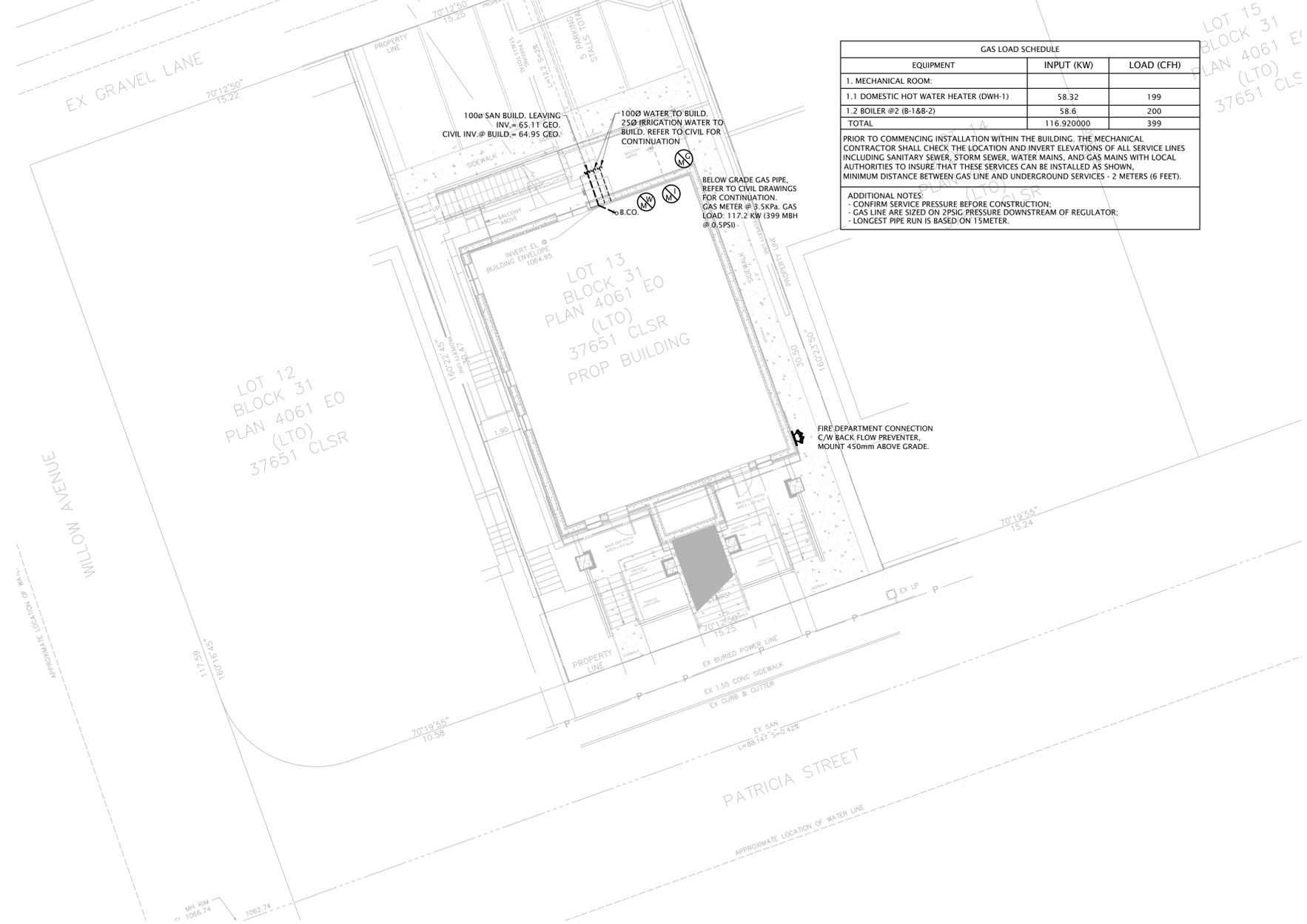


PLOT DATE: August 31, 2017 TIME: 2:24 PM FULL PATH AND FILENAME: \\EDMAPS010\DRIVE\ENGINEERING\DRIVING\MECHANICALSHEETS\M10-00-01.DWG PLOTSYLE TABLE: PMA-STD-100.cdb

LOT 11
BLOCK 31
PLAN 4061 EO
(LTO)
37651 CLSR



GAS LOAD SCHEDULE		
EQUIPMENT	INPUT (KW)	LOAD (CFH)
1. MECHANICAL ROOM:		
1.1 DOMESTIC HOT WATER HEATER (DWH-1)	58.32	199
1.2 BOILER @2 (B-1 & B-2)	58.6	200
TOTAL	116.920000	399

PRIOR TO COMMENCING INSTALLATION WITHIN THE BUILDING, THE MECHANICAL CONTRACTOR SHALL CHECK THE LOCATION AND INVERT ELEVATIONS OF ALL SERVICE LINES INCLUDING SANITARY SEWER, STORM SEWER, WATER MAINS, AND GAS MAINS WITH LOCAL AUTHORITIES TO INSURE THAT THESE SERVICES CAN BE INSTALLED AS SHOWN. MINIMUM DISTANCE BETWEEN GAS LINE AND UNDERGROUND SERVICES - 2 METERS (6 FEET).

ADDITIONAL NOTES:
 - CONFIRM SERVICE PRESSURE BEFORE CONSTRUCTION;
 - GAS LINE ARE SIZED ON 2PSIG PRESSURE DOWNSTREAM OF REGULATOR;
 - LONGEST PIPE RUN IS BASED ON 15METER.

01
M10-00-01 1:50
MECHANICAL SITE PLAN

DATE	ISSUED FOR	REV
17-07-06	60% REVIEW	A
17-08-09	TENDER	B
17-09-01	BP	C

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Project Component
Phase # - Description
 Keyplan

North Arrow

Detail Symbol

DETAIL#
SHEET #

Symbol not to scale

Consultants

Civil: McElhanney Consulting Services Ltd.
 Landscape: NORR Architects Engineers Planners
 Architectural: NORR Architects Engineers Planners
 Structural: NORR Architects Engineers Planners
 Mechanical: NORR Architects Engineers Planners
 Electrical: NORR Architects Engineers Planners

Seal(s)

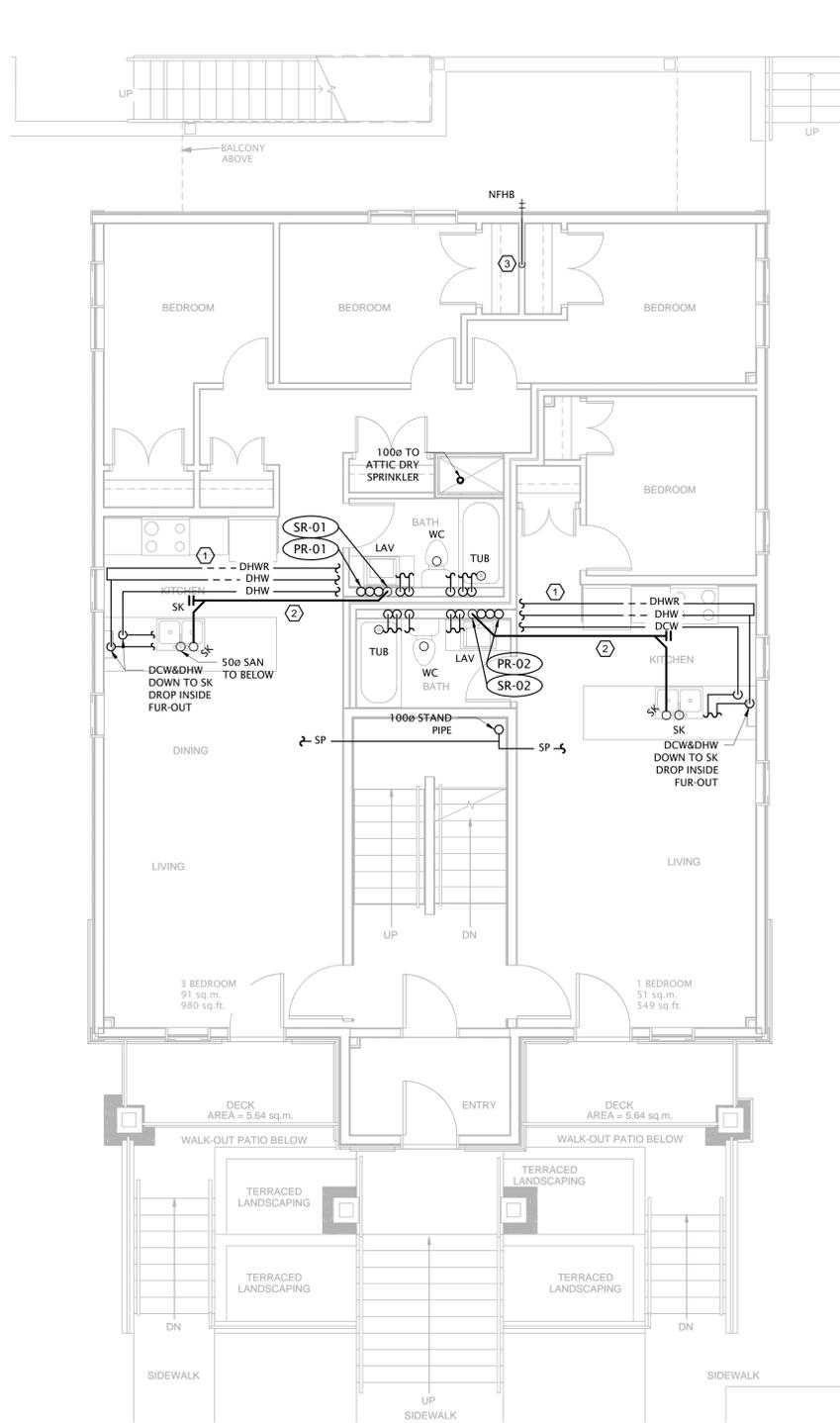
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 10001 17th Avenue, Suite 100, Edmonton, Alberta T5A 0A6
 10001 17th Avenue, Suite 100, Edmonton, Alberta T5A 0A6

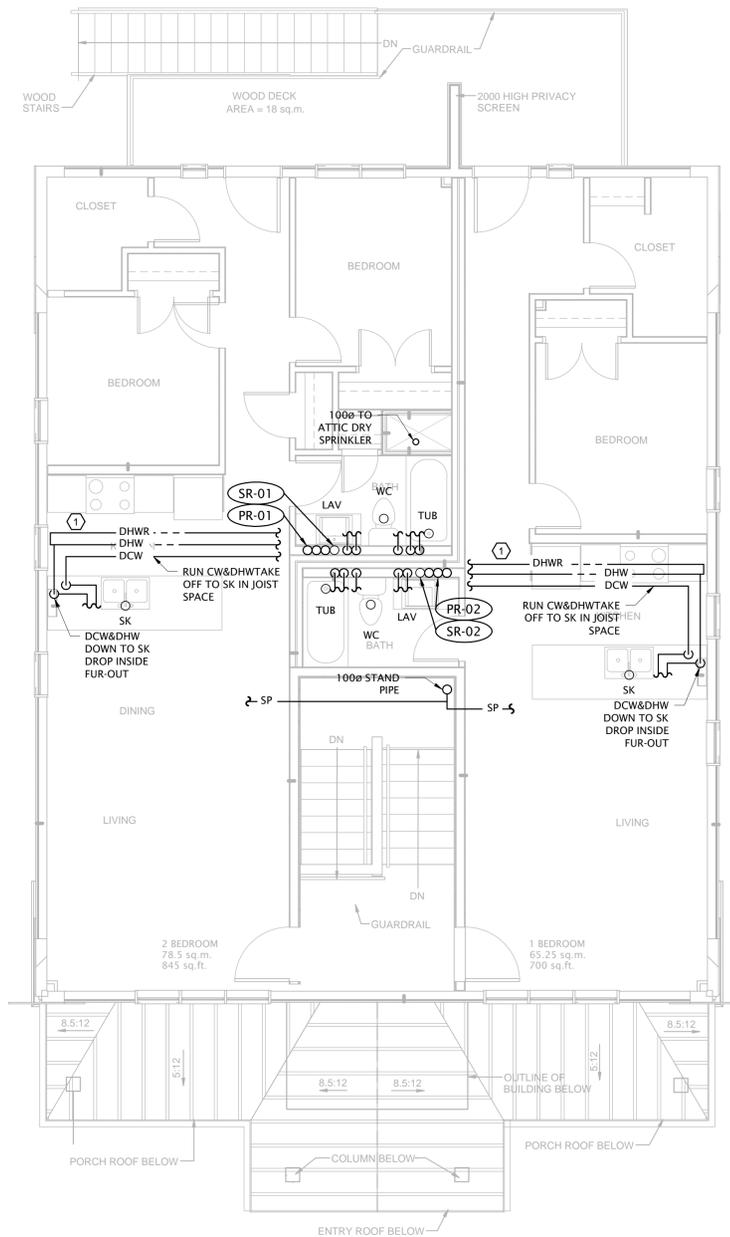
Project Manager C.ODINGA	Drawn N.ALY
Project Leader T.BERTSCH	Checked L.YANG
Client PARKS CANADA AGENCY Jasper National Park, Jasper, AB	
Project JASPER PARK STAFF HOUSING JASPER, AB	
Drawing Title MECHANICAL SITE PLAN	
Check Scale (may be photo reduced) 0 1inch 0 10mm	
Project No. NCEM-17-0002	
Drawing No. M10-00-01	

PLOT DATE: August 31, 2017 TIME: 3:24 PM FULL PATH AND FILENAME: \\VEDMAPS01\IP_DRIVE\ENGINEERING\2002_JASPER NATIONAL PARK STAFF HOUSING\00-DELIV\MECH\SHEETS\M20-01-01.DWG PLOTS\STYLE TABLE.PMA-STD-100.dwg



- KEYNOTES:**
1. RUN DCW, DHW, SAN PIPING IN JOIST SPACE TO/FROM PLUMBING FIXTURE.
 2. 50Ø SAN @2%.
 3. 20Ø DCW FROM BELOW TO NON FREEZE HOSE BIBB.

01 MAIN FLOOR PLUMBING PLAN
M20-01-01 1:50



- KEYNOTES:**
1. RUN DCW, DHW, SAN PIPING IN JOIST SPACE TO/FROM PLUMBING FIXTURE.

02 SECOND FLOOR PLUMBING PLAN
M20-01-02 1:50

PLUMBING GENERAL NOTES:

- SUPPLY AND INSTALL ALL FIRE STOPPING MATERIAL AND ENSURE THAT ALL FIRE PENETRATIONS ARE PROTECTED AS REQUIRED BY THE NATIONAL BUILDING CODE AND THE LOCAL AUTHORITIES.
- PROVIDE PLUMBING VENTING AS REQUIRED AND AS PER CODE.
- PROVIDE P-TRAPS AS REQUIRED AND AS PER CODE.
- COORDINATE SANITARY RISERS AND VENT LINES WITH STRUCTURAL FRAMING BEFORE INSTALLATION.
- PROVIDE SLEEVES AS REQUIRED THRU FOOTINGS, PADS AND STRUCTURAL SLABS FOR MECHANICAL.
- COORDINATE AND SLEEVE FOR ALL PLUMBING FIXTURES.
- PROVIDE SHUT-OFF VALVES C/W ACCESS PANELS IN ALL SUITES FOR COLD WATER, HOT WATER LINES.
- PROVIDE CLEANOUTS ON EVERY LEADER, SOIL OR WASTE STACK AS REQUIRED AND AS PER CODE.
- SLOPE ALL 100Ø SANITARY PIPING @ 1% AND SLOPE ALL SANITARY PIPING LESS THAN 100Ø @ 2%.
- ALL SANITARY 100Ø @ 1% SLOPE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ENSURE ALL MECHANICAL IS INSTALLED AT A MINIMUM HEAD HEIGHT OF 7'.
- OFFSET SOIL OR WASTE RISERS FROM EACH OTHER AS REQUIRED AND AS PER THE PLUMBING CODE.
- ALL PIPING TO BE IN BULKHEAD OR CROSS THE BEAM. COORDINATE HOLES LOCATION WITH STRUCTURAL PRIOR TO DRILL.

FIRE PROTECTION GENERAL NOTES:

- THIS DRAWING IS FOR REFERENCE ONLY. THE SPRINKLER CONTRACTOR MUST VERIFY THE BUILDING STRUCTURE AND INSTALL THE SPRINKLER SYSTEM TO MEET ALL RELEVANT CODES.
- THE SPRINKLER CONTRACTOR / ENGINEER IS RESPONSIBLE TO PRODUCE A FULLY ENGINEERED SET OF SPRINKLER DRAWINGS FOR THE PROJECT. SUBMIT DRAWINGS AND HYDRAULIC CALCULATIONS TO THE LOCAL AUTHORITIES FOR APPROVAL.
- SPRINKLER CONTRACTOR TO PROVIDE A COMPLETE AND FULLY OPERATIONAL SPRINKLER SYSTEM.
- REFER TO MECHANICAL SPECIFICATIONS FOR THE REQUIREMENTS OF THE SPRINKLER SYSTEM.
- ALL EXPOSED SPRINKLER PIPING SHALL RUN PARALLEL TO BUILDING LINES.
- SPRINKLER SYSTEM SHALL CONFORM TO REQUIREMENTS OF NFPA 13R AS REQUIRED BY LOCAL CODES.
- SPRINKLER CONTRACTOR SHALL PROVIDE FLOW AND TAMPER SWITCHES FOR EACH ZONE AND AT THE MAIN WATER ENTRY. COORDINATE ALL ASSOCIATED ELECTRICAL WIRING WITH THE ELECTRICAL SUB-CONTRACTOR.
- A SPRINKLER TEST CERTIFICATE INDICATING A HYDROSTATIC TEST OF 200 PSI FOR TWO HOURS AS WELL AS VERIFICATION THAT ALL SPRINKLER ALARMS FUNCTION PROPERLY AS PER NFPA 13R MUST BE PRODUCED. THE MECHANICAL ENGINEER SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF ANY VERIFICATION AND TESTING.
- THE SPRINKLER CONTRACTOR IS RESPONSIBLE FOR ANY DEVIATIONS FROM THE ENGINEERED SPRINKLER DRAWINGS. ALL CHANGES MUST BE SUBMITTED TO THE AUTHORITIES FOR APPROVAL.
- WATER SUPPLY INFORMATION IS TO BE CONFIRMED FROM THE MUNICIPALITY. THE SPRINKLER CONTRACTOR IS RESPONSIBLE TO COMMISSION A TEST TO CONFIRM ALL WATER SUPPLY INFORMATION.

DATE	ISSUED FOR	REV
17-07-06	60% REVIEW	A
17-08-09	TENDER	B
17-09-01	BP	C

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Project Component
Phase # - Description

Keyplan

North Arrow

Detail Symbol

Symbol not to scale

Consultants

Civil: McElhanney Consulting Services Ltd.
 Landscape: NORR Architects Engineers Planners
 Architectural: NORR Architects Engineers Planners
 Structural: NORR Architects Engineers Planners
 Mechanical: NORR Architects Engineers Planners
 Electrical: NORR Architects Engineers Planners

Seal(s)

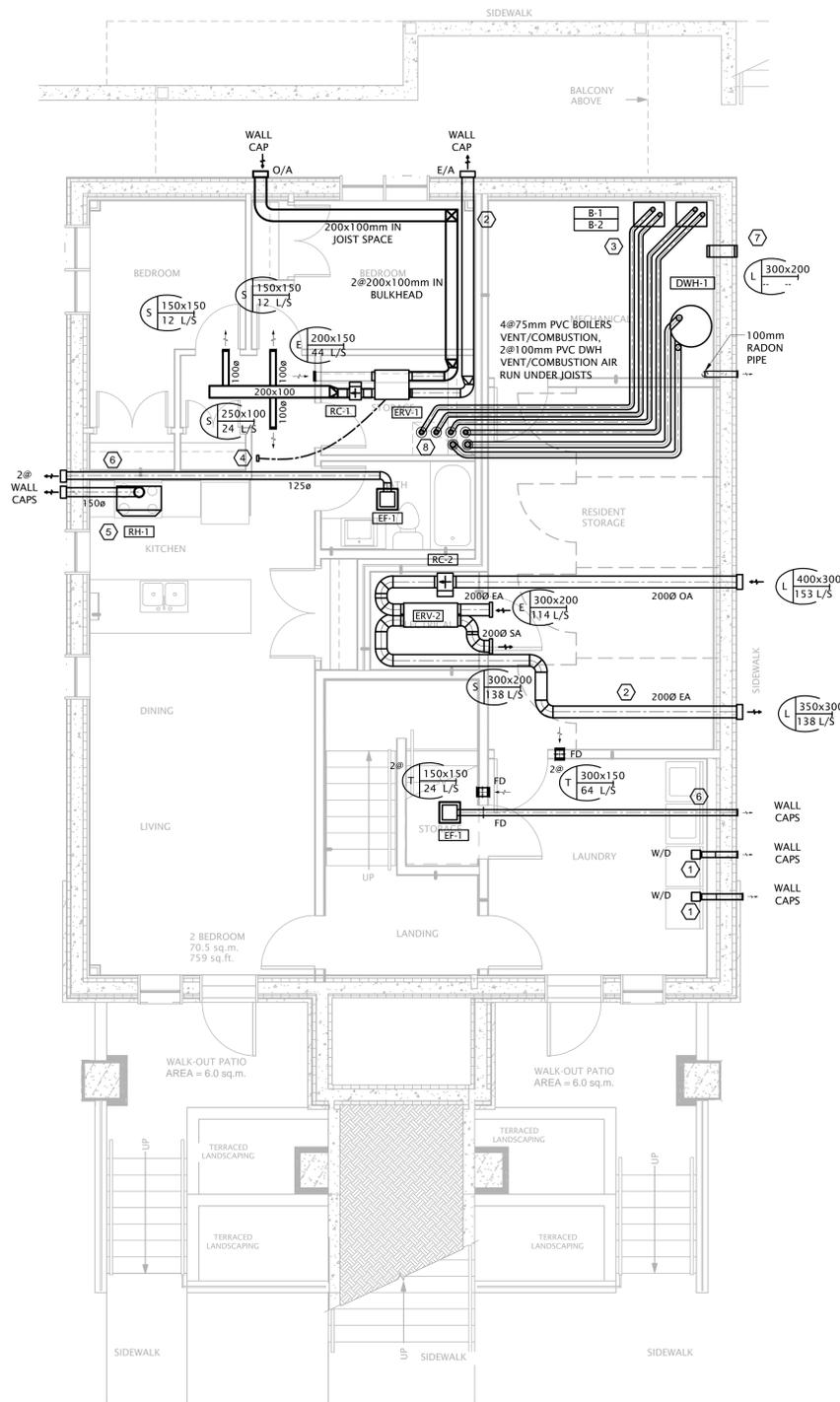
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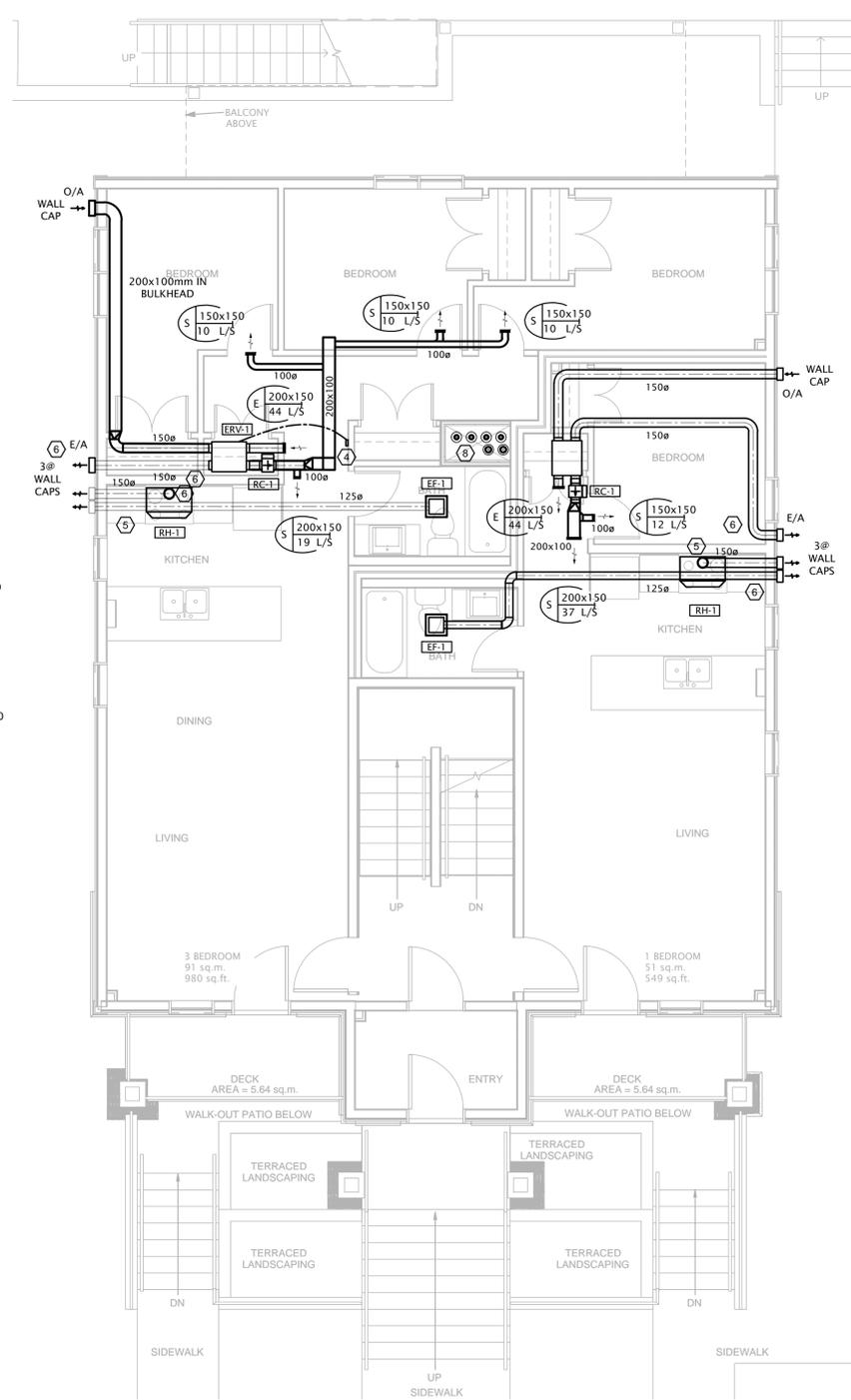
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 10001 10th Street, Suite 100, Calgary, Alberta T2C 1E9
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Project Manager	Drawn
C. ODINGA	N. ALY
Project Leader	Checked
T. BERTSCH	LYANG
Client	
PARKS CANADA AGENCY Jasper National Park, Jasper, AB	
Project	
JASPER PARK STAFF HOUSING JASPER, AB	
Drawing Title	
MAIN & SECOND FLOOR PLUMBING & FIRE PROTECTION PLAN	
Check Scale (may be photo reduced)	
0 1inch 0 10mm	
Project No. NCEM-17-0002	
Drawing No. M20-01-01	

PLOT DATE: August 31, 2017 TIME: 3:24 PM FULL PATH AND FILENAME: \\VEDMAPS01P_DRIVE\ENGINEERING\2002_JASPER NATIONAL PARK STAFF HOUSING\500-DELIV\MECHSHEETS\M50-00-01.DWG PLOTSYLE TABLE: PMA-STD-100.cad



02
M50-00-01
BASEMENT VENTILATION PLAN
1:50



02
M50-00-01
MAIN FLOOR VENTILATION PLAN
1:50

GENERAL NOTES:

- A. SUPPLY AND INSTALL ALL FIRE STOPPING MATERIAL AND ENSURE THAT ALL FIRE PENETRATIONS ARE PROTECTED AS REQUIRED BY THE NATIONAL BUILDING CODE AND THE LOCAL AUTHORITIES.
- B. ALL WASHROOM FANS ARE TO BE LOCATED IN THE CEILING. COORDINATE EXACT LOCATION OF ALL FANS AND ASSOCIATED DUCTWORK ON SITE.
- C. ALLOW FOR WALL CAPS AT ALL DUCTWORK ON EXTERIOR WALLS AS REQUIRED.
- D. AIR BALANCING DAMPERS TO BE PROVIDED FOR ALL BRANCH DUCTWORK FEEDING INDIVIDUAL AIR TERMINALS.
- E. ENSURE ALL DUCTWORK EXTENDING TO EXTERIOR OF BUILDING IS INSULATED.
- F. INSTALL 100mm THICK HOUSEKEEPING PAD UNDER ALL MECHANICAL EQUIPMENT IN MECHANICAL ROOM. COORDINATE WITH GENERAL CONTRACTOR.
- G. INSTALL ALL WALL CAPS, EXHAUST OR INTAKE LOUVERS AT THE EXTERIOR WALLS 450mm ABOVE THE FLOOR LEVEL.

KEY NOTES:

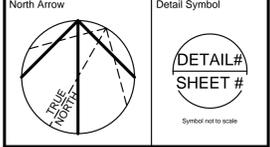
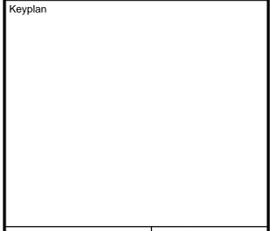
1. 150Ø DRYER EXHAUST THROUGH WALL WITH EXTERNAL INSULATION.
2. 150Ø ERV EXHAUST UP THROUGH EXTERIOR WALL WITH EXTERNAL INSULATION.
3. 4@75Ø (BOILERS) AND 2@100Ø (DWH) PVC COMBUSTION AIR DUCT AND VENT TO BE 25MM INSULATED AS PER MANUFACTURER'S RECOMMENDATIONS FROM/TO THE BOILER TO/ FROM ROOF. DECO-TOUCH #40300 ERV CONTROLLER ON WALL. SET SUPPLY AIR TEMPERATURE FOR 21° C. INTERLOCK HEATING COIL WITH ERV.
5. 150Ø KITCHEN EXHAUST DUCTWORK THROUGH WALL WITH TAIN CAP AND BACKDRAFT DAMPER. EXTERNALLY INSULATE KITCHEN EXHAUST E/A DUCT WITH EXTERNAL INSULATION AND BACKDRAFT DAMPER.
6. 200x150mm RELIEF AIR DUCT, INSTALL AS HIGH AS POSSIBLE IN THE MECHANICAL ROOM.
7. 4@75mm PVC, 2@100mm, VENT/COMBUSTION AIR TO FROM BOILERS AND DOMESTIC WATER HEATER IN MECHANICAL SHAFT UP TO ROOF.

DATE	ISSUED FOR	REV
17-07-06	60% REVIEW	A
17-08-09	TENDER	B
17-09-01	BP	C

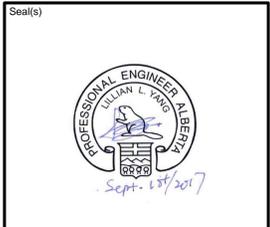
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Project Component
Phase # - Description



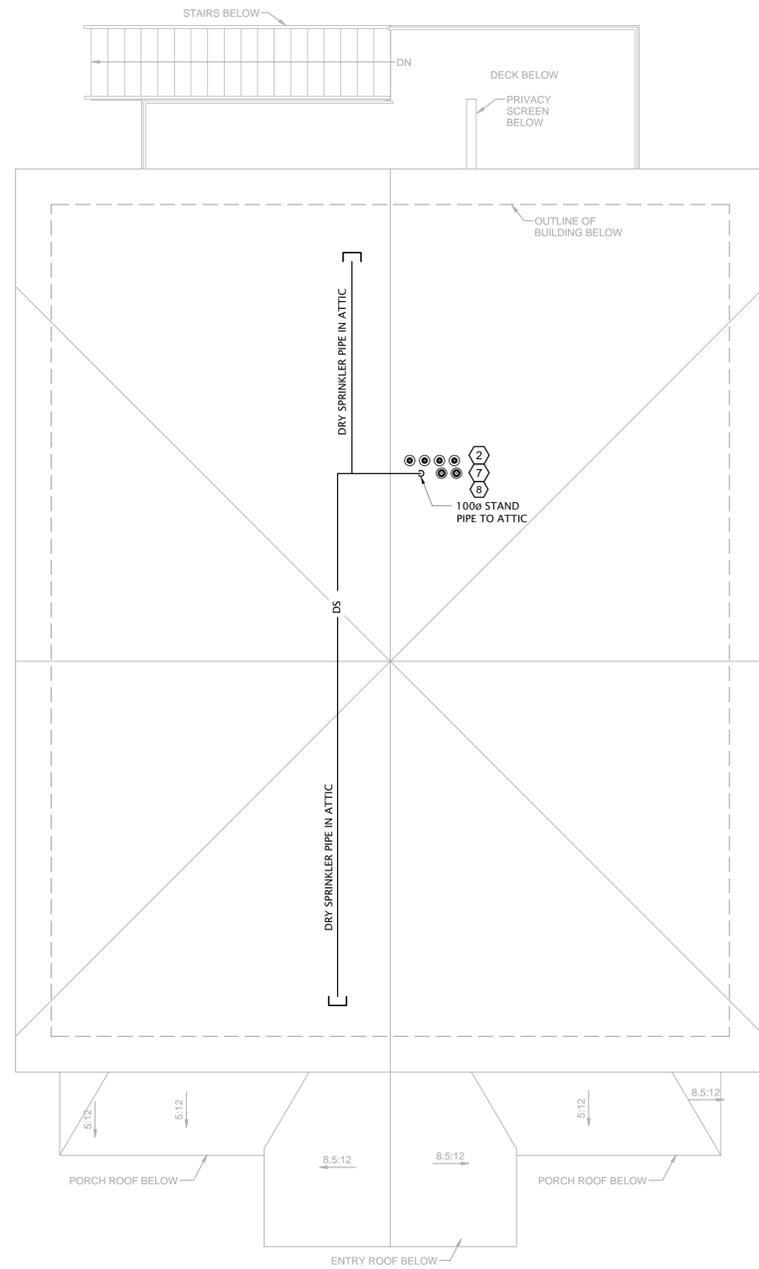
Consultants
 Civil: McElhannay Consulting Services Ltd.
 Landscape: NORR Architects Engineers Planners
 Architectural: NORR Architects Engineers Planners
 Structural: NORR Architects Engineers Planners
 Mechanical: NORR Architects Engineers Planners
 Electrical: NORR Architects Engineers Planners



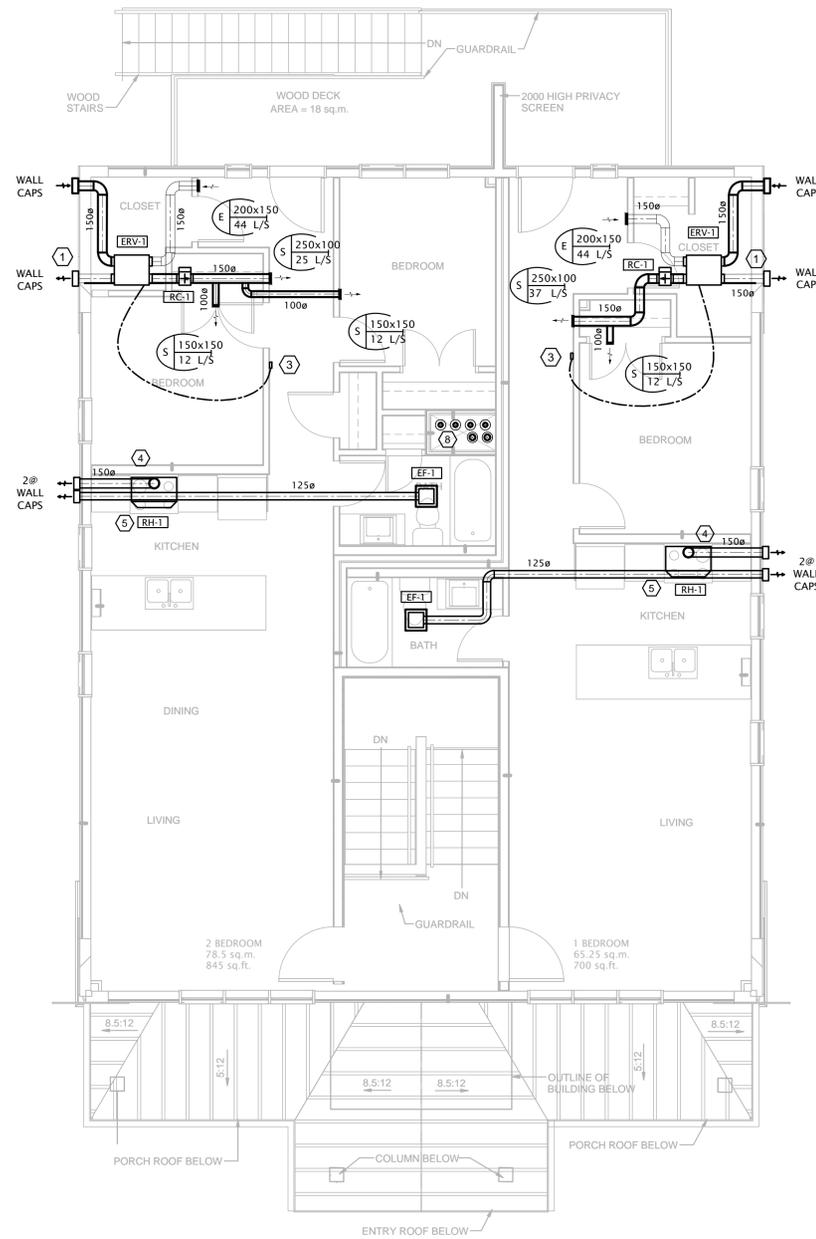
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 10001 17th Avenue, Suite 100, Edmonton, Alberta T5A 0A6

Project Manager	Drawn
C.ODINGA	N.ALY
Project Leader	Checked
T.BERTSCH	LYANG
Client	
PARKS CANADA AGENCY Jasper National Park, Jasper, AB	
Project	
JASPER PARK STAFF HOUSING JASPER, AB	
Drawing Title	
BASEMENT & MAIN FLOOR VENTILATION PLAN	
Check Scale (may be photo reduced)	0 10mm
Project No.	NCEM-17-0002
Drawing No.	M50-00-01

PLOT DATE: August 31, 2017 TIME: 3:24 PM FULL PATH AND FILENAME: \\VEDMAPS01P_DRIVE\ENGINEERING\DRIVE\ENGINEERING\2002 - JASPER NATIONAL PARK STAFF HOUSING\00-DELIV\MECH\MECH\50-01-01.DWG PLOTS\STYLE TABLE_PMA-STD-100.cab



01
M50-01-01
MECHNAICAL ROOF PLAN
1:50



02
M50-01-02
SECOND FLOOR VENTILATION PLAN
1:50

HVAC GENERAL NOTES:

- A. SUPPLY AND INSTALL ALL FIRE STOPPING MATERIAL AND ENSURE THAT ALL FIRE PENETRATIONS ARE PROTECTED AS REQUIRED BY THE NATIONAL BUILDING CODE AND THE LOCAL AUTHORITIES.
- B. ALL WASHROOM FANS ARE TO BE LOCATED IN THE CEILING. COORDINATE EXACT LOCATION OF ALL FANS AND ASSOCIATED DUCTWORK ON SITE.
- C. ALLOW FOR WALL CAPS AT ALL DUCTWORK ON EXTERIOR WALLS AS REQUIRED.
- D. AIR BALANCING DAMPERS TO BE PROVIDED FOR ALL BRANCH DUCTWORK FEEDING INDIVIDUAL AIR TERMINALS.
- E. ENSURE ALL DUCTWORK EXTENDING TO EXTERIOR OF BUILDING IS INSULATED.
- F. INSTALL 100mm THICK HOUSEKEEPING PAD UNDER ALL MECHANICAL EQUIPMENT IN MECHANICAL ROOM. COORDINATE WITH GENERAL CONTRACTOR.
- G. INSTALL ALL WALL CAPS, EXHAUST OR INTAKE LOUVERS AT THE EXTERIOR WALLS 450mm ABOVE THE FLOOR LEVEL.

FIRE PROTECTION GENERAL NOTES:

- A. THIS DRAWING IS FOR REFERENCE ONLY. THE SPRINKLER CONTRACTOR MUST VERIFY THE BUILDING STRUCTURE AND INSTALL THE SPRINKLER SYSTEM TO MEET ALL RELEVANT CODES.
- B. THE SPRINKLER CONTRACTOR / ENGINEER IS RESPONSIBLE TO PRODUCE A FULLY ENGINEERED SET OF SPRINKLER DRAWINGS FOR THE PROJECT. SUBMIT DRAWINGS AND HYDRAULIC CALCULATIONS TO THE LOCAL AUTHORITIES FOR APPROVAL.
- C. SPRINKLER CONTRACTOR TO PROVIDE A COMPLETE AND FULLY OPERATIONAL SPRINKLER SYSTEM.
- D. REFER TO MECHANICAL SPECIFICATIONS FOR THE REQUIREMENTS OF THE SPRINKLER SYSTEM.
- E. ALL EXPOSED SPRINKLER PIPING SHALL RUN PARALLEL TO BUILDING LINES.
- F. SPRINKLER SYSTEM SHALL CONFORM TO REQUIREMENTS OF NFPA 13R AS REQUIRED BY LOCAL CODES.
- G. SPRINKLER CONTRACTOR SHALL PROVIDE FLOW AND TAMPER SWITCHES FOR EACH ZONE AND AT THE MAIN WATER ENTRY. COORDINATE ALL ASSOCIATED ELECTRICAL WIRING WITH THE ELECTRICAL SUB-CONTRACTOR.
- H. A SPRINKLER TEST CERTIFICATE INDICATING A HYDROSTATIC TEST OF 200 PSI FOR TWO HOURS AS WELL AS VERIFICATION THAT ALL SPRINKLER ALARMS FUNCTION PROPERLY AS PER NFPA 13R MUST BE PRODUCED. THE MECHANICAL ENGINEER SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF ANY VERIFICATION AND TESTING.
- I. THE SPRINKLER CONTRACTOR IS RESPONSIBLE FOR ANY DEVIATIONS FROM THE ENGINEERED SPRINKLER DRAWINGS. ALL CHANGES MUST BE SUBMITTED TO THE AUTHORITIES FOR APPROVAL.
- J. WATER SUPPLY INFORMATION IS TO BE CONFIRMED FROM THE MUNICIPALITY. THE SPRINKLER CONTRACTOR IS RESPONSIBLE TO COMMISSION A TEST TO CONFIRM ALL WATER SUPPLY INFORMATION.

KEY NOTES:

1. 150Ø ERV EXHAUST UP THROUGH EXTERIOR WALL WITH EXTERNAL INSULATION.
2. COMBUSTION AIR DUCT AND VENT TO BE 25MM INSULATED AS PER MANUFACTURER'S RECOMMENDATIONS FROM/TO THE BOILER TO TO/FROM ROOF.
3. DECO-TOUCH #40300 ERV CONTROLLER ON WALL. SET SUPPLY AIR TEMPERATURE FOR 21° C. INTERLOCK HEATING COIL WITH ERV.
4. 150Ø KITCHEN EXHAUST DUCTWORK THROUGH WALL WITH TAIN CAP AND BACKDRAFT DAMPER. EXTERNALLY INSULATE KITCHEN EXHAUST
5. E/A DUCT WITH EXTERNAL INSULATION AND BACKDRAFT DAMPER.
6. EXTEND BOILERS FLUES 915mm HIGHER THAN ANY PORTION OF BUILDING WITHIN A HORIZONTAL DISTANCE OF 3METERS.
7. ALL DUCTWORK ABOVE THE MECHANICAL SHAFT TO BE ENDED WITH GOOSENECK.
8. 4Ø75mm PVC, 2Ø100mm, VENT/COMBUSTION AIR TO FROM BOILERS AND DOMESTIC WATER HEATER, STAND PIPE UP TO ATTIC DRY SPRINKLER.

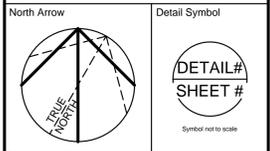
DATE	ISSUED FOR	REV
17-07-06	60% REVIEW	A
17-08-09	TENDER	B
17-09-01	BP	C

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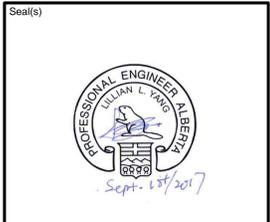
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Project Component
Phase # - Description

Keyplan



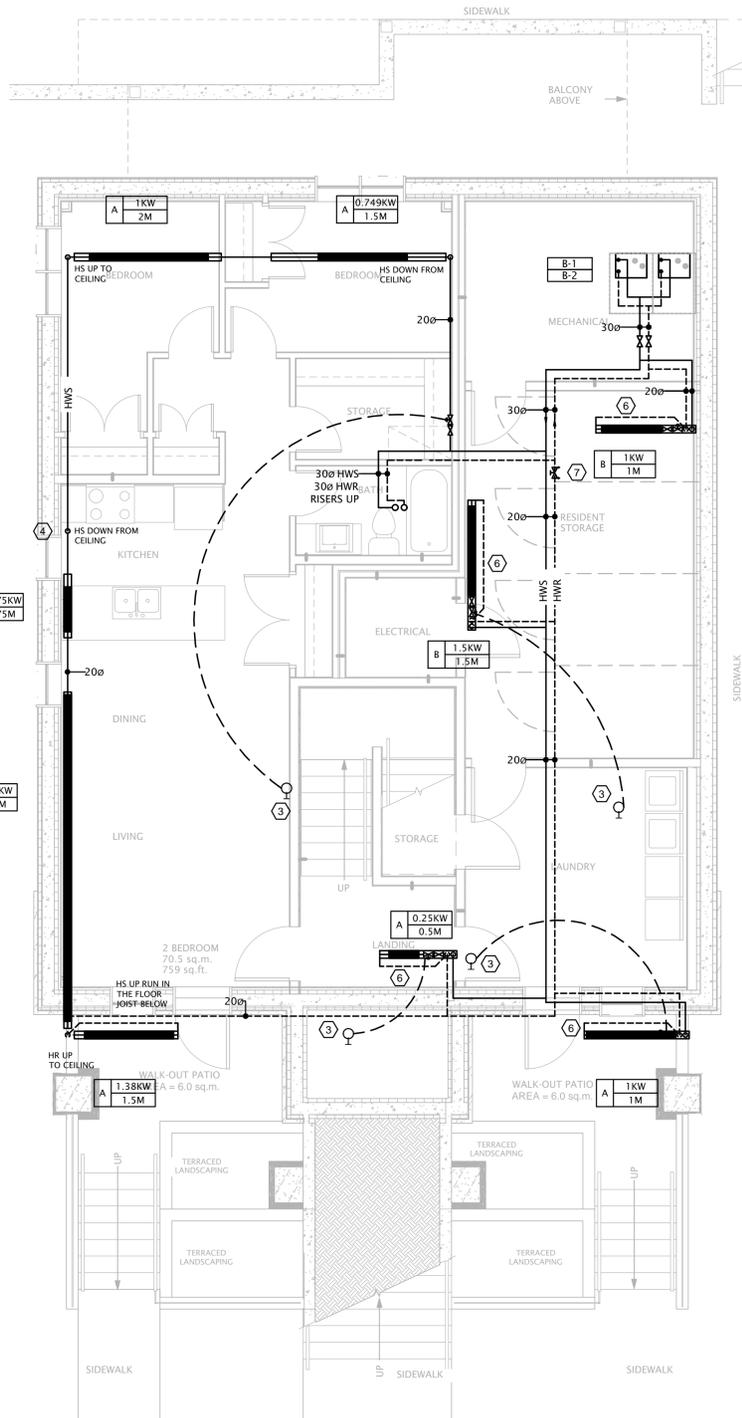
Consultants
Civil: McElhanney Consulting Services Ltd.
Landscape: NORR Architects Engineers Planners
Architectural: NORR Architects Engineers Planners
Structural: NORR Architects Engineers Planners
Mechanical: NORR Architects Engineers Planners
Electrical: NORR Architects Engineers Planners



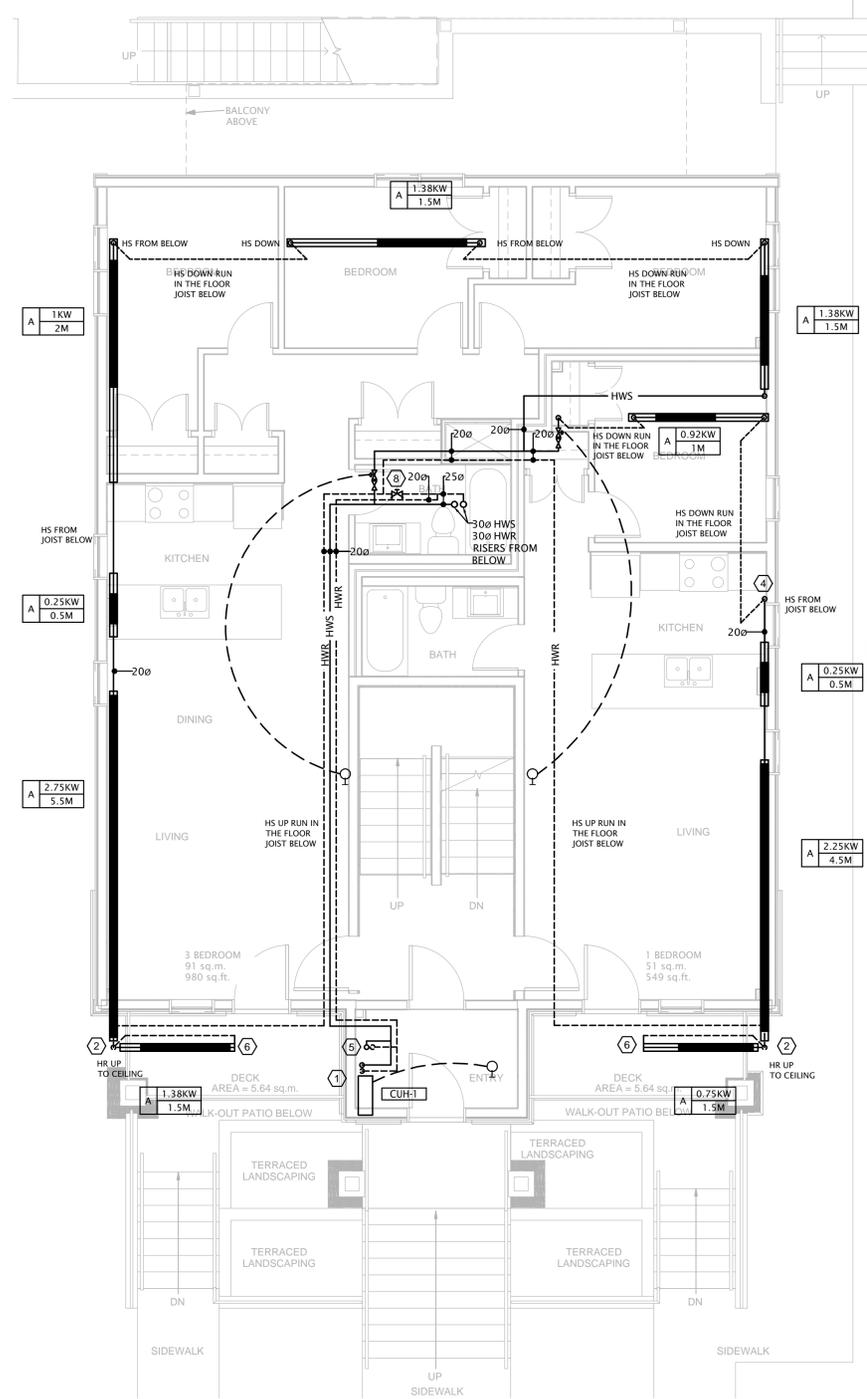
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NORR CIVIL ENGINEERS
NORR SURVEYORS
NORR GEOTECHNICAL ENGINEERS
NORR HYDROLOGICAL ENGINEERS
NORR WATER RESOURCES ENGINEERS
NORR TRANSPORTATION ENGINEERS
NORR TRAFFIC ENGINEERS
NORR PLANNING ENGINEERS
NORR HISTORIC PRESERVATION ENGINEERS
NORR ARCHITECTURAL ENGINEERS
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NORR TRAFFIC ENGINEERS
NORR PLANNING ENGINEERS
NORR HISTORIC PRESERVATION ENGINEERS

Project Manager C.ODINGA	Drawn N.ALY
Project Leader T.BERTSCH	Checked L.YANG
Client PARKS CANADA AGENCY Jasper National Park, Jasper, AB	
Project JASPER PARK STAFF HOUSING JASPER, AB	
Drawing Title SECOND FLOOR VENTILATION & ROOF MECHANICAL PLAN	
Check Scale (may be photo reduced) 0 1inch 0 10mm	
Project No. NCEM-17-0002	
Drawing No. M50-01-01	

PLOT DATE: August 31, 2017 TIME: 2:24 PM FULL PATH AND FILENAME: \\VEDMAPS01P_DRIVE\ENGINEERING\DRIVING\00-DELIV\MECHSHEETS\M53-00-01.DWG PLOTSYCLE TABLE: PMA-STD-100.cdb



02
M53-00-01 **BASEMENT HEATING PLAN**
1:50



02
M53-00-01 **MAIN FLOOR HEATING PLAN**
1:50

GENERAL NOTE:

1. ALL HWS AND HWR SHALL BE 20Ø OR OTHERWISE NOTED.
2. PROVIDE RADIATION CABINET FOR HEATING PIPING AS INDICATED.
3. AIR TRAP TO BE PROVIDED AS REQUIRED.

KEYNOTES:

1. 20Ø HWS & HWR PIPING CONNECT TO CABINET UNIT HEATER AT ENTRANCE. CONTROLLED BY THERMOSTAT.
2. INSTALL HWR UNDER THE RADIATION FINS IN RADIATION CABINET AND UP TO CEILING SPACE.
3. MOUNT THERMOSTAT @ 1100 MM A.F.F. TYP. FOR GROUND FLOOR UNITS ONLY.
4. PIPING TO DROP INSIDE WALL CAVITY TO BE FILLED WITH SPRAY FOAM INSULATION.
5. 20Ø FROM / TO ABOVE HWS / HWR PIPING.
6. INSTALL HWR UNDER THE RADIATION FINS IN RADIATION CABINET.
7. CIRCUIT BALANCING VALVE AT 0.13 U.S.
8. CIRCUIT BALANCING VALVE AT 0.26 U.S.

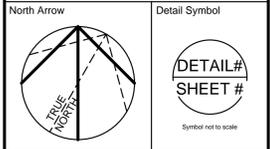
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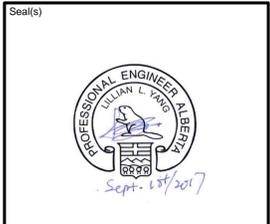
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Project Component
Phase # - Description

Keyplan



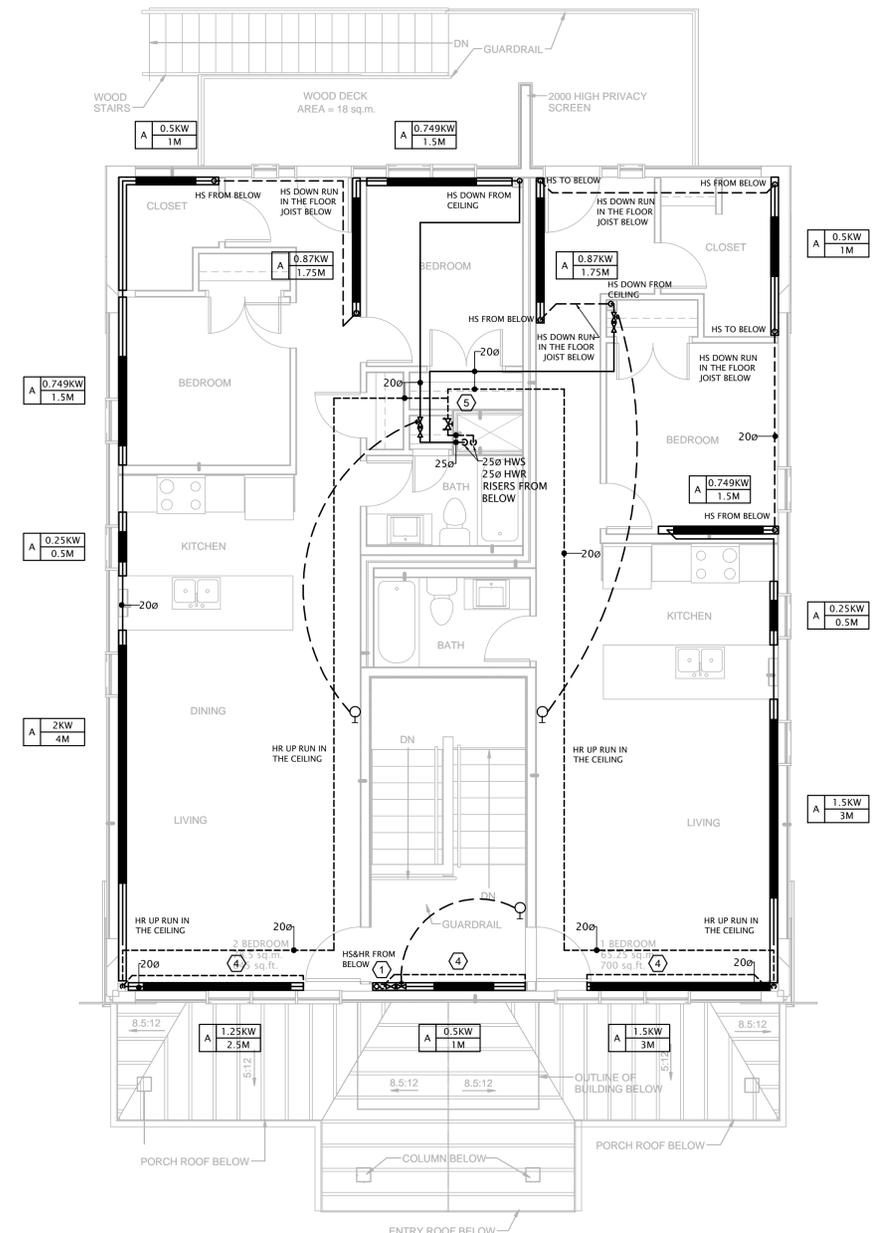
Consultants
 Civil: McElhanney Consulting Services Ltd.
 Landscape: NORR Architects Engineers Planners
 Architectural: NORR Architects Engineers Planners
 Structural: NORR Architects Engineers Planners
 Mechanical: NORR Architects Engineers Planners
 Electrical: NORR Architects Engineers Planners



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 2300, 411 - 1st Street SE,
 Calgary, AB Canada T2G 4Y5
 T: 403.264.4000 F: 403.269.7215
 www.norr.com
 NORR ARCHITECTS ENGINEERS PLANNERS
 A Partnership of Limited Companies
 10001 17th Avenue, Suite 100, Edmonton, Alberta T5A 0A6
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Project Manager	Drawn
C.ODINGA	N.ALY
Project Leader	Checked
T.BERTSCH	LYANG
Client	
PARKS CANADA AGENCY	
Jasper National Park, Jasper, AB	
Project	
JASPER PARK STAFF HOUSING	
JASPER, AB	
Drawing Title	
BASEMENT & MAIN FLOOR HEATING PLAN	
Check Scale (may be photo reduced)	0 10mm
Project No.	NCEM-17-0002
Drawing No.	M53-00-01

PLOT DATE: August 31, 2017 TIME: 2:24 PM FULL PATH AND FILENAME: \\EDMAPPS01P_DRIVE\ENGINEERING\DRIVINGENGIN\2002_JASPER NATIONAL PARK STAFF HOUSING\00-DELIVMECHSHEETS\MS3-01-01.DWG PLOTSYLE TABLE: PMA-STD-100.cdb



GENERAL NOTE:

1. ALL HWS AND HWR SHALL BE 200 OR OTHERWISE NOTED.
2. PROVIDE RADIATION CABINET FOR HEATING PIPING AS INDICATED.
3. AIR TRAP TO BE PROVIDED AS REQUIRED.

KEYNOTES:

1. 200 HWS & HWR PIPING CONNECT TO RADIATION CONTROLLED BY THERMOSTAT.
2. INSTALL HWR UNDER THE RADIATION FINS IN RADIATION CABINET AND UP TO CEILING SPACE.
3. PIPING TO DROP INSIDE WALL CAVITY TO BE FILLED WITH SPRAY FOAM INSULATION.
4. INSTALL HWR UNDER THE RADIATION FINS IN RADIATION CABINET.
5. CIRCUIT BALANCING VALVE T 0.17 L/S.

02 SECOND FLOOR HEATING PLAN
M53-01-01 1:50

DATE	ISSUED FOR	REV
17-07-06	60% REVIEW	A
17-08-09	TENDER	B
17-09-01	BP	C

This drawing has been prepared solely for the use of the CLIENT and there are no representations of any kind made by NORR Architects Engineers Planners to any party with whom NORR Architects Engineers Planners has not entered into a contract.

This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer.

Project Component
Phase # - Description
Keyplan

North Arrow

Detail Symbol

Symbol not to scale

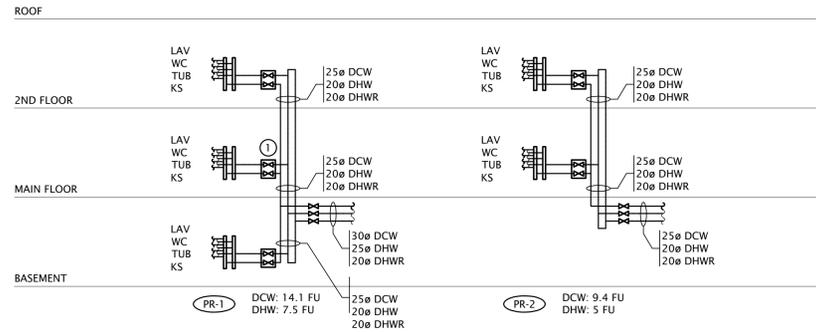
Consultants
Civil: McElhanney Consulting Services Ltd.
Landscape: NORR Architects Engineers Planners
Architectural: NORR Architects Engineers Planners
Structural: NORR Architects Engineers Planners
Mechanical: NORR Architects Engineers Planners
Electrical: NORR Architects Engineers Planners

Seal(s)

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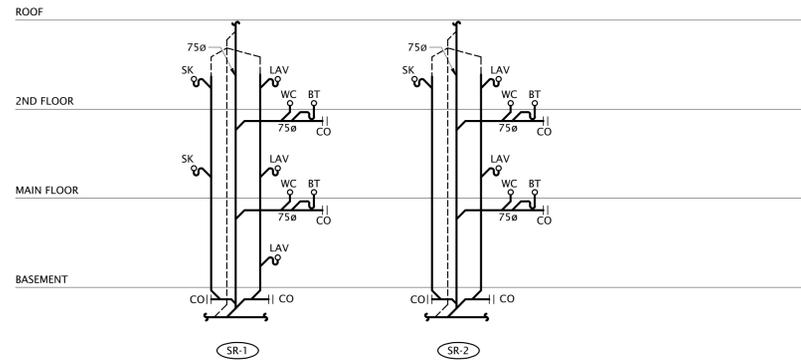
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NORR PLANNING ARCHITECTS
NORR PROJECT MANAGEMENT ARCHITECTS
NORR TRAFFIC ENGINEERS
NORR WATER RESOURCES ENGINEERS

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C.ODINGA	N.ALY
Project Leader	Checked
T.BERTSCH	LYANG
Client	
PARKS CANADA AGENCY Jasper National Park, Jasper, AB	
Project	
JASPER PARK STAFF HOUSING JASPER, AB	
Drawing Title	
SECOND FLOOR HEATING PLAN	
Check Scale (may be photo reduced)	0 10mm
Project No.	NCEM-17-0002
Drawing No.	M53-01-01



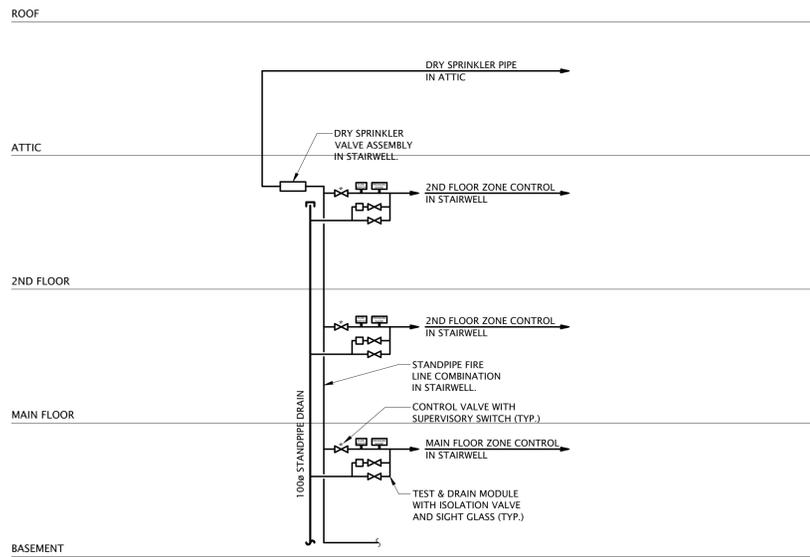
- PLUMBING GENERAL NOTES:**
- PROVIDE INDIRECT HOT WATER CONNECTION TO DISHWASHER (TYP.)
 - OFFSETS AS PER FLOOR PLUMBING LAYOUT.
- KEY NOTES:**
- ACCESS PANEL (TYPICAL).

01 DCW&DHW DIAGRAM
M70-01-01 N.T.S.



- GENERAL NOTES:**
- PROVIDE ALL VENTING AS REQUIRED AND AS PER CODE.

02 SANITARY DIAGRAM
M70-01-01 N.T.S.



- GENERAL NOTES:**
- REFER TO PLUMBING & FIRE PROTECTION DRAWINGS FOR PIPING OFFSETS.

03 FIRE PROTECTION DIAGRAM
M70-01-01 N.T.S.

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Sharon M. Smith, Architect, AIA, B.Arch, M.Arch.
 Gordon M. Yang, Architect, AIA, B.Arch, M.Arch.
 Bruce D. McKeown, Architect, AIA, B.Arch, M.Arch.
 S. Scott Robertson, Architect, AIA, B.Arch, M.Arch.
 Andrew Tordella, P.Eng., P.FEGA
 Chris P.M. P.Eng., P.FEGA

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PARKS CANADA AGENCY Jasper National Park, Jasper, AB	
Project	
JASPER PARK STAFF HOUSING JASPER, AB	
Drawing Title	
MECHANICAL DIAGRAMS	
Check Scale (may be photo reduced)	
0 1inch	0 10mm
Project No. NCEM-17-0002	
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