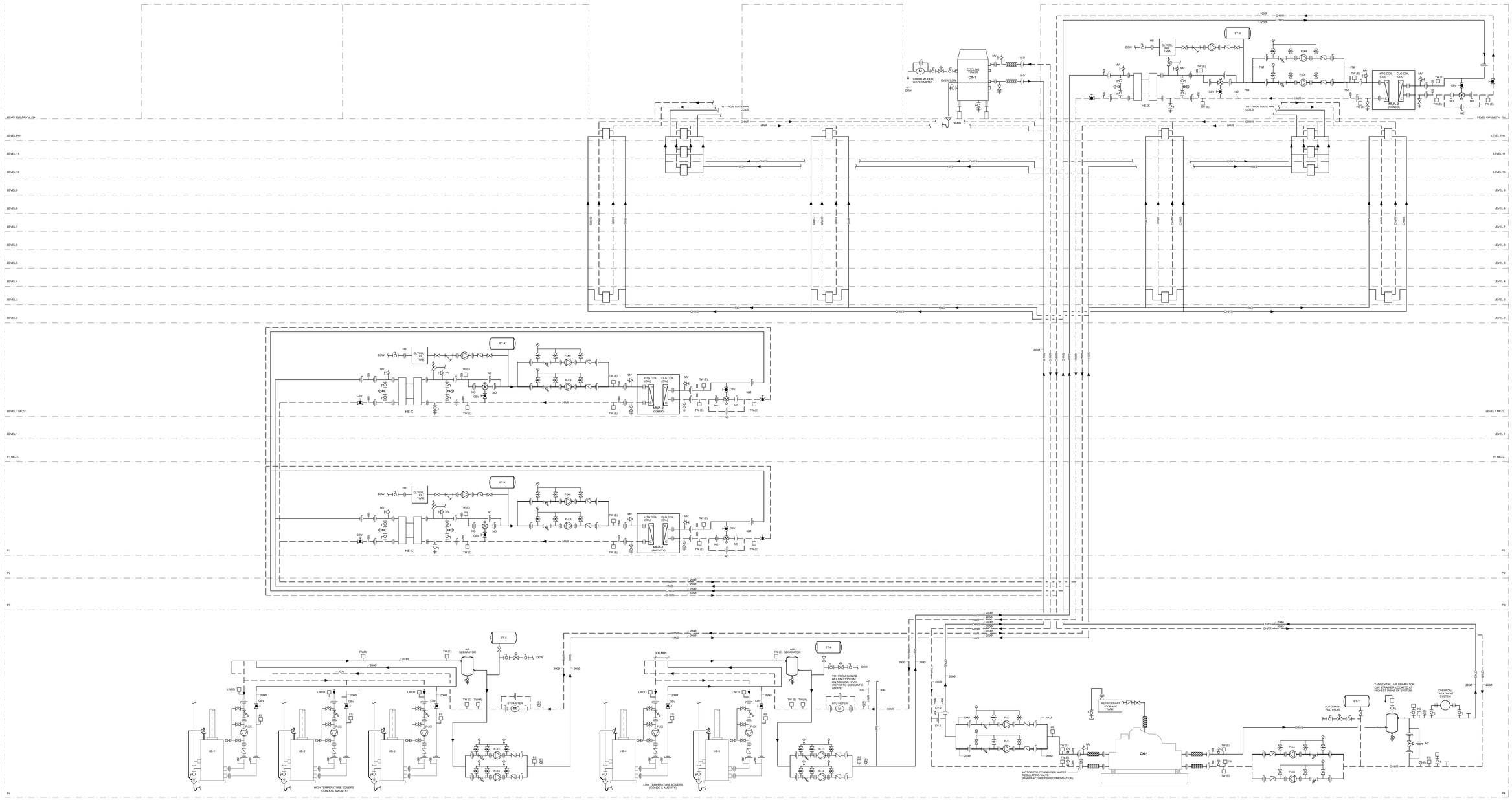
No.	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
NATURAL GAS SCHEMATIC

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale 1 : 1
Drawn by Author
Checked by Checker
Project No. 8459D
Date 02/04/14
Drawing No. M4-02



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No.	Revision	Date

No.	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

CONDO - HEATING & COOLING SCHEMATIC

Project

Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON.

Scale: NTS.

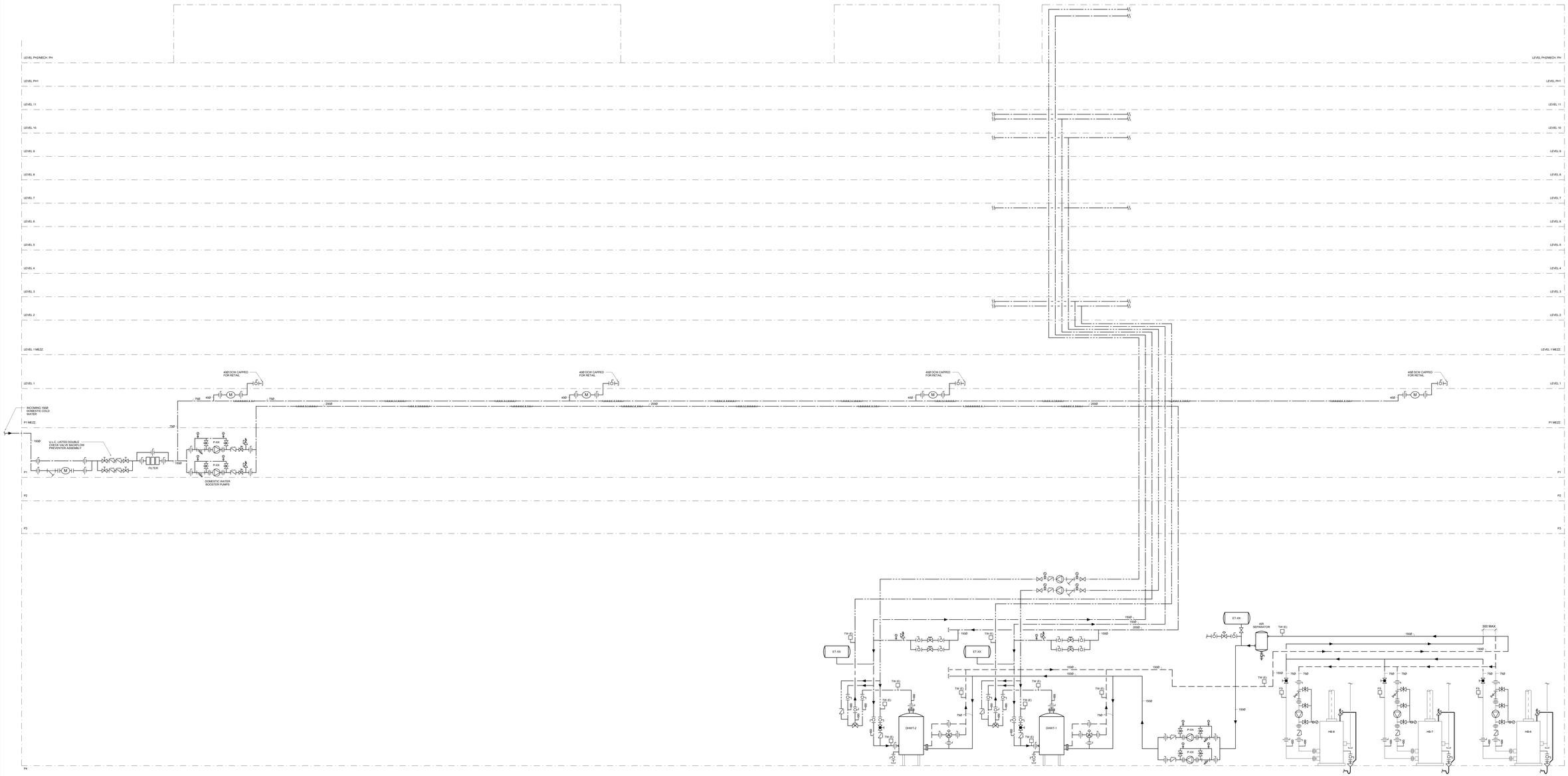
Drawing by: Author

Checked by: Checker

Project No: 8459D

Date: 02/04/14

Drawing No: M4-12



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No.	Revision	Date

No.	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

CONDO - DOMESTIC WATER RISER DIAGRAM

Project

Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 1

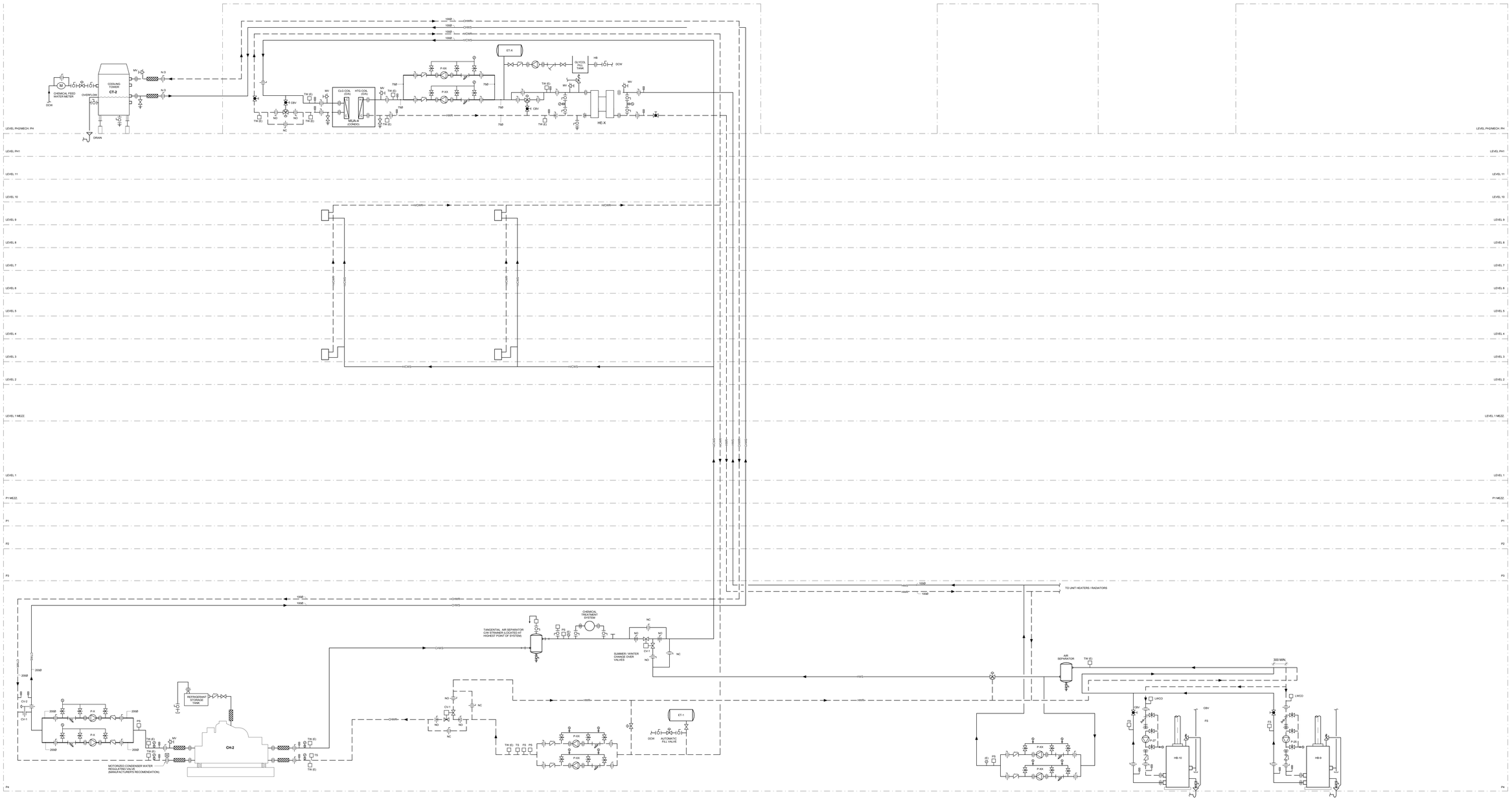
Drawn by: Author

Checked by: Checker

Project No: 8459D

Date: 02/04/14

Drawing No: M4-14



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No.	Revision	Date

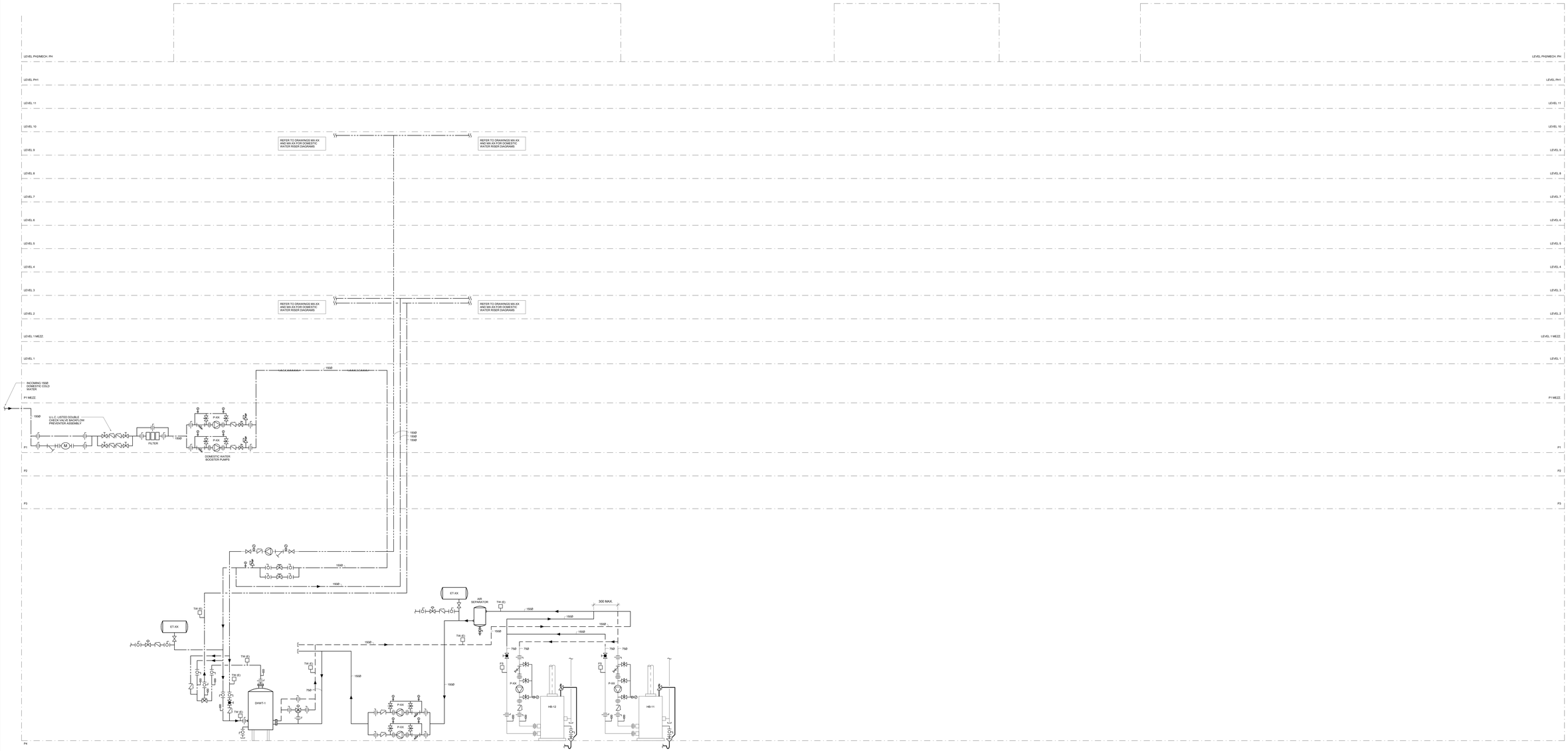
No.	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
ARTSCAPE - HEATING & COOLING SCHEMATIC

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: NTS.
Drawn by: Author
Checked by: Checker
Project No: 8489D
Date: 04/08/15
Drawing No: M4-22



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1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

ARTSCAPE - DOMESTIC WATER SCHEMATIC

Project

Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 1

Drawn by: Author

Checked by: Checker

Project No: 8459D

Date: 04/08/15

Drawing No: M4-24

N

WATER CHILLER SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	CAPACITY (KW)	COOLER / EVAPORATOR FLOW (L/S)	COOLER / EVAPORATOR EWT (°C)	COOLER / EVAPORATOR LWT (°C)	COOLER / EVAPORATOR PRE. DROP (KPA)	SAT. DISCHARGE TEMP. (°C)	CONDENSER FLOW (L/S)	CONDENSER EWT (°C)	CONDENSER LWT (°C)	CONDENSER PRE. DROP (KPA)	SAT. DISCHARGE TEMP. (°C)	INPUT POWER (kW)	NPVL	REFRIGERANT	NO. OF COMPRESSOR	STEPS OF UNLOADING	MANUFACTURER	OPERATING WEIGHT (KG)	MODEL No.	MIN. CIRCUIT AMPS	MAX. FUSE SIZE	POWER SUPPLY VOLTS	POWER SUPPLY PHASE	POWER SUPPLY FED FROM	POWER SUPPLY EM.	POWER SUPPLY NORM	STARTER SUPPLIED BY:	STARTER INSTALLED BY:	STARTER TYPE	CONTROLS MANUAL	CONTROLS AUTO.	INTERLOCK BY: DIV. 15	INTERLOCK BY: DIV. 16	OTHER REQUIREMENTS DISC. AT MOTOR	OTHER REQUIREMENTS W.P. DISC. AT MOTOR	OTHER REQUIREMENTS F.A. SHUT DOWN	OTHERS	REMARKS:
CH-01	MAG. CENTRI CHILLER	C/ROOM P4	CONDO 2 PIPE	CONDO	1195	51.5	11.1	6.6	48	-	64.4	29.4	35.0	39	35.7	205	0.356	R-134A	-	-	MCQUAY- DAIKIN	-	WMC400D	270	350	575	3	-	-	YES	DIV. 15	DIV. 15	VFD	-	YES	YES	-	DIV. 15	-	-		MAGNETIC BEARING CHILLER c/w AUTOTRANSLINEATOR EQUIVALENT TO 300HP

NOTES:

1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION AND SPECIFICATION 15700 FOR FURTHER DETAILS.
3. FOULING FACTOR FOR COOLERS AND CONDENSERS: (0.0001) (0.00025).
4. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.
5. MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WRIRING INSTALLED.

COOLING TOWER SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	CAPACITY (KW)	SUMMER FLOW (L/S)	SUMMER EWT (°C)	SUMMER LWT (°C)	OUTDOOR TEMP. WB. (°C)	WINTER FLOW (L/S)	WINTER EWT (°C)	WINTER LWT (°C)	TUBES PRESS. DROP (KPA)	MODEL	OPERATING WEIGHT (KG)	MANUFACTURER	PAN HEATER (KW)	FAN MOTOR (KW)	MIN. CIRCUIT AMPS	MAX. FUSE SIZE	POWER SUPPLY VOLTS	POWER SUPPLY PHASE	POWER SUPPLY FED FROM	POWER SUPPLY EM.	POWER SUPPLY NORM.	STARTER SUPPLIED BY:	STARTER INSTALLED BY:	STARTER TYPE	CONTROLS MANUAL	CONTROLS AUTO.	INTERLOCK BY: DIV. 15	INTERLOCK BY: DIV. 16	OTHER REQUIREMENTS DISC. AT MOTOR	OTHER REQUIREMENTS W.P. DISC. AT MOTOR	OTHER REQUIREMENTS F.A. SHUT DOWN	OTHERS	REMARKS:
CT-01	INDUCED DRAFT	ROOF	CHILLER # 1	CONDO	1195	64.4	35.0	29.4	24.4	-	-	-	-	PT2-0812A-3M1	-	BALTIMORE AIRCOIL	12	15.0	-	-	575	3	-	-	YES	DIV. 15	DIV. 15	VFD	-	YES	YES	-	-	DIV. 15	-	-	VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS., BASIN HEATER, LOW SOUND FAN. PROVIDE ALL INTERIOR WIRING AND CONTROL BY DIV 15 CONTRACTOR.

NOTES:

1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION AND SPECIFICATION 15700 FOR FURTHER DETAILS.
3. FOULING FACTOR FOR COOLERS AND CONDENSERS: (0.0001) (0.00025).
4. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.
5. MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WIRING INSTALLED.

BOILER SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	INPUT (KW)	OUTPUT (KW)	GAS TRAIN INLET PRESSURE (KPA)	OPERATING PRESSURE MAX. (KPA)	OPERATING TEMP. MAX. (°C)	MANUFACTURER	MODEL	AMPERE	POWER SUPPLY VOLTS	POWER SUPPLY PHASE	POWER SUPPLY FED FROM	POWER SUPPLY EM.	POWER SUPPLY NORM.	STARTER SUPPLIED BY:	STARTER INSTALLED BY:	STARTER TYPE	CONTROLS MANUAL	CONTROLS AUTO.	INTERLOCK BY: DIV. 15	INTERLOCK BY: DIV. 16	OTHER REQUIREMENTS DISC. AT MOTOR	OTHER REQUIREMENTS W.P. DISC. AT MOTOR	OTHER REQUIREMENTS F.A. SHUT DOWN	OTHERS	REMARKS:
HB-01	LOW HEATING	M/ROOM P4	2-PIPE CONDO	CONDO	570	524	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 2000	-	120	1	-	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)
HB-02	LOW HEATING	M/ROOM P4	2-PIPE CONDO	CONDO	570	524	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 2000	-	120	1	-	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)
HB-03	LOW HEATING	M/ROOM P4	2-PIPE CONDO	CONDO	570	524	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 2000	-	120	1	-	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)
HB-04	HIGH HEATING	M/ROOM P4	2-PIPE CONDO	CONDO	570	524	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 2000	-	120	1	-	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)
HB-5	HIGH HEATING	M/ROOM P4	2-PIPE CONDO	CONDO	570	524	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 2000	-	120	1	-	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)
HB-6	DHW HEATING	M/ROOM P4	2-PIPE CONDO	CONDO	366	352	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 1251	-	120	1	-	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)
HB-7	DHW HEATING	M/ROOM P4	2-PIPE CONDO	CONDO	366	352	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 1500	-	120	1	-	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)
HB-8	DHW HEATING	M/ROOM P4	2-PIPE CONDO	CONDO	366	352	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 1500	-	120	1	-	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)

NOTES:

1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION AND SPECIFICATION 15700 FOR FURTHER DETAILS.
3. FOULING FACTOR FOR COOLERS AND CONDENSERS: (0.0001) (0.00025).
4. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.
5. MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WRIRING INSTALLED.
6. PROVIDE MODULATING CENTRALISED CONTROLLER WITH INDOOR OUTDOOR RESET FOR BOILERS.
7. PROVIDE FLOW SWITCH, LOW WATER CUT OFF, PRESSURE REDUCING VALVES, AUX. CONTACTS FOR BAS.

MAKE UP AIR UNIT SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	SUPPLY AIR (L/S)	EXHAUST AIR (L/S)	COOLING TOTAL (KW)	COOLING SENS (KW)	COOLING WATER FLOW (L/S)	HEATING TOTAL (KW)	HEATING SENS (KW)	HEATING WATER FLOW (L/S)	P.W.L. db RE 10^12 WATTS OCTAVE BAND 1	2	3	4	5	6	7	8	E.S.P. (KPA)	MANUFACTURER	MODEL	EXHAUST FAN MOTOR (KW)	SUPPLY FAN MOTOR (KW)	F. LOAD AMPS	MAX. FUSE AMPS	POWER SUPPLY VOLTS	POWER SUPPLY PHASE	POWER SUPPLY FED FROM	POWER SUPPLY EM.	POWER SUPPLY NORM.	STARTER SUPPLIED BY:	STARTER INSTALLED BY:	TYPE	CONTOLS MANUAL	CONTOLS AUTO.	INTERLOCK BY: DIV. 15	INTERLOCK BY: DIV. 16	OTHER REQUIREMENTS: W.P. DISC. AT MOTOR	OTHER REQUIREMENTS: DISC. AT MOTOR	OTHER REQUIREMENTS: F.A. SHUT	OTHERS	REMARKS:
MAU-01	AMENITY MUA	LEVEL P3	AMENITY	CONDO	1415	1270	23.2	15.3	1.1	82.8	-	2.0									0.25/0.3	MCQUAY DAIKIN	CAH012GDAM	2.2	3.7			575	3	6P4MN-1,3,5	-	YES	DIV. 15	DIV. 15	VFD	-	YES	YES	-	-	DIV. 15	-		C/W ISOLATION DISCONNECT, FIRE STAT, DUCT STAT & HEAT WHEEL. DUCT MOUNTED FILTER BOX WITH MERV 8 PRE & MERV 13 CARBON FILTER AS PER A. Q. REPORT. VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS. COIL BYPASS, INLET MOTORIZED DAMPER,MAGNEHELIC FILTER GAUGES, PRESSURE DIFFERENTIAL SENSORS, ALARM TO BMS WHEN PRESSURE DROP EXCEEDS 1.2 IN.WG. AS RECOMMENDED BY THE FILTER MANUFACTURER.
MAU-02	CONDO MUA	LEVEL P3	CONDO	CONDO	5430	-	143	78	5.2	304	-	7.3									0.32	MCQUAY DAIKIN	CAH024GDBM	-	11.2			575	3	6P1MC-1,3,5	-	YES	DIV. 15	DIV. 15	VFD	-	YES	YES	-	-	DIV. 15	-		C/W ISOLATION DISCONNECT, FIRE STAT, DUCT STAT & MERV 8 PRE & MERV 13 CARBON FILTER AS PER A. Q. REPORT. VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS. COIL BYPASS, INLET MOTORIZED DAMPER, MAGNEHELIC FILTER GAUGES, PRESSURE DIFFERENTIAL SENSORS, ALARM TO BMS WHEN PRESSURE DROP EXCEEDS 1.2 IN.WG. AS RECOMMENDED BY THE FILTER MANUFACTURER.

NOTES:

1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION AND SPECIFICATION 15700 FOR FURTHER DETAILS.
3. REFER TO SECTION 15100 FOR VIBRATION ISOLATION.
4. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.
5. MECH. CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WRIRING INSTALLED.
6. ANY INCREASE IN ELECT. COSTS DUE TO MECH. EQUIPMENT SUBSTITUTION TO BE CARRIED BY DIVISION 15.

COOLING / HEATING COIL SCHEDULE

REFERENCE	DESCRIPTION	SERVICE	OWNERSHIP	TOTAL AIR FLOW (L/S)	COIL AIR FLOW (L/S)	COOLING CAPACITY (KW) TOTAL	COOLING CAPACITY (KW) SENSIBLE	HEATING CAPACITY (KW)	COOLING EAT (°C)	COOLING LAT (°C)	COOLING FLOW (L/S)	COOLING EWT (°C)	COOLING LWT (°C)	COOLING PRE. DP. (KPA)	HEATING EAT (°C)	HEATING LAT (°C)	HEATING FLOW (L/S)	HEATING EWT (°C)	HEATING LWT (°C)	HEATING PRE. DP. (KPA)	FLUID	MANUFACTURER	REMARKS:
CC-01	COOLING COIL	MUA-01 COOLING	CONDO	1415	850	23.2	15.3	-	26.6/19.4	11.5/11.1	1.1	5.6	11.1	1034	-	-	-	-	-	-	WATER	MCQUAY DAIKIN	
HC-01	HEATING COIL	MUA-01 HEATING	CONDO	1415	1415	-	-	82.8	-	-	-	-	-	-	-20.0	25.9	2.0	71.1	60.0	1034	40% P.GLY.	MCQUAY DAIKIN	
CC-02	COOLING COIL	MUA-02 COOLING	CONDO	5430	3256	143	78	-	32.0/23.8	12.0/11.9	5.2	5.6	11.1	1034	-	-	-	-	-	-	WATER	MCQUAY DAIKIN	
HC-02	HEATING COIL	MUA-02 HEATING	CONDO	5430	5430	-	-	304	-	-	-	-	-	-	-20.0	24.0	7.3	71.1	60.0	1034	40% P.GLY.	MCQUAY DAIKIN	

NOTES:

ENERGY RECOVERY VENTILATOR SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	NORMAL SPEED OPERATION SUPPLY AIR (L/S)	NORMAL SPEED OPERATION EXHAUST AIR (L/S)	HIGH SPEED OPERATION SUPPLY AIR (L/S)	HIGH SPEED OPERATION EXHAUST AIR (L/S)	E.S.P. (KPA)	ENT. AIR TEMP. (C) WINTER	ENT. AIR TEMP. (C) SUMMER	MANUFACTURER	MODEL	ENERGY REQUIRED (AMPS)	MOTOR SIZE (KW)	POWER SUPPLY VOLTS	POWER SUPPLY PHASE	POWER SUPPLY FED FROM	POWER SUPPLY EM.	POWER SUPPLY NORM.	STARTER SUPPLIED BY:	STARTER INSTALLED BY:	TYPE	CONTOLS MANUAL	CONTOLS AUTO.	INTERLOCK BY: DIV. 15	INTERLOCK BY: DIV. 16	OTHER REQUIREMENTS: DISC. AT MOTOR	OTHER REQUIREMENTS: W.P. DISC. AT MOTOR	OTHER REQUIREMENTS: F.A. SHUT	OTHERS	REMARKS:
ERV-A	ENERGY RECOVERY UNIT	TYPICAL SUITES	TYPICAL SUITES	CONDO	25	22.5	50	45	0.10	-20	32.2	REVERSOMATIC	RERV-D100	-	0.15	115	1	SUITE PANEL	-	YES	DIV. 15	DIV. 15	PKG	-	YES	YES	-	PLUG	-	-		C/W CAMFIL ACTIVATED CARBON MERV 8 FILTERS, ECM MOTOR AND CONTROLS
ERV-B	ENERGY RECOVERY UNIT	TYPICAL SUITES	TYPICAL SUITES	CONDO	30	27	50	45	0.10	-20	32.2	REVERSOMATIC	RERV-D100	-	0.15	115	1	SUITE PANEL	-	YES	DIV. 15	DIV. 15	PKG	-	YES	YES	-	PLUG	-	-		C/W CAMFIL ACTIVATED CARBON MERV 8 FILTERS, ECM MOTOR AND CONTROLS
ERV-C	ENERGY RECOVERY UNIT	TYPICAL SUITES	TYPICAL SUITES	CONDO	35	31.5	60	54	0.10	-20	32.2	REVERSOMATIC	RERV-D100	-	0.15	115	1	SUITE PANEL	-	YES	DIV. 15	DIV. 15	PKG	-	YES	YES	-	PLUG	-	-		C/W CAMFIL ACTIVATED CARBON MERV 8 FILTERS, ECM MOTOR AND CONTROLS
ERV-D	ENERGY RECOVERY UNIT	TYPICAL SUITES	TYPICAL SUITES	CONDO	40	36	60	54	0.10	-20	32.2	REVERSOMATIC	RERV-D100	-	0.15	115	1	SUITE PANEL	-	YES	DIV. 15	DIV. 15	PKG	-	YES	YES	-	PLUG	-	-		C/W CAMFIL ACTIVATED CARBON MERV 8 FILTERS, ECM MOTOR AND CONTROLS
ERV-E	ENERGY RECOVERY UNIT	AMENITY PH	AMENITY PH	CONDO	310	280	310	280	0.10	-20	32.2	LIFEBREATH	1200ERV	8	2 x 0.2	115	1	SEE FLOOR PLAN	-	YES	DIV. 15	DIV. 15	PKG	-	YES	YES	-	PLUG	-	-		C/W CAMFIL ACTIVATED CARBON MERV 8 FILTERS AND CONTROLS

NOTES:

HEAT EXCHANGER SCHEDULE

REFERENCE	LOCATION	SERVICE	OWNERSHIP	PRIMARY FLUID	PRIMARY FLOW US (L/S)	PRIMARY P.D. (KPA)	PRIMARY EWT (°C)	PRIMARY LWT (°C)	PRIMARY PRE. RATING (KPA)	SECONDARY FLUID	SECONDARY FLOW US (L/S)	SECONDARY P.D. (KPA)	SECONDARY EWT (°C)	SECONDARY LWT (°C)	SECONDARY PRE. RATING (KPA)	FUNCTION	MANUFACTURER	TYPE	MODEL NUMBER	REMARKS:
HE-01	MAU ROOM P3	MUA-01 HEATING	CONDO	WATER	1.9	22	82.2	71.1	1034	40% P.GLY.	2.0	24	60.0	71.1	1034	HEATING	BELL & GOSSETT	PLATE AND FRAME	P07	
HE-02	MAU ROOM P3	MUA-02 HEATING	CONDO	WATER	6.9	29	82.2	71.1	1034	40% P.GLY.	7.3	34	60.0	71.1	1034	HEATING	BELL & GOSSETT	PLATE AND FRAME	P14	

NOTES:

Contractor Must Check And Verify All Dimensions On The Job.

Do Not Scale The Drawings.

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Date: 08/28/12

LICENSED PROFESSIONAL ENGINEER
8489D
D. C. M. BELLAMY
PROVINCE OF ONTARIO

MCW Consultants Ltd.
207 Queen's Quay West, Suite 615, Toronto, ON, M5J 1A7
E-Mail: mcw_tor@mcw.com www.mcw.com
Tel: 416-598-2920 Fax: 416-598-5394
Toronto Vancouver Winnipeg Moncton Ottawa Halifax Dauphin Kelowna Trail Saint John

No.:	Revision	Date

No	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

CONDO - EQUIPMENT SCHEDULES #1

Project

Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 1
Drawn by: S.J.
Checked by: Checker
Project No.: 8489D
Date: 08/28/12
Drawing No.: ME-11

N

PUMP SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	OWNERSHIP	WATER FLOW (L/S)	HEAD (KPA)	RPM	MANUFACTURER	TYPE / SIZE	ENERGY REQUIRED (HP)	MOTOR SIZE (KW)	POWER SUPPLY					STARTER					CONTROLS				OTHER REQUIREMENTS			REMARKS:
											VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:		INSTALLED BY:		TYPE	MANUAL	AUTO.	INTERLOCK BY:		W.P. DISC. AT MOTOR	DISC. AT MOTOR	F.A. SHUT.	
																DIV. 15	DIV. 16	DIV. 15	DIV.16				DIV. 15	DIV.16				
P-01	CONDENSER WATER PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-	-	-	575	3	-	-	YES	YES	-	YES	-	PKG	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT, ONE DUTY / ONE STANDBY,
P-02	CONDENSER WATER PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-	-	-	575	3																
P-3	CHILLED WATER PUMP	M/ROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT, INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY, - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.
P-4	CHILLED WATER PUMP	M/ROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3								VFD								
P-5	HIGH TEMP. SEC. PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT, INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY, - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.
P-6	HIGH TEMP. SEC. PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3								VFD								
P-7	LOW TEMP. SEC. PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3	-	YES	-	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT, INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY, - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.
P-8	LOW TEMP. SEC. PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3								VFD								
P-9	MUA-1 HEATING PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	PKG	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT, ONE DUTY / ONE STANDBY,
P-10	MUA-1 HEATING PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3																
P-11	MUA-2 HEATING PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	PKG	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT, ONE DUTY / ONE STANDBY,
P-12	MUA-2 HEATING PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3																
P-13	BOILER # 1 PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT
P-14	BOILER # 2 PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT
P-15	BOILER # 3 PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT
P-16	BOILER # 4 PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT
P-17	BOILER # 5 PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT
P-18	BOILER # 6 PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT
P-19	BOILER # 7 PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3	-	YES	-	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT
P-20	BOILER # 8 PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT
P-21	DHW HEATING SEC. PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	PKG	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT, - ONE DUTY / ONE STANDBY
P-22	DHW HEATING SEC. PUMP	M/ROOM P4	CONDO	-	-	1800	ARMSTRONG	-		-	575	3																
P-23	DOMESTIC BOOSTER PUMP	M/ROOM P4	CONDO	-	-	3525	GRUNDFOS	-	-	-	575	3	-	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	PACKAGE C/W CONTROL PANEL, VFD, PRV'S AND EXPANSION TANK PRESSURES REQUIRED AFTER PRV - MANUFACTURER TO CONFIRM STREET PRESSURE AT SITE PRIOR TO MANUFACTURE OF PUMPS. VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.
P-24	DOMESTIC BOOSTER PUMP	M/ROOM P4	CONDO	-	-	3525	GRUNDFOS	-	-	-	575	3								VFD								
P-25	DOMESTIC BOOSTER PUMP	M/ROOM P4	CONDO	-	-	3525	GRUNDFOS	-	-	-	575	3	-	YES	-	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	
P-26	FIRE PUMP	M/ROOM	CONDO	-	-	3600	ARMSTRONG	-	-	-	575	3	-	YES	-	YES	-	YES	-	PKG.	-	YES	YES	-	-	DIV. 15	-	PACKAGE UNIT C/W ULC LABELLED, CONTROLLER REDUCED VOLTAGE STARTER TRANSFER SWITCH AND JOCKEY PUMP.
P-27	JOCKEY PUMP	M/ROOM	CONDO	-	-	3600	ARMSTRONG	-	-	-	575	3																
P-28	SANITARY SUMP PUMP	FD LEVEL	CONDO	-	-	1800	BARNES	-	-	-	575	3	-	YES	-	YES	-	YES	-	PKG.	-	YES	YES	-	-	DIV. 15	-	C/W SLIDE AWAY COUPLINGS, GALVANIZED LIFTING CHAINS, DUPLEX CONTROL PANEL, DISCONNECT SWITCH IN CEMA 1 ENCLOSURE, C/W HIGH WATER ALARM PANEL, EXTRA RELAY IN CEMA 1 ENCLOSURE AND MECHANICAL FLOAT SWITCHES.
P-29	SANITARY SUMP PUMP	FD LEVEL	CONDO	-	-	1800	BARNES	-	-	-	575	3																
P-30	STORM SUMP PUMP	FD LEVEL	CONDO	-	-	1800	BARNES	-	-	-	575	3	-	YES	-	YES	-	YES	-	PKG.	-	YES	YES	-	-	DIV. 15	-	C/W SLIDE AWAY COUPLINGS, GALVANIZED LIFTING CHAINS, DUPLEX CONTROL PANEL, DISCONNECT SWITCH IN CEMA 1 ENCLOSURE, C/W HIGH WATER ALARM PANEL, EXTRA RELAY IN CEMA 1 ENCLOSURE AND MECHANICAL FLOAT SWITCHES.
P-31	STORM SUMP PUMP	FD LEVEL	CONDO	-	-	1800	BARNES	-	-	-	575	3																
P-32	WEEPING SUMP PUMP	FD LEVEL	CONDO	-	-	1800	BARNES	-	-	-	575	3	-	YES	-	YES	-	YES	-	PKG.	-	YES	YES	-	-	DIV. 15	-	C/W SLIDE AWAY COUPLINGS, GALVANIZED LIFTING CHAINS, DUPLEX CONTROL PANEL, DISCONNECT SWITCH IN CEMA 1 ENCLOSURE, C/W HIGH WATER ALARM PANEL, EXTRA RELAY IN CEMA 1 ENCLOSURE AND MECHANICAL FLOAT SWITCHES.
P-33	WEEPING SUMP PUMP	FD LEVEL	CONDO	-	-	1800	BARNES	-	-	-	575	3																
P-34	ELEVATOR SUMP PUMP (S)	FD LEVEL	CONDO	-	-	1800	BARNES	-	-	-	575	3	-	YES	-	YES	-	YES	-	PKG.	-	YES	YES	-	-	DIV. 15	-	C/W SLIDE AWAY COUPLINGS, GALVANIZED LIFTING CHAINS, DUPLEX CONTROL PANEL, DISCONNECT SWITCH IN CEMA 1 ENCLOSURE, C/W HIGH WATER ALARM PANEL, EXTRA RELAY IN CEMA 1 ENCLOSURE AND MECHANICAL FLOAT SWITCHES.
P-35	ELEVATOR SUMP PUMP (S)	FD LEVEL	CONDO	-	-	1800	BARNES	-	-	-	575	3																
P-36	ELEVATOR SUMP PUMP (N)	FD LEVEL	CONDO	-	-	1800	BARNES	-	-	-	575	3	-	YES	-	YES	-	YES	-	PKG.	-	YES	YES	-	-	DIV. 15	-	C/W SLIDE AWAY COUPLINGS, GALVANIZED LIFTING CHAINS, DUPLEX CONTROL PANEL, DISCONNECT SWITCH IN CEMA 1 ENCLOSURE, C/W HIGH WATER ALARM PANEL, EXTRA RELAY IN CEMA 1 ENCLOSURE AND MECHANICAL FLOAT SWITCHES.
P-37	ELEVATOR SUMP PUMP (N)	FD LEVEL	CONDO	-	-	1800	BARNES	-	-	-	575	3																
P-38	DHW RECIR. PUMP	M/ROOM P4	CONDO	-	-	1800	S.A ARMSTRONG	-	-	-	575	3	-	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	YES	-	C/W BRONZE & ISOLATION DISCONNECT
P-39	DHW RECIR. PUMP	M/ROOM P4	CONDO	-	-	1800	S.A ARMSTRONG	-	-	-	575	3	-	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	YES	-	C/W BRONZE & ISOLATION DISCONNECT
P-40	DHW RECIR. PUMP	M/ROOM P3	CONDO	-	-	1800	S.A ARMSTRONG	-	-	-	575	3	-	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	YES	-	C/W BRONZE & ISOLATION DISCONNECT
P-41	EXCESS PRESSURE PUMP	M/ROOM	BY OTHERS						-	-	120	1	-	YES	-	YES	-	YES	-	PKG.	-	YES	YES	-	-	-		

NOTES:

1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION 15400 AND 15700 FOR FURTHER DETAILS.
3. REFER TO SECTION 15100 FOR VIBRATION ISOLATION.
4. ALL PUMPS WITH 100% STANDBY UNIT TO BE WITH AUTOMATIC SWITCH OVER ON PUMP FAILURE.
5. MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WRIRING INSTALLED.
6. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.

VERTICAL FAN COIL SCHEDULE - 4 PIPE (SUITES)

REFERENCE	DESCRIPTION	OWNERSHIP	SUPPLY AIR (L/S)	E.S.P. (PA)	COOLING						HEATING				MANUFACTURER	MODEL	MOTOR SIZE (KW)	POWER SUPPLY					STARTER		TYPE	CONTOLS				OTHER REQUIREMENTS:			OTHERS	REMARKS:
					TOTAL (KW)	SENS (KW)	E.A.T. (°C)		WATER FLOW (L/S)	EWT (°C)	TOTAL (KW)	SENS (KW)	WATER FLOW (L/S)	EWT (°C)				VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:	INSTALLED BY:		MANUAL	AUTO.	INTERLOCK BY:		W.P. DISC. AT MOTOR	DISC. AT MOTOR	F.A. SHUT		
							DB	WB																				DIV. 15	DIV. 16					
FCU-01	SUITE 4 PIPES FANCOIL - VERTICAL	CONDO	142	50	2.9	1.9	24.1	18.4	0.13	5.6	3.4	-	0.07	60.0	UNILUX	DSC350	0.10	120	1	SUITE PANEL 15A-1P / SEE FLOOR PLAN	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	-	YES	-		ALL CONTROLS TO BE PREWIRED REMOTE T-STAT PROGRAMABLE, MERV 11 FILTER, THERMAL METER
FCU-02	SUITE 4 PIPES FANCOIL - VERTICAL	CONDO	190	50	3.8	2.6	24.1	18.4	0.17	5.6	4.6	-	0.12	60.0	UNILUX	DSC450	0.16	120	1	SUITE PANEL 15A-1P / SEE FLOOR PLAN	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	-	YES	-		ALL CONTROLS TO BE PREWIRED REMOTE T-STAT PROGRAMABLE, MERV 11 FILTER, THERMAL METER
FCU-03	SUITE 4 PIPES FANCOIL - VERTICAL	CONDO	283	50	6.1	4.0	24.1	18.4	0.27	5.6	7.0	-	0.16	60.0	UNILUX	DSC600	0.16	120	1	SUITE PANEL 15A-1P / SEE FLOOR PLAN	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	-	YES	-		ALL CONTROLS TO BE PREWIRED REMOTE T-STAT PROGRAMABLE, MERV 11 FILTER, THERMAL METER
FCU-04	SUITE 4 PIPES FANCOIL - VERTICAL	CONDO	378	50	8.6	5.5	24.1	18.4	0.31	5.6	10.3	-	0.24	60.0	UNILUX	DSC800	0.16	120	1	SUITE PANEL 15A-1P / SEE FLOOR PLAN	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	-	YES	-		ALL CONTROLS TO BE PREWIRED REMOTE T-STAT PROGRAMABLE, MERV 11 FILTER, THERMAL METER
FCU-05	SUITE 4 PIPES FANCOIL - VERTICAL	CONDO	472	50	10.2	6.6	24.1	18.4	0.35	5.6	12.2	-	0.29	60.0	UNILUX	DSC1000	0.33	120	1	SUITE PANEL 15A-1P / SEE FLOOR PLAN	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	-	YES	-		ALL CONTROLS TO BE PREWIRED REMOTE T-STAT PROGRAMABLE, MERV 11 FILTER, THERMAL METER

NOTES:

CHIMNEY EXHAUST FANS SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	AIR FLOW (L/S)	INLET PRESSURE (PA)	OPERATING WEIGHT (KG)	MANUFACTURER	MODEL	MOTOR SIZE (kW)	POWER SUPPLY					STARTER			CONTROLS				OTHER REQUIREMENTS			OTHERS	REMARKS:
											VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:	INSTALLED BY:	TYPE	MANUAL	AUTO.	INTERLOCK BY:		DISC. AT MOTOR	W.P. DISC. AT MOTOR	F.A. SHUT DOWN		
																					DIV. 15	DIV. 16					
VENT-01	BOILER VENT	ROOF	BOILER # 1,2,3	CONDO	734	65	-	EXHAUSTO	RSV315	0.35	120	1	-	-	YES	DIV. 15	DIV. 15	-	-	YES	YES	-	-	YES	-	-	C/W VFD, MODULATING DRAFT CONTROL WITH XTP SENSOR, PROBE, MODULATING DAMPER, ACTUATOR, BALANCING BAFFLES & DURAVENT FASNSEAL VENTING
VENT-02	BOILER VENT	ROOF	BOILER # 4,5,	CONDO	576	87	-	EXHAUSTO	RSV315	0.35	120	1	-	-	YES	DIV. 15	DIV. 15	-	-	YES	YES	-	-	YES	-	-	C/W VFD, MODULATING DRAFT CONTROL WITH XTP SENSOR, PROBE, MODULATING DAMPER, ACTUATOR, BALANCING BAFFLES & DURAVENT FASNSEAL VENTING
VENT-3	BOILER VENT	ROOF	BOILER # 6,7,8	CONDO	680	17	-	EXHAUSTO	RSV315	0.35	120	1	-	-	YES	DIV. 15	DIV. 15	-	-	YES	YES	-	-	YES	-	-	C/W VFD, MODULATING DRAFT CONTROL WITH XTP SENSOR, PROBE, MODULATING DAMPER, ACTUATOR, BALANCING BAFFLES & DURAVENT FASNSEAL VENTING

NOTES:

Contractor Must Check And Verify All Dimensions On The Job.

Do Not Scale The Drawings.

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Date: 02/04/14

LICENSED PROFESSIONAL ENGINEER
8489D
D. C. M. BELLAMY
PROVINCE OF ONTARIO

MCW Consultants Ltd.
207 Queen's Quay West, Suite 615, Toronto, ON, M5J 1A7
E-Mail: mcw_tor@mcw.com www.mcw.com
Tel: 416-598-2920 Fax: 416-598-5394
Toronto Vancouver Winnipeg Moncton Ottawa Halifax Dauphin Kelowna Trail Saint John

No.:	Revision	Date

No	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

CONDO - EQUIPMENT SCHEDULES #2

Project

Hines TRIDEL®
AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 1
Drawn by: S.J.
Checked by: Checker
Project No.: 8489D
Date: 02/04/14
Drawing No.: ME-12

N

WATER CHILLER SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	CAPACITY (KW)	COOLER / EVAPORATOR				SAT. DISCHARGE TEMP. (°C)	CONDENSER				SAT. DISCHARGE TEMP. (°C)	INPUT POWER (kW)	IPVL	REFRIGERANT	NO. OF COMPRESSOR	STEPS OF UNLOADING	MANUFACTURER	OPERATING WEIGHT (KG)	MODEL No.	MIN. CIRCUIT AMPS	MAX. FUSE SIZE	POWER SUPPLY					STARTER			CONTROLS				OTHER REQUIREMENTS			OTHERS	REMARKS:
						FLOW (L/S)	EWT (°C)	LWT (°C)	PRE. DROP (KPA)		FLOW (L/S)	EWT (°C)	LWT (°C)	PRE. DROP (KPA)												VOLTS	PHASE	FED FROM	EM.	NORM	SUPPLIED BY:	INSTALLED BY:	TYPE	MANUAL	AUTO.	INTERLOCK BY: DIV. 15	INTERLOCK BY: DIV. 16	DISC. AT MOTOR	W.P. DISC. AT MOTOR	F.A. SHUT DOWN		
CH-02	SCROLL CHILLER	C/ROOM P4	AFFORDABLE 2 PIPE	AFFORDABLE	384	16.6	11.1	5.6	35	-	20.7	29.4	35.0	28	35.7	84.5	20.3	R-410A	-	-	MCQUAY- DAIKIN	-	WGZ115D	181	225	575	3	-	-	YES	DIV. 15	DIV. 15	-	-	YES	YES	-	DIV. 15	-	-		-

NOTES:
1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION AND SPECIFICATION 15700 FOR FURTHER DETAILS.
3. FOULING FACTOR FOR COOLERS AND CONDENSERS: (0.0001) (0.00025).
4. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.
5. MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WRIRING INSTALLED.

COOLING TOWER SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	CAPACITY (KW)	SUMMER			OUTDOOR TEMP. WB. (°C)	WINTER			TUBES PRESS. DROP (KPA)	MODEL	OPERATING WEIGHT (KG)	MANUFACTURER	PAN HEATER (KW)	FAN MOTOR (KW)	MIN. CIRCUIT AMPS	MAX. FUSE SIZE	POWER SUPPLY					STARTER			CONTROLS				OTHER REQUIREMENTS			OTHERS	REMARKS:
						FLOW (L/S)	EWT (°C)	LWT (°C)		FLOW (L/S)	EWT (°C)	LWT (°C)									VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:	INSTALLED BY:	TYPE	MANUAL	AUTO.	INTERLOCK BY: DIV. 15	INTERLOCK BY: DIV. 16	DISC. AT MOTOR	W.P. DISC. AT MOTOR	F.A. SHUT DOWN		
CT-02	INDUCED DRAFT	ROOF	CHILLER # 2	AFFORDABLE	384	20.7	35.0	29.4	24.4	-	-	-	-	PT2-0412A-1G1	-	BALTIMORE AIRCOIL	6 + 6	2 x 2.2	-	-	575	3	-	-	YES	DIV. 15	DIV. 15	VFD	-	YES	YES	-	-	DIV. 15	-	-	VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS., BASIN HEATER, LOW SOUND FAN. PROVIDE ALL INTERIOR WIRING AND CONTROL BY DIV 15 CONTRACTOR.

NOTES:
1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION AND SPECIFICATION 15700 FOR FURTHER DETAILS.
3. FOULING FACTOR FOR COOLERS AND CONDENSERS: (0.0001) (0.00025).
4. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.
5. MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WIRING INSTALLED.

BOILER SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	INPUT (KW)	OUTPUT (KW)	GAS TRAIN INLET PRESSURE (KPA)	OPERATING PRESSURE MAX. (KPA)	OPERATING TEMP. MAX. (°C)	MANUFACTURER	MODEL	AMPERE	POWER SUPPLY					STARTER			CONTROLS				OTHER REQUIREMENTS			OTHERS	REMARKS:
													VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:	INSTALLED BY:	TYPE	MANUAL	AUTO.	INTERLOCK BY: DIV. 15	INTERLOCK BY: DIV. 16	DISC. AT MOTOR	W.P. DISC. AT MOTOR	F.A. SHUT DOWN		
HB-09	HIGH/FCU HEATING	M/ROOM P4	2-PIPE AFFORDABLE	AFFORDABLE	570	524	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 2000	13	120	1	21P-RT-2	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)
HB-10	HIGH/FCU HEATING	M/ROOM P4	2-PIPE AFFORDABLE	AFFORDABLE	570	524	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 2000	13	120	1	21P-RT-2	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)
HB-11	DHW HEATING	M/ROOM P4	2-PIPE AFFORDABLE	AFFORDABLE	220	212	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 0751	-	120	1	2P3MN-26	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)
HB-12	DHW HEATING	M/ROOM P4	2-PIPE AFFORDABLE	AFFORDABLE	220	212	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 0751	-	120	1	2P3MN-28	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)

NOTES:
1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION AND SPECIFICATION 15700 FOR FURTHER DETAILS.
3. FOULING FACTOR FOR COOLERS AND CONDENSERS: (0.0001) (0.00025).
4. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.
5. MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WRIRING INSTALLED.
6. PROVIDE MODULATING CENTRALISED CONTROLLER WITH INDOOR OUTDOOR RESET FOR BOILERS.
7. PROVIDE FLOW SWITCH, LOW WATER CUT OFF, PRESSURE REDUCING VALVES, AUX. CONTACTS FOR BAS.

MAKE UP AIR UNIT SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	SUPPLY AIR (L/S)	EXHAUST AIR (L/S)	COOLING			HEATING			P.W.L. db RE 10^12 WATTS OCTAVE BAND								E.S.P. (KPA)	MANUFACTURER	MODEL	EXHAUST FAN MOTOR (KW)	SUPPLY FAN MOTOR (KW)	F. LOAD AMPS	MAX. FUSE AMPS	POWER SUPPLY					STARTER		TYPE	CONTOLS				OTHER REQUIREMENTS:			OTHERS	REMARKS:
							TOTAL (KW)	SENS (KW)	WATER FLOW (L/S)	TOTAL (KW)	SENS (KW)	WATER FLOW (L/S)	1	2	3	4	5	6	7	8								VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:	INSTALLED BY:		MANUAL	AUTO.	INTERLOCK BY: DIV. 15	INTERLOCK BY: DIV. 16	W.P. DISC. AT MOTOR	DISC. AT MOTOR	F.A. SHUT		
MAU-02	CONDO MUA	LEVEL P3	CONDO	CONDO	5430	-	143	78	5.2	304	-	7.3									0.32	MCQUAY DAIKIN	CAH024GDBM	-	11.2			575	3	6P1MC-1,3,5	-	YES	DIV. 15	DIV. 15	VFD	-	YES	YES	-	-	DIV. 15	-		C/W ISOLATION DISCONNECT, FIRE STAT, DUCT STAT & MERV 8 PRE & MERV 13 CARBON FILTER AS PER A. Q. REPORT. VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS. COIL BYPASS, INLET MOTORIZED DAMPER, MAGNEHELIC FILTER GAUGES, PRESSURE DIFFERENTIAL SENSORS, ALARM TO BMS WHEN PRESSURE DROP EXCEEDS 1.2 IN.WG. AS RECOMMENDED BY THE FILTER MANUFACTURER.

NOTES:
1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION AND SPECIFICATION 15700 FOR FURTHER DETAILS.
3. REFER TO SECTION 15100 FOR VIBRATION ISOLATION.
4. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.
5. MECH. CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WRIRING INSTALLED.
6. ANY INCREASE IN ELECT. COSTS DUE TO MECH. EQUIPMENT SUBSTITUTION TO BE CARRIED BY DIVISION 15.

COOLING / HEATING COIL SCHEDULE

REFERENCE	DESCRIPTION	SERVICE	OWNERSHIP	TOTAL AIR FLOW (L/S)	COIL AIR FLOW (L/S)	COOLING CAPACITY (KW)		HEATING CAPACITY (KW)	COOLING						HEATING						FLUID	MANUFACTURER	REMARKS:
						TOTAL	SENSIBLE		EAT (°C)	LAT (°C)	FLOW (L/S)	EWT (°C)	LWT (°C)	PRE. DP. (KPA)	EAT (°C)	LAT (°C)	FLOW (L/S)	EWT (°C)	LWT (°C)	PRE. DP. (KPA)			
CC-02	COOLING COIL	MUA-02 COOLING	CONDO	5430	3256	143	78	-	32.0/23.8	12.0/11.9	5.2	5.6	11.1	1034	-	-	-	-	-	-	WATER	MCQUAY DAIKIN	
HC-02	HEATING COIL	MUA-02 HEATING	CONDO	5430	5430	-	-	304	-	-	-	-	-	-	-20.0	24.0	7.3	71.1	60.0	1034	40% P.GLY.	MCQUAY DAIKIN	

NOTES:

ENERGY RECOVERY VENTILATOR SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	NORMAL SPEED OPERATION		HIGH SPEED OPERATION		E.S.P. (KPA)	ENT. AIR TEMP. (C)		MANUFACTURER	MODEL	ENERGY REQUIRED (AMPS)	MOTOR SIZE (KW)	POWER SUPPLY					STARTER		TYPE	CONTOLS				OTHER REQUIREMENTS:			OTHERS	REMARKS:
					SUPPLY AIR (L/S)	EXHAUST AIR (L/S)	SUPPLY AIR (L/S)	EXHAUST AIR (L/S)		WINTER	SUMMER					VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:	INSTALLED BY:		MANUAL	AUTO.	INTERLOCK BY: DIV. 15	INTERLOCK BY: DIV. 16	DISC. AT MOTOR	W.P. DISC. AT MOTOR	F.A. SHUT		
ERV-A	ENERGY RECOVERY UNIT	TYPICAL SUITES	TYPICAL SUITES	CONDO	25	22.5	50	45	0.10	-20	32.2	REVERSOMATIC	RERV-D100	-	0.15	115	1	SUITE PANEL	-	YES	DIV. 15	DIV. 15	PKG	-	YES	YES	-	PLUG	-	-		C/W CAMFIL ACTIVATED CARBON MERV 8 FILTERS, ECM MOTOR AND CONTROLS
ERV-B	ENERGY RECOVERY UNIT	TYPICAL SUITES	TYPICAL SUITES	CONDO	30	27	50	45	0.10	-20	32.2	REVERSOMATIC	RERV-D100	-	0.15	115	1	SUITE PANEL	-	YES	DIV. 15	DIV. 15	PKG	-	YES	YES	-	PLUG	-	-		C/W CAMFIL ACTIVATED CARBON MERV 8 FILTERS, ECM MOTOR AND CONTROLS
ERV-C	ENERGY RECOVERY UNIT	TYPICAL SUITES	TYPICAL SUITES	CONDO	35	31.5	60	54	0.10	-20	32.2	REVERSOMATIC	RERV-D100	-	0.15	115	1	SUITE PANEL	-	YES	DIV. 15	DIV. 15	PKG	-	YES	YES	-	PLUG	-	-		C/W CAMFIL ACTIVATED CARBON MERV 8 FILTERS, ECM MOTOR AND CONTROLS
ERV-D	ENERGY RECOVERY UNIT	TYPICAL SUITES	TYPICAL SUITES	CONDO	40	36	60	54	0.10	-20	32.2	REVERSOMATIC	RERV-D100	-	0.15	115	1	SUITE PANEL	-	YES	DIV. 15	DIV. 15	PKG	-	YES	YES	-	PLUG	-	-		C/W CAMFIL ACTIVATED CARBON MERV 8 FILTERS, ECM MOTOR AND CONTROLS
ERV-E	ENERGY RECOVERY UNIT	AMENITY PH	AMENITY PH	CONDO	310	280	310	280	0.10	-20	32.2	LIFEBREATH	1200ERV	8	2 x 0.2	115	1	SEE FLOOR PLAN	-	YES	DIV. 15	DIV. 15	PKG	-	YES	YES	-	PLUG	-	-		C/W CAMFIL ACTIVATED CARBON MERV 8 FILTERS AND CONTROLS

NOTES:

HEAT EXCHANGER SCHEDULE

REFERENCE	LOCATION	SERVICE	OWNERSHIP	PRIMARY						SECONDARY						FUNCTION	MANUFACTURER	TYPE	MODEL NUMBER	REMARKS:
				FLUID	FLOW US (L/S)	P.D. (KPA)	EWT (°C)	LWT (°C)	PRE. RATING (KPA)	FLUID	FLOW US (L/S)	P.D. (KPA)	EWT (°C)	LWT (°C)	PRE. RATING (KPA)					
HE-01	MAU ROOM P3	MUA-01 HEATING	CONDO	WATER	1.9	22	82.2	71.1	1034	40% P.GLY.	2.0	24	60.0	71.1	1034	HEATING	BELL & GOSSETT	PLATE AND FRAME	P07	

NOTES:

VERTICAL FAN COIL SCHEDULE - 2 PIPE (SUITES)

REFERENCE	DESCRIPTION	OWNERSHIP	SUPPLY AIR (L/S)	E.S.P. (PA)	COOLING						HEATING				HEATING ELEMENT (KW)	MANUFACTURER	MODEL	MOTOR SIZE (KW)	POWER SUPPLY					STARTER		TYPE	CONTOLS				OTHER REQUIREMENTS:			OTHERS	REMARKS:
					TOTAL (KW)	SENS (KW)	E.A.T. (°C) DB	E.A.T. (°C) WB	WATER FLOW (L/S)	EWT (°C)	TOTAL (KW)	SENS (KW)	WATER FLOW (L/S)	EWT (°C)					VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:	INSTALLED BY:		MANUAL	AUTO.	INTERLOCK BY: DIV. 15	INTERLOCK BY: DIV. 16	W.P. DISC. AT MOTOR	DISC. AT MOTOR	F.A. SHUT		
FCU-01	SUITE 2 PIPES FANCOIL - VERTICAL	CONDO	142	50	2.5	1.8	24.1	18.4	0.10	5.6	4.6	-	0.10	60.0	1	UNILUX	DLE350	0.10	120	1	SUITE PANEL 15A-1P	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	-	YES	-		ALL CONTROLS TO BE PREWIRED REMOTE T-STAT PROGRAMABLE, MERV 11 FILTER, THERMAL METER
FCU-02	SUITE 2 PIPES FANCOIL - VERTICAL	CONDO	190	50	4.1	2.7	24.1	18.4	0.17	5.6	7.1	-	0.17	60.0	1	UNILUX	DLE450	0.16	120	1	SUITE PANEL 20A-1P	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	-	YES	-		ALL CONTROLS TO BE PREWIRED REMOTE T-STAT PROGRAMABLE, MERV 11 FILTER, THERMAL METER
FCU-03	SUITE 2 PIPES FANCOIL - VERTICAL	CONDO	283	50	6.0	3.9	24.1	18.4	0.25	5.6	10.3	-	0.25	60.0	1	UNILUX	DLE600	0.16	120	1	SUITE PANEL 20A-1P	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	-	YES	-		ALL CONTROLS TO BE PREWIRED REMOTE T-STAT PROGRAMABLE, MERV 11 FILTER, THERMAL METER
FCU-04	SUITE 2 PIPES FANCOIL - VERTICAL	CONDO	378	50	7.9	5,2	24.1	18.4	0.31	5.6	13.6	-	0.31	60.0	1.5	UNILUX	DLE800	0.16	120	1	SUITE PANEL 25A-1P	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	-	YES	-		ALL CONTROLS TO BE PREWIRED REMOTE T-STAT PROGRAMABLE, MERV 11 FILTER, THERMAL METER
FCU-05	SUITE 2 PIPES FANCOIL - VERTICAL	CONDO	472	50	10.5	6.8	24.1	18.4	0.37	5.6	17.4	-	0.37	60.0	1.5	UNILUX	DLE1000	0.33	120	1	SUITE PANEL 30A-1P	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	-	YES	-		ALL CONTROLS TO BE PREWIRED REMOTE T-STAT PROGRAMABLE, MERV 11 FILTER, THERMAL METER

NOTES:

Contractor Must Check And Verify All Dimensions On The Job.

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Date: 04/08/15

LICENSED PROFESSIONAL ENGINEER
8489D
D. C. M. BELLAMY
PROVINCE OF ONTARIO

MCW Consultants Ltd.
207 Queen's Quay West, Suite 615, Toronto, ON, M5J 1A7
E-Mail: mcw_tor@mcw.com www.mcw.com
Tel: 416-598-2920 Fax: 416-598-5394
Toronto Vancouver Winnipeg Moncton Ottawa Halifax Dauphin Kelowna Trail Saint John

No.:	Revision	Date

No	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
ARTSCAPE - EQUIPMENT SCHEDULES #1

Project
Hines TRIDEL®
AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 1
Drawn by: S.J.
Checked by: Checker
Project No.: 8489D
Date: 04/08/15
Drawing No.: ME-21

N

PUMP SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	OWNERSHIP	WATER FLOW (L/S)	HEAD (KPA)	RPM	MANUFACTURER	TYPE / SIZE	ENERGY REQUIRED (HP)	MOTOR SIZE (KW)	POWER SUPPLY					STARTER					CONTROLS				OTHER REQUIREMENTS			REMARKS:
											VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:		INSTALLED BY:		TYPE	MANUAL	AUTO.	INTERLOCK BY:		W.P. DISC. AT MOTOR	DISC. AT MOTOR	F.A. SHUT.	
																DIV. 15	DIV. 16	DIV. 15	DIV. 16				DIV. 15	DIV. 16				
P-01	CONDENSER WATER PUMP	MIROOM P4	CONDO	27.1	254	1800	ARMSTRONG	4300 0308-015		11.2	575	3	6P4BN-13,15,17	-	YES	YES	-	YES	-	PKG	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT, ONE DUTY / ONE STANDBY.
P-02	CONDENSER WATER PUMP	MIROOM P4	CONDO	27.1	254	1800	ARMSTRONG	4300 0308-015		11.2	575	3																
P-3	HEATING/COOLING WATER PUMP	MIROOM P4	CONDO	51.5	314	1800	ARMSTRONG	4300 0610-040		30	575	3	6P4BN-19,21,23	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT. INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY. - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.
P-4	HEATING/COOLING WATER PUMP	MIROOM P4	CONDO	51.5	314	1800	ARMSTRONG	4300 0610-040		30	575	3								VFD								
P-5	HIGH TEMP. SEC. PUMP	MIROOM P4	CONDO	24.0	270	1800	ARMSTRONG	4300 0308-015		11.2	575	3	6P4BN-31,33,35	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT. INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY. - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.
P-6	HIGH TEMP. SEC. PUMP	MIROOM P4	CONDO	24.0	270	1800	ARMSTRONG	4300 0308-015		11.2	575	3								VFD								
P-7	MUA-1 HEATING PUMP	MIROOM P4	CONDO	2.00	120	1800	ARMSTRONG	4360 1.50-1.5		1.10	575	3	6P4BN-43,45,47	-	YES	YES	-	YES	-	PKG	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT, ONE DUTY / ONE STANDBY.
P-8	MUA-1 HEATING PUMP	MIROOM P4	CONDO	2.00	120	1800	ARMSTRONG	4360 1.50-1.5		1.10	575	3																
P-9	BOILER # 9 PUMP	MIROOM P4	CONDO	8.80	90	1800	ARMSTRONG	4360 30-2		1.50	575	3	6P4BN-14,16,18	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT
P-10	BOILER # 10 PUMP	MIROOM P4	CONDO	8.80	90	1800	ARMSTRONG	4360 30-2		1.50	575	3	6P4BN-20,22,24	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT
P-11	BOILER # 11 PUMP	MIROOM P4	CONDO	8.80	90	1800	ARMSTRONG	4360 30-2		1.50	575	3	6P4BN-26,28,30	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT
P-12	BOILER # 12 PUMP	MIROOM P4	CONDO	6.60	90	1800	ARMSTRONG	4360 30-1.5		1.10	575	3	6P4BN-32,34,36	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT
P-13	DHW HEATING SEC. PUMP	MIROOM P4	CONDO	21.20	194	1800	ARMSTRONG	4300 4x4x13-15		11.20	575	3	6P4BN-49,51,53	-	YES	YES	-	YES	-	PKG	-	YES	YES	-	-	DIV. 15	-	C/W ISOLATION DISCONNECT. - ONE DUTY / ONE STANDBY
P-14	DHW HEATING SEC. PUMP	MIROOM P4	CONDO	21.20	194	1800	ARMSTRONG	4300 4x4x13-15		11.20	575	3																
P-15	DOMESTIC BOOSTER PUMP	MIROOM P4	CONDO	14.5	586	3525	GRUNDFOS	MPC E (CUE) 3CR45-3-2	-	15.0	575	3	SWBD-4RN	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	PACKAGE C/W CONTROL PANEL, VFD, PRV'S AND EXPANSION TANK PRESSURES REQUIRED AFTER PRV - MANUFACTURER TO CONFIRM STREET PRESSURE AT SITE PRIOR TO MANUFACTURE OF PUMPS. VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.
P-16	DOMESTIC BOOSTER PUMP	MIROOM P4	CONDO	14.5	586	3525	GRUNDFOS	MPC E (CUE) 3CR45-3-2	-	15.0	575	3								VFD								
P-17	DOMESTIC BOOSTER PUMP	MIROOM P4	CONDO	14.5	586	3525	GRUNDFOS	MPC E (CUE) 3CR45-3-2	-	15.0	575	3	6EP1MC2-31,33,35	YES	-	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	
P-18	ELEVATOR SUMP PUMP (S)	FD LEVEL	CONDO	9.5	210	1800	BARNES	4SE-7594L	-	5.6	575	3	6EP1MC1-31,33,35	YES	-	YES	-	YES	-	PKG.	-	YES	YES	-	-	DIV. 15	-	C/W SLIDE AWAY COUPLINGS, GALVANIZED LIFTING CHAINS, DUPLEX CONTROL PANEL, DISCONNECT SWITCH IN CEMA 1 ENCLOSURE, C/W HIGH WATER ALARM PANEL, EXTRA RELAY IN CEMA 1 ENCLOSURE AND MECHANICAL FLOAT SWITCHES.
P-19	ELEVATOR SUMP PUMP (S)	FD LEVEL	CONDO	9.5	210	1800	BARNES	4SE-7594L	-	5.6	575	3																
P-20	ELEVATOR SUMP PUMP (C)	FD LEVEL	CONDO	9.5	210	1800	BARNES	4SE-7594L	-	5.6	575	3	6EP1MC2-25,27,29	YES	-	YES	-	YES	-	PKG.	-	YES	YES	-	-	DIV. 15	-	C/W SLIDE AWAY COUPLINGS, GALVANIZED LIFTING CHAINS, DUPLEX CONTROL PANEL, DISCONNECT SWITCH IN CEMA 1 ENCLOSURE, C/W HIGH WATER ALARM PANEL, EXTRA RELAY IN CEMA 1 ENCLOSURE AND MECHANICAL FLOAT SWITCHES.
P-21	ELEVATOR SUMP PUMP (C)	FD LEVEL	CONDO	9.5	210	1800	BARNES	4SE-7594L	-	5.6	575	3																
P-22	DHW RECIR. PUMP	MIROOM P4	CONDO	1.0	90	1800	S.A ARMSTRONG	4360 1.50-0.75	-	0.56	575	3	6P4BN-67,69,71	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	YES	-	C/W BRONZE & ISOLATION DISCONNECT
P-23	DHW RECIR. PUMP	MIROOM P4	CONDO	0.6	90	1800	S.A ARMSTRONG	4360 1.50-0.50	-	0.37	575	3	6P4BN-73,75,77	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	YES	-	C/W BRONZE & ISOLATION DISCONNECT

NOTES:

1. REFER TO SECTION 16050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION 15400 AND 15700 FOR FURTHER DETAILS.
3. REFER TO SECTION 15100 FOR VIBRATION ISOLATION.
4. REFER TO SECTION 15400 FOR PIPING, VALVES, AUTOMATIC SWITCH OVER ON PUMP FAILURE.
5. MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL (CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WIRING INSTALLED.
6. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.

Contractor Must Check And Verify All Dimensions On The Job.

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Date: 04/08/15

MCW Consultants Ltd.
207 Queen's Quay West, Suite 810, Toronto, ON, M5J 1A7
E-Mail: mcw_toronto@mcw.com www.mcw.com
Tel: 416-598-2920 Fax: 416-598-5304
Toronto Vancouver Winnipeg Moncton Ottawa Halifax Daughtry Kotowski Tait Saint John

No.	Revision	Date

No.	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

ARTSCAPE - EQUIPMENT SCHEDULES #2

Project

Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

Scale: 1 : 1
Drawn by: S.J.
Checked by: Checker
Project No: 8489D
Date: 04/08/15
Drawing No: ME-22

WATER CHILLER SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	CAPACITY (KW)	COOLER / EVAPORATOR FLOW (L/S)	COOLER / EVAPORATOR EWT (°C)	COOLER / EVAPORATOR LWT (°C)	COOLER / EVAPORATOR PRE. DROP (KPA)	SAT. DISCHARGE TEMP. (°C)	CONDENSER FLOW (L/S)	CONDENSER EWT (°C)	CONDENSER LWT (°C)	CONDENSER PRE. DROP (KPA)	SAT. DISCHARGE TEMP. (°C)	INPUT POWER (kW)	IPVL	REFRIGERANT	NO. OF COMPRESSOR	STEPS OF UNLOADING	MANUFACTURER	OPERATING WEIGHT (KG)	MODEL No.	MIN. CIRCUIT AMPS	MAX. FUSE SIZE	POWER SUPPLY VOLTS	POWER SUPPLY PHASE	POWER SUPPLY FED FROM	POWER SUPPLY EM.	POWER SUPPLY NORM	STARTER SUPPLIED BY:	STARTER INSTALLED BY:	STARTER TYPE	CONTROLS MANUAL	CONTROLS AUTO.	CONTROLS INTERLOCK BY: DIV. 15	CONTROLS INTERLOCK BY: DIV. 16	OTHER REQUIREMENTS DISC. AT MOTOR	OTHER REQUIREMENTS W.P. DISC. AT MOTOR	OTHER REQUIREMENTS F.A. SHUT DOWN	OTHERS	REMARKS:
CH-03	SCROLL CHILLER	C/ROOM P4	RETAIL 4 PIPE	RETAIL	430	18.5	11.1	5.6	36	-	23.2	29.4	35.0	45	35.7	96.7	20.2	R-410A	-	-	MCQUAY- DAIKIN	2155	WGZ130D	210	250	575	3	-	-	YES	DIV. 15	DIV. 15	-	-	YES	YES	-	DIV. 15	-	-		-

NOTES:
1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION AND SPECIFICATION 15700 FOR FURTHER DETAILS.
3. FOULING FACTOR FOR COOLERS AND CONDENSERS: (0.0001) (0.00025).
4. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.
5. MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WRIRING INSTALLED.

COOLING TOWER SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	CAPACITY (KW)	SUMMER FLOW (L/S)	SUMMER EWT (°C)	SUMMER LWT (°C)	OUTDOOR TEMP. WB. (°C)	WINTER FLOW (L/S)	WINTER EWT (°C)	WINTER LWT (°C)	TUBES PRESS. DROP (KPA)	MODEL	OPERATING WEIGHT (KG)	MANUFACTURER	PAN HEATER (KW)	FAN MOTOR (KW)	MIN. CIRCUIT AMPS	MAX. FUSE SIZE	POWER SUPPLY VOLTS	POWER SUPPLY PHASE	POWER SUPPLY FED FROM	POWER SUPPLY EM.	POWER SUPPLY NORM.	STARTER SUPPLIED BY:	STARTER INSTALLED BY:	STARTER TYPE	CONTROLS MANUAL	CONTROLS AUTO.	CONTROLS INTERLOCK BY: DIV. 15	CONTROLS INTERLOCK BY: DIV. 16	OTHER REQUIREMENTS DISC. AT MOTOR	OTHER REQUIREMENTS W.P. DISC. AT MOTOR	OTHER REQUIREMENTS F.A. SHUT DOWN	OTHERS	REMARKS:
CT-03	INDUCED DRAFT	ROOF	CHILLER # 3	RETAIL	430	23.2	35.0	29.4	24.4	-	-	-	-	PT2-0412A-1H1	-	BALTIMORE AIRCOIL	6 + 6	2 x 3.7	-	-	575	3	-	-	YES	DIV. 15	DIV. 15	VFD	-	YES	YES	-	-	DIV. 15	-	-	VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS., BASIN HEATER, LOW SOUND FAN. PROVIDE ALL INTERIOR WIRING AND CONTROL BY DIV 15 CONTRACTOR.

NOTES:
1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION AND SPECIFICATION 15700 FOR FURTHER DETAILS.
3. FOULING FACTOR FOR COOLERS AND CONDENSERS: (0.0001) (0.00025).
4. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.
5. MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WRIRING INSTALLED.

BOILER SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	INPUT (KW)	OUTPUT (KW)	GAS TRAIN INLET PRESSURE (KPA)	OPERATING PRESSURE MAX. (KPA)	OPERATING TEMP. MAX. (°C)	MANUFACTURER	MODEL	AMPERE	POWER SUPPLY VOLTS	POWER SUPPLY PHASE	POWER SUPPLY FED FROM	POWER SUPPLY EM.	POWER SUPPLY NORM.	STARTER SUPPLIED BY:	STARTER INSTALLED BY:	STARTER TYPE	CONTROLS MANUAL	CONTROLS AUTO.	CONTROLS INTERLOCK BY: DIV. 15	CONTROLS INTERLOCK BY: DIV. 16	OTHER REQUIREMENTS DISC. AT MOTOR	OTHER REQUIREMENTS W.P. DISC. AT MOTOR	OTHER REQUIREMENTS F.A. SHUT DOWN	OTHERS	REMARKS:
HB-12	HIGH/FCU HEATING	M/ROOM P4	4-PIPE RETAIL	RETAIL	732	674	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 2500	-	120	1	-	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)
HB-13	HIGH/FCU HEATING	M/ROOM P4	4-PIPE RETAIL	RETAIL	732	674	MIN. .1 / MAX. 3.2	1137	93.3	LOCHINVAR	FBN 2500	-	120	1	-	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)

NOTES:
1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION AND SPECIFICATION 15700 FOR FURTHER DETAILS.
3. FOULING FACTOR FOR COOLERS AND CONDENSERS: (0.0001) (0.00025).
4. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.
5. MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WRIRING INSTALLED.
6. PROVIDE MODULATING CENTRALISED CONTROLLER WITH INDOOR OUTDOOR RESET FOR BOILERS.
7. PROVIDE FLOW SWITCH, LOW WATER CUT OFF, PRESSURE REDUCING VALVES, AUX. CONTACTS FOR BAS.

MAKE UP AIR UNIT SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	SUPPLY AIR (L/S)	EXHAUST AIR (L/S)	COOLING TOTAL (KW)	COOLING SENS (KW)	COOLING WATER FLOW (L/S)	HEATING TOTAL (KW)	HEATING SENS (KW)	HEATING WATER FLOW (L/S)	P.W.L. db RE 10^12 WATTS OCTAVE BAND 1	2	3	4	5	6	7	8	E.S.P. (KPA)	MANUFACTURER	MODEL	EXHAUST FAN MOTOR (KW)	SUPPLY FAN MOTOR (KW)	F. LOAD AMPS	MAX. FUSE AMPS	POWER SUPPLY VOLTS	POWER SUPPLY PHASE	POWER SUPPLY FED FROM	POWER SUPPLY EM.	POWER SUPPLY NORM.	STARTER SUPPLIED BY:	STARTER INSTALLED BY:	TYPE	CONTOLS MANUAL	CONTOLS AUTO.	CONTOLS INTERLOCK BY: DIV. 15	CONTOLS INTERLOCK BY: DIV. 16	OTHER REQUIREMENTS: W.P. DISC. AT MOTOR	OTHER REQUIREMENTS: DISC. AT MOTOR	OTHER REQUIREMENTS: F.A. SHUT	OTHERS	REMARKS:
MAU-01	RETAIL MUA	LEVEL P3	RETAIL	CONDO	1415	1270	23.2	15.3	1.1	82.8	-	2.0									0.25/0.3	MCQUAY DAIKIN	CAH012GDAM	2.2	3.7			575	3	6P4MN-1,3,5	-	YES	DIV. 15	DIV. 15	VFD	-	YES	YES	-	-	DIV. 15	-		C/W ISOLATION DISCONNECT, FIRE STAT, DUCT STAT & HEAT WHEEL. DUCT MOUNTED FILTER BOX WITH MERV 8 PRE & MERV 13 CARBON FILTER AS PER A. Q. REPORT. VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS. COIL BYPASS, INLET MOTORIZED DAMPER,MAGNEHELIC FILTER GAUGES, PRESSURE DIFFERENTIAL SENSORS, ALARM TO BMS WHEN PRESSURE DROP EXCEEDS 1.2 IN.WG. AS RECOMMENDED BY THE FILTER MANUFACTURER.

NOTES:
1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION AND SPECIFICATION 15700 FOR FURTHER DETAILS.
3. REFER TO SECTION 15100 FOR VIBRATION ISOLATION.
4. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.
5. MECH. CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WRIRING INSTALLED.
6. ANY INCREASE IN ELECT. COSTS DUE TO MECH. EQUIPMENT SUBSTITUTION TO BE CARRIED BY DIVISION 15.

COOLING / HEATING COIL SCHEDULE

REFERENCE	DESCRIPTION	SERVICE	OWNERSHIP	TOTAL AIR FLOW (L/S)	COIL AIR FLOW (L/S)	COOLING CAPACITY (KW) TOTAL	COOLING CAPACITY (KW) SENSIBLE	HEATING CAPACITY (KW)	COOLING EAT (°C)	COOLING LAT (°C)	COOLING FLOW (L/S)	COOLING EWT (°C)	COOLING LWT (°C)	COOLING PRE. DP. (KPA)	HEATING EAT (°C)	HEATING LAT (°C)	HEATING FLOW (L/S)	HEATING EWT (°C)	HEATING LWT (°C)	HEATING PRE. DP. (KPA)	FLUID	MANUFACTURER	REMARKS:
CC-01	COOLING COIL	MUA-01 COOLING	CONDO	1415	850	23.2	15.3	-	26.6/19.4	11.5/11.1	1.1	5.6	11.1	1034	-	-	-	-	-	-	WATER	MCQUAY DAIKIN	
HC-01	HEATING COIL	MUA-01 HEATING	CONDO	1415	1415	-	-	82.8	-	-	-	-	-	-	-20.0	25.9	2.0	71.1	60.0	1034	40% P.GLY.	MCQUAY DAIKIN	

NOTES:

HEAT EXCHANGER SCHEDULE

REFERENCE	LOCATION	SERVICE	OWNERSHIP	PRIMARY FLUID	PRIMARY FLOW US (L/S)	PRIMARY P.D. (KPA)	PRIMARY EWT (°C)	PRIMARY LWT (°C)	PRIMARY PRE. RATING (KPA)	SECONDARY FLUID	SECONDARY FLOW US (L/S)	SECONDARY P.D. (KPA)	SECONDARY EWT (°C)	SECONDARY LWT (°C)	SECONDARY PRE. RATING (KPA)	FUNCTION	MANUFACTURER	TYPE	MODEL NUMBER	REMARKS:
HE-01	MAU ROOM P3	MUA-01 HEATING	CONDO	WATER	1.9	22	82.2	71.1	1034	40% P.GLY.	2.0	24	60.0	71.1	1034	HEATING	BELL & GOSSETT	PLATE AND FRAME	P07	
HE-02	MAU ROOM P3	MUA-02 HEATING	CONDO	WATER	6.9	29	82.2	71.1	1034	40% P.GLY.	7.3	34	60.0	71.1	1034	HEATING	BELL & GOSSETT	PLATE AND FRAME	P14	

NOTES:

Contractor Must Check And Verify All Dimensions On The Job.

Do Not Scale The Drawings.

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Date: 04/08/15

LICENSED PROFESSIONAL ENGINEER 8489D D. C. M. BELLAMY PROVINCE OF ONTARIO

MCW Consultants Ltd.
207 Queen's Quay West, Suite 615, Toronto, ON, M5J 1A7
E-Mail: mcw_tor@mcw.com www.mcw.com
Tel: 416-598-2920 Fax: 416-598-5394
Toronto Vancouver Winnipeg Moncton Ottawa Halifax Dauphin Kelowna Trail Saint John

No.:	Revision	Date

No	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

RETAIL - EQUIPMENT SCHEDULES #1

Project

Hines TRIDEL®
AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON

N

Scale	1 : 1
Drawn by	S.J.
Checked by	Checker
Project No.	8489D
Date	04/08/15
Drawing No.	ME-31

PUMP SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	OWNERSHIP	WATER FLOW (L/S)	HEAD (KPA)	RPM	MANUFACTURER	TYPE / SIZE	ENERGY REQUIRED (HP)	MOTOR SIZE (KW)	POWER SUPPLY					STARTER					CONTROLS				OTHER REQUIREMENTS			REMARKS:
											VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:		INSTALLED BY:		TYPE	MANUAL	AUTO.	INTERLOCK BY:		W.P. DISC. AT MOTOR	DISC. AT MOTOR	F.A. SHUT.	
																DIV. 15	DIV. 16	DIV. 15	DIV.16				DIV. 15	DIV.16				
P-01	CONDENSER WATER PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	PKG	-	YES	YES	-	-	DV. 15	-	CW ISOLATION DISCONNECT, ONE DUTY / ONE STANDBY.
P-02	CONDENSER WATER PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3																
P-3	CHILLED WATER PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DV. 15	-	CW ISOLATION DISCONNECT. INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY. - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.
P-4	CHILLED WATER PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3								VFD								
P-5	HIGH TEMP. SEC. PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DV. 15	-	CW ISOLATION DISCONNECT. INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY. - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.
P-6	HIGH TEMP. SEC. PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3								VFD								
P-7	LOW TEMP. SEC. PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DV. 15	-	CW ISOLATION DISCONNECT. INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY. - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.
P-8	LOW TEMP. SEC. PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3								VFD								
P-9	MUA-1 HEATING PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	PKG	-	YES	YES	-	-	DV. 15	-	CW ISOLATION DISCONNECT, ONE DUTY / ONE STANDBY.
P-10	MUA-1 HEATING PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3																
P-11	MUA-2 HEATING PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	PKG	-	YES	YES	-	-	DV. 15	-	CW ISOLATION DISCONNECT, ONE DUTY / ONE STANDBY.
P-12	MUA-2 HEATING PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3																
P-13	BOILER # 1 PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DV. 15	-	CW ISOLATION DISCONNECT
P-14	BOILER # 2 PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DV. 15	-	CW ISOLATION DISCONNECT
P-15	LTHT PUMP	MROOM P4	RETAIL	-	-	1800	ARMSTRONG	-		-	575	3	-	-	YES	YES	-	YES	-	CM FVNR	-	YES	YES	-	-	DV. 15	-	CW ISOLATION DISCONNECT

NOTES:

1. REFER TO SECTION 15050 FOR WIRING AND ELECTRIC MOTORS.
2. REFER TO SECTION 15400 AND 15705 FOR FURTHER DETAIL.
3. REFER TO SECTION 15100 FOR VIBRATION ISOLATION.
4. ALL PUMPS WITH 100% STANDBY UNIT TO BE WITH AUTOMATIC SWITCHOVER ON PUMP FAILURE.
5. ELECTRICAL CONTRACTOR FOR ELECTRICAL EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT ORDERED OR ELECTRICAL WIRING INSTALLED.
6. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.

CHIMNEY EXHAUST FANS SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	AIR FLOW (L/S)	INLET PRESSURE (PA)	OPERATING WEIGHT (KG)	MANUFACTURER	MODEL	MOTOR SIZE (KW)	POWER SUPPLY					STARTER			CONTROLS				OTHER REQUIREMENTS			OTHERS	REMARKS:
											VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:	INSTALLED BY:	TYPE	MANUAL	AUTO.	INTERLOCK BY:		DISC. AT MOTOR	W.P. DISC. AT MOTOR	F.A. SHUT DOWN		
																DIV. 15	DIV. 15				DIV. 15	DIV. 16					
VENT-1	BOILER VENT	ROOF	BOILER #	RETAIL	-	-	-	EXHAUSTO	-	-	120	1	-	YES	-	DIV. 15	DIV. 15	-	-	YES	YES	-	-	YES	-	-	CW VFD, MODULATING DRAFT CONTROL WITH XTP SENSOR, PROBE, MODULATING DAMPER, ACTUATOR, BALANCING BAFFLES & DURAVENT FAIRSEAL VENTING

NOTES:

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Date: 04/13/15

MCW Consultants Ltd.
207 Queen's Quay West, Suite 810, Toronto, ON, M5J 1A7
E-Mail: mcw_toronto@mcw.com www.mcw.com
Tel: 416-598-2920 Fax: 416-598-5304
Toronto Vancouver Windsor Moncton Ottawa Halifax Dauphin Kelowna Trail Saint John

No.	Revision	Date

No.	Issued For	Date
1		

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
RETAIL - EQUIPMENT SCHEDULES #2

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Queen's Quay East
Toronto, ON.

Scale 1 : 1
Drawn by S.J.
Checked by Checker
Project No. 8489D
Date 04/13/15
Drawing No. ME-32