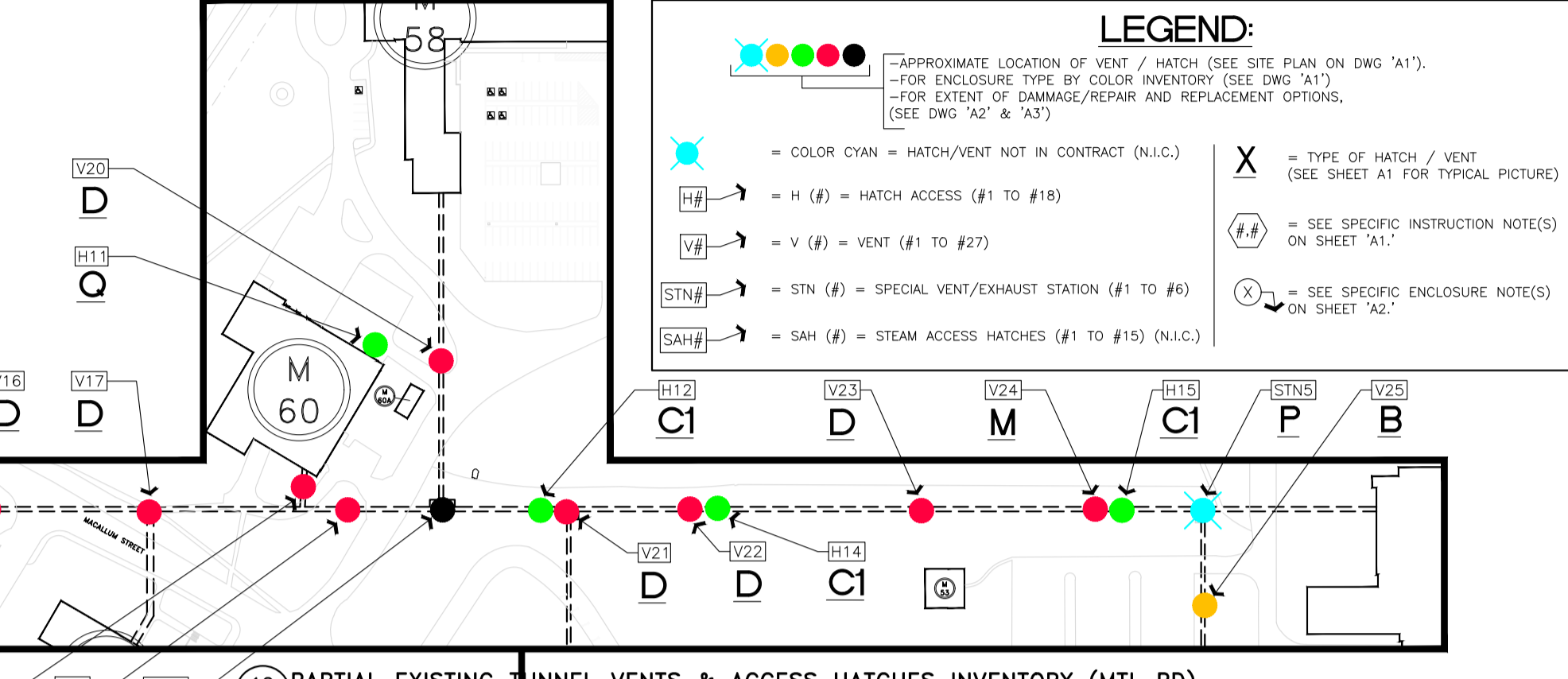


NATIONAL RESEARCH COUNCIL CANADA  
 MONTREAL ROAD CAMPUS  
 Ottawa, Ontario, Canada

PREPARED BY: REAL PROPERTY PLANNING AND MANAGEMENT ENGINEERING SERVICES (RPPM)  
 1200 MONTREAL ROAD, M-19 (RM 340), OTTAWA, ONTARIO, CANADA K1A 0R6

PROJECT: PROJECT NO. = 5876  
 MONTREAL CAMPUS SITE M-56  
 (Utility Tunnel Vent / Hatch Modifications)



- LEGEND:**
- APPROXIMATE LOCATION OF VENT / HATCH (SEE SITE PLAN ON DWG 'A1')
  - FOR ENCLOSURE TYPE BY COLOR INVENTORY (SEE DWG 'A1')
  - FOR EXTENT OF DAMAGE/REPAIR AND REPLACEMENT OPTIONS, (SEE DWG 'A2' & 'A3')
  - = COLOR CYAN = HATCH/VENT NOT IN CONTRACT (N.I.C.)
  - X = TYPE OF HATCH / VENT (SEE SHEET A1 FOR TYPICAL PICTURE)
  - # = SEE SPECIFIC INSTRUCTION NOTE(S) ON SHEET 'A1'
  - = SEE SPECIFIC ENCLOSURE NOTE(S) ON SHEET 'A2'
  - H# = H (#) = HATCH ACCESS (#1 to #18)
  - V# = V (#) = VENT (#1 to #27)
  - STN# = STN (#) = SPECIAL VENT/EXHAUST STATION (#1 to #6)
  - SAH# = SAH (#) = STEAM ACCESS HATCHES (#1 to #15) (N.I.C.)

**SPECIFIC INSTRUCTIONS NOTES:**

- EXISTING METAL ENCLOSURE FULL ASSEMBLY (SEE TYPE 'A') TO BE REMOVED AND DISCARDED. PREPARE CONCRETE CURB SURFACE TO BE SMOOTH. CLEAN ALL DEBRIS WITHIN STEEL GRATE BELOW. SEE DETAIL 1/A2. INSTALL NEW METAL ENCLOSURE AS PER NOTE 'A'.
- AT EXISTING ACCESS HATCH (SEE TYPE 'C1', 'C2', 'G', 'L', 'N', 'O', 'Q', 'R', 'S', 'T', 'U', 'V', 'W', 'X', 'Y', 'Z', 'AA', 'AB', 'AC', 'AD', 'AE', 'AF', 'AG', 'AH', 'AI', 'AJ', 'AK', 'AL', 'AM', 'AN', 'AO', 'AP', 'AQ', 'AR', 'AS', 'AT', 'AU', 'AV', 'AW', 'AX', 'AY', 'AZ', 'BA', 'BB', 'BC', 'BD', 'BE', 'BF', 'BG', 'BH', 'BI', 'BJ', 'BK', 'BL', 'BM', 'BN', 'BO', 'BP', 'BQ', 'BR', 'BS', 'BT', 'BU', 'BV', 'BW', 'BX', 'BY', 'BZ', 'CA', 'CB', 'CC', 'CD', 'CE', 'CF', 'CG', 'CH', 'CI', 'CJ', 'CK', 'CL', 'CM', 'CN', 'CO', 'CP', 'CQ', 'CR', 'CS', 'CT', 'CU', 'CV', 'CW', 'CX', 'CY', 'CZ', 'DA', 'DB', 'DC', 'DD', 'DE', 'DF', 'DG', 'DH', 'DI', 'DJ', 'DK', 'DL', 'DM', 'DN', 'DO', 'DP', 'DQ', 'DR', 'DS', 'DT', 'DU', 'DV', 'DW', 'DX', 'DY', 'DZ', 'EA', 'EB', 'EC', 'ED', 'EE', 'EF', 'EG', 'EH', 'EI', 'EJ', 'EK', 'EL', 'EM', 'EN', 'EO', 'EP', 'EQ', 'ER', 'ES', 'ET', 'EU', 'EV', 'EW', 'EX', 'EY', 'EZ', 'FA', 'FB', 'FC', 'FD', 'FE', 'FF', 'FG', 'FH', 'FI', 'FJ', 'FK', 'FL', 'FM', 'FN', 'FO', 'FP', 'FQ', 'FR', 'FS', 'FT', 'FU', 'FV', 'FW', 'FX', 'FY', 'FZ', 'GA', 'GB', 'GC', 'GD', 'GE', 'GF', 'GG', 'GH', 'GI', 'GJ', 'GK', 'GL', 'GM', 'GN', 'GO', 'GP', 'GQ', 'GR', 'GS', 'GT', 'GU', 'GV', 'GW', 'GX', 'GY', 'GZ', 'HA', 'HB', 'HC', 'HD', 'HE', 'HF', 'HG', 'HH', 'HI', 'HJ', 'HK', 'HL', 'HM', 'HN', 'HO', 'HP', 'HQ', 'HR', 'HS', 'HT', 'HU', 'HV', 'HW', 'HX', 'HY', 'HZ', 'IA', 'IB', 'IC', 'ID', 'IE', 'IF', 'IG', 'IH', 'II', 'IJ', 'IK', 'IL', 'IM', 'IN', 'IO', 'IP', 'IQ', 'IR', 'IS', 'IT', 'IU', 'IV', 'IW', 'IX', 'IY', 'IZ', 'JA', 'JB', 'JC', 'JD', 'JE', 'JF', 'JG', 'JH', 'JI', 'JJ', 'JK', 'JL', 'JM', 'JN', 'JO', 'JP', 'JQ', 'JR', 'JS', 'JT', 'JU', 'JV', 'JW', 'JX', 'JY', 'JZ', 'KA', 'KB', 'KC', 'KD', 'KE', 'KF', 'KG', 'KH', 'KI', 'KJ', 'KK', 'KL', 'KM', 'KN', 'KO', 'KP', 'KQ', 'KR', 'KS', 'KT', 'KU', 'KV', 'KW', 'KX', 'KY', 'KZ', 'LA', 'LB', 'LC', 'LD', 'LE', 'LF', 'LG', 'LH', 'LI', 'LJ', 'LK', 'LL', 'LM', 'LN', 'LO', 'LP', 'LQ', 'LR', 'LS', 'LT', 'LU', 'LV', 'LW', 'LX', 'LY', 'LZ', 'MA', 'MB', 'MC', 'MD', 'ME', 'MF', 'MG', 'MH', 'MI', 'MJ', 'MK', 'ML', 'MN', 'MO', 'MP', 'MQ', 'MR', 'MS', 'MT', 'MU', 'MV', 'MW', 'MX', 'MY', 'MZ', 'NA', 'NB', 'NC', 'ND', 'NE', 'NF', 'NG', 'NH', 'NI', 'NJ', 'NK', 'NL', 'NM', 'NO', 'NP', 'NQ', 'NR', 'NS', 'NT', 'NU', 'NV', 'NW', 'NX', 'NY', 'NZ', 'OA', 'OB', 'OC', 'OD', 'OE', 'OF', 'OG', 'OH', 'OI', 'OJ', 'OK', 'OL', 'OM', 'ON', 'OO', 'OP', 'OQ', 'OR', 'OS', 'OT', 'OU', 'OV', 'OW', 'OX', 'OY', 'OZ', 'PA', 'PB', 'PC', 'PD', 'PE', 'PF', 'PG', 'PH', 'PI', 'PJ', 'PK', 'PL', 'PM', 'PN', 'PO', 'PP', 'PQ', 'PR', 'PS', 'PT', 'PU', 'PV', 'PW', 'PX', 'PY', 'PZ', 'QA', 'QB', 'QC', 'QD', 'QE', 'QF', 'QG', 'QH', 'QI', 'QJ', 'QK', 'QL', 'QM', 'QN', 'QO', 'QP', 'QQ', 'QR', 'QS', 'QT', 'QU', 'QV', 'QW', 'QX', 'QY', 'QZ', 'RA', 'RB', 'RC', 'RD', 'RE', 'RF', 'RG', 'RH', 'RI', 'RJ', 'RK', 'RL', 'RM', 'RN', 'RO', 'RP', 'RQ', 'RR', 'RS', 'RT', 'RU', 'RV', 'RW', 'RX', 'RY', 'RZ', 'SA', 'SB', 'SC', 'SD', 'SE', 'SF', 'SG', 'SH', 'SI', 'SJ', 'SK', 'SL', 'SM', 'SN', 'SO', 'SP', 'SQ', 'SR', 'SS', 'ST', 'SU', 'SV', 'SW', 'SX', 'SY', 'SZ', 'TA', 'TB', 'TC', 'TD', 'TE', 'TF', 'TG', 'TH', 'TI', 'TJ', 'TK', 'TL', 'TM', 'TN', 'TO', 'TP', 'TQ', 'TR', 'TS', 'TT', 'TU', 'TV', 'TW', 'TX', 'TY', 'TZ', 'UA', 'UB', 'UC', 'UD', 'UE', 'UF', 'UG', 'UH', 'UI', 'UJ', 'UK', 'UL', 'UM', 'UN', 'UO', 'UP', 'UQ', 'UR', 'US', 'UT', 'UU', 'UV', 'UW', 'UX', 'UY', 'UZ', 'VA', 'VB', 'VC', 'VD', 'VE', 'VF', 'VG', 'VH', 'VI', 'VJ', 'VK', 'VL', 'VM', 'VN', 'VO', 'VP', 'VQ', 'VR', 'VS', 'VT', 'VU', 'VV', 'VW', 'VX', 'VY', 'VZ', 'WA', 'WB', 'WC', 'WD', 'WE', 'WF', 'WG', 'WH', 'WI', 'WJ', 'WK', 'WL', 'WM', 'WN', 'WO', 'WP', 'WQ', 'WR', 'WS', 'WT', 'WU', 'WV', 'WW', 'WX', 'WY', 'WZ', 'XA', 'XB', 'XC', 'XD', 'XE', 'XF', 'XG', 'XH', 'XI', 'XJ', 'XK', 'XL', 'XM', 'XN', 'XO', 'XP', 'XQ', 'XR', 'XS', 'XT', 'XU', 'XV', 'XW', 'XZ', 'YA', 'YB', 'YC', 'YD', 'YE', 'YF', 'YG', 'YH', 'YI', 'YJ', 'YK', 'YL', 'YM', 'YN', 'YO', 'YP', 'YQ', 'YR', 'YS', 'YT', 'YU', 'YV', 'YW', 'YX', 'YZ', 'ZA', 'ZB', 'ZC', 'ZD', 'ZE', 'ZF', 'ZG', 'ZH', 'ZI', 'ZJ', 'ZK', 'ZL', 'ZM', 'ZN', 'ZO', 'ZP', 'ZQ', 'ZR', 'ZS', 'ZT', 'ZU', 'ZV', 'ZW', 'ZX', 'ZY', 'ZZ', 'AA', 'AB', 'AC', 'AD', 'AE', 'AF', 'AG', 'AH', 'AI', 'AJ', 'AK', 'AL', 'AM', 'AN', 'AO', 'AP', 'AQ', 'AR', 'AS', 'AT', 'AU', 'AV', 'AW', 'AX', 'AY', 'AZ', 'BA', 'BB', 'BC', 'BD', 'BE', 'BF', 'BG', 'BH', 'BI', 'BJ', 'BK', 'BL', 'BM', 'BN', 'BO', 'BP', 'BQ', 'BR', 'BS', 'BT', 'BU', 'BV', 'BW', 'BX', 'BY', 'BZ', 'CA', 'CB', 'CC', 'CD', 'CE', 'CF', 'CG', 'CH', 'CI', 'CJ', 'CK', 'CL', 'CM', 'CN', 'CO', 'CP', 'CQ', 'CR', 'CS', 'CT', 'CU', 'CV', 'CW', 'CX', 'CY', 'CZ', 'DA', 'DB', 'DC', 'DD', 'DE', 'DF', 'DG', 'DH', 'DI', 'DJ', 'DK', 'DL', 'DM', 'DN', 'DO', 'DP', 'DQ', 'DR', 'DS', 'DT', 'DU', 'DV', 'DW', 'DX', 'DY', 'DZ', 'EA', 'EB', 'EC', 'ED', 'EE', 'EF', 'EG', 'EH', 'EI', 'EJ', 'EK', 'EL', 'EM', 'EN', 'EO', 'EP', 'EQ', 'ER', 'ES', 'ET', 'EU', 'EV', 'EW', 'EX', 'EY', 'EZ', 'FA', 'FB', 'FC', 'FD', 'FE', 'FF', 'FG', 'FH', 'FI', 'FJ', 'FK', 'FL', 'FM', 'FN', 'FO', 'FP', 'FQ', 'FR', 'FS', 'FT', 'FU', 'FV', 'FW', 'FX', 'FY', 'FZ', 'GA', 'GB', 'GC', 'GD', 'GE', 'GF', 'GG', 'GH', 'GI', 'GJ', 'GK', 'GL', 'GM', 'GN', 'GO', 'GP', 'GQ', 'GR', 'GS', 'GT', 'GU', 'GV', 'GW', 'GX', 'GY', 'GZ', 'HA', 'HB', 'HC', 'HD', 'HE', 'HF', 'HG', 'HH', 'HI', 'HJ', 'HK', 'HL', 'HM', 'HN', 'HO', 'HP', 'HQ', 'HR', 'HS', 'HT', 'HU', 'HV', 'HW', 'HX', 'HY', 'HZ', 'IA', 'IB', 'IC', 'ID', 'IE', 'IF', 'IG', 'IH', 'II', 'IJ', 'IK', 'IL', 'IM', 'IN', 'IO', 'IP', 'IQ', 'IR', 'IS', 'IT', 'IU', 'IV', 'IW', 'IX', 'IY', 'IZ', 'JA', 'JB', 'JC', 'JD', 'JE', 'JF', 'JG', 'JH', 'JI', 'JJ', 'JK', 'JL', 'JM', 'JN', 'JO', 'JP', 'JQ', 'JR', 'JS', 'JT', 'JU', 'JV', 'JW', 'JX', 'JY', 'JZ', 'KA', 'KB', 'KC', 'KD', 'KE', 'KF', 'KG', 'KH', 'KI', 'KJ', 'KL', 'KM', 'KN', 'KO', 'KP', 'KQ', 'KR', 'KS', 'KT', 'KU', 'KV', 'KW', 'KX', 'KY', 'KZ', 'LA', 'LB', 'LC', 'LD', 'LE', 'LF', 'LG', 'LH', 'LI', 'LJ', 'LK', 'LL', 'LM', 'LN', 'LO', 'LP', 'LQ', 'LR', 'LS', 'LT', 'LU', 'LV', 'LW', 'LX', 'LY', 'LZ', 'MA', 'MB', 'MC', 'MD', 'ME', 'MF', 'MG', 'MH', 'MI', 'MJ', 'MK', 'ML', 'MN', 'MO', 'MP', 'MQ', 'MR', 'MS', 'MT', 'MU', 'MV', 'MW', 'MX', 'MY', 'MZ', 'NA', 'NB', 'NC', 'ND', 'NE', 'NF', 'NG', 'NH', 'NI', 'NJ', 'NK', 'NL', 'NM', 'NO', 'NP', 'NQ', 'NR', 'NS', 'NT', 'NU', 'NV', 'NW', 'NX', 'NY', 'NZ', 'OA', 'OB', 'OC', 'OD', 'OE', 'OF', 'OG', 'OH', 'OI', 'OJ', 'OK', 'OL', 'OM', 'ON', 'OO', 'OP', 'OQ', 'OR', 'OS', 'OT', 'OU', 'OV', 'OW', 'OX', 'OY', 'OZ', 'PA', 'PB', 'PC', 'PD', 'PE', 'PF', 'PG', 'PH', 'PI', 'PJ', 'PK', 'PL', 'PM', 'PN', 'PO', 'PP', 'PQ', 'PR', 'PS', 'PT', 'PU', 'PV', 'PW', 'PX', 'PY', 'PZ', 'QA', 'QB', 'QC', 'QD', 'QE', 'QF', 'QG', 'QH', 'QI', 'QJ', 'QK', 'QL', 'QM', 'QN', 'QO', 'QP', 'QQ', 'QR', 'QS', 'QT', 'QU', 'QV', 'QW', 'QX', 'QY', 'QZ', 'RA', 'RB', 'RC', 'RD', 'RE', 'RF', 'RG', 'RH', 'RI', 'RJ', 'RK', 'RL', 'RM', 'RN', 'RO', 'RP', 'RQ', 'RR', 'RS', 'RT', 'RU', 'RV', 'RW', 'RX', 'RY', 'RZ', 'SA', 'SB', 'SC', 'SD', 'SE', 'SF', 'SG', 'SH', 'SI', 'SJ', 'SK', 'SL', 'SM', 'SN', 'SO', 'SP', 'SQ', 'SR', 'SS', 'ST', 'SU', 'SV', 'SW', 'SX', 'SY', 'SZ', 'TA', 'TB', 'TC', 'TD', 'TE', 'TF', 'TG', 'TH', 'TI', 'TJ', 'TK', 'TL', 'TM', 'TN', 'TO', 'TP', 'TQ', 'TR', 'TS', 'TT', 'TU', 'TV', 'TW', 'TX', 'TY', 'TZ', 'UA', 'UB', 'UC', 'UD', 'UE', 'UF', 'UG', 'UH', 'UI', 'UJ', 'UK', 'UL', 'UM', 'UN', 'UO', 'UP', 'UQ', 'UR', 'US', 'UT', 'UU', 'UV', 'UW', 'UX', 'UY', 'UZ', 'VA', 'VB', 'VC', 'VD', 'VE', 'VF', 'VG', 'VH', 'VI', 'VJ', 'VK', 'VL', 'VM', 'VN', 'VO', 'VP', 'VQ', 'VR', 'VS', 'VT', 'VU', 'VV', 'VW', 'VX', 'VY', 'VZ', 'WA', 'WB', 'WC', 'WD', 'WE', 'WF', 'WG', 'WH', 'WI', 'WJ', 'WK', 'WL', 'WM', 'WN', 'WO', 'WP', 'WQ', 'WR', 'WS', 'WT', 'WU', 'WV', 'WW', 'WX', 'WY', 'WZ', 'XA', 'XB', 'XC', 'XD', 'XE', 'XF', 'XG', 'XH', 'XI', 'XJ', 'XK', 'XL', 'XM', 'XN', 'XO', 'XP', 'XQ', 'XR', 'XS', 'XT', 'XU', 'XV', 'XW', 'XZ', 'YA', 'YB', 'YC', 'YD', 'YE', 'YF', 'YG', 'YH', 'YI', 'YJ', 'YK', 'YL', 'YM', 'YN', 'YO', 'YP', 'YQ', 'YR', 'YS', 'YT', 'YU', 'YV', 'YW', 'YX', 'YZ', 'ZA', 'ZB', 'ZC', 'ZD', 'ZE', 'ZF', 'ZG', 'ZH', 'ZI', 'ZJ', 'ZK', 'ZL', 'ZM', 'ZN', 'ZO', 'ZP', 'ZQ', 'ZR', 'ZS', 'ZT', 'ZU', 'ZV', 'ZW', 'ZX', 'ZY', 'ZZ

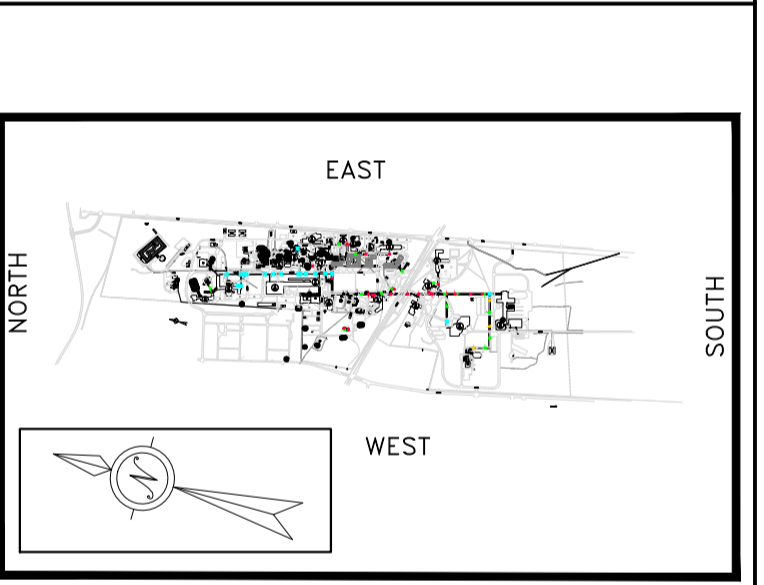


**GENERAL NOTES**

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTOR MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

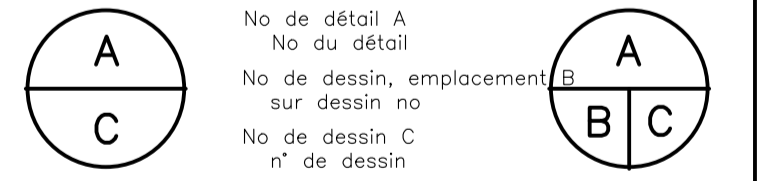
No.	Date	Revision	By:
2	APR 2022	RE-ISSUED FOR TENDER	JCW
1	JUN 2021	ISSUED FOR TENDER - CANCELLED	JCW
0	JUN 2021	ISSUED FOR TRANSLATION	JCW
0	NOV 2020	DESIGN FINAL REVIEW - ISSUED FOR BIDDING & BUDGETARY APPROVALS	JCW

**KEY PLAN**



**MTL CAMPUS M-56 KEY PLAN**  
 NOT TO SCALE

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité



**M56-Utility Tunnel Vent / Hatch Modifications**  
 (NOTE: ALL SHEETS TO BE PRINTED IN COLOR)

**MONTREAL ROAD CAMPUS**

dessin	conçu	Date	échéelle
JCW	JCW	MAY 2021	AS SHOWN
checked	vérifié	sheet	feuille
J.L./D.S./M.P.	J.L./D.S.	A1 of/ de	A3
approved	approuvé	W.O.no. / N° d'ordre de travail	
J.L./D.S.	J.L./D.S.	A1-011388-01	
dwg.no.	n° de dessin		
5876-A1			



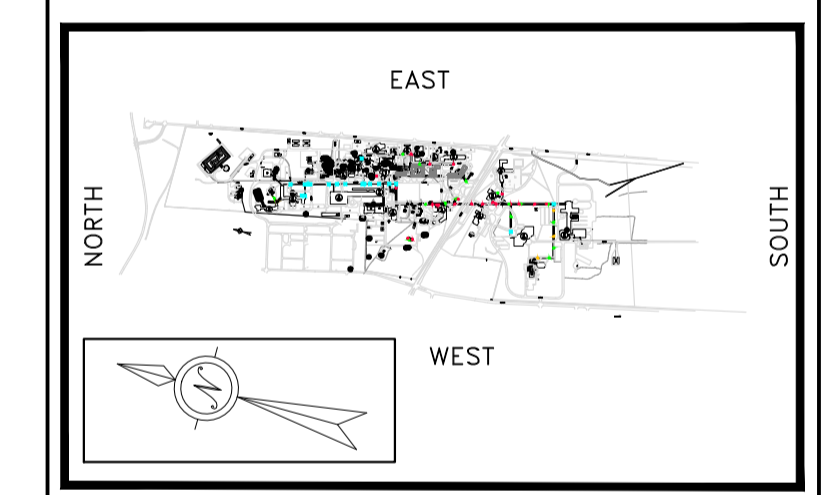
GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTOR MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

No.	Date	Revision	By:
2	APR 2022	RE-ISSUED FOR TENDER	JCW
1	JUN 2021	ISSUED FOR TENDER - CANCELLED	JCW
0	JUN 2021	ISSUED FOR TRANSLATION	JCW
0	NOV 2020	DESIGN FINAL REVIEW - ISSUED FOR PRICING & BUDGETARY APPROVALS	JCW

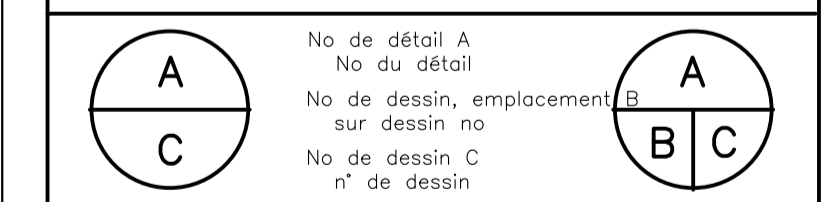
Date Printed

KEY PLAN



MTL CAMPUS M-56 KEY PLAN  
 NOT TO SCALE

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité



projet  
 M56-Utility Tunnel Vent / Hatch Modifications  
 (NOTE: ALL SHEETS TO BE PRINTED IN COLOR)

MONTREAL ROAD CAMPUS

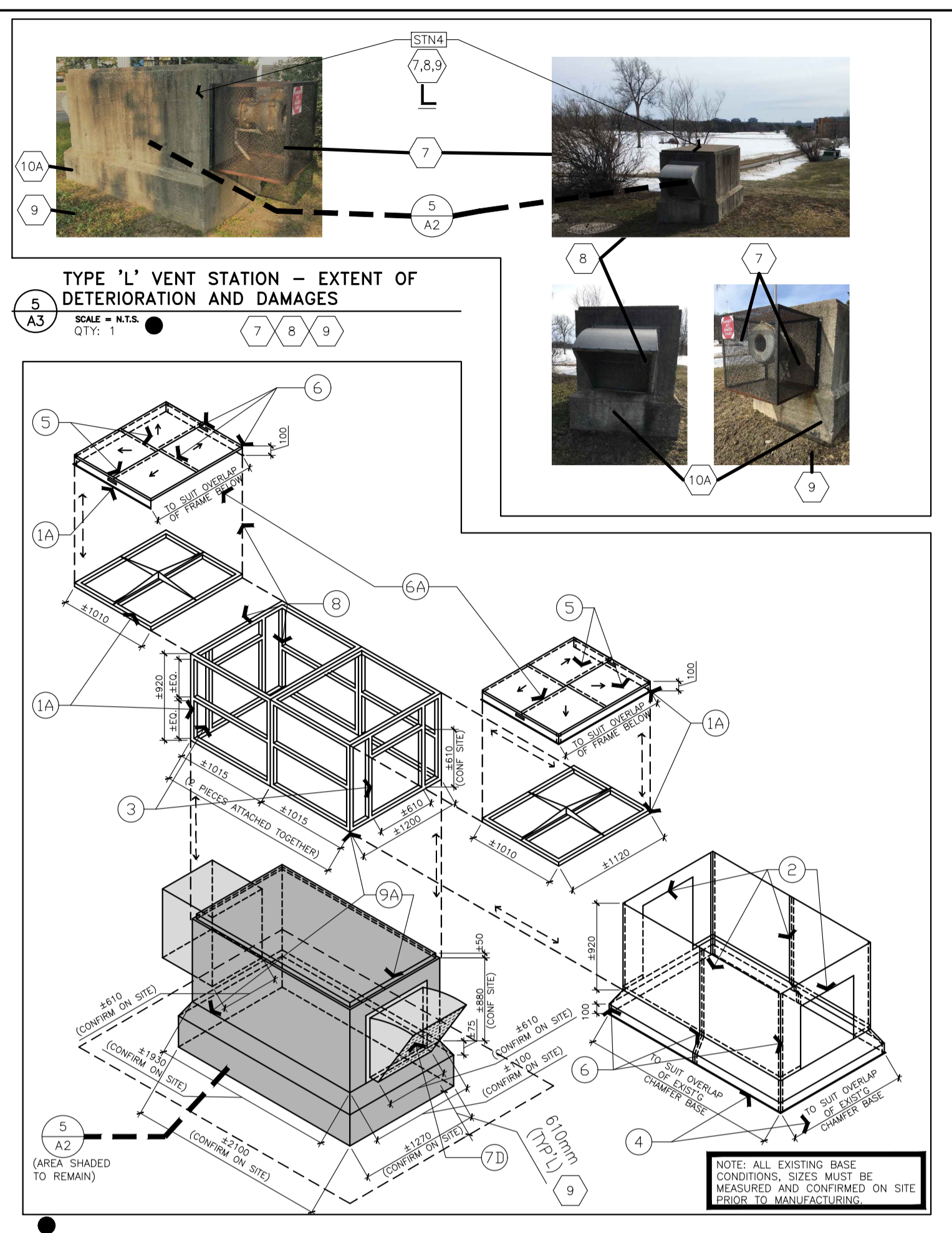
dessin  
 - VENTS / HATCHES 'A', 'B', 'D', 'K', 'L', 'M'  
 - EXTENT OF DAMAGES AND DETERIORATION  
 - SPECIFIC INSTRUCTIONS NOTES

designed	conçu	Date	Date	
JCW			MAY 2021	
drawn	dessiné	scale	échelle	
JCW		AS SHOWN		
checked	vérifié	sheet	of/de	feuille
J.L./D.S./M.P.		A1	of/de	A3
approved	approuvé	W.O.no.	N° d'ordre de travail	
J.L./D.S.		A1-011388-01		

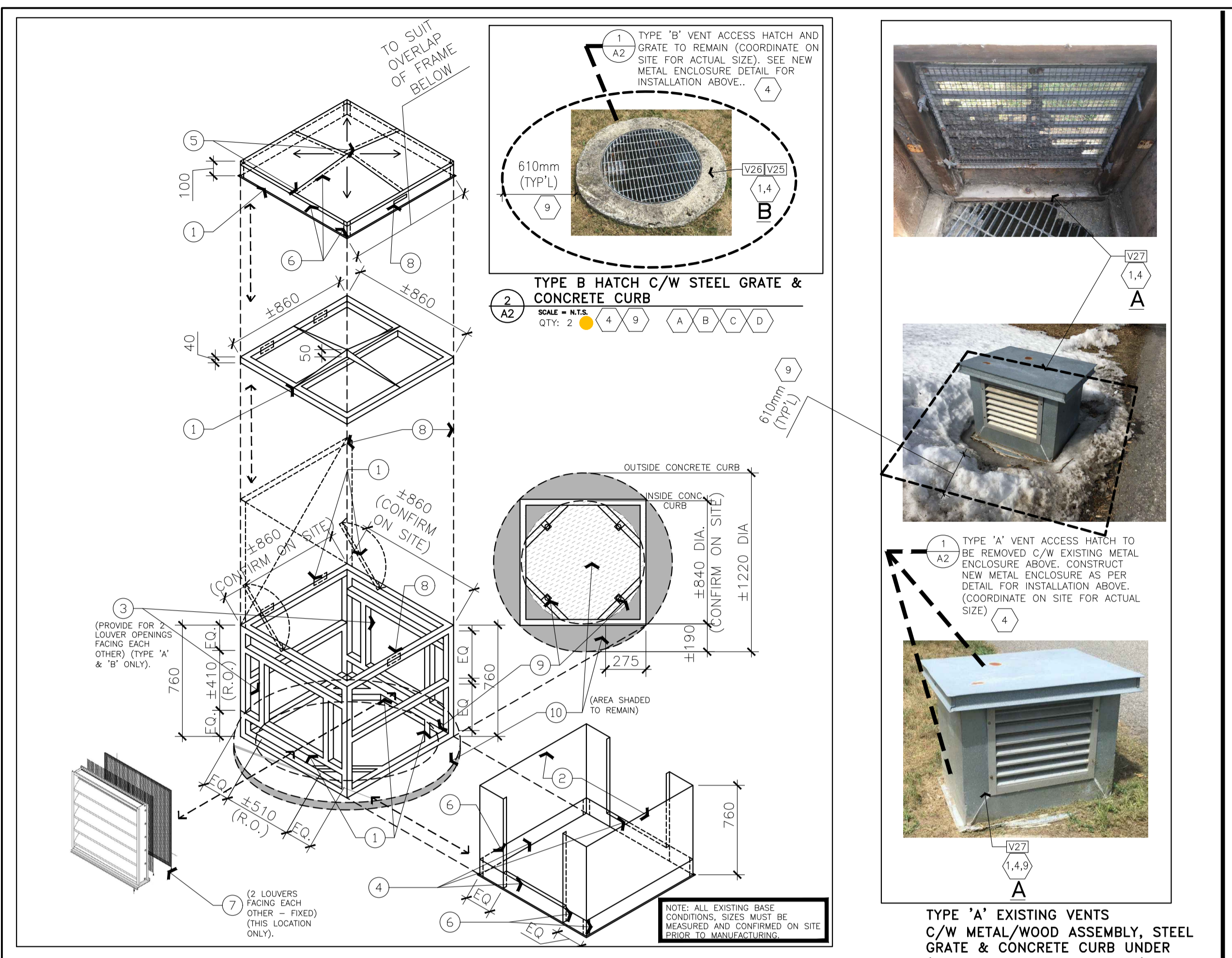
dwg.no. 5876-A2  
 Fichier ACAD 5876-M56VENTS-ARCH TENDER2022-ALL.dwg  
 n° de dessin  
 Fichier CDAO

STEEL ENCLOSURE ASSEMBLY NOTES AND ACCESSORIES

- NEW ENCLOSURE OVERALL SIZE TO BE COORDINATED ON SITE AT EACH LOCATION. ASSEMBLY TO INCLUDE SLOPED CAP AT THE TOP SECURED AND LOCKABLE TO ACCOMMODATE 4" X 8" BRACKET. THE ENCLOSURE TO BE BUILT WITH STRUCTURAL FRAME MADE OF NEW GALVANIZED UNSTRUT 40mmX40mmX1200 STEEL. HOLLOW SQUARE SHAPE PIECES. ALL PIECES TO BE SHAPED WELD BRIM FROM SITE AND TO ACCOMMODATE PRE-DRILLED HOLES TO SUIT PRE-FINISHED, PRE-PAINTED SHEET METAL 18-200G (ALUMINUM). ASSEMBLY INCLUDES 4 HOLE HINGES, 2-7 HOLES FITTINGS, BASE PLATE-PROSS, PRE-HOLED FRAMES, BASE PLATES AND NON-CORROSIVE FASTENERS/SCREWS AS PER MANUFACTURERS SPECS.
- NEW ENCLOSURE SIMILAR TO (1), BUT SIZE TO BE COORDINATED AND MEASURED ON SITE. MOST TOWER TYPE 'D', 'M' & 'K' ARE THE SAME SIZE WITH THE EXCEPTION OF TYPE 'L' & 'S'.
- PROVIDE OUTSIDE ENVELOP TO BE PRE-FINISHED SHEET METAL 18-200G (ALUMINUM) PRE-DIP PAINTED AT FACTORY. SCREW METAL SHEETS IN CONFIGURATION SHOWN. FASTEN WITH SELF-TAPPING STAINLESS SCREWS, MAX. SPACING 100mm (4") O. C.
- INSTALL ADDTL. VERTICAL TUBULAR STEEL FRAMING TO SUIT R.O. OPENINGS OF NEW LOUVER INSTALLATION TO SUIT NEW LOUVER ASSEMBLY SIZES. COORDINATE R.O. WITH ACTUAL LOUVER SELECTION AND TOWER TYPE LOCATION. (NOTE: COORDINATE OPENINGS IN NEW ENCLOSURE WITH TYPE 'L' STATION SPECIAL REQUIREMENTS).
- INSULATED CONTROLLED DAMPER (±510mm x ±510mm) TO BE BROKEN FRAME FRONT-FLANGE MOUNT C/W JACK SHAFT AND HAND QUADRANTS. OPPOSED BLADES (CLEAR ANODIZED FINISH). TYPICAL DAMPER INSTALLATION TO ENSURE HANDLES ACCESSIBLE ON OPENING LOUVER PANEL SIDE. ADAPT FLAT HORIZONTAL CONNECTION OF EXTENDED FRAME TO OVERLAP BEYOND ROUGH OPENING. COORDINATE ON SITE FOR ALL OTHER TYPE 'M' DAMPERS. ADAPT FOR A SMALLER SIZE DAMPER TO SUIT PIPING PENETRATIONS BELOW. SEE ALSO NOTE (11).
- PROVIDE BOTTOM METAL FLASHING (GRAY) 100mm High WITH DRIP EDGE AT BOTTOM PERIMETER. INSTALL PIECES BEHIND MAIN PANELS.
- TOP CAP ASSEMBLY TO BE PRE-FINISHED SHEET METAL 18-200G (ALUMINUM) PRE-DIP FACTORY PAINTED. PIECES TO SLOPED TO ENSURE OUTWARD DRAINAGE. USE GUSSET FITTINGS TO SUIT. SECURE FASTENING TO TOP STRUCTURE ASSEMBLY. FOR ALL PIECES, ENSURE PROPER 25mm OVERLAP OF JOINTS. ENSURE BOTTOM DRIP EDGE AT FULL PERIMETER. ENSURE 4 HOLE HINGES AND LOCKABLE HANDLES TO SUIT.
- ALL OVERLAPPING JOINTS CONTINUOUS CAULK. SAME COLOR OF METAL SHEETS.
- SAME AS (6), ONE FULL CAP OR TWO PIECES FASTENED AND CAULK TOGETHER AT SEAM. FOR TOWER 'L' ONLY, THESE TWO PIECES CAN BE PRE-ASSEMBLED AS ONE PIECE.
- NEW STORMPROOF LOUVER ASSEMBLY (±510mm x ±510mm X 50mm) TO BE FLANGE-FRAME MOUNT, C/W HORIZONTAL, (DRAWING) DOWN TYPE LOUVER (CLEAR ANODIZED FINISH) SIZE TO SUIT TUBULAR OPENING. PROVIDE BOTTOM EXTENDED ALUMINUM SILL (140g), GALVANIZED STANDARD BIRDSCREEN (140g-INTER CRIMPED ALUMINUM WITH 12mmX12mm MESH). PROVIDE FULL PERIMETER 40mm FLANGE. STAINLESS STEEL FASTENERS, ALL WELDED CONSTRUCTIONS. ALL STAINLESS STEEL.
- SAME AS (7), BUT LOUVER SIZE AND ROUGH OPENING (R.O.) VARIES.
- UNLESS NOTED OTHERWISE, SAME AS (7), PROVIDE THREE (3) FIXED LOUVERS AND ONE (1) HINGED LOUVER AT OPENING PANEL (PROVIDE LOCKABLE HARDWARE). ENSURE DAMPER HANDLES INSIDE IS ON THE OPENING LOUVER PANEL SIDE (DAMPER OPERATION FOR OPEN/CLOSE SEQUENCE READILY ACCESSIBLE FOR MAINTENANCE).
- AT TOWER TYPE 'K' ONLY, MAINTAIN METAL PLATES AS IS. COORDINATE CONFIGURATION OF FRAMING TO SUIT EXISTING METAL PLATES.
- AT TOWER STATION TYPE 'L' ONLY REPLACE DAMAGED BIRD WIRE SCREEN WITH MATCHING NEW GRILL. COORDINATE SIZE ON SITE. EXISTING LOUVER TO REMAIN.
- ENSURE TOP CAP ASSEMBLY TO BOTTOM ASSEMBLY FOR SECURED FIT. PROVIDE LOCKABLE HANDLE HARDWARE TO SUIT.
- THE COMPLETE ASSEMBLY TO BE BOLTED AND SECURED TO EXISTING GALVANIZED HATCH GRATE BELOW. FLUSH WITH ADJACENT CONCRETE CURB WITH METAL REMOVABLE CLAMPS FROM THE INSIDE. ENSURE BOTTOM TUBULAR ASSEMBLY TO HAVE ADD'L MEMBERS PRE-WELDED TO SUIT ANCHORAGE. INSTALLED AT 45° WITH 275mm OFFSETS FROM CORNERS. ENSURE BOTTOM CAULKING TO SEAL GAPS BETWEEN STEEL TUBE AND CONCRETE.
- THE COMPLETE ASSEMBLY INCLUDING BASE STEEL PLATE (WHERE APPLICABLE), TO BE SCREWED WITH ADEQUATE STEEL BRACKETS/ANCHORS TO EXISTING CONCRETE BASE. ENSURE BASE IS LEVEL AND FREE OF DEBRIS. ENSURE ANCHORS TO BE 75mm DEEP INTO CONCRETE.
- TYPE 'A' & 'B' EXISTING GRATE HATCH AND CONCRETE CURB BELOW TO REMAIN. CLEAN THE CONCRETE SURFACE BY PRESSURE WASHING. SEE 2/A01 PICTURE.
- PIPING PENETRATION ADJACENT TO NEW DAMPER, PROVIDE FLAT METAL PLATE WITH PIPE SIZE HOLE TO ACCOMMODATE PIPING PENETRATION INSIDE. CAULK PERIMETER.
- INSIDE TUNNEL LOCATED IN UPPER CEILING SPACE, REMOVE WOODEN AIR TRAP ASSEMBLY.

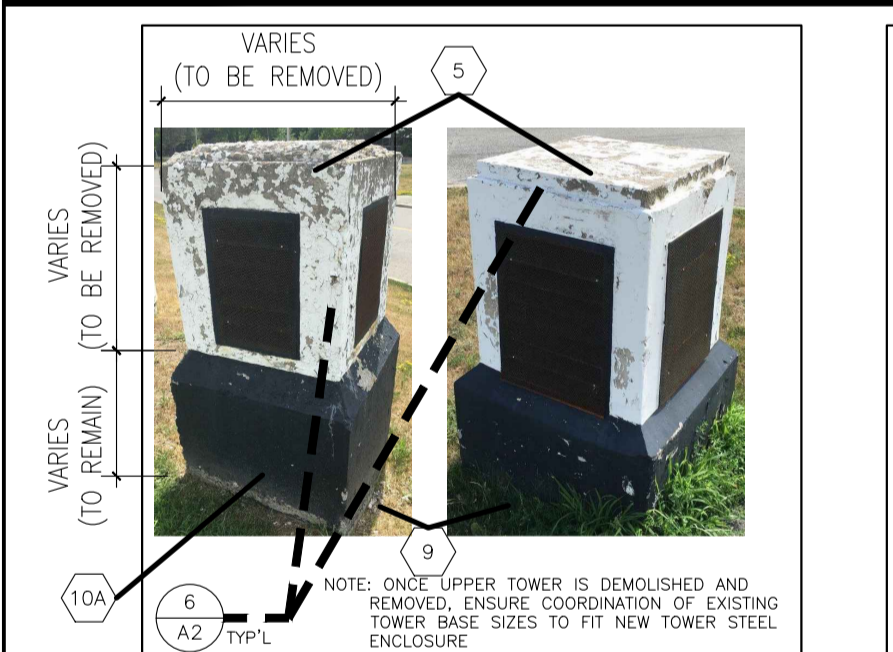


TYPE 'L' VENT STATION - EXTENT OF DETERIORATION AND DAMAGES  
 SCALE = N.T.S.  
 QTY: 1

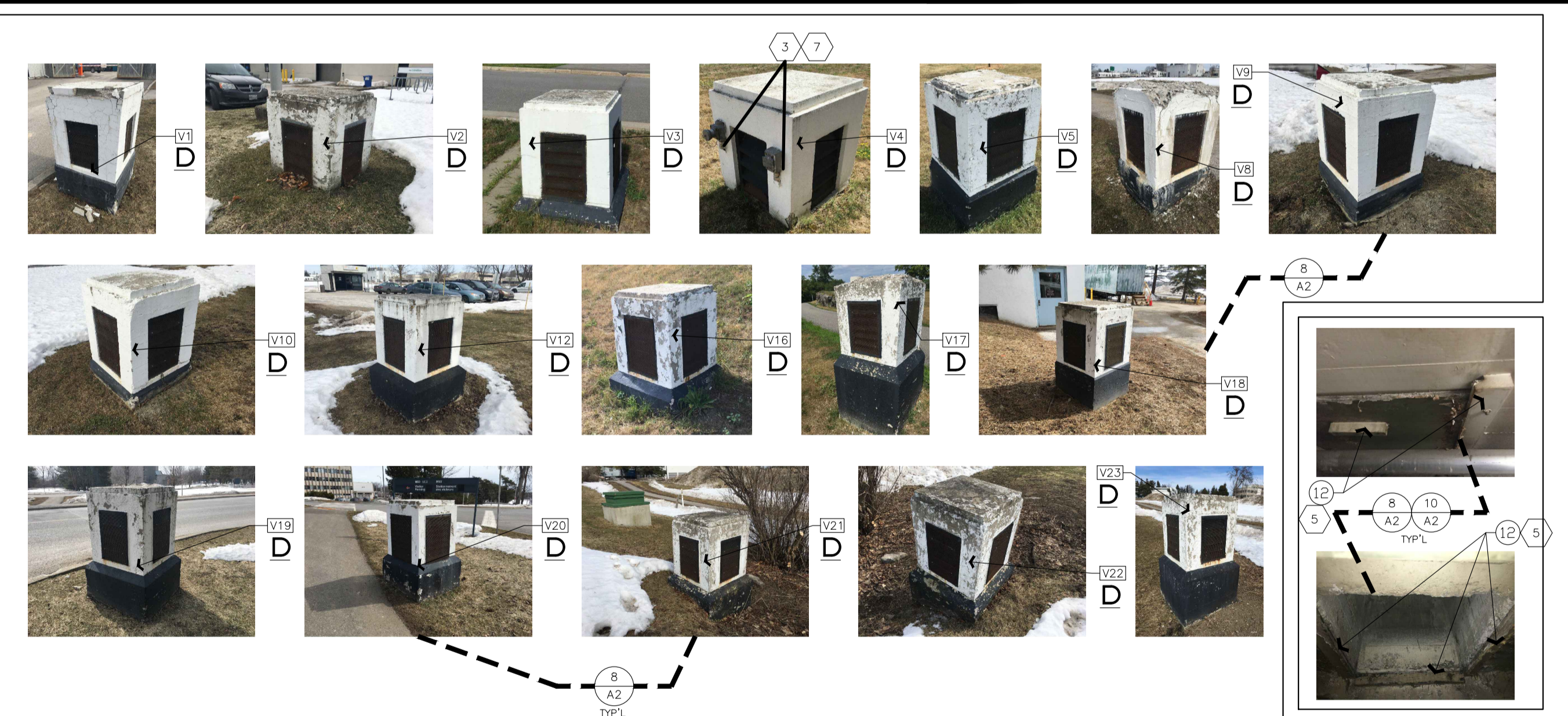


TYPE 'A' EXISTING VENTS C/W METAL/WOOD ASSEMBLY, STEEL GRATE & CONCRETE CURB UNDER (SHOWN AS REFERENCE ONLY)  
 SCALE = N.T.S.  
 QTY: 1

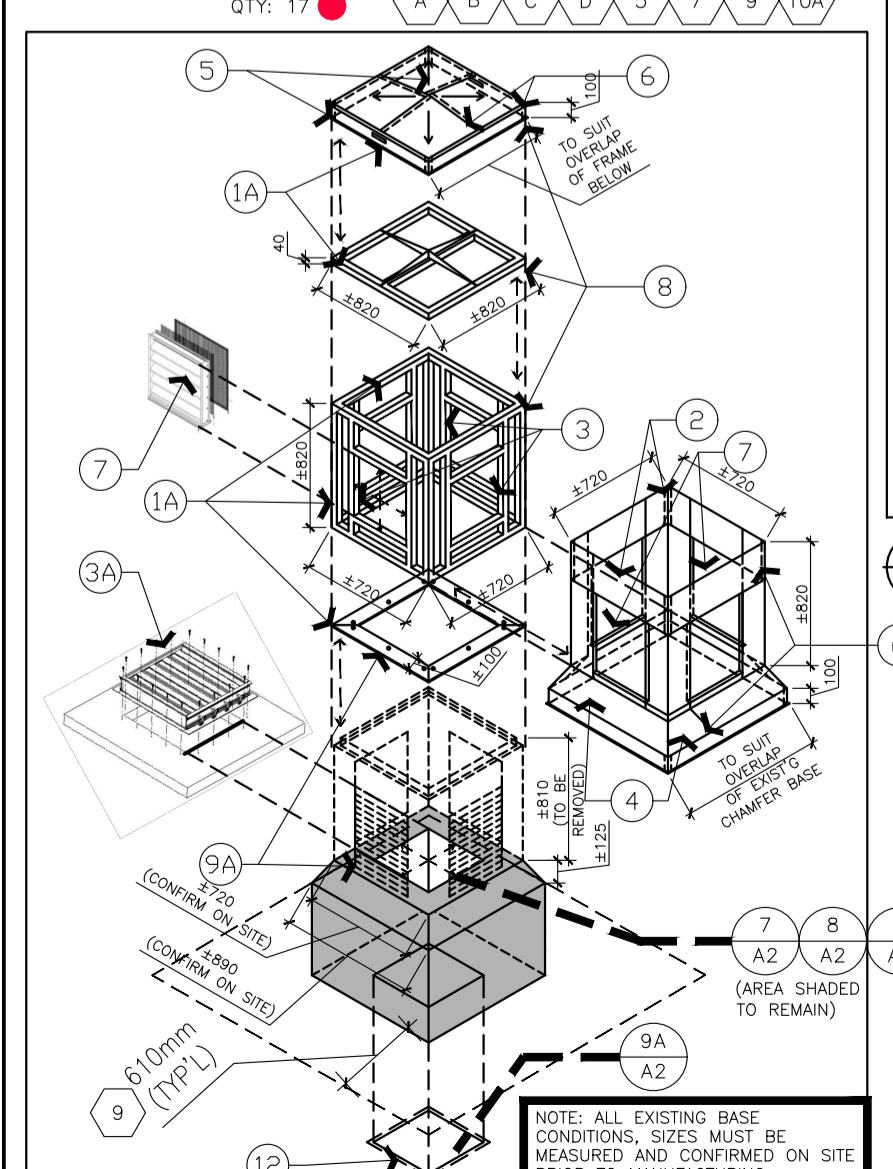
TYPE 'B' HATCH C/W STEEL GRATE & CONCRETE CURB  
 SCALE = N.T.S.  
 QTY: 2



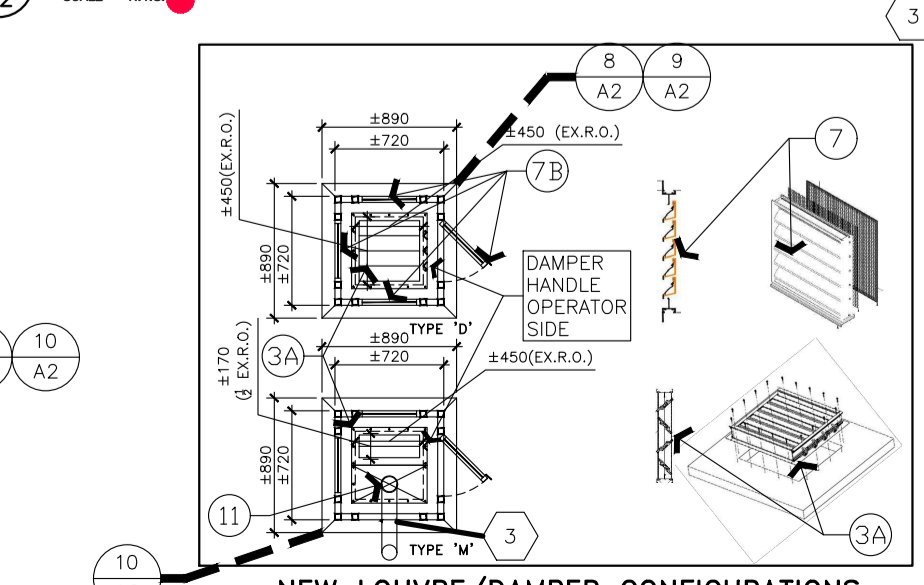
TYPE 'D' TOWER VENTS (TYPICAL)  
 SCALE = N.T.S.  
 QTY: 17



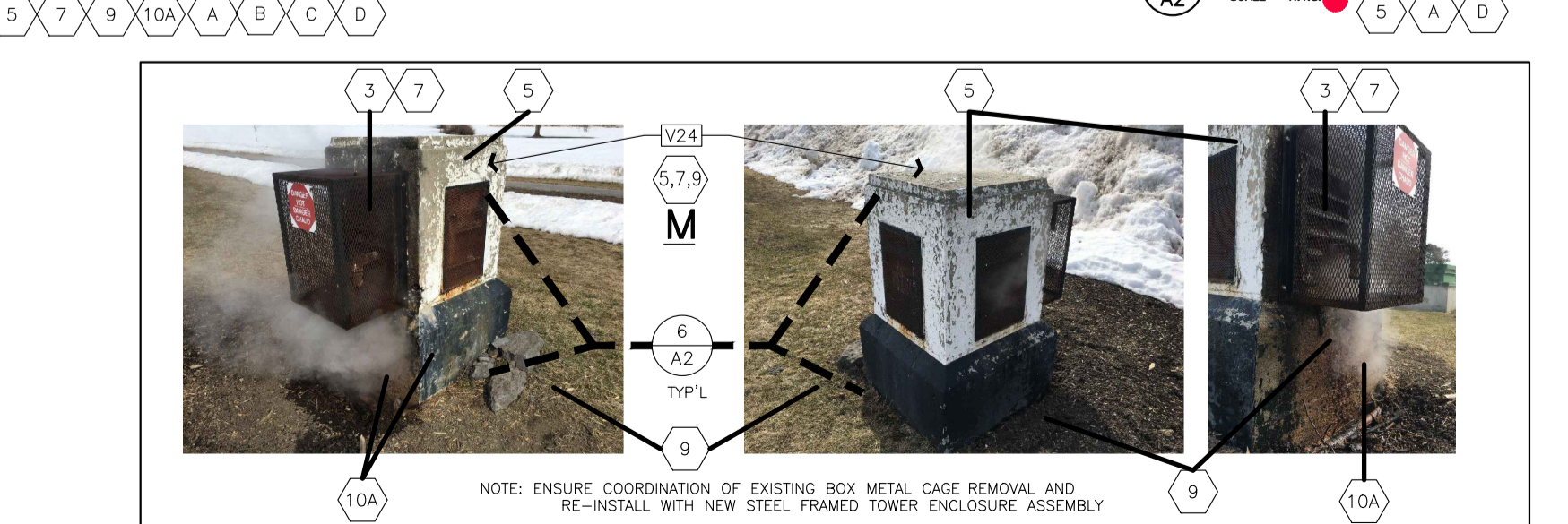
VARIOUS VENT TOWERS (TYPE 'D') - EXTENT OF DETERIORATION AND DAMAGES  
 SCALE = N.T.S.



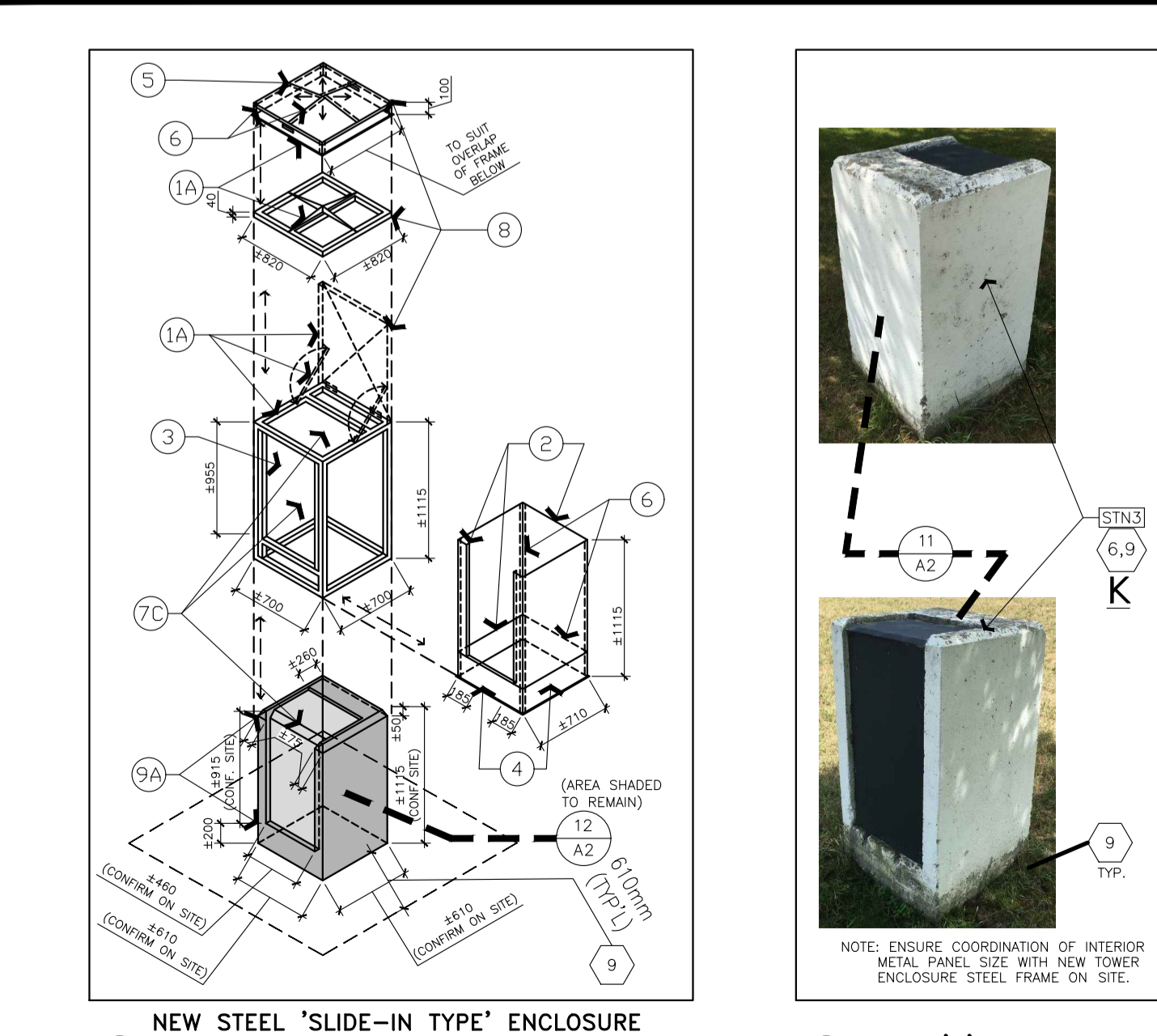
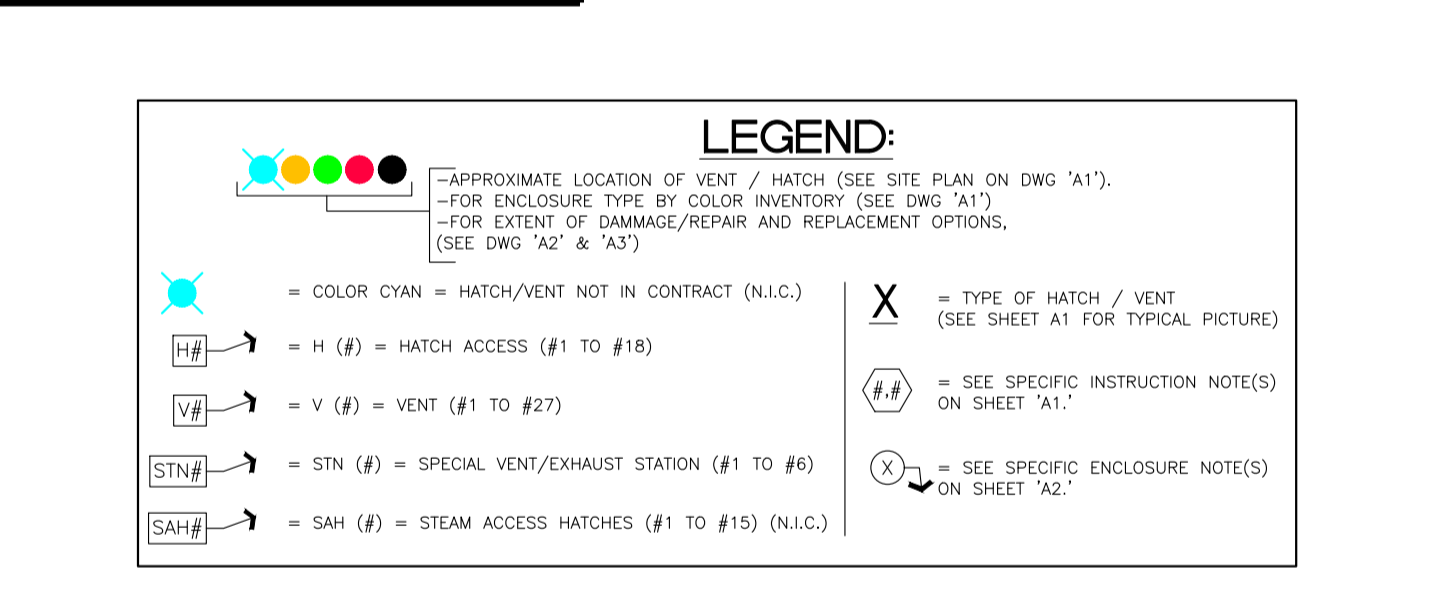
NEW STEEL ENCLOSURE OVER EXISTING VENT (TYPE 'D' & 'M')  
 SCALE = 1:50



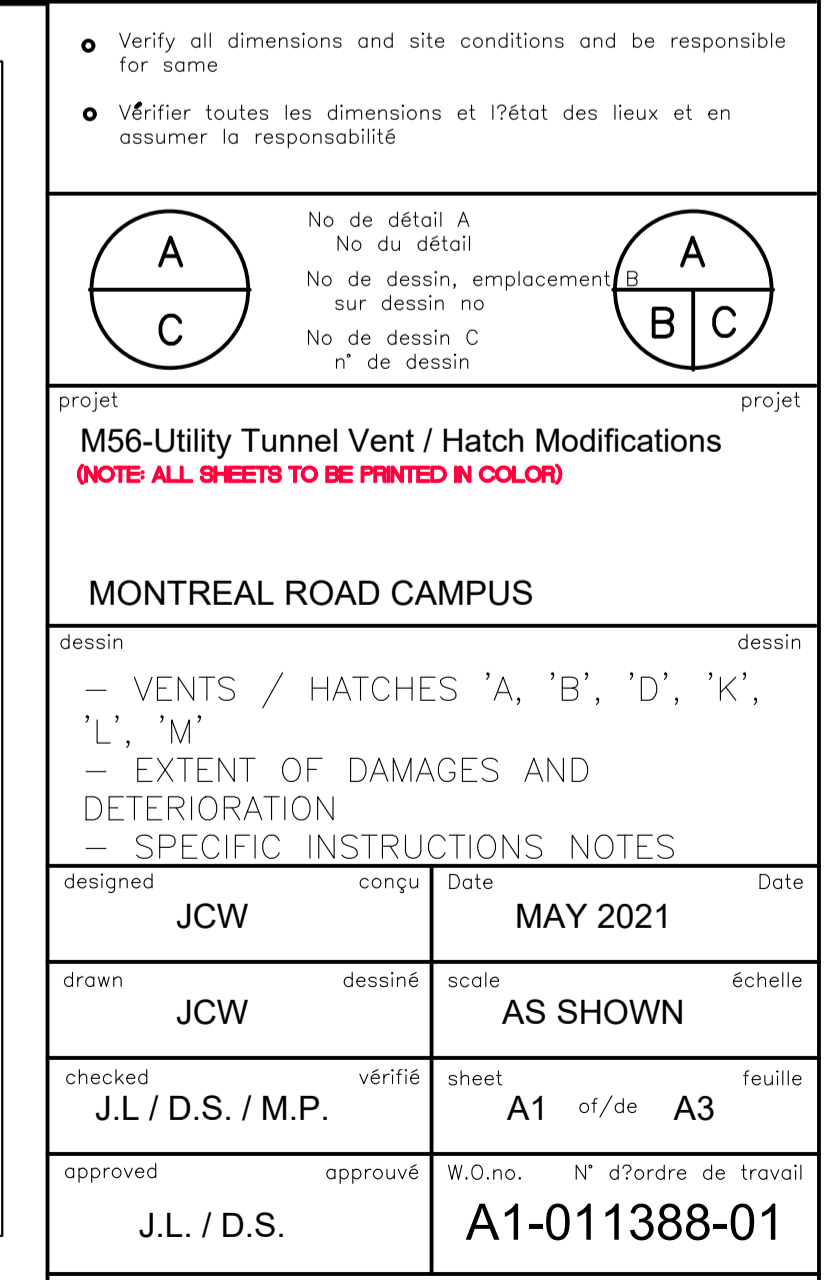
NEW LOUVER/DAMPER CONFIGURATIONS (TYP.) (VENT TYPE 'D' & 'M')  
 SCALE = 1:50



TYPE 'M' TOWER VENTS  
 SCALE = N.T.S.  
 QTY: 1



NEW STEEL 'SLIDE-IN' TYPE ENCLOSURE OVER EXISTING VENT (TYPE 'K')  
 SCALE = 1:50



TYPE 'K' TOWER VENTS  
 SCALE = N.T.S.  
 QTY: 1



GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTOR MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

**LEGEND:**

- APPROXIMATE LOCATION OF VENT / HATCH (SEE SITE PLAN ON DWG 'A1').
- FOR ENCLOSURE TYPE BY COLOR INVENTORY (SEE DWG 'A1').
- FOR EXTENT OF DAMAGES/REPAIR AND REPLACEMENT OPTIONS, (SEE DWG 'A2' & 'A3').

● = COLOR CYAN = HATCH/VENT NOT IN CONTRACT (N.I.C.)

H# → H (#) = HATCH ACCESS (#1 TO #18)

V# → V (#) = VENT (#1 TO #27)

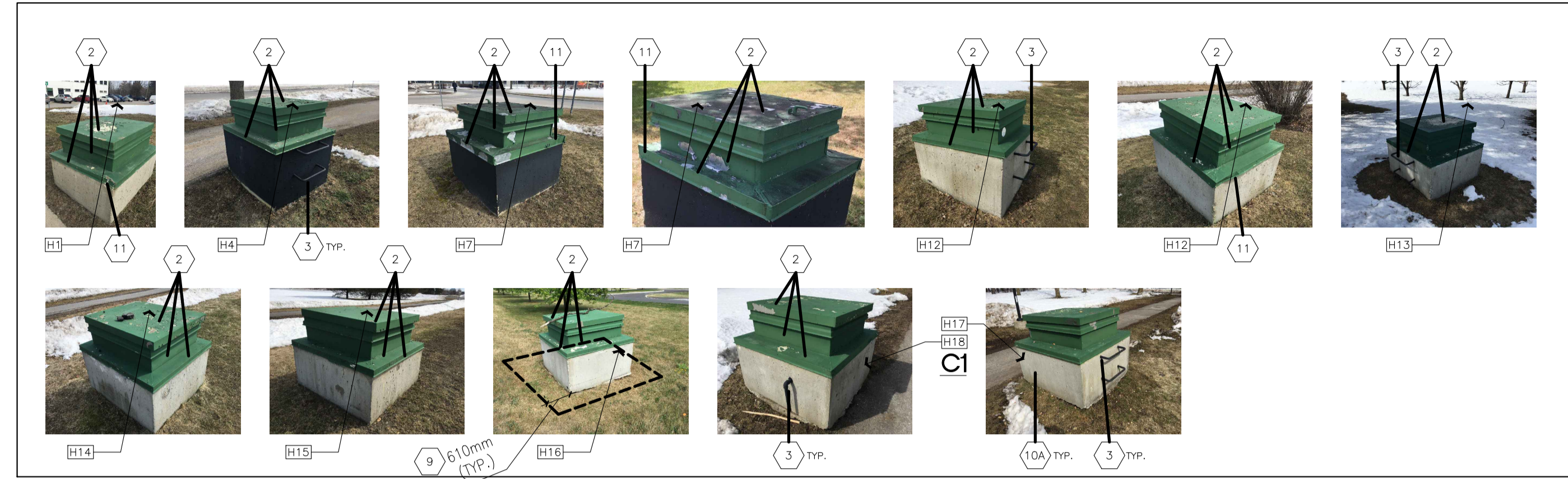
STN# → STN (#) = SPECIAL VENT/EXHAUST STATION (#1 TO #6)

SAH# → SAH (#) = STEAM ACCESS HATCHES (#1 TO #15) (N.I.C.)

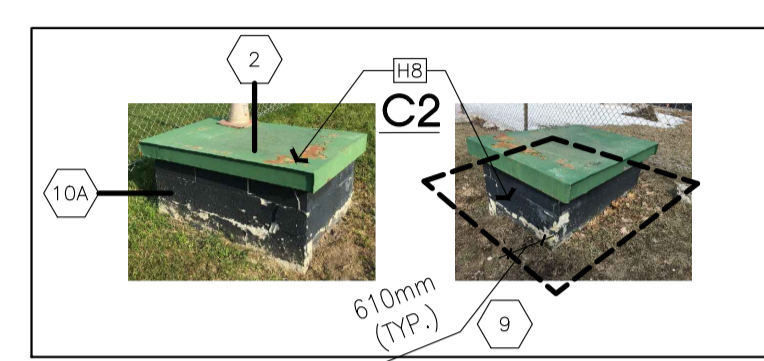
X = TYPE OF HATCH / VENT (SEE SHEET A1 FOR TYPICAL PICTURE)

#.# = SEE SPECIFIC INSTRUCTION NOTE(S) ON SHEET 'A1.'

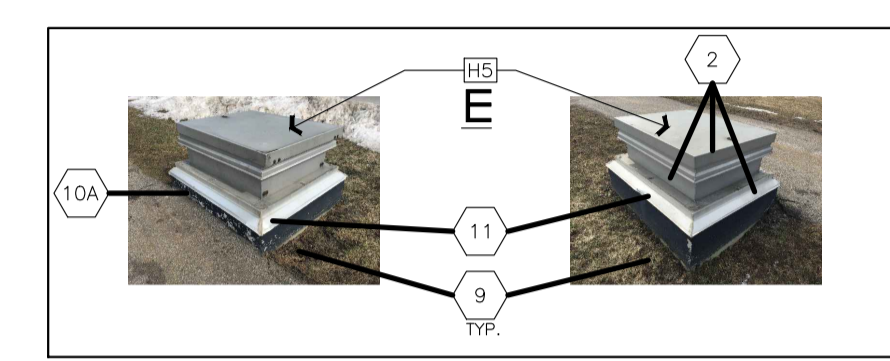
X = SEE SPECIFIC ENCLOSURE NOTE(S) ON SHEET 'A2.'



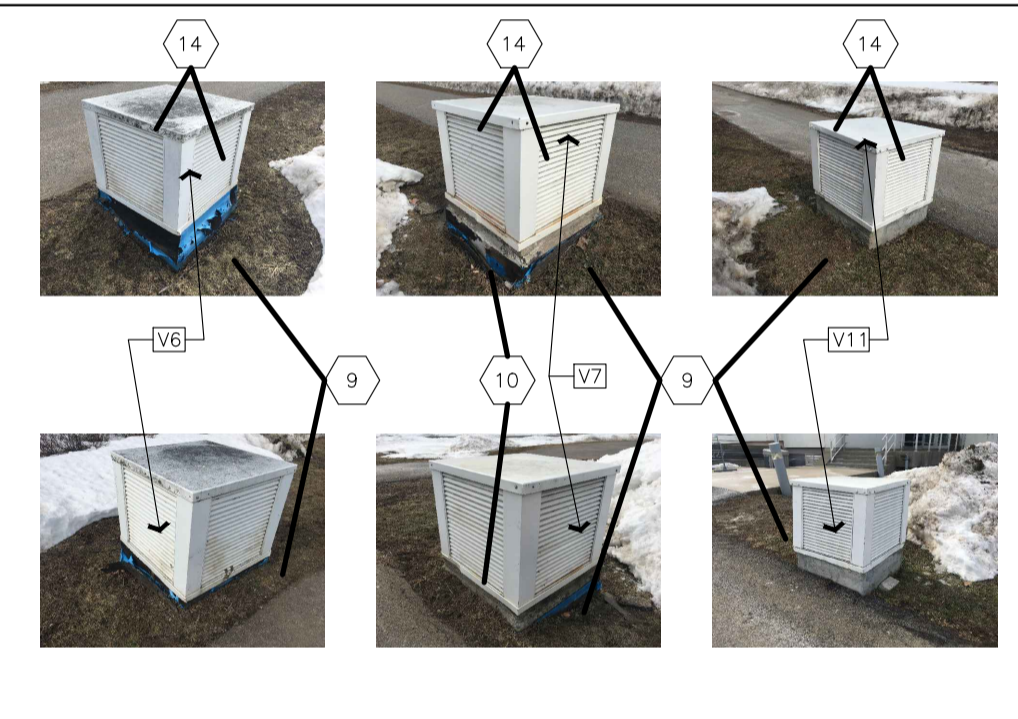
1 TYPE 'C1' ACCESS HATCH – EXTENT OF DETERIORATION AND DAMAGES  
 SCALE = N.T.S. QTY: 10



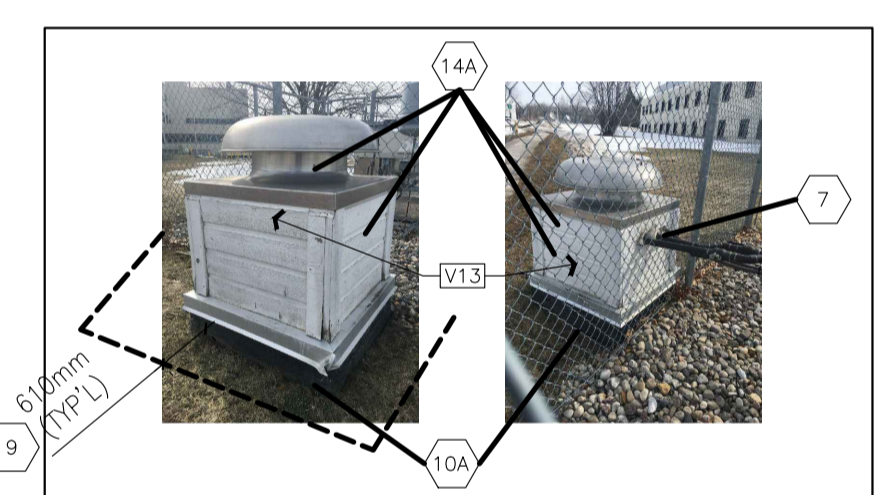
2 TYPE 'C2' ACCESS HATCH – EXTENT OF DETERIORATION  
 SCALE = N.T.S. QTY: 1



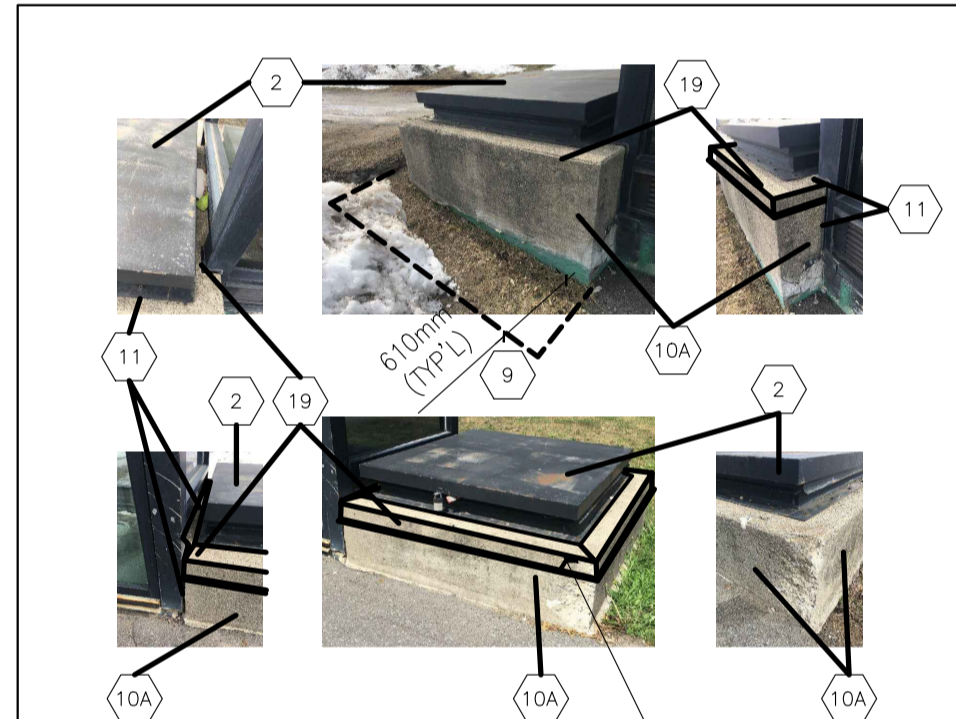
3 TYPE 'E' ACCESS HATCH – EXTENT OF DETERIORATION  
 SCALE = N.T.S. QTY: 1



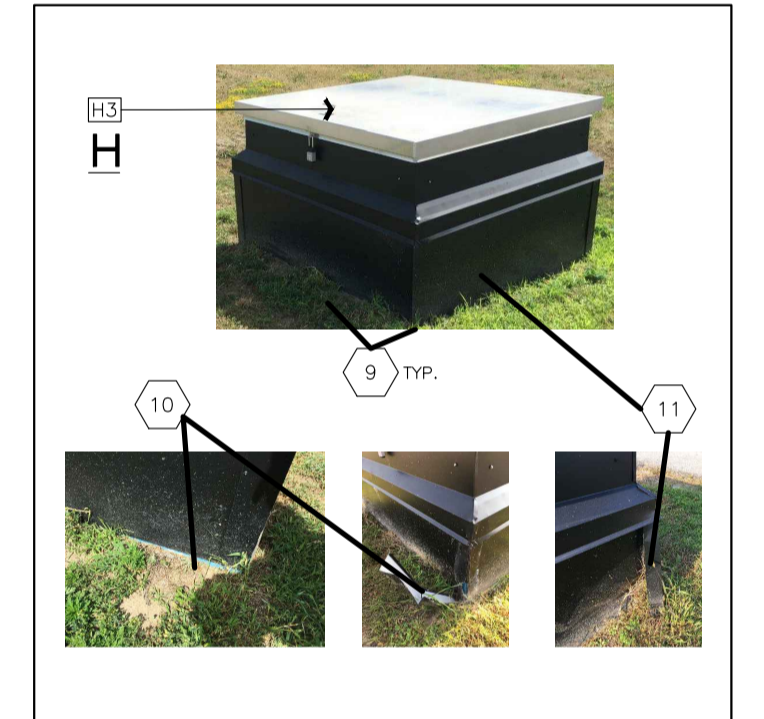
4 TYPE 'F1' VENTS – EXAMPLES OF DETERIORATION AND DAMAGES  
 SCALE = N.T.S. QTY: 3



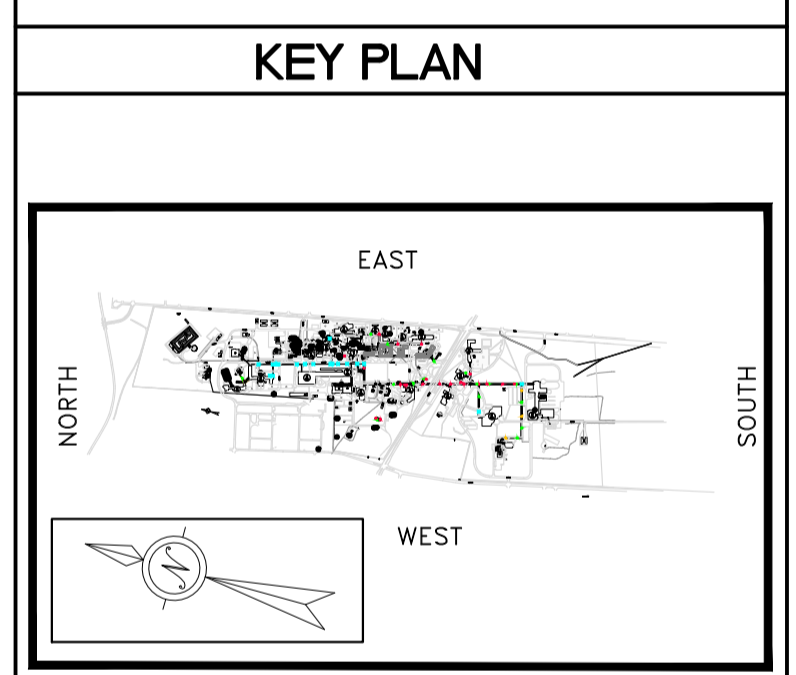
5 TYPE 'F2' VENTS – EXAMPLES OF DETERIORATION AND DAMAGES  
 SCALE = N.T.S. QTY: 1



6 TYPE 'G' ACCESS HATCH – EXTENT OF DAMAGES AND DETERIORATION  
 SCALE = N.T.S. QTY: 1

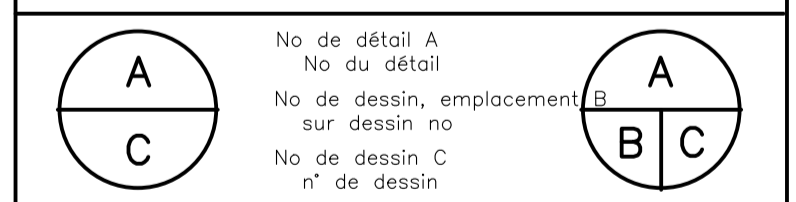


7 TYPE 'H' ACCESS HATCH – EXTENT OF DAMAGES  
 SCALE = N.T.S. QTY: 1



MTL CAMPUS M-56 KEY PLAN  
 NOT TO SCALE

- Verify all dimensions and site conditions and be responsible for same.
- Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité.



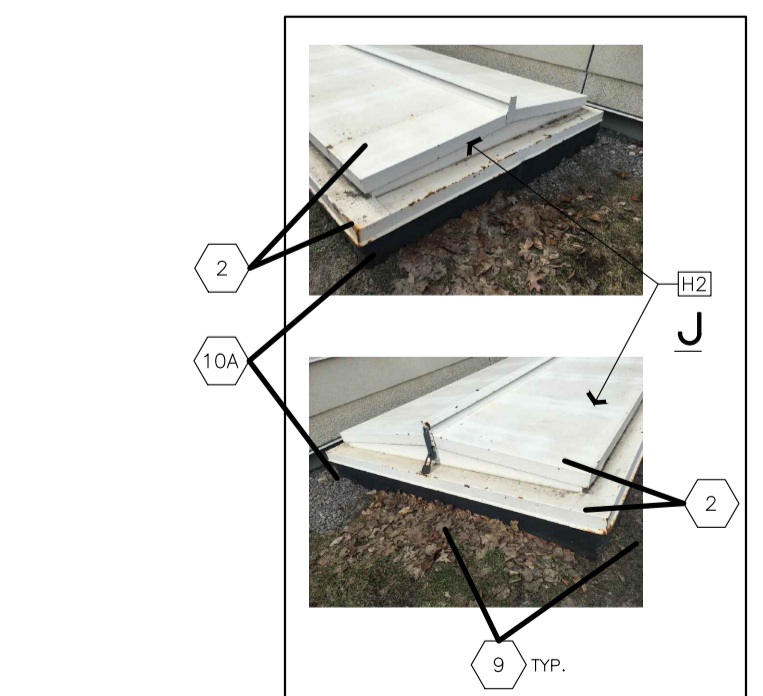
projet M56-Utility Tunnel Vent / Hatch Modifications  
 (NOTE: ALL SHEETS TO BE PRINTED IN COLOR)

MONTREAL ROAD CAMPUS

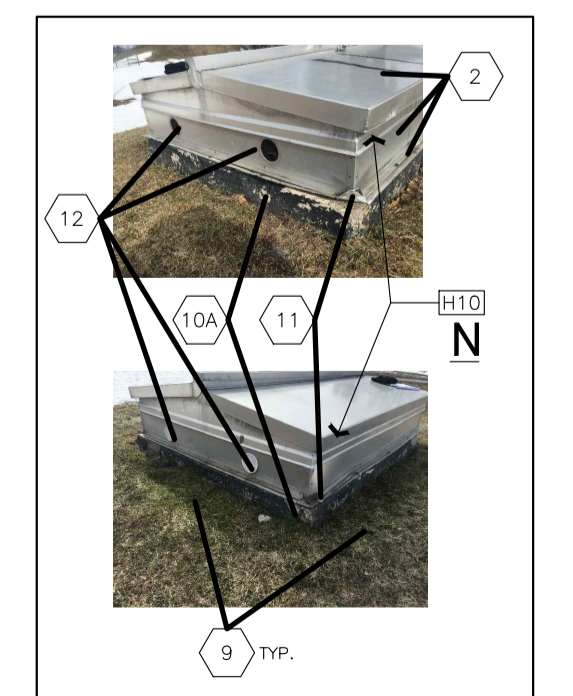
dessin - VENTS / HATCHES 'C1', 'C2', 'E', 'F1', 'F2', 'G', 'H' - EXTENT OF DAMAGES AND DETERIORATION

designed	JCW	conçu	Date	MAY 2021	Date
drawn	JCW	dessiné	scale	AS SHOWN	échelle
checked	J.L./D.S./M.P.	vérifié	sheet	A1 of/de A3	feuille
approved	J.L./D.S.	approuvé	W.D.no.	N° d'ordre de travail	
				A1-011388-01	

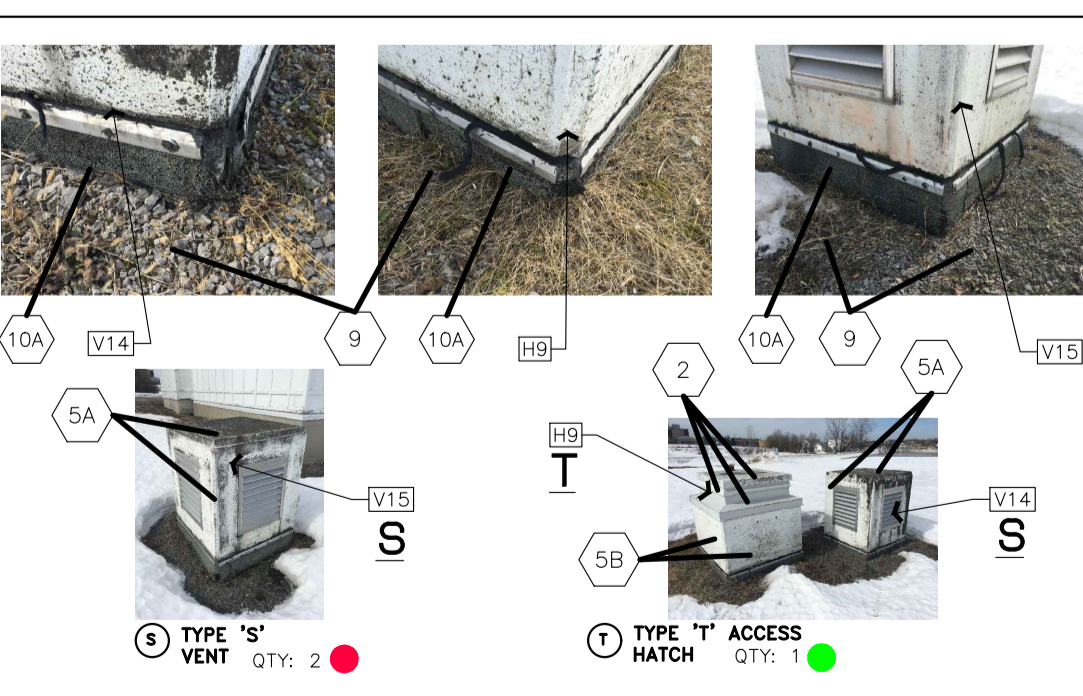
dwg.no. 5876-A3  
 Fichier ACAD 5876-M56VENTS-ARCH TENDER2022-ALL.dwg



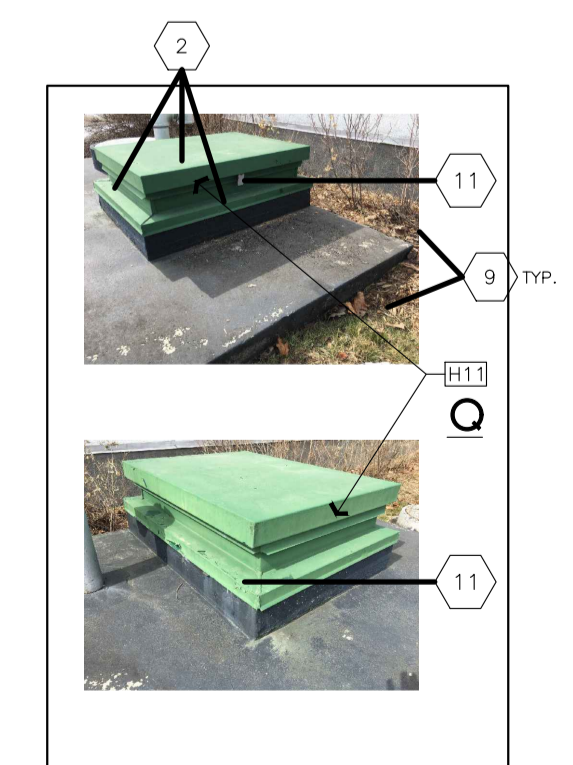
8 TYPE 'J' ACCESS HATCH – EXAMPLES OF EXTENT OF DAMAGES  
 SCALE = N.T.S. QTY: 1



9 TYPE 'N' ACCESS HATCH – EXAMPLES OF EXTENT OF DAMAGES  
 SCALE = N.T.S. QTY: 1



10 TYPE 'S' & 'T' VENT & ACCESS HATCH – EXTENT OF DAMAGES AND DETERIORATION  
 SCALE = N.T.S.



11 TYPE 'Q' ACCESS HATCH – EXTENT OF DAMAGES  
 SCALE = N.T.S. QTY: 1

