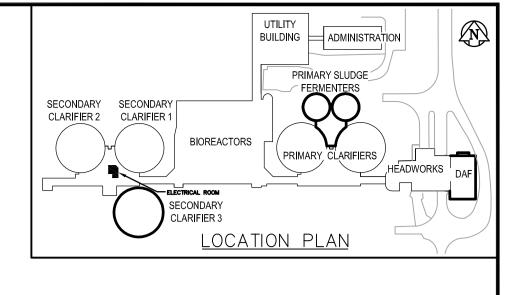


	PANEL SCHEDULE											
	Panel SB  DESCRIPTION   LOAD   BKR   CCT   A   B   C   CCT   BKR   LOAD   DESCRIPTION											
	Receptacle	2	15A	1	*	۳	$\overline{}$	2	15	LOAD	Glycol Feed Tank S776-GFT	
	Receptacle	2	15	3		*		4	20		Natural Gas Blower S760-GH	
	Receptacle	3	15	5		$\vdash$	*	6	20		Natural Gas Blower S765-GH	
	Receptacle	3	15	7	*	$\vdash$		8	15		Supply Fan S780-SF	
9	Flow Transmitter S820-FIT		15	9	-	*	*	10	15 15	Flow Transmitter S720-FIT		
	Flow Transmitter S540-FIT		15	11						Flow Transmitter S740-FIT		
	Flow Transmitter S710-FIT		15	13	*			14	15		Flow Transmitter S821-FIT	
	Spare		15	15		*		16	-		Space	
	Spare		15	17			*	18	-		Space	
	Spare		15	19	*			20	-		Space	
	Spare		15	21		*		22	-		Space	
	Spare		15	23			*	24	-		Space	
$1 \setminus \bigcirc$	Motorized Dampers for 750-AHU		15	25	*			26	-		Space	
_/	Motorized Dampers for 780-SF		15	27		*		28	-		Space	
	Control Valve for 750-AHU		15	29			*	30	-		Space	
	Space		-	31	*			32	-		Space	
	Space		-	33		*		34	-		Space	
	Space		-	35			*	36	-		Space	
	Space		-	37	*			38	-		Space	
	Space		-	39		*		40	-		Space	
			-	41			*	42	-		Space	
	Voltage:   120/208V/3Ø/4 wire							Feeder:			4/C#3 TECK	
	Mains: 225A							Main Breaker:			N/A	
	Location: Secondary Clarifier Electrical Room							Power Source:			Transfromer XFMR-SB	
	Mounting: Surface											



FLOOR PLAN
SCALE: 1: 25

NEW SECTION		MCC -	- 1S			MCC - 2S				
6	S210-FWP MCP SIZE 1 SEC. CLAR. EFFL. WATER PUMP 5.6 kW	S600-MUA 40A-3P BREAKER ELECTRIC SEC. CLAR. MAKE UP AIR UNIT 0.75 kW	S605-AEF MCP SIZE 1 SEC. CLAR. AXIAL EX. FAN 7.5 kW	S695-EF MCP SIZE 1 SEC. CLAR. EX. FAN 1.5 kW (15A-3P BREAKER????)	S220-FWP MCP SIZE 3 SEC. CLAR. EFFL. WATER PUMP 22.4 kW	S629-UH S632-SMP 15A-3P S633-SMP BREAKER 20A-3P ELECTRIC BREAKER ROTORK SUBMER. ACTUATOR SUMP 0.75 kW PUMP 5.6 kW		6		
	S510-CM MCP SIZE 1 SEC. CLAR. DRIVE #1 0.75 kW	S636-SMP S641-UH S637-SMP 15A-3P 15A-3P BREAKER BREAKER MIX, LIQ. SUBMERS. UNIT SUMP HEATER PUMP 10 kW 3.73 kW		S770-GP MCP SIZE 1 GLYCOL CIRC. PUMP 3.75 kW	S520-CM MCP SIZE 1 SEC. CLAR.	S634-SMP S650-MUA S635-SMP 40A-3P 15A-3P BREAKER BREAKER SEC CLAR. SUBMER. MAKE UP AIR UNIT PUMP 11.2 kW 3.73 kW				
	SPACE	70A-3P BREAKER RETURN ACT. SLUDGE PUMP 22.4 kW  80A-3P BREAKER RETURN ACT. SLUDGE PUMP 22.4 kW	S740-RAP 80A-3P BREAKER RETURN ACT. 8 SLUDGE PUMP 22.4 kW	SPACE	DRIVE #2 0.75 kW  S330-DWP MCP SIZE DEWATERING PUMP kW	S720-RAP 70A-3P BREAKER RETURN ACT. SLUDGE PUMP 22.4 kW	SPARE (7) MCP SIZE 1			
	HOLDED OACE		S750-SF 50A-3P BREAKER MAKE UP AIR UNIT SUPPLY FAN 15 kW  S750-EF 50A-3P BREAKER MAKE UP AIR UNIT EXHAUST FAN 15 kW	MOLDED OACE		SPARE 1 MCP SIZE 1	S750-RAP XFMR-SB 80A-3P 40A-3P BREAKER BREAKER RETURN TRNSFRMR ACT. 8 PNL SB 30kW PUMP 22.4 kW			
	MOLDED CASE SWITCH 400A, 600V (EXISTING LUG CONNECTION)	S230-FWP 200A-3P BREAKER SEC. CLAR. EFFL. WATER PUMP 64kW	SPARE (7) MCP SIZE 1	MOLDED CASE TIE SWITCH 400A, 600V	MOLDED CASE SWITCH 400A, 600V (EXISTING LUG CONNECTION)	S240-FP MCP SIZE 4 SEC. CLAR. FIRE PUMP 75 kW	S775-GP MCP SIZE 1 GLYCOL FEED PUMP 3.75 kW			
			S530-CM MCP SIZE 1 SECONDARY CLARIFIER 3 DRIVE 0.75 kW							

## DRAWING NOTES

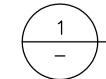
## MOTOR CONTROL CENTRES 1S & 2S

- 1) SIZE 1 STARTERS FOR WAS ACTIVATED SLUDGE PUMPS S810-WAP AND S820-WAP SHALL BE DISCONNECTED AND LEFT IN PLACE AS SPARES. EXISTING PUMPS S810-WAP AND S820-WAP SHALL BE DISCONNECTED AND ALL WIRING FROM EXISTING STARTERS TO BE REMOVED. (REFER TO DRAWING SE3.02) MODIFY STARTER LABELS TO SUIT REVISED EQUIPMENT. MODIFY WRAPPER DOOR AS REQUIRED.
- 2) REMOVE BREAKER (MCC-1S) FOR EXISTING PUMP S730-RAP. REPLACE BREAKER WITH NEW 80A-3P, 600V BRÈAKER. RECONNECT EXISTING WIRING. REFER TO DRAWING SE3.02.
- 3 SIZE 3 STARTER (MCC-1S) FOR FLUSHING WATER PUMP S230-FWP SHALL BE DISCONNECTED AND REMOVED. PROVIDE NEW MCC WRAPPER COMPLETE WITH 200A-3P BREAKER. REMOVE EXISTING WIRING FROM EXISTING STARTER TO EXISTING PUMP MOTOR INSTALL NEW POWER WIRING TO NEW PUMP MOTOR (3/C#1 TECK CABLE). RECONNECT EXISTING CONTROL WIRING FOR S230-FWP AT NEW MOTOR STARTER.
- (4) PROVIDE NEW STARTER AND BREAKER WRAPPERS IN EXISTING SPACES AS INDICATED ON MCC ELEVATION. MODIFY DOORS TO SUIT NEW STARTERS, CONTROL SWITCHES, INDICATING LIGHTS AND BREAKERS AS REQUIRED.
- (5) EXISTING MCC'S. REFER TO DETAIL FOR EXISTING DETAILS AND MODIFICATIONS.
- 6 PROVIDE ADDITIONAL VERTICAL CELL TO EACH END OF MCC. CONNECT TO EXISTING MCC
- (7) SIZE 1 STARTERS FOR WAS ACTIVATED SLUDGE PUMPS S850-SP AND S860-SP SHALL BE DISCONNECTED AND LEFT IN PLACE AS SPARES. EXISTING PUMPS S850-SP AND S860-SP SHALL BE DISCONNECTED AND ALL WIRING FROM EXISTING STARTERS TO BE REMOVED. (REFER TO DRAWING SE3.02) MODIFY STARTER LABELS TO SUIT REVISED EQUIPMENT. MODIFY WRAPPER DOOR AS REQUIRED.
- (8) PROVIDE NEW BREAKER WRAPPERS IN EXISTING SPACES AS INDICATED ON MCC ELEVATION FOR RETURN ACTIVATED SLUDGE PUMPS S740-RAP AND S750-RAP. PROVIDE NEW SIZE R5 VFD'S AS SHOWN ON FLOOR PLAN. INSTALL NEW POWER WIRING TO NEW VFD AND FROM VFD TO PUMP MOTOR (3/C#4 TECK CABLE WITH 100% GROUND WIRE).
- 9 PANEL SB INSTRUMENT CIRCUITS REFER TO INSTRUMENTATION AND CONTROL DRAWINGS FOR INSTRUMENTATION LOCATIONS. PROVIDE WIRE AND CABLE AS PER INSTRUMENT CABLE

## GENERAL NOTES

SE4.01

- 1. COORDINATE WITH OTHER TRADES TO PREVENT CONFLICTS.
- 2. USE PVC JACKETED HITECK CABLE FOR ALL POWER WIRING.
- 3. WIRING FOR LIGHTING, RECEPTACLES AND COMMUNICATIONS TO IN RGID ALUMINUM CONDUIT.
- 4. ALL CONDUIT TO BE 21mmø MINIMUM UNLESS OTHERWISE NOTED.



DETAIL - EXISTING MOTOR CONTROL CENTRE MODIFICATIONS

SCALE 1:25

**APEGN** Certificate of Authorization Earth Tech Canada Inc. No. 730 Expiry: April 30, 2006

B.M ELE			9	Ear	ENGINEER'S SEAL			
					A Tyco Ini	ORIGINAL SIGNED BY		
				DESIGNED BY	GSN	CHECKED BY	PS	P. STRYK
				DRAWN BY	ERC	APPROVED BY	JEH	2006/04/26
01	21-2006 ADDENDUM 3 ISSUED FOR TENDER	06/04/26	ERC ERC	HOR. SCALE: VERTICAL SCAL	NTS .E:	RELEASED F CONSTRUCT J. VEI		CONSULTANT DRAWING NO.

2005/11/22

DATE 2006/04/26

DATE BY DATE

O. REVISIONS

Winnipeg ENGINEERING DIVISION

THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT

CITY FILE NUMBER BIOLOGICAL NUTRIENT REMOVAL UPGRADE SHEET OF CONTRACT 3 CITY DRAWING NUMBER

ELECTRICAL AREA S - SECONDARY CLARIFIERS EXISTING ELECTRICAL ROOM DETAILS