



- 1 120Vac CONTROL TRANSFORMER C/W FUSED SEC.
- 2
- 3 P631-HS1 LOCK-OFF-STOP SWITCH
- 4 P631-R3 FAN FAIL RELAY
- 5 P631-1M AC MAGNETIC CONTACTOR (SLOW)
- 6 P631-QF FAN FAIL LIGHT
- 7 P631-PS FAN LOW FLOW PRESSURE SWITCH.
- 8 P631-MB FAN SLOW INDICATING LIGHT
- 9 P631-2M AC MAGNETIC CONTACTOR (FAST)
- 10 P631-KY LOW FLOW DELAY RELAY
- 11 P631-R5 EXHAUST INTERLOCK RELAY
- 12 P631-MD FAN FAST INDICATING LIGHT
- 13
- 14 P631-ZSD SUPPLY AIR DAMPER LIMIT SWITCH
- 15 P631-QF FAN FAIL SIGNAL TO DCS
- 16 P631-HS2 COMPUTER-OFF-HAND SWITCH
- 17 P631-YS C-O-H INPUT TO DCS
- 18
- 19 P631-R5 COMP SWITCH ADDITIONAL CONTACTS
- 20
- 21 P631-SB SLOW FAN SIGNAL FROM DCS
- 22
- 23
- 24 P631-R4 FAN SLOW RELAY
- 25 P631-SD FAST FAN SIGNAL FROM DCS
- 26 P631-VY DAMPER SOL. VALVE FOR DAMPER P631-VZ
- 27 P631-HS4 SLOW-FAST HAND SWITCH
- 28 P631-R1 FAN FAST RELAY
- 29 P631-R2 FAN STOP RELAY
- 30 P631-MO FAN STOP SIGNAL FROM DCS

**APEGN**  
Certificate of Authorization  
SNC-Lavalin Inc.  
No. 4489

**SNC-LAVALIN INC.**  
148 Nature Park Way  
Winnipeg, Manitoba  
Canada R3P 0X7

DESIGNED: T. CHURCH  
APPROVED: C. REIMER

CHECKED: C. REIMEER  
DATE: 2012/02/16

| PROJECT No. | SUBDIV. | SUBJECT | SERIAL | REV. |
|-------------|---------|---------|--------|------|
| 112577      | 0113    | 47 DD   | 2402   | 6    |

ORIGINAL DRAWING  
SEALED BY:  
T. M. CHURCH  
SNC-LAVALIN  
MEMBER # 32682  
2012/02/15  
REV. 06  
CHANGES ONLY

|    |                       |            |      |
|----|-----------------------|------------|------|
| 6  | ADDED HAZARDOUS SEALS | 2012/02/09 | TMC  |
| 5  | REVISED TO DATE       | 07/04/13   | WKT  |
| 4  | DCS ADDRESSES ADDED   | MAR/94     | B.T. |
| 3  | AS BUILT              | MAY 91     | A.H. |
| 2  | RESUBMIT FOR APRV'L   | JAN15      | A.H. |
| 1  | RESUBMIT FOR APRV'L   | OCT1       | A.H. |
| 0  | FOR APPROVAL          | AUG20      | A.H. |
| NO | REVISIONS             | DATE       | BY   |

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

**Winnipeg**

PRIMARY CLARIFIER EXPANSION, CONTRACT 2 - P.D. 89-205  
PRIMARY CLARIFIER 1 & 2  
EXHAUST FAN  
LOOP DRAWING P631-EF31

DRAWING ORIGINATED BY :  
**STATE CONTRACTORS**  
AUTOMATION & INSTRUMENTATION DIV.  
BRAMALEA, ONTARIO.

**STATE**

|             |             |                  |           |
|-------------|-------------|------------------|-----------|
| DRAWN BY    | A.H.        | CITY DRAWING NO. | SEP-1187  |
| CHECKED     | F.H.        | DATE             | AUG 20/90 |
| DRAWING NO: | 05-1004-117 | SPEC. SECTION    | 16900     |
|             |             | SHEET            | 1 OF 2    |