

PANEL 'A'		VOLTAGE	
MOUNTING SURFACE LOCATION	MECH. ROOM	120/240V-1PH-3W	MAIN BUS 400A
REMARKS		TUB 1	
DESCRIPTION	BKR	CIRCUIT	DESCRIPTION
HEATED CCTV ENCLOSURE & MONITOR	30	1-22	SPACE
HEATED CCTV ENCLOSURE & MONITOR	30	2-23	SPACE
HEATED CCTV ENCLOSURE & MONITOR	30	3-24	IF-1
HEATED CCTV ENCLOSURE & MONITOR	30	4-25	#10 WIRE
SPARE	15	5-26	IF-1
SPARE	15	6-27	#10 WIRE
SPARE	15	7-28	IF-1
SPARE	15	8-29	#10 WIRE
SPARE	15	9-30	SPACE
SPARE	15	10-31	IF-1
SPACE	-	11-32	#10 WIRE
SPACE	-	12-33	IF-1
SPACE	-	13-34	#10 WIRE
SPACE	-	14-35	IF-1
SPACE	-	15-36	#10 WIRE
SPACE	-	16-37	IF-1
SPACE	-	17-38	#10 WIRE
SPACE	-	18-39	IF-1
PANEL L	200	19-40	#10 WIRE
		20-41	EF-1
		21-42	

PANEL 'A'		VOLTAGE	
MOUNTING SURFACE LOCATION	MECH. ROOM	120/240V-1PH-3W	MAIN BUS 400A
REMARKS		TUB 2	
DESCRIPTION	BKR	CIRCUIT	DESCRIPTION
EF-1	15	43-64	EF-2
		44-65	#10 WIRE
EF-1	15	45-66	EF-3
		46-67	#10 WIRE
EF-1	15	47-68	CROSSING GATE
		48-69	EBDD (x2)
EF-1	15	49-70	EBDD (x2)
		50-71	MTS PANEL
EF-1	15	51-72	SC RECEPTACLE
		52-73	SPACE
EF-1	15	53-74	SPACE
		54-75	GF RECEPTACLES
EF-1	15	55-76	RECEPTACLES
		56-77	FIRE ALARM PANEL
EF-1	15	57-78	DVR
		58-79	UNIT HEATER
EF-1	15	59-80	#10 WIRE
		60-81	SPACE
IR-1 (x4)	15	61-82	TRANSIT EXTERIOR SIGNAGE
IR-1 (x4)	15	62-83	TRANSIT EXTERIOR SIGNAGE
AUTOMATIC DOOR OPERATORS (x2)	15	63-84	SPACE

PANEL 'L'		VOLTAGE	
MOUNTING SURFACE LOCATION	MECH. ROOM	120/240V-1PH-3W	MAIN BUS 200A
REMARKS		LIGHTING CONTROL PANEL	
DESCRIPTION	BKR	CIRCUIT	DESCRIPTION
N/L LIGHTING	15	1-22	EXTERIOR LIGHTING
N/L LIGHTING	15	2-23	EXTERIOR LIGHTING
LIGHTING	15	3-24	EXTERIOR LIGHTING
LIGHTING	15	4-25	EXTERIOR SIGNAGE
LIGHTING	15	5-26	EXTERIOR SIGNAGE
LIGHTING	15	6-27	SIGNAGE
LIGHTING	15	7-28	SIGNAGE
LIGHTING	15	8-29	SPACE
LIGHTING	15	9-30	SPACE
LIGHTING	15	10-31	SPACE
LIGHTING	15	11-32	SPACE
LIGHTING	15	12-33	SPACE
LIGHTING	15	13-34	SPACE
LIGHTING	15	14-35	SPACE
LIGHTING	15	15-36	SPACE
EXTERIOR LIGHTING	15	16-37	SPACE
EXTERIOR LIGHTING	15	17-38	SPACE
CANOPY LIGHTING	15	18-39	SPARE
STEP LIGHTS	15	19-40	SPARE
POST LIGHTS	15	20-41	SPARE
EXTERIOR LIGHTING	15	21-42	SPARE

**HEATING SCHEDULE**

TYPE	WATTS	VOLTAGE	DESCRIPTION	MANUFACTURER	CATALOGUE #	REMARK
UH-1	5000	240V-1PH	UNIT HEATER	CHROMALOX	EUH05B31T	NOTE 1

**SPECIFIC HEATING NOTES**

- C/W BUILT-IN THERMOSTAT. MOUNT SECURELY WHERE INDICATED TO THE SATISFACTION OF THE ENGINEER.
- (GENERAL) VOLTAGE TO BE AS INDICATED ABOVE UNLESS OTHERWISE NOTED ON DRAWINGS.
- (GENERAL) APPROVED EQUAL: OUELLET.

MOTOR SCHEDULE									
NO.	DESCRIPTION	LOCATION	VOLT-PH.	HP/W/MCA	C.B.	COND.	STARTER	NOTE	
IF-1	INLINE FAN	WALL	240V-1PH	2.37HP	40A-2P	#10	MAGNETIC	NOTE 1,2	
EF-1	EXHAUST FAN	ROOF	120V-1PH	0.22HP	15A-2P	#12	MAGNETIC	NOTE 1,2	
EF-2	EXHAUST FAN	ROOF	240V-1PH	2.14HP	40A-2P	#10	MAGNETIC	NOTE 1,2	
EF-3	EXHAUST FAN	ROOF	240V-1PH	2.14HP	40A-2P	#10	MAGNETIC	NOTE 1,2	
IR-1	GAS RADIANT HEATER	WALL	120V-1PH	145W	15A-1P	#12	-	NOTE 1	
JP-1	JOCKEY PUMP	MECH RM	120V-1PH	1/3HP	20A-1P	#12	MANUAL	NOTE 1,3	
AC-1	AIR COMPRESSOR	MECH RM	120V-1PH	1/3HP	20A-1P	#12	MANUAL	NOTE 1,3	

**SPECIFIC NOTES**

- WIRE AND CONNECT AS REQUIRED. REFER TO MECHANICAL.
- MAGNETIC STARTER BY DIV. 16.
- MANUAL STARTER BY DIV. 16.
- WIRE ALL CONTROL ALARMS AS REQUIRED (SEE MECHANICAL).

**GENERAL NOTES**

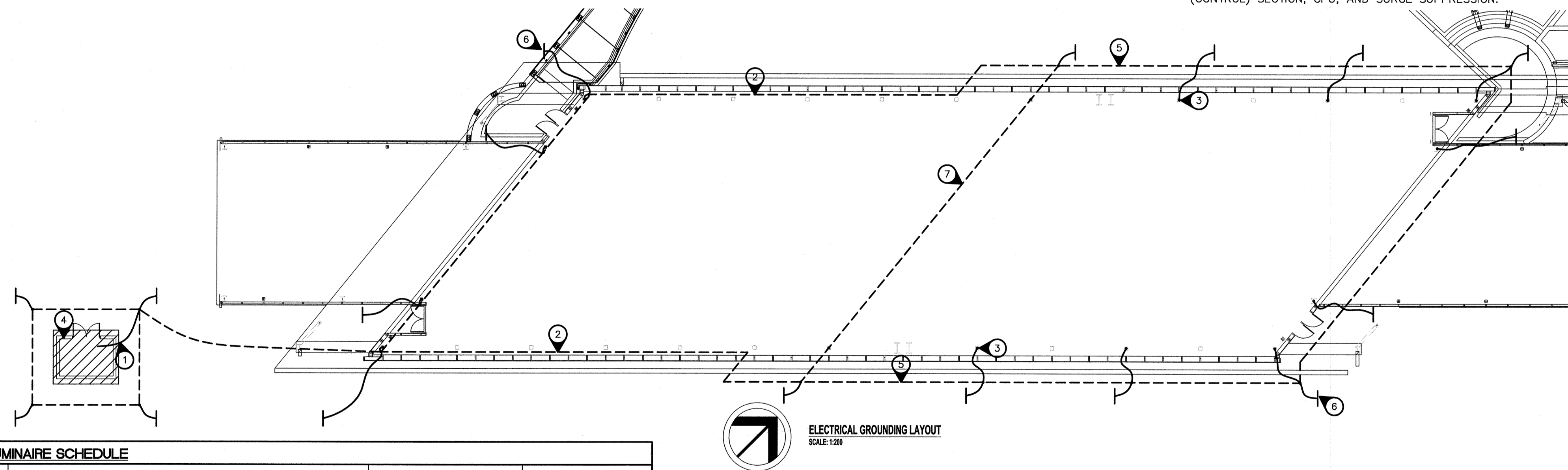
- MANUAL STARTERS TO BE C/W OVERCURRENT PROTECTION.
- ALL DISCONNECT SWITCHES TO BE SUPPLIED BY DIV. 16.
- ELECTRICAL CONTRACTOR TO PROVIDE CIRCUIT BREAKERS AND WIRING ACCORDING TO THE FINAL NAMEPLATES OF ALL THE MECHANICAL EQUIPMENT.
- ALL LOW VOLTAGE CONTROL WIRING BY DIV. 15.
- ALL LINE VOLTAGE CONTROL WIRING BY DIV. 16 - REFER TO MECHANICAL SECTION. COORDINATE EXACT REQUIREMENTS WITH DIV. 15.

**SPECIFIC ELECTRICAL NOTES**

- FOR CONNECTION TO GROUND LOOP. PROVIDE 7 METRE LONG TAIL.
- GROUND LOOP TO RUN INSIDE STRUCTURE ABOVE ROADWAY.
- TYPICAL CONNECTION TO STRUCTURAL COLUMN VIA CADWELD.
- ALLOW ADEQUATE CABLE FOR CONNECTION TO ELECTRICAL SERVICE GROUND.
- TYPICAL #4/0 BARE COPPER BURIED 1 METRE BELOW GRADE.
- TYPICAL GROUND ROD - SEE GENERAL ELECTRICAL NOTE 3.
- #4/0 BARE COPPER RUN UP/DOWN COLUMNS AND OVER ROADBED IN CEILING STRUCTURE.

**GENERAL ELECTRICAL NOTES**

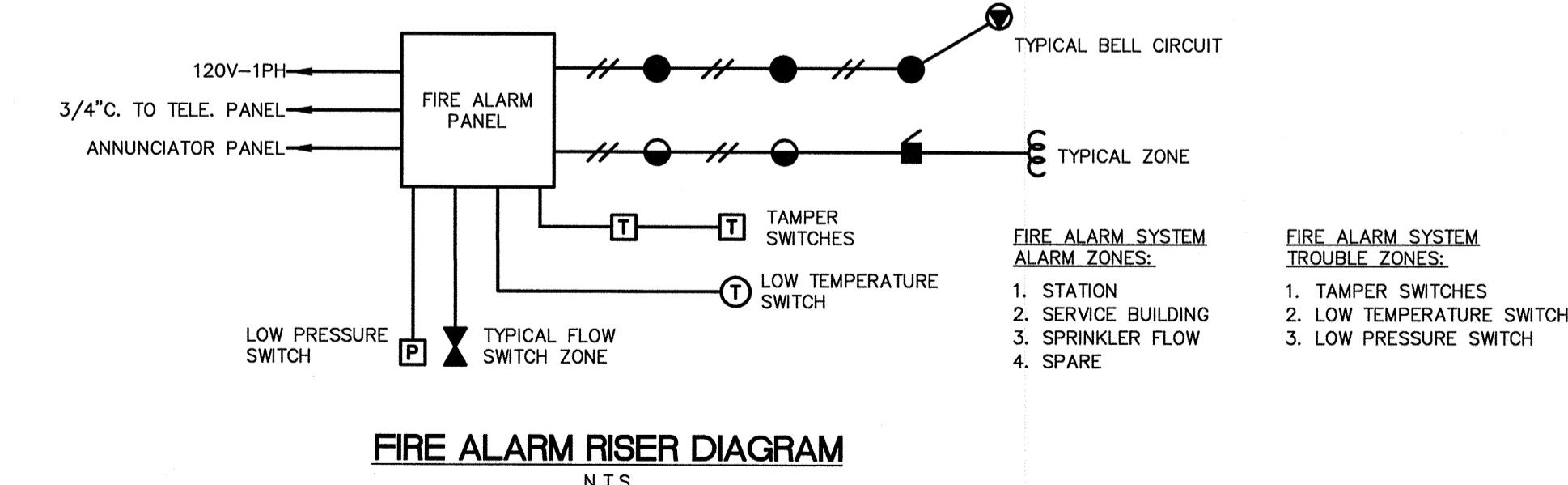
- PROVIDE A GRID NETWORK TYPE OF GROUNDING SYSTEM, AS SHOWN ON THIS DRAWING, HAVING A MAXIMUM RESISTANCE OF FIVE (5) OHMS. AFTER TESTING WITH A GROUNDING MEGGER, WHERE NECESSARY, ADDITIONAL GROUND RODS SHALL BE PROVIDED TO OBTAIN THIS RESISTANCE.
- TAPS AND CONNECTIONS WHICH ARE NORMALLY INACCESSIBLE AFTER INSTALLATION SHALL BE MADE USING A CADWELD CONNECTION TYPE "TA". SOLDER SHALL NOT BE USED.
- GROUND RODS SHALL BE 3/4" (19mm) DIAMETER BY 10'-0" (3050mm) LONG COPPER WELD RODS INSTALLED 2'-0" (760mm) BELOW GRADE. GROUND CABLE FOR THE NETWORK SHALL BE #4/0 BARE STRANDED COPPER INSTALLED 3'-0" (910mm) BELOW GRADE. NO MECHANICAL PROTECTION IS REQUIRED.



LUMINAIRE SCHEDULE			
TYPE	DESCRIPTION	CATALOG NUMBER	LAMPS
A	8' FLUORESCENT SURFACE MOUNTED - IP65 RATED C/W 3" STEM	PEERLESS STATION	4-54W T5HO/8' SECTION
B	4' FLUORESCENT	LITHONIA UNS	1-54W T5HO
1	STEP LIGHT MOUNTED IN POSTS - REFER TO LANDSCAPE ARCH DWGS	FC LIGHTING FCSL400	3-3W LED
2	HID FLOODLIGHT MTD. IN STRUCTURE - INDIRECT	LITHONIA WFL-2	1-150W MH
5	POST MOUNTED LIGHT C/W 18" POST (5" ROUND)	REBELLE CYL-003	1-150W MH
6	ROADWAY LIGHTING	HOLLOPHANE PREDATOR	1-100W HPS
	EMERGENCY DOUBLE HEAD FIXTURE - VANDAL RESISTANT, WEATHERPROOF	SEE SPEC SECTION 26 52 01	2-20W MR16

**LUMINAIRE SCHEDULE NOTES:**

- ALL FLUORESCENT BALLASTS TO BE ELECTRONIC, MB HYDRO "POWER SMART" APPROVED.
- ALL FLUORESCENT LAMPS TO BE 4100K & 85 CRI, UNLESS OTHERWISE NOTED.
- REFER ALSO TO SPECIFICATION SECTION 26 50 00.



**FIRE ALARM RISER DIAGRAM**  
N.T.S.

Certificate of Authorization Nova 3 Engineering Ltd. No. 962 Date 2010-05-13	LOCATION UNDERGROUND APPROVED STRUCTURES SUPV. U/G STRUCTURES COMMITTEE DATE	B.M. ELEV.	DESIGNED BY DRAWN BY CHECKED BY APPROVED BY	 		 SOUTHWEST RAPID TRANSIT CORRIDOR - STAGE 1 OSBORNE STATION & ASSOCIATED WORKS ELECTRICAL DETAILS AND SCHEDULES	CITY DRAWING NUMBER <b>B237-10-93</b>
	NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.	NOVA 3 JOB NUMBER: 29-187 REFER TO WWW.NOVA3.CA FOR CAUTIONARY NOTES.	1 ISSUED FOR TENDER NO. REVISIONS DATE BY	HOR. SCALE VERTICAL DATE	RELEASED FOR CONSTRUCTION DATE		CONSULTANT PROJECT NO. <b>088813</b>