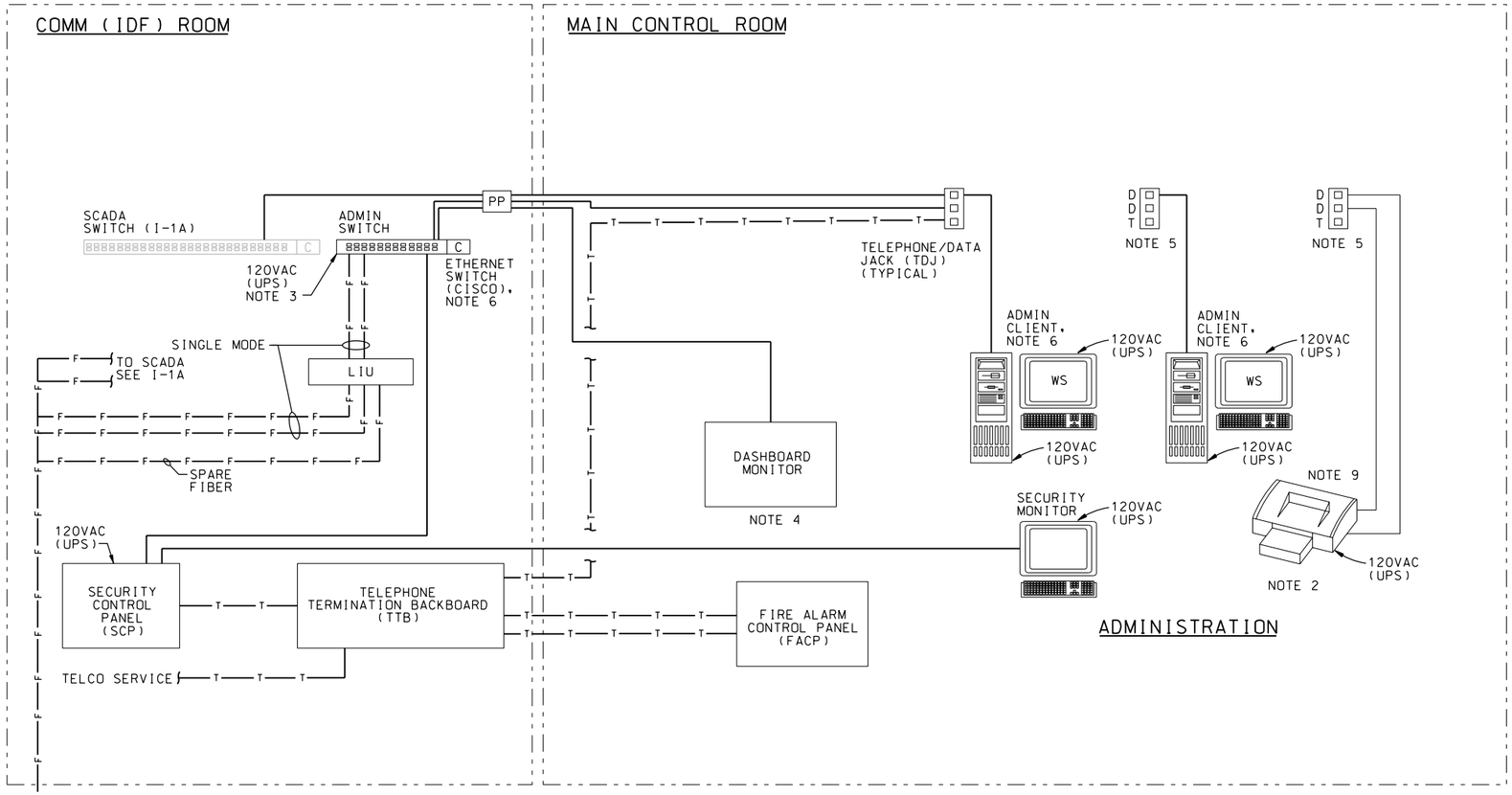

12-PAIR SINGLE MODE FIBER OPTIC CABLE

LIU

TERMINATE AT NEW PATCH PANEL IN EXISTING RACK AT WWTP OPERATIONS AND MAINTENANCE CENTER FOR CONNECTION TO EXISTING SPARE FIBER

SCADA RACK
MONITOR
KVM
SCADA SERVER 1
SCADA SERVER 2
HIS SERVER
SCADA SWITCH
FIREWALL
RM

ADMIN RACK
LIU
PP
ADMIN SWITCH
NOTE 6

LEGEND

BAT	= BATTERY PACK
CN	= CONTROLNET MODULE
D	= DATA PORT
EM	= ETHERNET MODULE
FW	= FIREWALL
I/O	= INPUT/OUTPUT
IDF	= INTERNAL DATA FACILITY
KVM	= SWITCH TO ENABLE CONTROL OF MULTIPLE COMPUTERS FROM A SINGLE SVM STATION
LCP	= LOCAL CONTROL PANEL
LIU	= LIGHTWAVE INTERFACE UNIT (FIBER OPTIC PATCH PANEL)
LS	= LIGHTNING SUPPRESSOR
MB	= MODBUS MODULE
MCP	= MAIN CONTROL PANEL
OIT	= OPERATOR INTERFACE TERMINAL
PM	= POWER METER
PLC	= PROGRAMMABLE LOGIC CONTROLLER
PP	= PATCH PANEL
PR	= PROCESSOR
PS	= POWER SUPPLY
R	= ROUTER
RIO	= REMOTE I/O
RM	= RAS MODEM
SRM	= SYSTEM REDUNDANCY MODULE
T	= TELEPHONE PORT
UPS	= UNINTERUPTIBLE POWER SUPPLY
VFD	= VARIABLE FREQUENCY DRIVE
WS	= WORKSTATION
■	= END OF LINE RESISTOR
—o——o—	CONTROLNET CABLE
—S——S—	RS 485 CABLE
—F——F—	ETHERNET FIBER CABLE
—T——T—	TELCO CABLE
———	ETHERNET CAT 6 CABLE

NOTES:

1. NOT USED
2. ALL IN ONE, XEROX, FAX, SCANNER, AND PRINTER TO BE SUPPLIED BY EMWD IS DEPARTMENT.
3. UPS LOCATED IN OPERATIONS BUILDING ELECTRICAL ROOM.
4. DASHBOARD MONITOR LOCATED IN OPERATIONS BLDG CONFERENCE ROOM.
5. CONNECTION TO TELEPHONE/DATA JACK (TDJ). DATA JACKS CONNECTED TO SCADA AND/OR ADMINISTRATIVE ETHERNET SWITCHES, VIA PATCH PANEL.
6. ADMIN SWITCH AND ADMIN CLIENTS SUPPLIED BY EMWD.
7. NOT USED
8. NOT USED
9. THE OUTPUT DEVICES SHALL BE PROVIDED WITH DUAL (2) NETWORK CARDS FOR CONNECTION TO SCADA AND ADMINISTRATION SERVERS.

REGISTERED PROFESSIONAL ENGINEER JERRY NORDAL No. 12566 Exp. 9-30-11 ELECTRICAL STATE OF CALIFORNIA

DATE: 10/05/09

SYMBOL	DESCRIPTIONS	DATE	APPROVAL

REVISIONS

EASTERN MUNICIPAL WATER DISTRICT
PERRIS II DESALINATION FACILITY
PERRIS, CALIFORNIA

SCADA BLOCK DIAGRAM 2

DESIGNED BY: J NORDAL
DRAWN BY: J LORING
CHECKED BY: W PEARSON

U.S. ARMY ENGINEER DISTRICT
LOS ANGELES
CORPS OF ENGINEERS

CH2MHILL

SUBMITTED BY: ART JUNG, P.E. CHIEF, DESIGN BRANCH

CADD FILE NAME: PDFd601bd.dgn

SPEC. NO.: NOT APPLICABLE

L.A. DISTRICT FILE NO. XXX-XXXX

I-1B

SHEET 190 OF 226 SHEETS

PLOT DATE: 2/19/2010 PLOT TIME: 11:11:44 AM

NDM-SCO:EMWD USACE PERRIS II/PDFd601bd.dgn