



### FEEDER TAG LEGEND

#8	MINIMUM CONDUCTOR SIZE: RW90
CU	COPPER & AL= ALUMINUM
3	NO. OF CONDUCTORS
21	CONDUIT SIZE (MM)
E	EMT CONDUIT
P	PVC CONDUIT
R	RIGID STEEL CONDUIT
T	TECK CABLE
A	ACWU
RA	RAG0

### LOAD SUMMARY - ARENA AREA

PANEL/LOAD	CONNECTED LOAD (KVA)	DEMAND LOAD (KVA)
CU-1	8.6	8.6
CU-2	18.7	18.7
HRV-1	0.8	0.8
<b>SUB- TOTALS</b>	<b>28.1</b>	<b>28.1</b>
EXISTING PEAK DEMAND BASED FROM HYDRO BILLS JUNE 06 TO MARCH 06		137.2
<b>TOTALS</b>		<b>165.3</b>

$I = \frac{165.3 \times 1000}{\sqrt{3} \times 600} \times 125\% = 198.8 \text{ AMPS.}$

- ### DRAWING NOTES:
- 1 PROVIDE NEW BREAKER TO MATCH ELECTRICAL CHARACTERISTICS OF EXISTING BREAKERS.
  - 2 SIZE BREAKER AND FEEDER IN ACCORDANCE TO FINAL NAMEPLATE RATINGS ON EQUIPMENT. PROVIDE WEATHERPROOF DISCONNECT SWITCH NEAR EQUIPMENT AS REQUIRED.
  - 3 EXISTING PANEL TO BE DISCONNECTED, REMOVED, CLEANED AND TURNED OVER TO THE CITY OF WINNIPEG. RE-FEED EXISTING ESSENTIAL PANEL LOADS TO NEW PANEL 'E' AS SHOWN ON SCHEDULE.
  - 4 PROVIDE NEW 12x12x6 JB(S) AND CONDUIT (REFER TO DETAIL 1/E-3.0) TO RELOCATE EXISTING CIRCUITS TO NEW PANEL LOCATIONS. DISCONNECT EXISTING FEEDERS AND RELOCATE TO NEW PANEL LOCATIONS.

**COMMUNITY CENTRE  
SINGLE LINE DIAGRAM**  
NTS

**ARENA  
SINGLE LINE DIAGRAM**  
NTS

### LUMINAIRE SCHEDULE

TYPE	MANUFACTURER	CATALOGUE NO.	LAMPS		VOLTS	MOUNTING	REMARKS
			NO.	TYPE			
A	LITHONIA	2G78-432-A12-120-GEB10IS	4	32W18 WARM WHITE	120	R/TB	2X4 TROFFER C/W 2 BALLASTS FOR SEPARATE SWITCHING
B	LITHONIA	618-232-A12-120-GEB10IS	2	32W18	120	R/TB	C/W TRIM KIT
D	LITHONIA	WC132-120-ACP	1	32W18	120	S/W	WALL MOUNTED CUBE LIGHT
E	LITHONIA	2UC-32-120-GEB	1	32W18	120	V	UNDER CABINET LIGHTING
F	LITHONIA	LP6-6BSW	1	75WPAR38	120	R/TB	DIMMING POTLIGHTS
G	LITHONIA	VGR10-70M-120-LPI-CSA	1	70MH	120	S/C	EXTERIOR CEILING LIGHTS
H	LITHONIA	TWR10-70M-120-LPI-CSA	1	70MH	120	S/W	WALLPACK (VANDALPROOF)
J	LITHONIA	TWR20-250M-120-LPI-CSA	1	250MH	120	S/W	WALLPACK (VANDALPROOF)
K	LITHONIA	TFM-175M-TA-120-LPI-CSA	1	175MH	120	S/W	C/W PARAPET ARM BRACKET

NOTES: 1. ALL FLOURESCENT LAMP ARE TO BE 3500°K AND A MINIMUM 82 CRI UNLESS NOTED OTHERWISE.

S = SURFACE W = WALL TB = T-BAR  
 V = VALANCE R = RECESSED DW = DRYWALL  
 C = CEILING P = PENDANT CH = CHAIN

### PANEL: E

DESCRIPTION	LOAD WATTS	BKR SIZE	CIRCUIT	BKR SIZE	LOAD WATTS	DESCRIPTION
LIGHTING-COMMON AREAS	1340	20	1	20	1000	GFI RECEPTACLES -COUNTER
LIGHTING-MULTI RM	1000	15	3	4	20	GFI RECEPTACLES -COUNTER
LIGHTING-MULTI RM	1130	15	5	6	15	500 RECEPTACLES
LIGHTING-MULTI RM POTS	980	15	7	8	15	500 RECEPTACLES
LIGHTING-MULTI RM POTS	600	15	9	10	15	500 RECEPTACLES
LIGHTING-EXTERIOR	500	15	11	12	15	500 RECEPTACLES
LIGHTING-EXTERIOR	400	15	13	14		EXISTING CIRCUITS NOT DELETED FROM
LIGHTING-EXTERIOR	900	15	15	16		EXISTING 7 CCTS. PANEL
LIGHTING-EXTERIOR	700	15	17	18		
LIGHTING-EXTERIOR SIGNAGE	600	15	19	20		
BASEBOARD HEATER - WASHROOM	1000	15	21	22		
BASEBOARD HEATER - WASHROOM	1000	15	23	24		
BASEBOARD HEATER - MULTI-PURPOSE	1500	15	25	26		
BASEBOARD HEATER - MULTI-PURPOSE	1500	15	27	28		
BASEBOARD HEATER - CORRIDOR	1500	15	29	30		
FORCEFLOW HEATER - VESTIBULE	4000	20	31	32		
HRV-1	800	15	35	37		
MECHANICAL CONTROLS	100	15	37	39		
EXTERIOR LIGHTING CONTROL	100	15	39	40		
EXISTING 7 CCTS. PANEL	100	15	42	45		
SPARE	15	43	44			
SPARE	15	45	46			
SPARE	15	47	48			
SPARE	15	49	50			
SPARE	15	51	52			
SPARE	15	53	54			
SPARE	15	55	56			
SPARE	15	57	58			
SPARE	15	59	60			
SPARE	15	61	62			
SPARE	15	63	64			

HTC: 10.5KW LIG: 8.3KW MTR: 0.9KW MISC: 4.1KW TOTAL: 23.8KW

### EMERGENCY BATTERY BANK SCHEDULE

No.	MANUFACTURER	CATALOGUE NO.	INPUT VOLTS	OUTPUT VOLTS	SOURCE CIRCUIT	QUANTITIES	MINIMUM WATTAGE
EBB-1	LUMACELL	RG24S 350 2 M19W AT TD	120	24	E-11	2 5	255 W
EBB-2	LUMACELL	RG24S 350 2 M19W AT TD	120	24	E-11	2 5	255 W

NOTES: 1. LUMACELL LMCE-C860U SINGLE/DOUBLE UNIVERSAL MOUNTING  
 2. LUMACELL MQ-2-8W QUARTZ 12VDC/24VDC

### MOTOR/EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	EQUIPMENT LOCATION	KW/HP/AMPS	VOLTS/PH	PKG UNIT	STARTER			CONTROLS			FIRE ALARM SILENCE	
						TYPE	FUNC	PL	HOA	SUPPLY BY	TYPE		SUPPLY BY
HRV-1	HEAT RECOVERY VENTILATOR	ROOF	6.3 AMPS	120/1	Y								
CU-1	CONDENSING UNIT	ROOF	9.8 MCA	600/3	Y								
CU-2	CONDENSING UNIT	ROOF	9.8 MCA	600/3	Y								
FF-1	FORCEFLOW HEATER	VESTIBULE	4.0 KW	240/1									
	BASEBOARD HEATER	VARIES	1.0/1.5 KW	120/1									

GENERAL NOTES:  
 A. MANUAL MOTOR STARTER TO BE C/W PILOT LIGHT AND OVERCURRENT PROTECTION.  
 B. ALL STARTERS TO BE SUPPLIED & INSTALLED BY THE ELECTRICAL SUBCONTRACTOR UNLESS OTHERWISE NOTED.  
 C. DISCONNECT SWITCHES TO BE SUPPLIED & INSTALLED BY THE ELECTRICAL SUBCONTRACTOR.  
 D. ELECTRICAL CONTRACTOR TO PROVIDE CIRCUIT BREAKERS AND WIRING ACCORDING TO THE FINAL NAMEPLATES OF THE MECHANICAL EQUIPMENT AT NO COST.  
 E. ELEC REFERS TO ELECTRICAL SUBCONTRACTOR; MECH REFERS MECHANICAL SUBCONTRACTOR.

MAG = MAGNETIC  
 MAN = MANUAL  
 VFD = VARIABLE FREQUENCY DRIVE  
 TOG = MOTOR RATED TOGGLE SWITCH

BIT = BUILT IN THERMOSTAT  
 S = SPEED CONTROL  
 T = THERMOSTAT

NO.	REVISION	DATE	BY
4	ADDENDUM NO.1	01/14/08	TT
3	RE-ISSUED FOR BID OPPORTUNITY	12/05/07	TT
2	ISSUED FOR BID OPPORTUNITY	11/27/07	TT
1	ISSUED FOR FINAL REVIEW	10/12/07	TT
0	ISSUED FOR REVIEW	04/30/07	TT

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THE CONTRACTOR SHALL SATISFY HIMSELF THAT ALL DIMENSIONS AND INFORMATION SHOWN ARE CORRECT.

PRIOR TO COMMENCEMENT OF WORK REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR.

VARIATIONS AND MODIFICATIONS TO WORK SHOWN WILL NOT BE ALLOWED WITHOUT WRITTEN PERMISSION OF THE CONTRACT ADMINISTRATOR.

CONSULTANT

TOWER PROJECT NO. : 6184

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**APEGM**  
 Certificate of Authorization  
 Tower Engineering Group  
 No. 1918 Expiry: April 30, 2008

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PROJECT TITLE

**NOTRE DAME COMMUNITY CENTRE**

277 BELLAIR STREET, WILSON, MANITOBA

SHEET TITLE

**ELECTRICAL SINGLE LINE DIAGRAM**

DRAWN BY: SCALE: SHEET NUMBER:

CHECKED BY: DATE: 11/27/07

PROJECT NUMBER: REVISION: 3

**E-4.0**

06-012