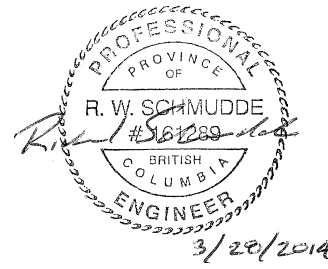
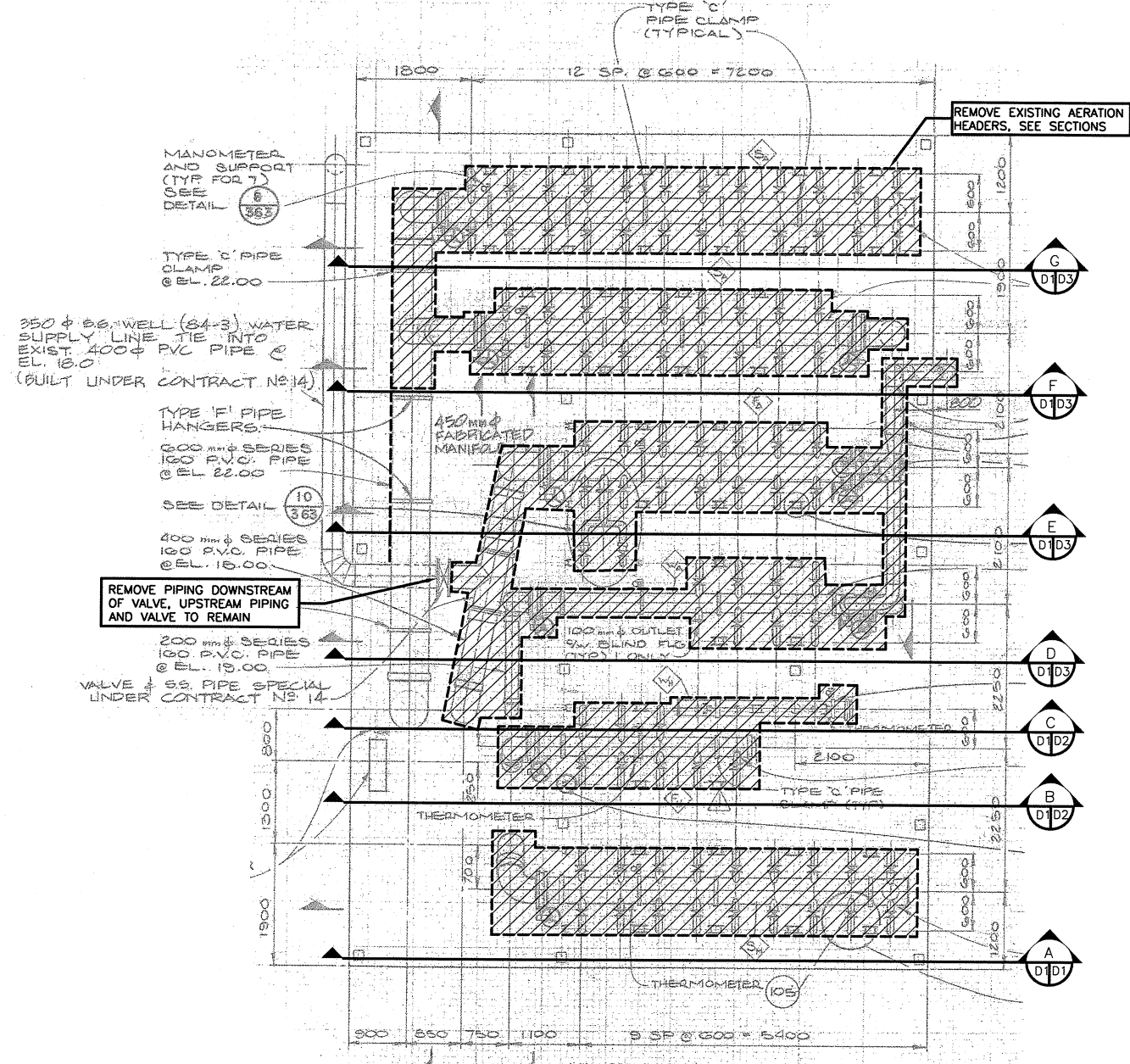


A vertical line with four points labeled A, B, C, and D from bottom to top. Horizontal tick marks extend from each point to the right.

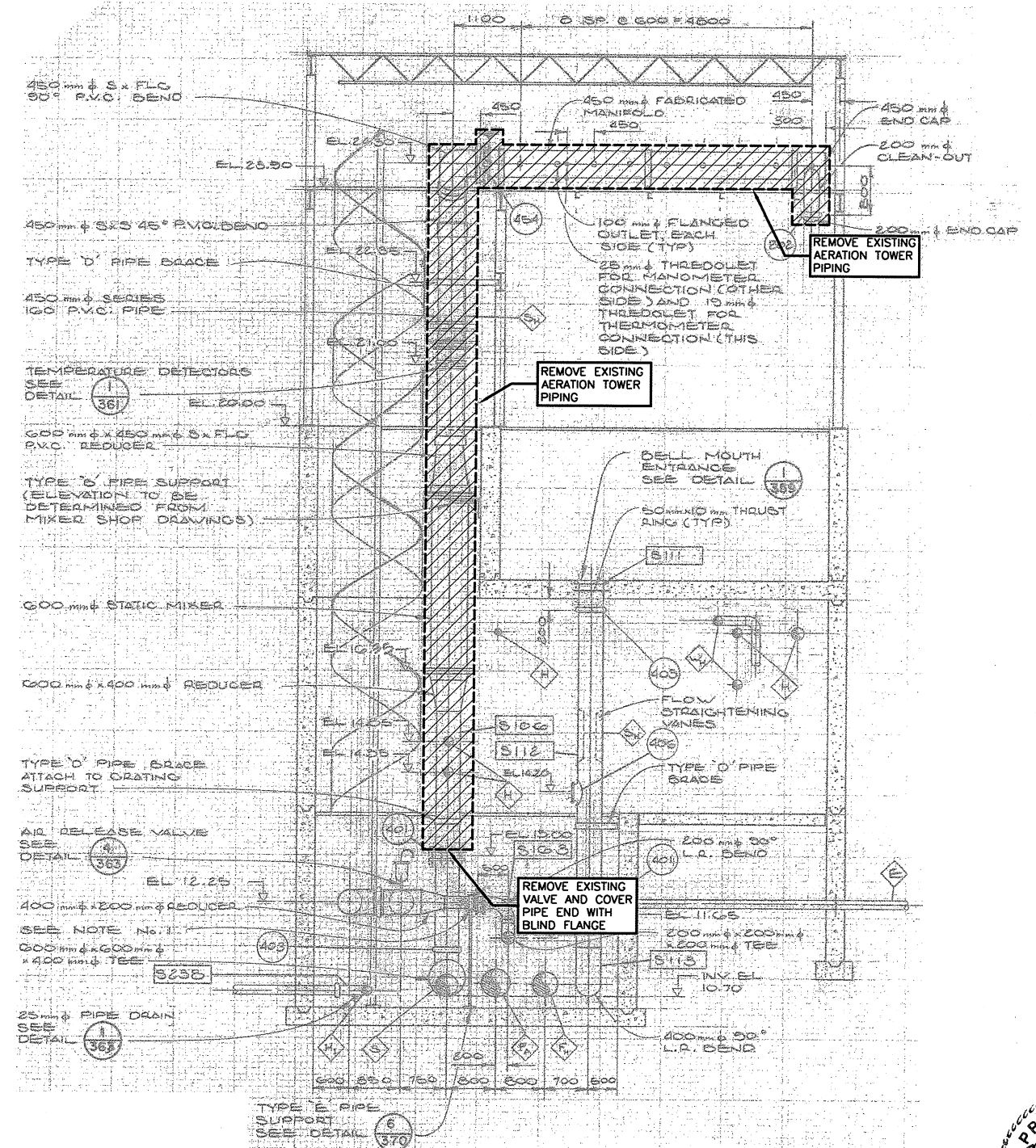
G1	COVER SHEET
D1	DEMOLITION PLAN AT EL 25.0 AND SECTION
D2	DEMOLITION SECTIONS 1
D3	DEMOLITION SECTIONS 2
D4	DEMOLITION PLAN AT EL 17.0 AND SECTION
D5	DEMOLITION DETAIL
S1	STRUCTURAL PLAN, GRATING PLAN AND NOTES
S2	STRUCTURAL SECTIONS AND DETAILS
M1	PIPING AND EQUIPMENT PLAN
M2	PIPING SECTIONS
M3	GATE SCHEDULE AND DETAILS
M4	AERATION COLUMN PLANS, ELEVATIONS, AND DETAILS
E1	LIGHTING PLAN, DETAILS AND SYMBOLS
E2	ELECTRICAL AND INSTRUMENTATION PLANS





DEMO PLAN AT EL 25.0

NOT TO SCALE



SECTION

NOT TO SCALE



VERIFY SCALES
BAR IS 30mm ON ORIGINAL DRAWING
0 30
IF NOT TO SCALE ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HDR
Fisheries
DESIGN CENTER

DWG. NO.	REFERENCE	DRAWINGS

- WHERE REMOVED PIPING LEAVES OPENINGS IN THE EXISTING DECKING, CONTRACTOR SHALL PROVIDE COVER PLATES AND SECURELY FASTEN COVER PLATE TO DECKING.
- REMOVE EXISTING PIPE SUPPORTS AND HANGERS FOR PIPING WHICH HAS BEEN REMOVED.

NOTES

NO.	DATE	REVISIONS

DESIGNED EEO
DRAWN ACB
CHECKED LKP
RECOMMENDED
APPROVED
APPROVED

FISHERIES & OCEANS CANADA
REAL PROPERTY AND TECHNICAL SUPPORT BRANCH

KITIMAT RIVER HATCHERY
CONTRACT NO F1700-130721
AERATION TOWER MODIFICATIONS

DEMOLITION PLAN AT EL 25.0 AND SECTION

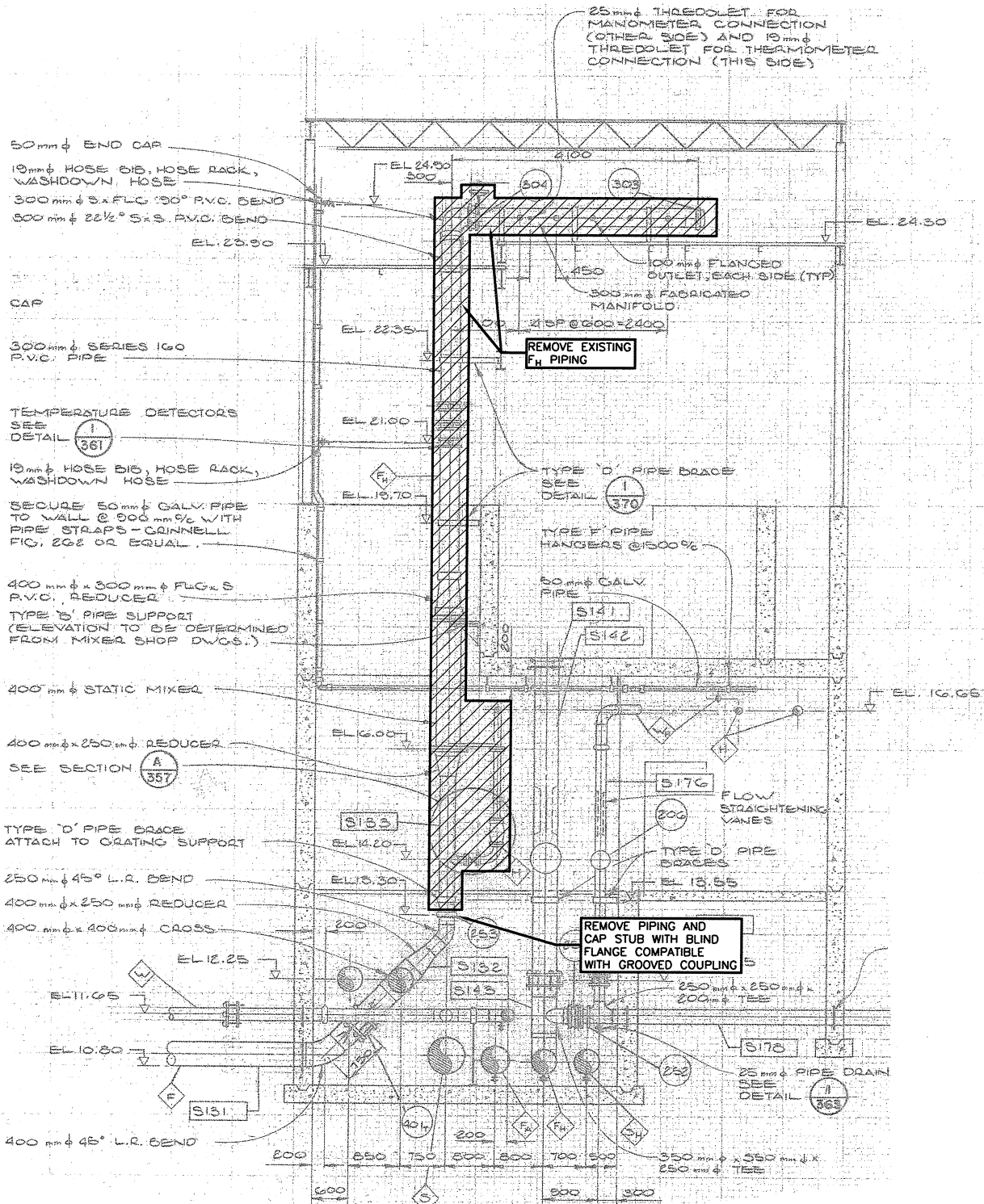
SCALE
NONE

DATE
03/20/2014

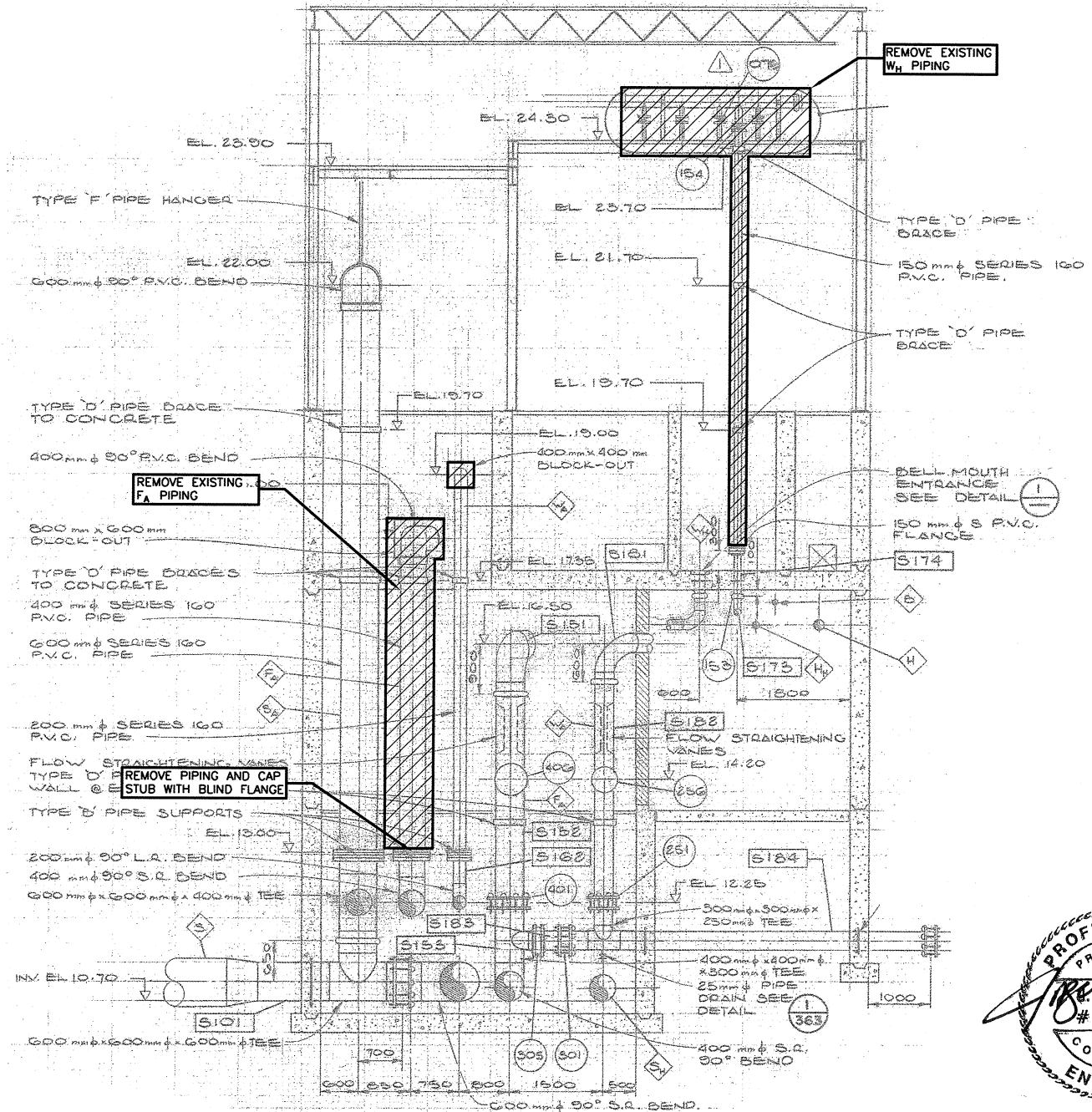
DRAWING NUMBER
D1

REVISION

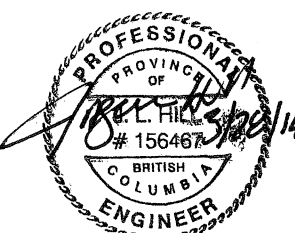




SECTION B
NOT TO SCALE



SECTION C
NOT TO SCALE



LEGEND
F_H PIPE = FILTERED HEATED
F_A PIPE = FILTERED AMBIENT
W_H PIPE = WELL HEATED

VERIFY SCALES
BAR IS 30mm ON
ORIGINAL DRAWING
0 30
IF NOT TO SCALE ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY



DWG. NO.	REFERENCE	DRAWINGS

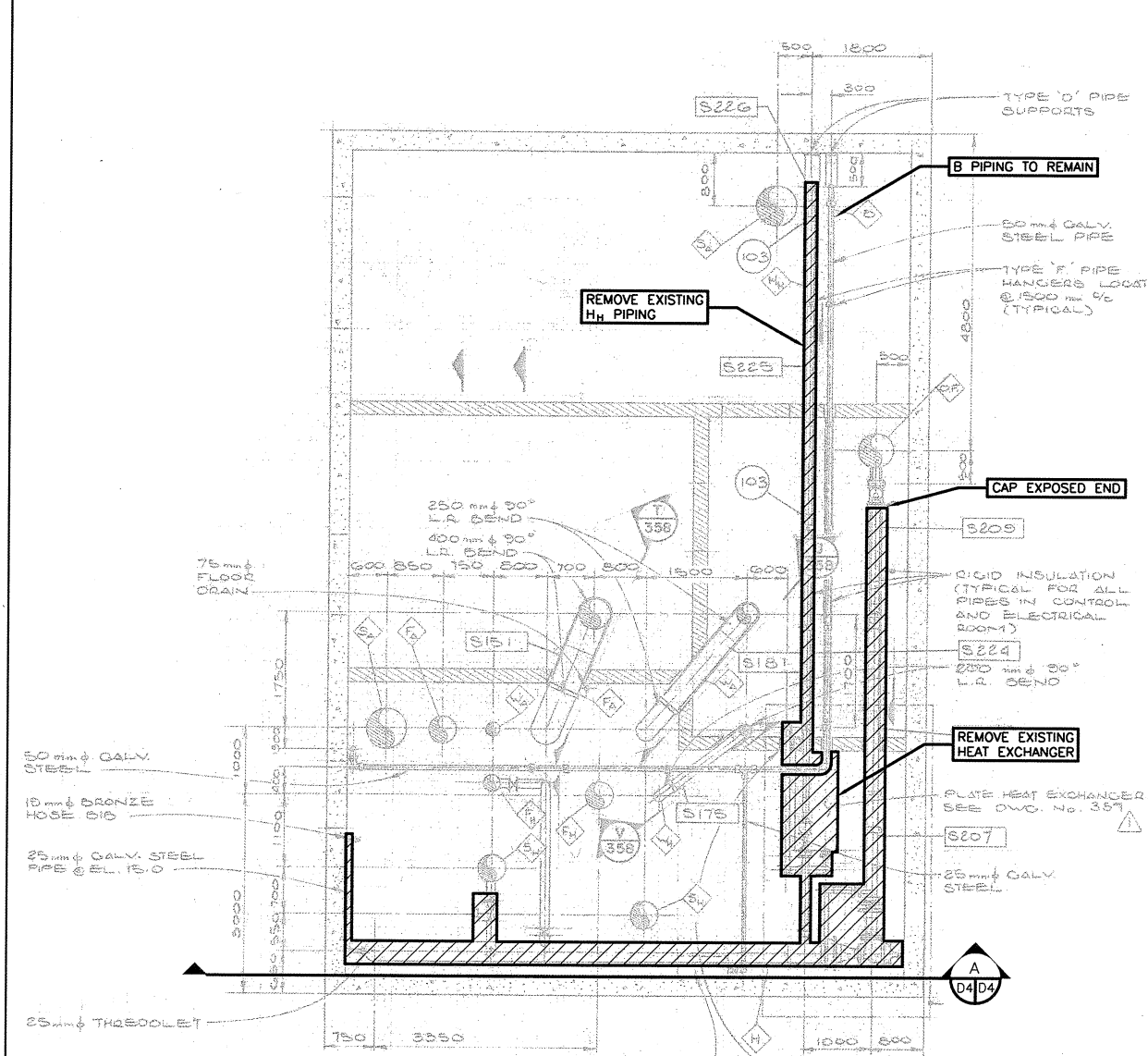
- WHERE REMOVED PIPING LEAVES OPENINGS IN THE EXISTING DECKING, CONTRACTOR SHALL PROVIDE COVER PLATES AND SECURELY FASTEN COVER PLATE TO DECKING.
- REMOVE EXISTING PIPE SUPPORTS AND HANGERS FOR PIPING WHICH HAS BEEN REMOVED.

NOTES

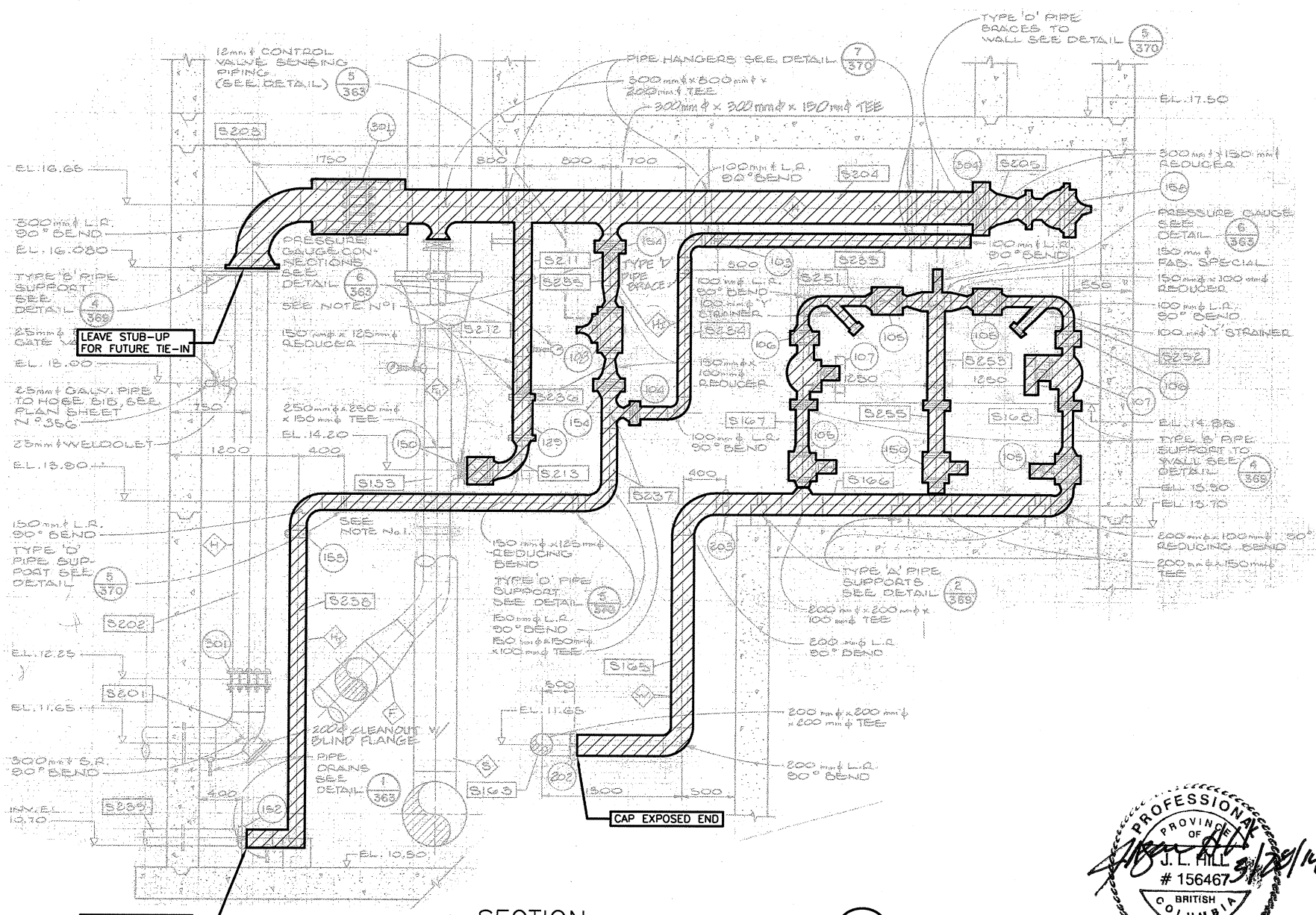
NO.	DATE	REVISIONS

DESIGNED	EEO
DRAWN	ACB
CHECKED	LKP
RECOMMENDED	
APPROVED	
APPROVED	

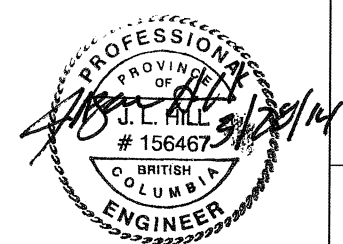
FISHERIES & OCEANS CANADA REAL PROPERTY AND TECHNICAL SUPPORT BRANCH		SCALE NONE
KITIMAT RIVER HATCHERY CONTRACT NO F1700-130721 AERATION TOWER MODIFICATIONS		DATE 03/20/2014
DEMOLITION SECTIONS 1		DRAWING NUMBER D2
		REVISION 1



DEMO PLAN AT EL 17.0
NOT TO SCALE



SECTION
NOT TO SCALE

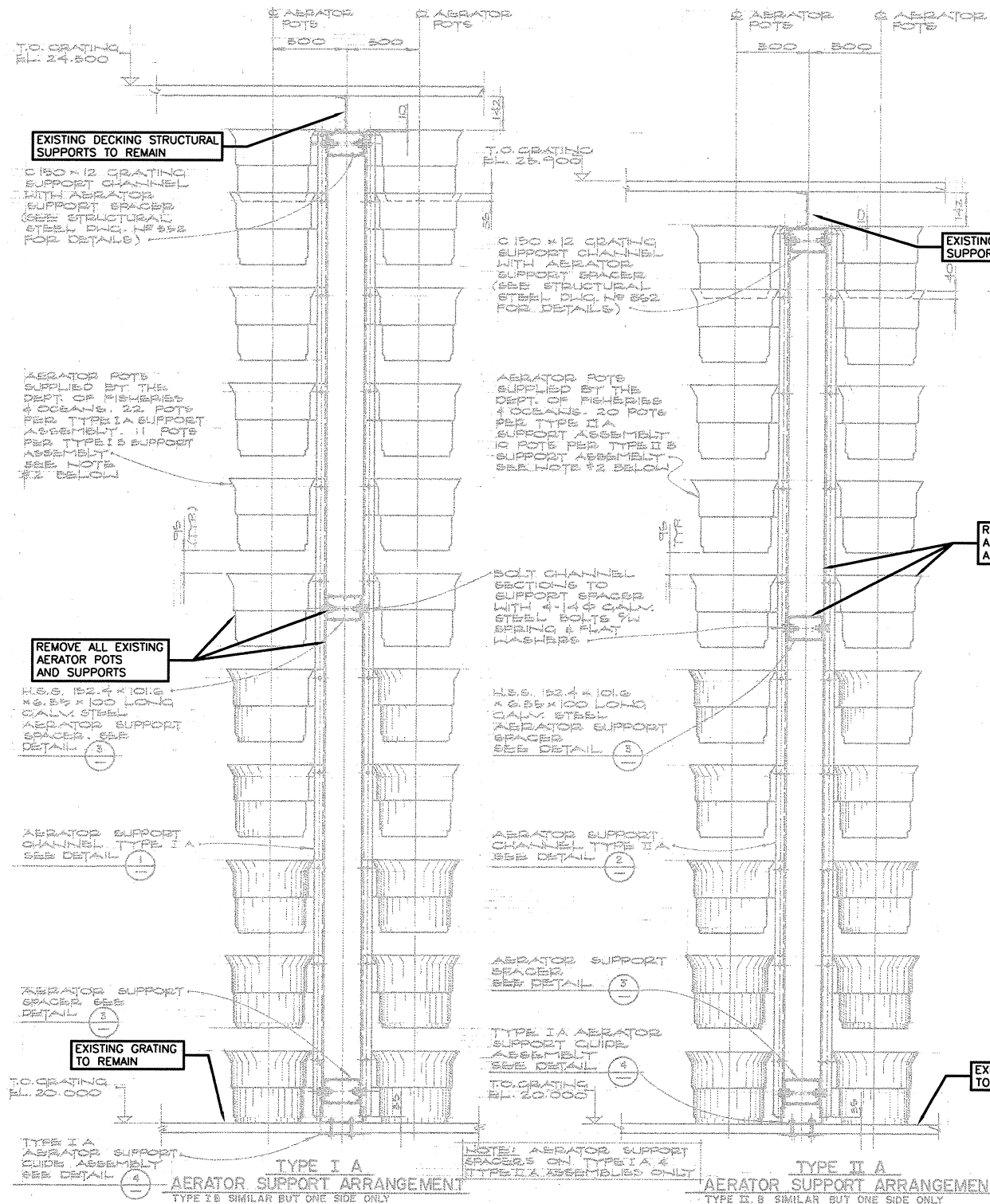


LEGEND
B PIPING = BOOSTED PRESSURE WATER SUPPLY
H_H PIPING = HOT WATER SUPPLY TO HATCHERY

VERIFY SCALES
BAR IS 30mm ON ORIGINAL DRAWING
0 30
IF NOT TO SCALE ON THIS SHEET, ADJUST SCALES ACCORDINGLY



			1. WHERE REMOVED PIPING LEAVES OPENINGS IN THE EXISTING DECKING, CONTRACTOR SHALL PROVIDE COVER PLATES AND SECURELY FASTEN COVER PLATE TO DECKING.									DESIGNED EEO			<div><div>REAL PROPERTY AND TECHNICAL SUPPORT BRANCH</div><div>KITIMAT RIVER HATCHERY</div><div>CONTRACT NO F1700-130721</div><div>AERATION TOWER MODIFICATIONS</div><div>DEMOLITION PLAN AT EL 17.0 AND SECTION</div></div>			SCALE NONE			
			2. REMOVE EXISTING PIPE SUPPORTS AND HANGERS FOR PIPING WHICH HAS BEEN REMOVED.									DRAWN ACB						DATE 03/20/2014			
												CHECKED LKP						DRAWING NUMBER D4			
												RECOMMENDED									
												APPROVED									
															APPROVED						
DWG. NO.	REFERENCE	DRAWINGS	NOTES						NO.	DATE	REVISIONS									REVISION	



EXISTING DECKING STRUCTURAL SUPPORTS TO REMAIN

C 150 x 12 GRATING SUPPORT CHANNEL WITH AERATOR SUPPORT SPACERS (SEE STRUCTURAL STEEL Dwg. No. 852 FOR DETAILS)

AERATOR POTS SUPPLIED BY THE DEPT. OF FISHERIES & OCEANS. 22 POTS PER TYPE I A SUPPORT ASSEMBLY. 11 POTS PER TYPE I B SUPPORT ASSEMBLY. SEE NOTE #2 BELOW

REMOVE ALL EXISTING AERATOR POTS AND SUPPORTS

H.S.S. 152.4 x 101.6 x 6.35 x 100 LONG GALV. STEEL AERATOR SUPPORT SPACERS. SEE DETAIL (3)

AERATOR SUPPORT CHANNEL TYPE I A. SEE DETAIL (1)

AERATOR SUPPORT SPACER. SEE DETAIL (3)

EXISTING GRATING TO REMAIN

TYPE I A AERATOR SUPPORT CHUTE ASSEMBLY. SEE DETAIL (4)

TYPE I A AERATOR SUPPORT ARRANGEMENT
TYPE I B SIMILAR BUT ONE SIDE ONLY

T.O. CRATING EL. 25.900

C 150 x 12 GRATING SUPPORT CHANNEL WITH AERATOR SUPPORT SPACERS (SEE STRUCTURAL STEEL Dwg. No. 852 FOR DETAILS)

AERATOR POTS SUPPLIED BY THE DEPT. OF FISHERIES & OCEANS. 20 POTS PER TYPE II A SUPPORT ASSEMBLY. 10 POTS PER TYPE II B SUPPORT ASSEMBLY. SEE NOTE #2 BELOW

BOLT CHANNEL SECTIONS TO SUPPORT SPACERS WITH 4-1/4" GALV. STEEL BOLTS 7/8" SPACING & FLAT WASHERS

H.S.S. 152.4 x 101.6 x 6.35 x 100 LONG GALV. STEEL AERATOR SUPPORT SPACERS. SEE DETAIL (3)

AERATOR SUPPORT CHANNEL TYPE II A. SEE DETAIL (2)

AERATOR SUPPORT SPACER. SEE DETAIL (3)

TYPE II A AERATOR SUPPORT CHUTE ASSEMBLY. SEE DETAIL (4)

NOTE: AERATOR SUPPORT SPACERS ON TYPE I A & TYPE II A ASSEMBLY ONLY

TYPE II A AERATOR SUPPORT ARRANGEMENT
TYPE II B SIMILAR BUT ONE SIDE ONLY

EXISTING DECKING STRUCTURAL SUPPORTS TO REMAIN

REMOVE ALL EXISTING AERATOR POTS AND SUPPORTS

EXISTING GRATING TO REMAIN

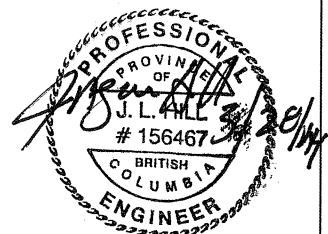
DETAIL
NOT TO SCALE



VERIFY SCALES
BAR IS 30mm ON ORIGINAL DRAWING
0 30
IF NOT TO SCALE ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DEMOLITION NOTES:

1. THE DEMOLITION DRAWINGS MAY NOT CALL OUT ALL OF THE PIPE ENDS TO BE CAPPED. THESE LINES SHALL BE CAPPED WHETHER OR NOT SHOWN ON THE DRAWINGS
2. OPENINGS IN THE GRATING LEFT FROM REMOVAL OF PIPING, EQUIPMENT OR FITTINGS SHALL BE COVERED WITH PLATES AND SECURELY FASTENED. REPLACEMENT OF EXISTING GRATING WITH IN KIND IS ACCEPTABLE WITH DFO REPRESENTATIVES PRIOR APPROVAL.
3. REMOVE ANY PIPE SUPPORTS OR HANGERS THAT ARE NO LONGER IN USE AFTER REMOVAL OF PIPES.
4. THE LOUVER ON THE EAST SIDE OF THE AERATION TOWER CAN BE REMOVED FOR ACCESS TO THE UPPER PORTION OF THE AERATION TOWER. LOUVER SHALL BE RESTORED UPON COMPLETION OF PROJECT.
5. ALL REMOVED MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH THE SPECIFICATIONS AND APPLICABLE CODES AND REGULATIONS BY THE CONTRACTOR.



DWG. NO.	REFERENCE DRAWINGS

NOTES

NO.	DATE	REVISIONS

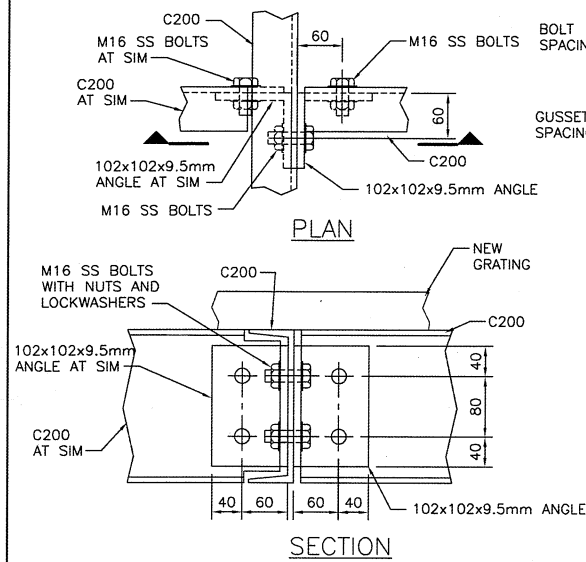
DESIGNED EEO
DRAWN ACB
CHECKED LKP
RECOMMENDED
APPROVED
APPROVED

FISHERIES & OCEANS CANADA
REAL PROPERTY AND TECHNICAL SUPPORT BRANCH

KITIMAT RIVER HATCHERY
CONTRACT NO F1700-130721
AERATION TOWER MODIFICATIONS

DEMOLITION
DETAIL

SCALE
NONE
DATE
03/20/2014
DRAWING NUMBER
D5
REVISION



DETAIL

SCALE: 1 : 5

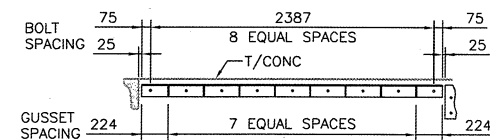
SUPPORT ANGLE L1

SUPPORT ANGLE L2

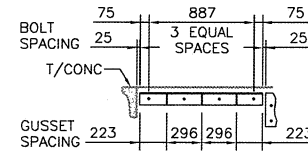
SUPPORT ANGLE L3

SUPPORT ANGLE L4

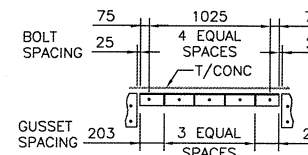
SUPPORT ANGLE L5



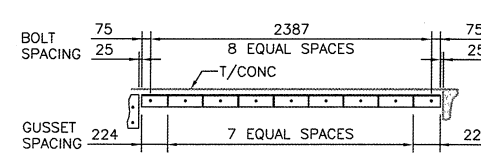
SUPPORT ANGLE L6



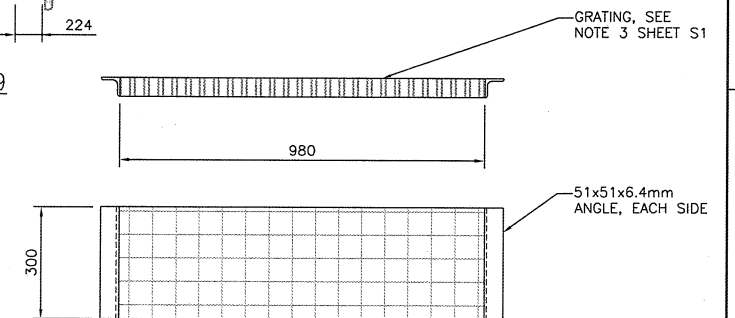
SUPPORT ANGLE L7



SUPPORT ANGLE L8



SUPPORT ANGLE L9



COVER DETAIL

NOT TO SCALE

SUPPORT ANGLE L10

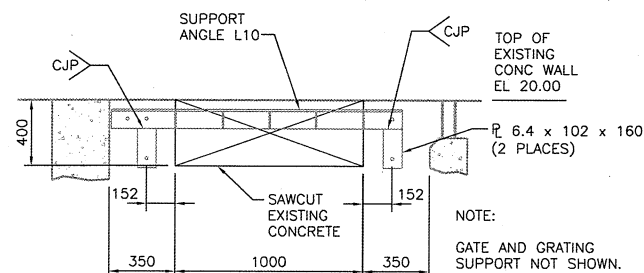
SUPPORT ANGLE L11

GRATING SUPPORT ANGLES

NOT TO SCALE

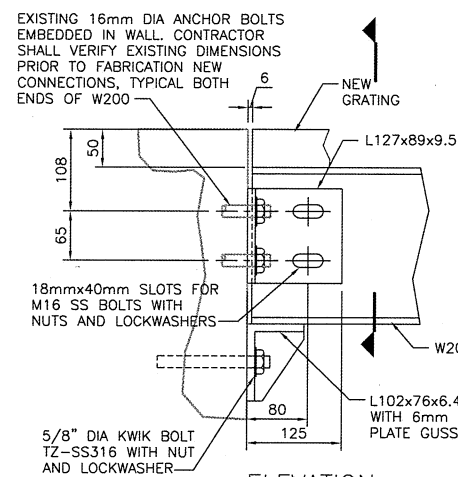
NOTE:

SEE DETAIL 4 ON THIS SHEET FOR TYPICAL SECTION OF SUPPORT ANGLE.



SECTION

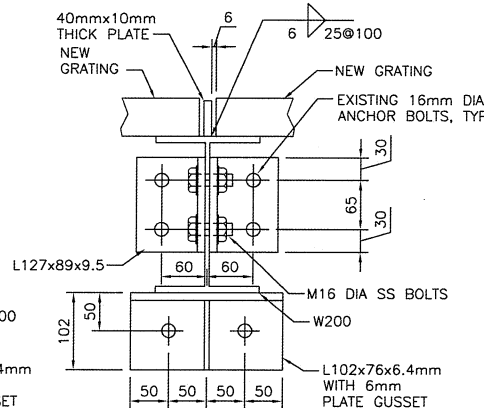
SCALE: 1 : 20



ELEVATION

DETAIL

SCALE: 1 : 5

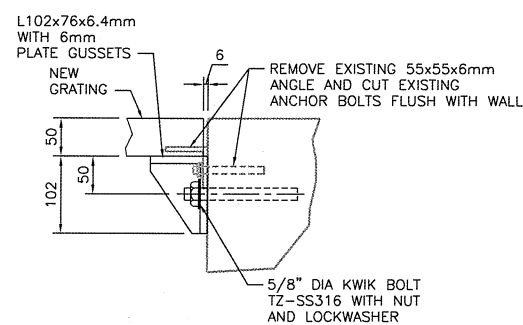


SECTION

3

DETAIL

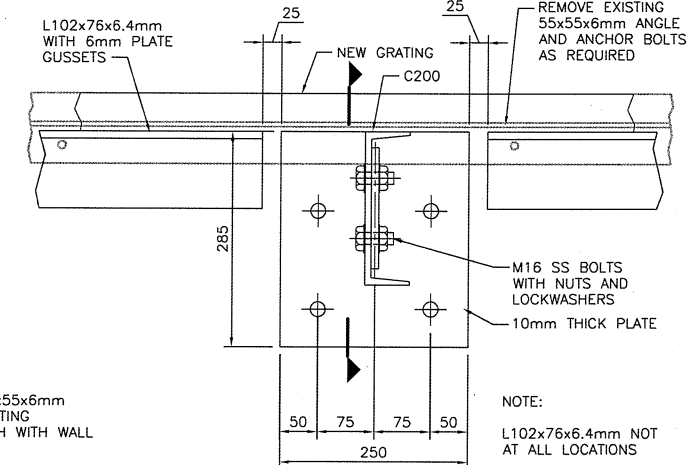
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4

DETAIL

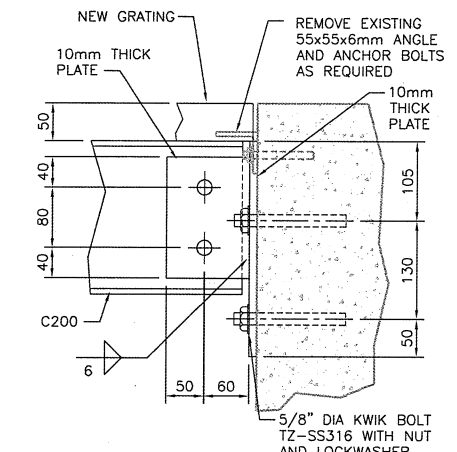
SCALE: 1 : 5



ELEVATION

DETAIL

SCALE: 1 : 5



SECTION

5

DETAIL

SCALE: 1 : 5

VERIFY SCALES
BAR IS 30mm ON ORIGINAL DRAWING
0 30
IF NOT TO SCALE ON THIS SHEET, ADJUST SCALES ACCORDINGLY

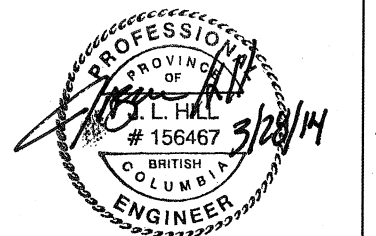
HDR
Fisheries
DESIGN CENTER

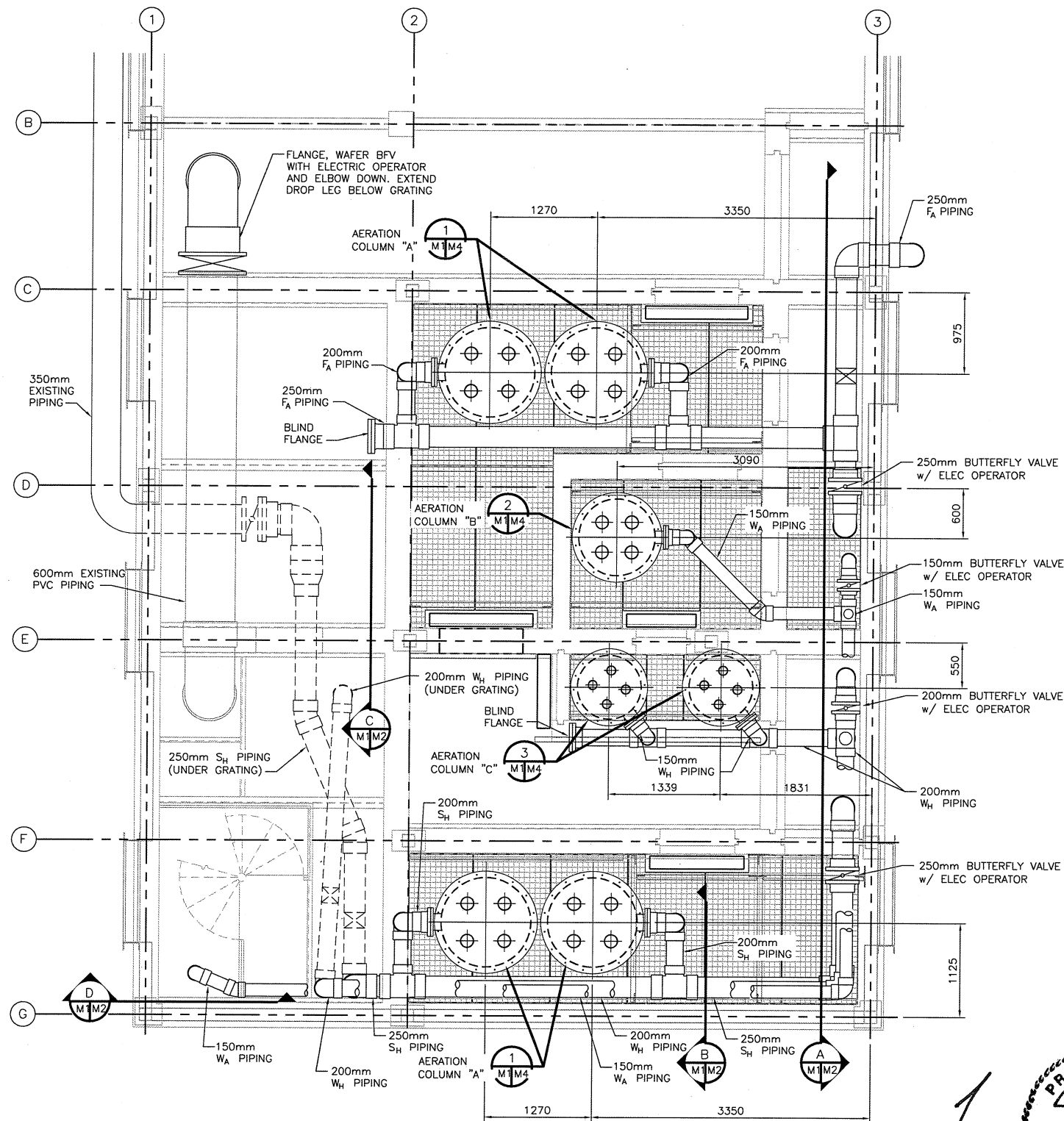
DWG. NO.	REFERENCE	DRAWINGS

NO.	DATE	REVISIONS

DESIGNED	DRAWN	CHECKED	RECOMMENDED	APPROVED
JLH	ACB	BB		

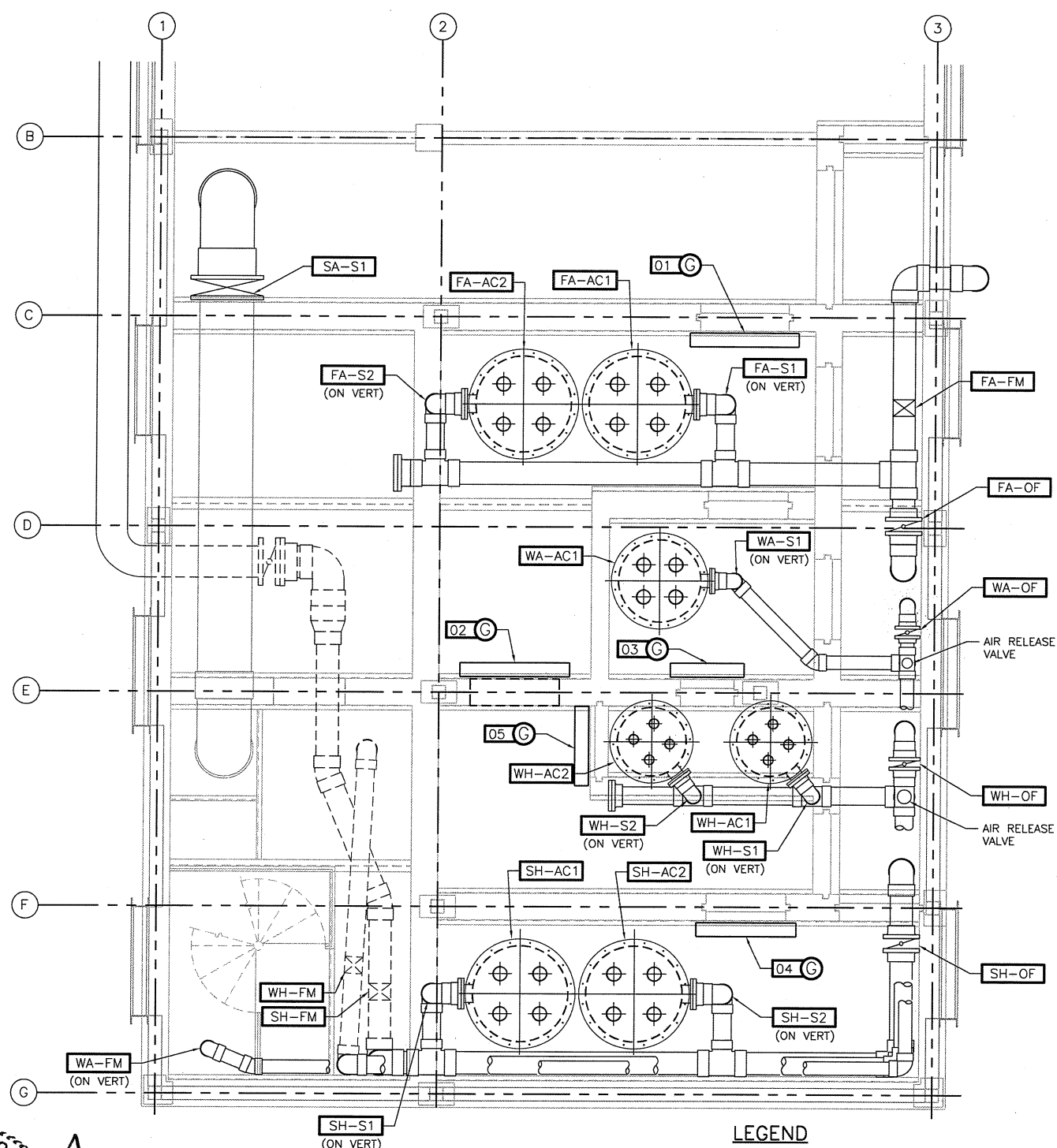
FISHERIES & OCEANS CANADA REAL PROPERTY AND TECHNICAL SUPPORT BRANCH	
KITIMAT RIVER HATCHERY CONTRACT NO F1700-130721 AERATION TOWER MODIFICATIONS	
STRUCTURAL SECTIONS AND DETAILS	
SCALE AS NOTED	DATE 03/20/2014
DRAWING NUMBER S2	REVISION





PIPING
PLAN AT EL 20.0

SCALE: 1 : 33 1/3



EQUIPMENT TAGS
PLAN AT EL 20.0

SCALE: 1 : 33 1/3

LEGEND

- FM FLOWMETER
- S SUPPLY VALVE
- OF OVERFLOW VALVE
- AC AERATION COLUMN
- G WEIR GATE
- FA PIPE = FILTERED AMBIENT
- SH PIPE = SURFACE HEATED
- WA PIPE = WELL AMBIENT
- WH PIPE = WELL HEATED

VERIFY SCALES
BAR IS 30mm ON
ORIGINAL DRAWING
0 30
IF NOT TO SCALE ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

L. K. PAULS
PROFESSIONAL
ENGINEER
3-26-14



DWG. NO.	REFERENCE	DRAWINGS

NOTE:
ALL PIPING SHALL BE SCH 40 PVC UNLESS OTHERWISE NOTED.

NOTES

NO.	DATE	REVISIONS

DESIGNED	EEO
DRAWN	ACB
CHECKED	LKP
RECOMMENDED	
APPROVED	
APPROVED	

FISHERIES & OCEANS CANADA
REAL PROPERTY AND TECHNICAL SUPPORT BRANCH

KITIMAT RIVER HATCHERY
CONTRACT NO F1700-130721
AERATION TOWER MODIFICATIONS

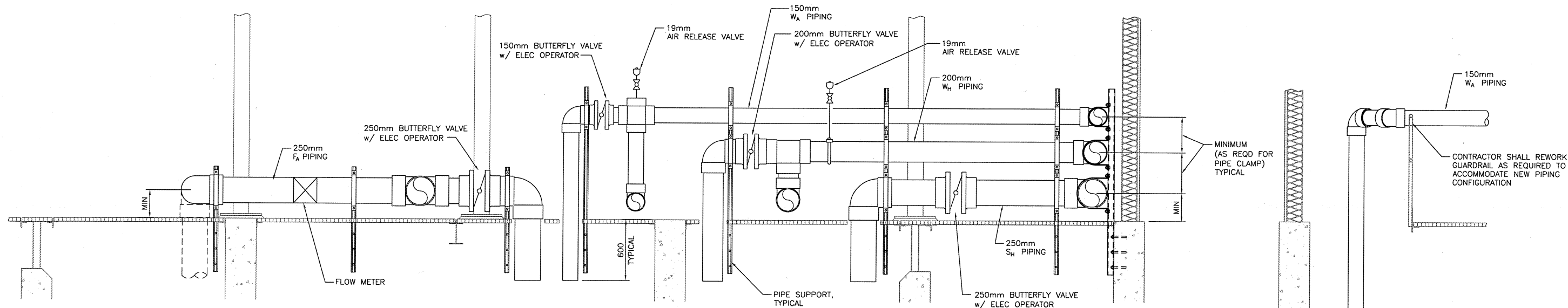
PIPING AND EQUIPMENT PLAN

SCALE
AS NOTED

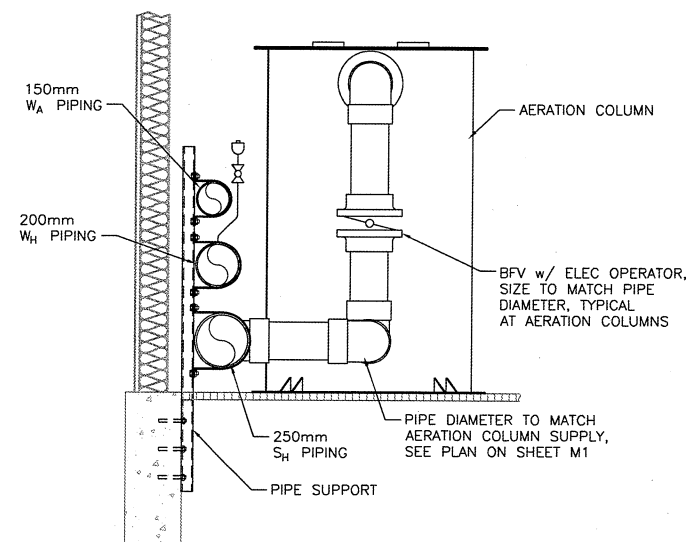
DATE
03/20/2014

DRAWING NUMBER
M1

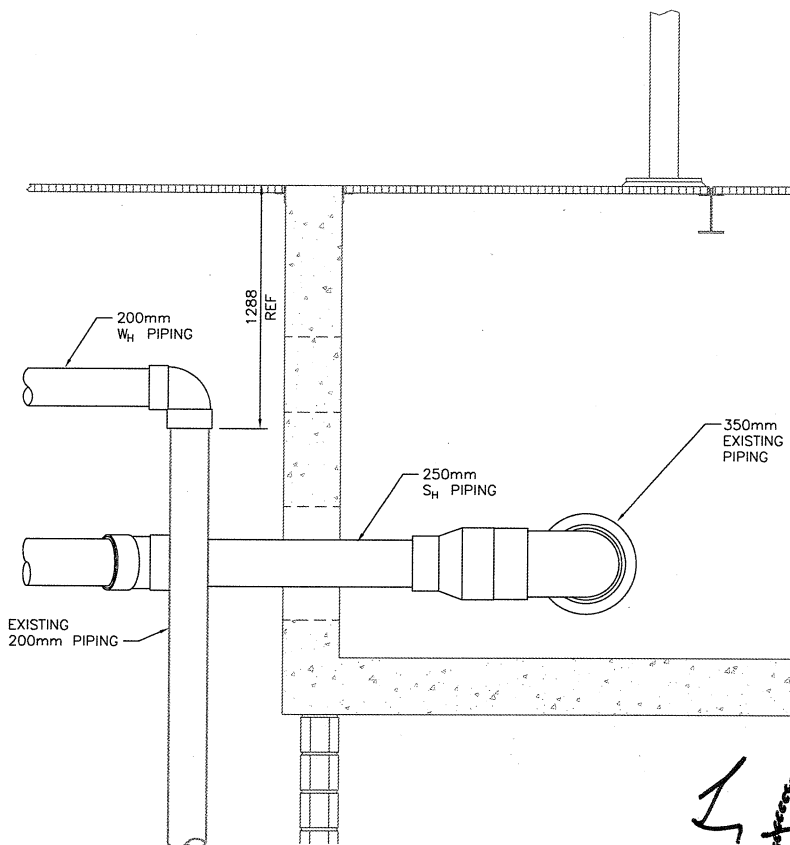
REVISION



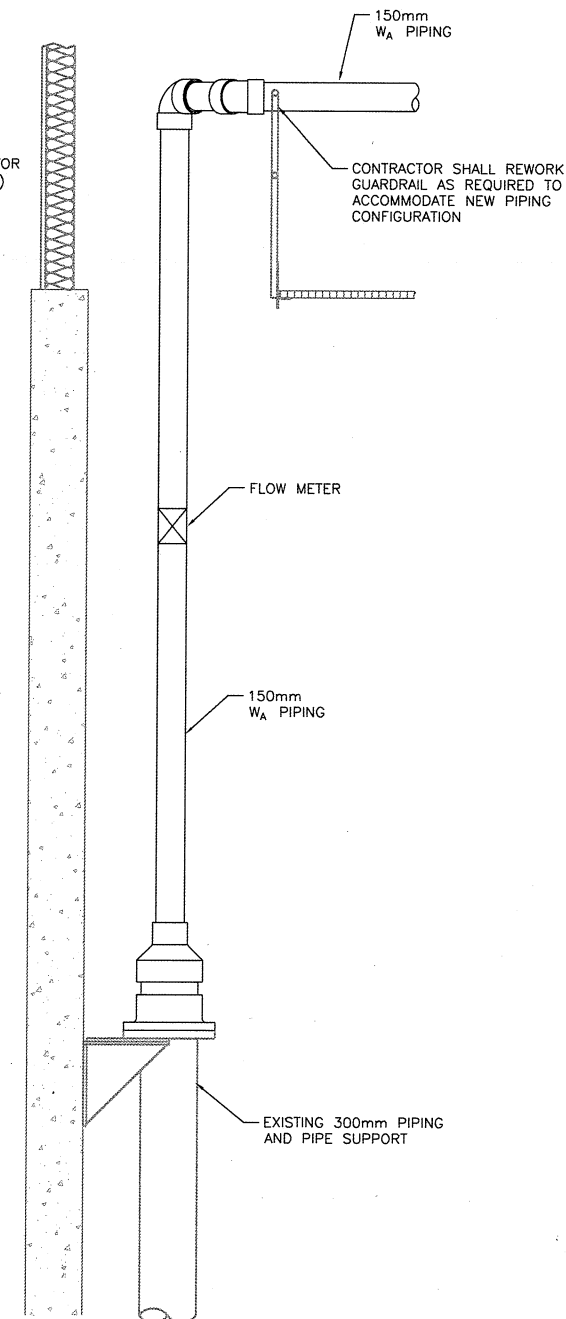
SECTION
SCALE: 1 : 20



SECTION
SCALE: 1 : 20



SECTION
SCALE: 1 : 20



SECTION
SCALE: 1 : 20



VERIFY SCALES
BAR IS 30mm ON
ORIGINAL DRAWING
0 30
IF NOT TO SCALE ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

HDR
Fisheries
DESIGN CENTER

DWG. NO.	REFERENCE	DRAWINGS

NO.	DATE	REVISIONS

DESIGNED	EEO
DRAWN	ACB
CHECKED	LKP
RECOMMENDED	
APPROVED	
APPROVED	

FISHERIES & OCEANS CANADA REAL PROPERTY AND TECHNICAL SUPPORT BRANCH	
KITIMAT RIVER HATCHERY CONTRACT NO F1700-130721 AERATION TOWER MODIFICATIONS	
PIPING SECTIONS	
SCALE AS NOTED	DATE 03/20/2014
DRAWING NUMBER M2	REVISION

PROFESSIONAL
ENGINEER
L.K. PAUL
156103
BRITISH COLUMBIA
3-26-14

GATE SCHEDULE													
NO.	TYPE OF GATE	GATE MATERIAL	GATE OPENING (W x H)	MAX HEAD (mm)		TYPE OF FRAME	LIFTING DEVICE		GATE INVERT	OPERATOR ELEVATION	SIDE SEAL	BOTTOM SEAL	REMARKS
				SEAT	UNSEAT		STEM	TYPE					
G01	SLIDE WEIR GATE	SS	1000 x 350	350	350	SC , FL	RS	ELEC	19.65	21.00	C	B	SEE NOTES
G02	SLIDE WEIR GATE	SS	1000 x 400	400	400	SC , FL	RS	ELEC	19.60	21.00	C	B	SEE NOTES
G03	SLIDE WEIR GATE	SS	600 x 200	200	200	SC , FL	RS	ELEC	19.80	21.00	C	B	SEE NOTES
G04	SLIDE WEIR GATE	SS	1000 x 350	350	350	SC , FL	RS	ELEC	19.65	21.00	C	B	SEE NOTES
G05	SLIDE WEIR GATE	SS	800 x 200	200	200	SC , FL	RS	ELEC	19.80	21.00	C,D	B	SEE NOTES

LEGEND:

SC - SELF CONTAINED

FL - FLAT BACK OR FLANGE BACK

RS - RISING STEM

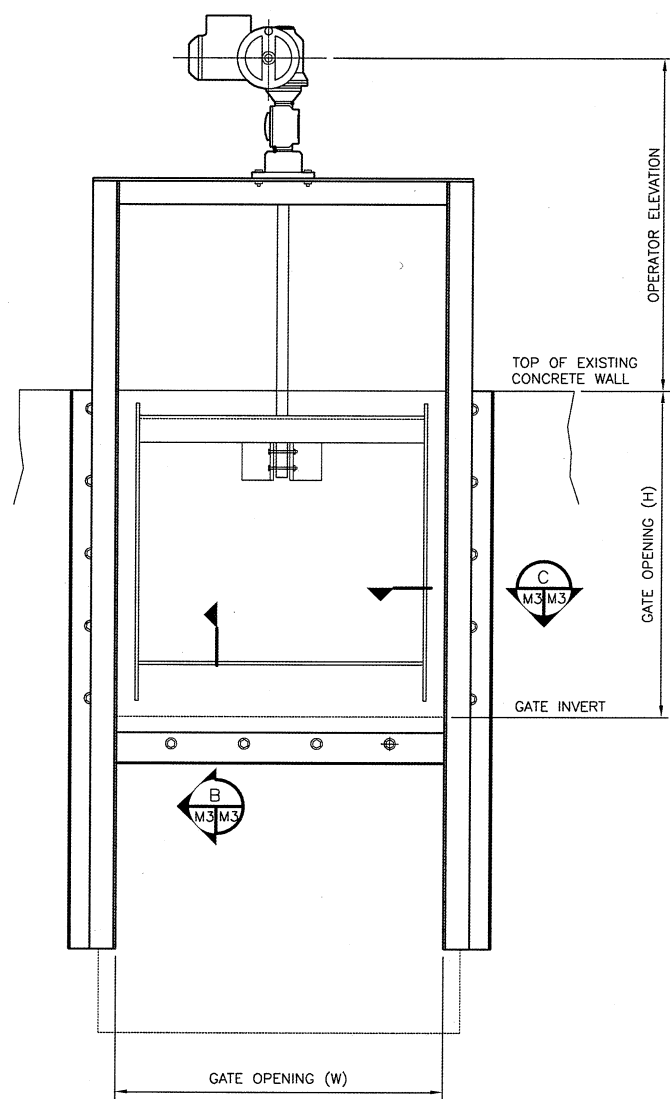
ELEC - ELECTRIC OPERATOR

SS - STAINLESS STEEL

NOTES:

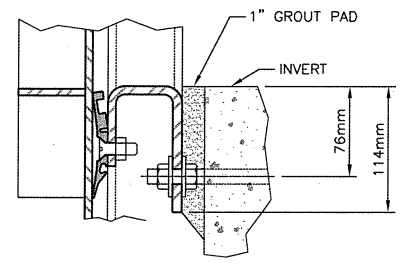
1. CONTRACTOR SHALL PROVIDE ALL ADJUSTMENTS AND TUNING TO ENSURE WATERTIGHT SEAL AND SMOOTH OPERATION.

2. CONTRACTOR SHALL VERIFY GATES AND OPERATORS HAVE SUFFICIENT CLEARANCE FROM WALLS, VAULTS, LIDS AND SURFACES.



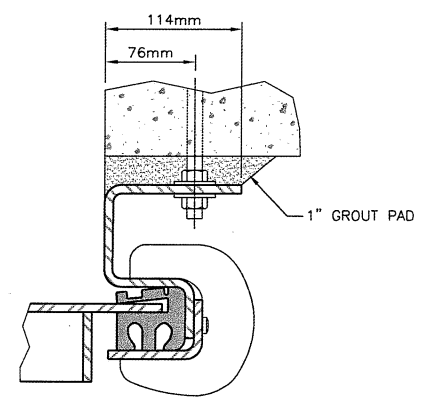
ELEVATION
NOT TO SCALE

A
M3/M3



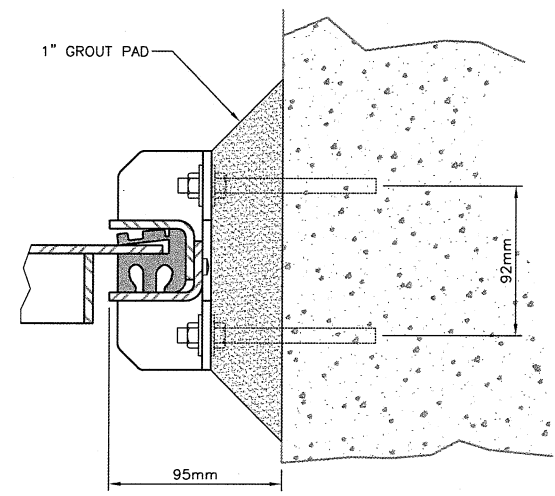
SECTION
NOT TO SCALE

B
M3/M3



SECTION
NOT TO SCALE

C
M3/M3



SECTION
NOT TO SCALE

D
M3/M3

VERIFY SCALES
BAR IS 30mm ON
ORIGINAL DRAWING
0 30
IF NOT TO SCALE ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

L. K. PAULS
PROFESSIONAL
ENGINEER
PROVINCE OF
BRITISH COLUMBIA
156103
3-26-14

HDR
Fisheries
DESIGN CENTER

DWG. NO.	REFERENCE	DRAWINGS

NO.	DATE	REVISIONS

DESIGNED	EEO
DRAWN	ACB
CHECKED	LKP
RECOMMENDED	
APPROVED	
APPROVED	

FISHERIES & OCEANS CANADA
REAL PROPERTY AND TECHNICAL SUPPORT BRANCH

KITIMAT RIVER HATCHERY
CONTRACT NO F1700-130721
AERATION TOWER MODIFICATIONS

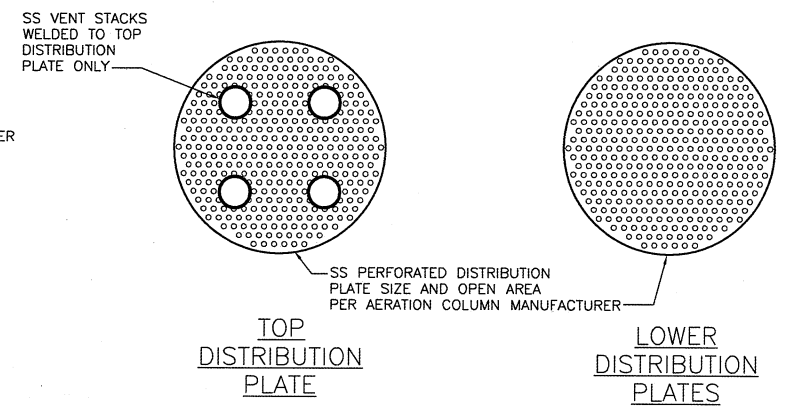
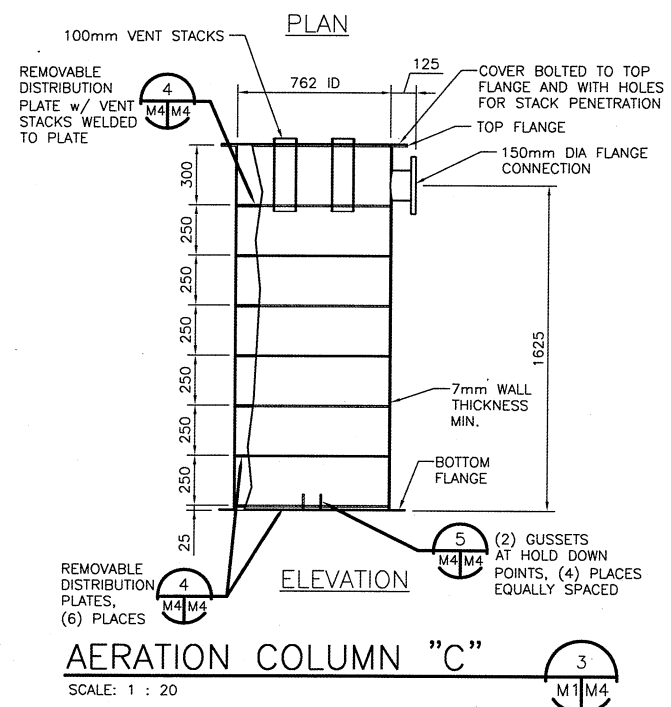
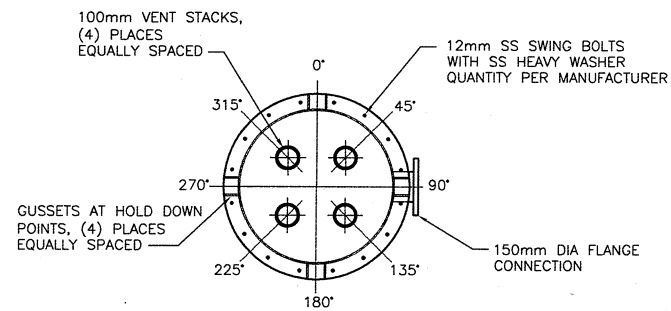
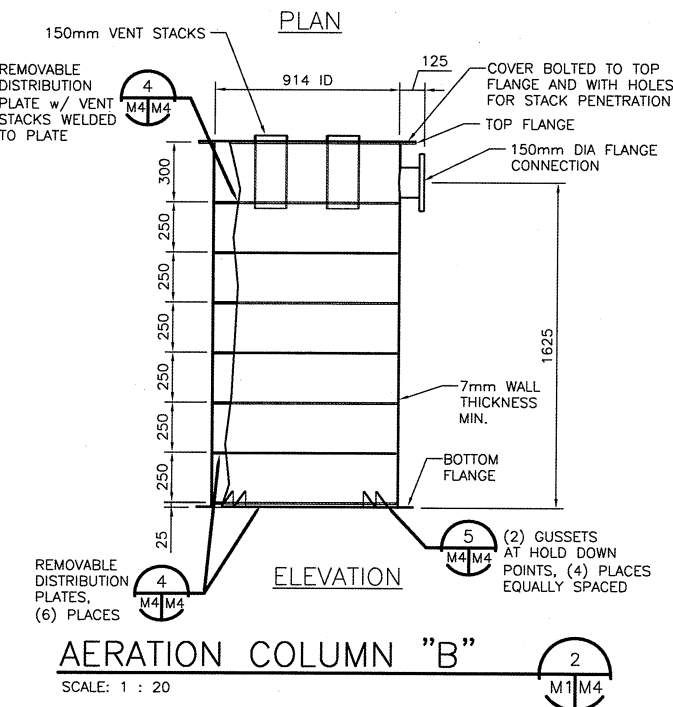
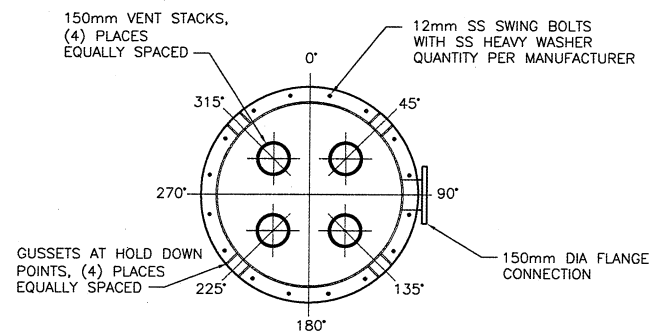
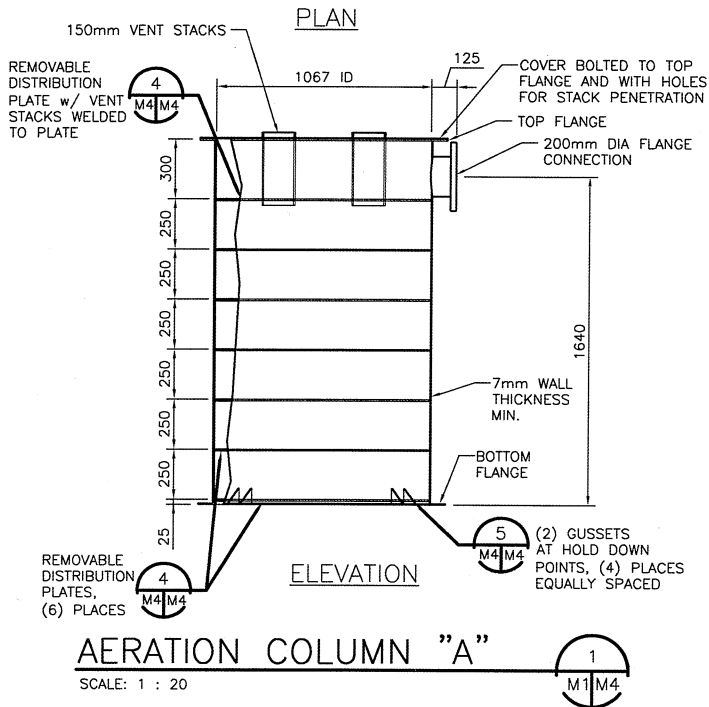
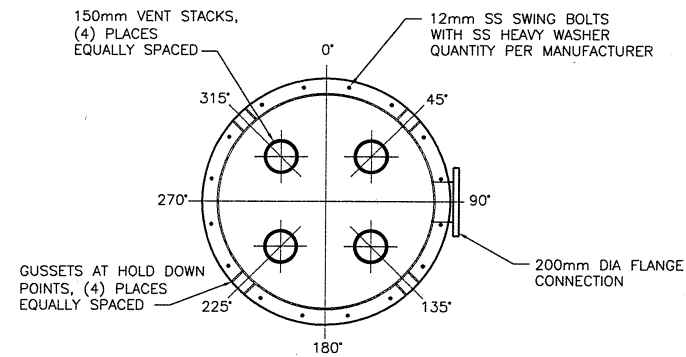
**GATE SCHEDULE
AND DETAILS**

SCALE
AS NOTED

DATE
03/20/2014

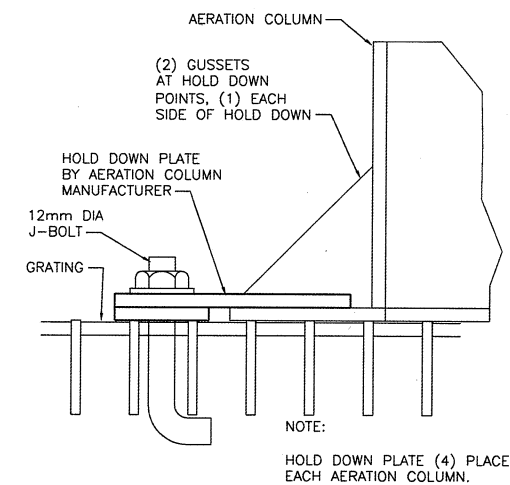
DRAWING NUMBER
M3

REVISION



TYPICAL DISTRIBUTION PLATES

SCALE: 1 : 20



HOLD DOWN PLATES

SCALE: 1 : 20

VERIFY SCALES
BAR IS 30mm ON ORIGINAL DRAWING
0 30
IF NOT TO SCALE ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HDR
Fisheries
DESIGN CENTER

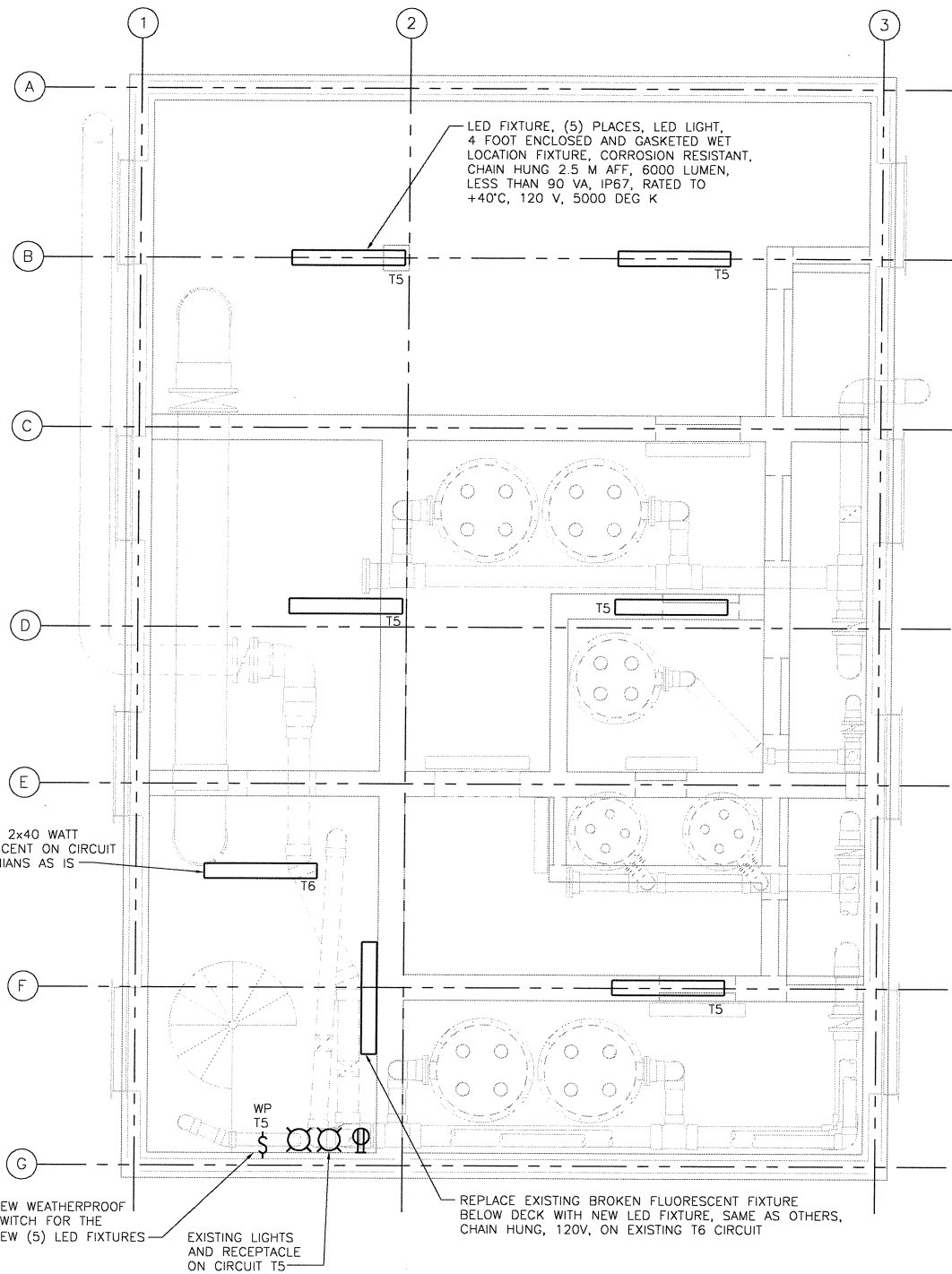
DWG. NO.	REFERENCE DRAWINGS

NO.	DATE	REVISIONS

DESIGNED	EEO
DRAWN	ACB
CHECKED	LKP
RECOMMENDED	
APPROVED	
APPROVED	

FISHERIES & OCEANS CANADA REAL PROPERTY AND TECHNICAL SUPPORT BRANCH	
KITIMAT RIVER HATCHERY CONTRACT NO F1700-130721 AERATION TOWER MODIFICATIONS	
AERATION COLUMN PLANS, ELEVATIONS AND DETAILS	
SCALE AS NOTED	DATE 03/20/2014
DRAWING NUMBER M4	REVISION

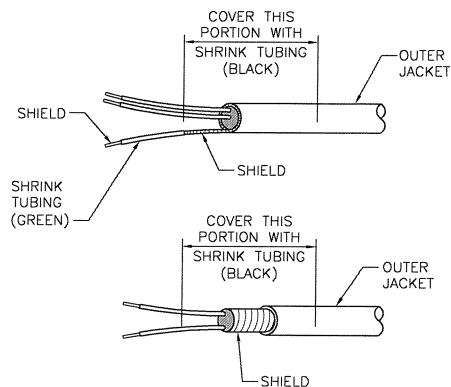
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156103
BRITISH COLUMBIA
ENGINEER
3-26-17



LIGHTING PLAN AT EL 20.0

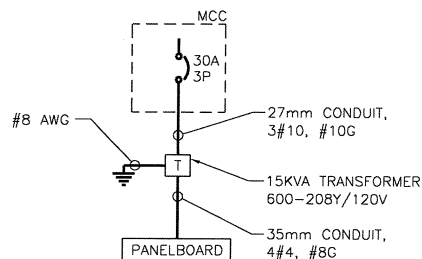
SCALE: 1 : 40

NOTE:
RUN NEW 120V #12 AWG AND GROUND CONDUCTORS IN CONDUIT TO EACH
NEW LED LIGHT FIXTURE POWERED FROM EXISTING BRANCH CIRCUITS IN PANEL T.



SHIELDED CONTROL CABLE TERMINATION DRESSING

NOT TO SCALE

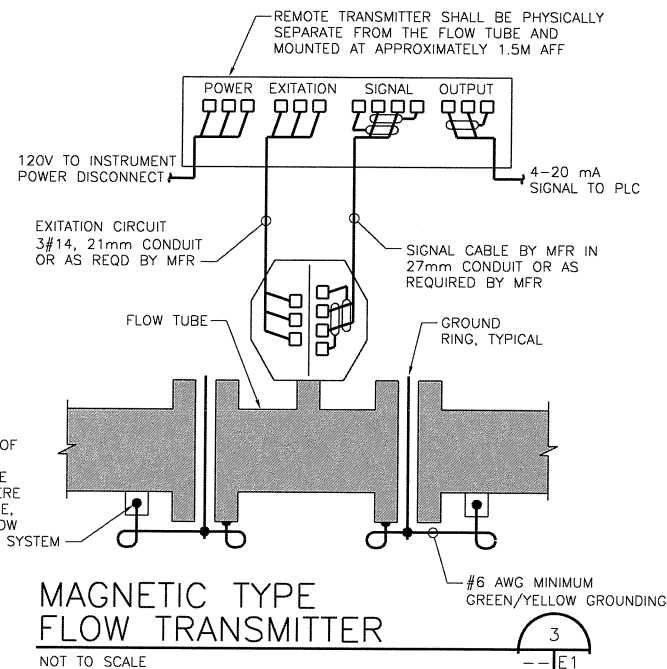


ONE LINE DIAGRAM

NOT TO SCALE

LEGEND

- GA GATE ACTUATOR
- FM FLOWMETER
- R REMOTE INDICATOR
- VA VALVE ACTUATOR
- ⊕^x_y DUPLEX RECEPTACLE, NEMA 5-20R
X INDICATES TYPE
WP - WEATHERPROOF WITH IN USE COVER
Y INDICATES PANEL LETTER AND CIRCUIT NUMBER
- PANEL OR EQUIPMENT AS INDICATED
- ⊙ INCANDESCENT LIGHT
- ⊙^x_y FLOURESCENT OR LED FIXTURE WITH
Y INDICATES PANEL LETTER AND CIRCUIT NUMBER
- ⊙^x_y SWITCH
X INDICATES TYPE
WP - WEATHERPROOF
3 - 3 WAY
P - PILOT LIGHT
Y INDICATES PANEL LETTER AND CIRCUIT NUMBER

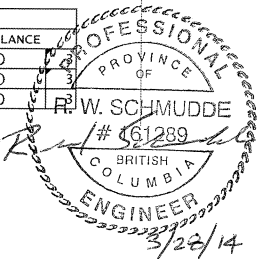


MAGNETIC TYPE FLOW TRANSMITTER

NOT TO SCALE

PANELBOARD NO: Level 20.0																
VOLTAGE:			208Y/120		BUS RATING (A):			100		ENCLOSURE:			NEMA 12			
PHASE:			3		MAIN OC DEVICE (A/PHASE):			60		MOUNTING:			SURFACE			
WIRE:			4+GND		INTERRUPTING RATING (KA):			22		LOCATION:			LEVEL 20.0			
200% NEUTRAL:			NO		SERVICE ENTRANCE LABEL:			YES								
CKT NO.	DESCRIPTION	CONNECTED LOAD (VA)				OCP		OCP		CONNECTED LOAD (VA)				DESCRIPTION	CKT NO.	
		LTS	REC	MECH	MISC	AMPS	P	AMPS	P	LTS	REC	MECH	MISC			
1	VALVE WH-S1				198	15	1	A	15	1				198	VALVE SA-S1	2
3	VALVE WH-S2				198	15	1	B	15	1				198	VALVE FA-S1	4
5	VALVE SH-OF				198	15	1	C	15	1				198	VALVE FA-S2	6
7	VALVE SH-S2				198	15	1	A	15	1				198	VALVE FA-OF	8
9	VALVE SH-S1				198	15	1	B	15	1				198	VALVE WA-S1	10
11					450			C	15	1				198	VALVE WA-OF	12
13	GATE 4				450	15	3	A	15	1				198	VALVE WH-OF	14
15					450			B								16
17					450			C	20	1	360			LOCAL RECEPTACLE		18
19	GATE 5				450	15	3	A								20
21					450			B	15	3				450	GATE 1	22
23	FLOWMETER				15	15	1	C						450		24
25	FLOWMETER				15	15	1	A						450		26
27	FLOWMETER				15	15	1	B	15	3				450	GATE 2	28
29	FLOWMETER				15	15	1	C						450		30
31								A						450		32
33								B	15	3				450	GATE 3	34
35								C						450		36
37								A								38
39								B	30	3						40
41								C							SURGE ARRESTER	42

LOAD SUMMARY								PHASE BALANCE	
	LTS	REC	MECH	MISC	SPARE	TOTAL		PHASE A (KVA)	PHASE B (KVA)
CONNECTED LOAD (KVA)	0.0	0.4	0.0	9.2	---	9.5	480	LINE-TO-LINE VOLTS	PHASE C (KVA)
DEMAND FACTOR	1.25	NEC	1.00	1.00	20%	---	11	CONNECTED AMPS	
DESIGN LOAD (KVA)	0.0	0.4	0.0	9.2	1.9	11.5	14	DESIGN AMPS	



VERIFY SCALES
BAR IS 30mm ON ORIGINAL DRAWING
0 30
IF NOT TO SCALE ON THIS SHEET, ADJUST SCALES ACCORDINGLY

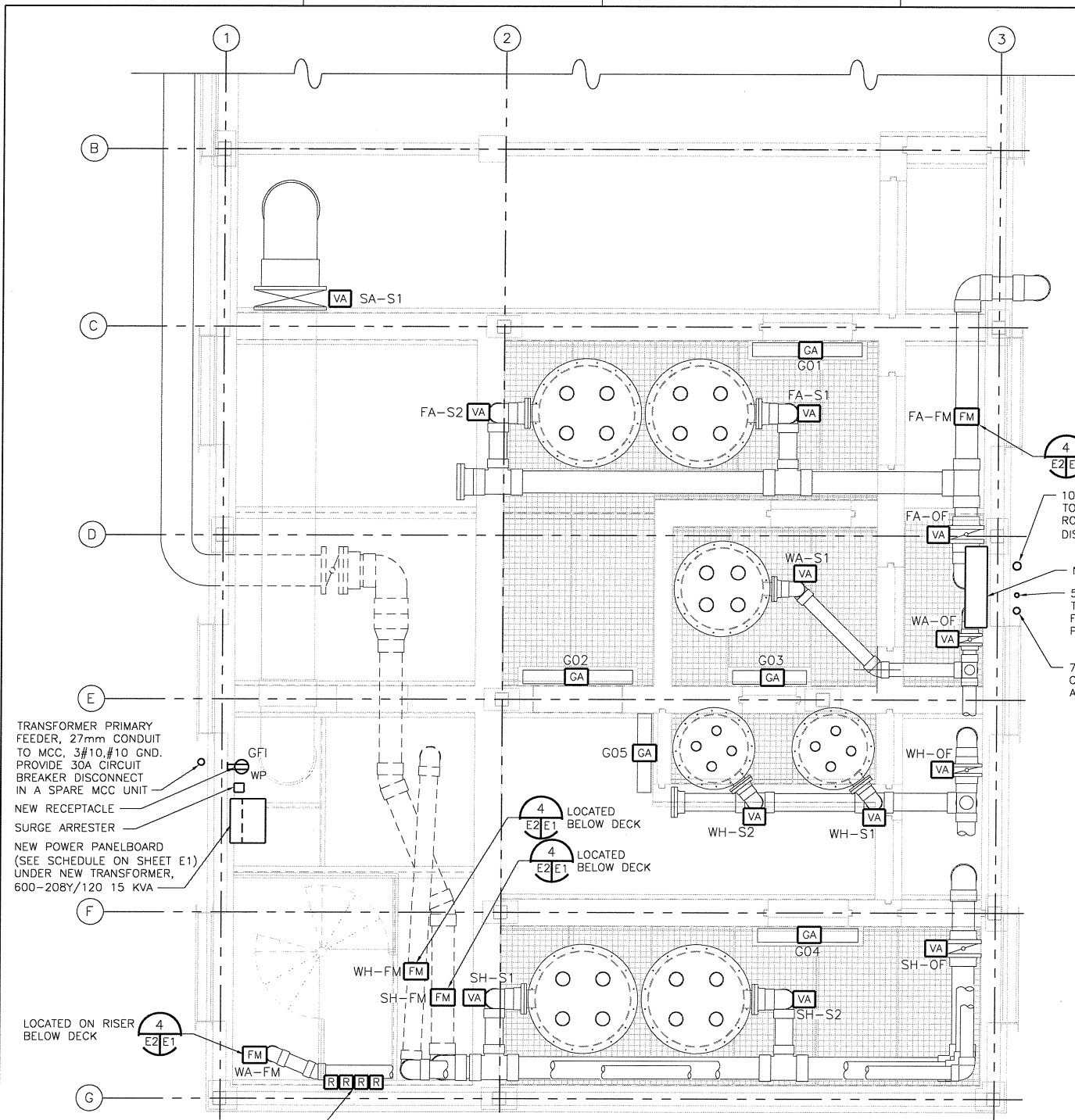
HDR
Fisheries
DESIGN CENTER

DWG. NO.	REFERENCE	DRAWINGS

NO.	DATE	REVISIONS

DESIGNED SM	
DRAWN ACB	
CHECKED RS	
RECOMMENDED	
APPROVED	
APPROVED	

FISHERIES & OCEANS CANADA REAL PROPERTY AND TECHNICAL SUPPORT BRANCH	
KITIMAT RIVER HATCHERY CONTRACT NO F1700-130721 AERATION TOWER MODIFICATIONS	
LIGHTING PLAN, DETAILS AND SYMBOLS	
SCALE AS NOTED	DATE 03/20/2014
DRAWING NUMBER E1	REVISION



TRANSFORMER PRIMARY FEEDER, 27mm CONDUIT TO MCC, 3#10, #10 GND. PROVIDE 30A CIRCUIT BREAKER DISCONNECT IN A SPARE MCC UNIT

NEW RECEPTACLE

SURGE ARRESTER

NEW POWER PANELBOARD (SEE SCHEDULE ON SHEET E1) UNDER NEW TRANSFORMER, 600-208Y/120 15 KVA

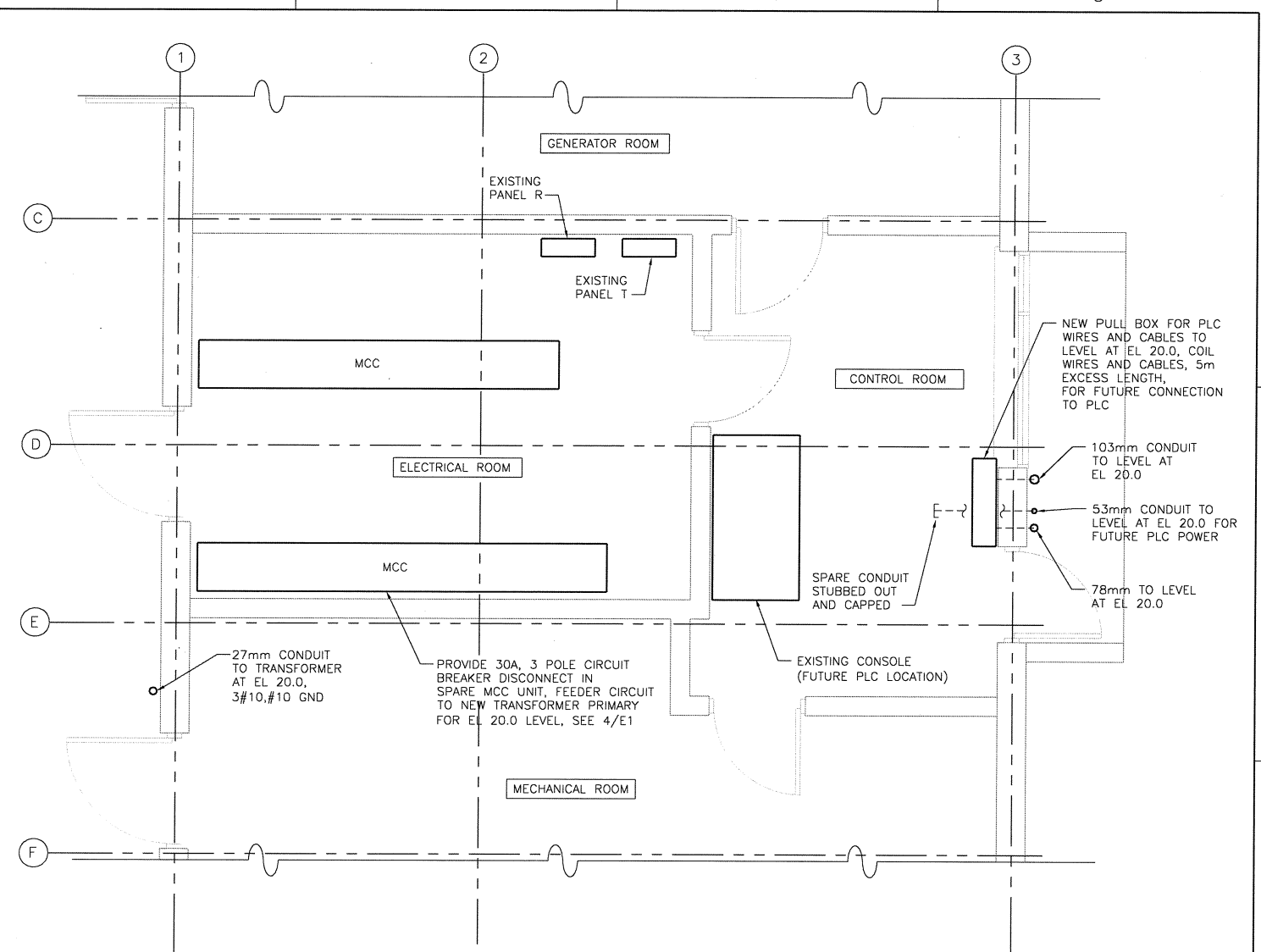
LOCATED ON RISER BELOW DECK

REMOTE TRANSMITTER INDICATORS FOR FLOWMETERS SEE 3/E1. LOCATE PER DIRECTION OF DEPARTMENTAL REPRESENTATIVE

INSTRUMENTATION AND POWER PLAN AT EL 20.0

SCALE: 1 : 33 1/3

VERIFY SCALES
BAR IS 30mm ON ORIGINAL DRAWING
0 30
IF NOT TO SCALE ON THIS SHEET, ADJUST SCALES ACCORDINGLY



ELECTRICAL PLAN AT EL 13.7

SCALE: 1 : 33 1/3

WORK TO BE DONE:

PROVIDE NEW FLOWMETERS WITH REMOTE INDICATORS, LED LIGHT FIXTURES, GATE ACTUATORS, VALVE ACTUATORS, CONDUCTORS, CONDUITS, TRANSFORMER, PANELBOARD WITH CIRCUIT BREAKERS, SURGE PROTECTOR, DUPLEX GFI RECEPTACLE WITH IN-USE WEATHERPROOF COVER, WEATHERPROOF LIGHT SWITCH, AND MCC CIRCUIT BREAKER AS SHOWN ON SHEETS E1 AND E2.

SYMBOL	DESCRIPTION	CONDUCTORS TO FUTURE PLC	POWER IN CONDUIT	NOTES
VA QTY 12	VALVE ACTUATOR	16#14 IN CONDUIT THROUGH PULL BOXES	2#14, #14G FROM NEW PANELBOARD SEE SCHEDULE ON SHEET E1	120 VAC AND REMOTE CONTROL WIRING, CONNECT PER MANUFACTURER'S REQUIREMENTS
GA QTY 5	GATE ACTUATOR	TWO #18 AWG SHIELDED PAIR PLUS 16#14 IN CONDUITS THROUGH PULLBOXES	3#14, #14G FROM NEW PANELBOARD SEE SCHEDULE ON SHEET E1	208/3 VAC AND REMOTE CONTROL WIRING, CONNECT PER MANUFACTURER'S REQUIREMENTS
FM QTY 4	FLOWMETER	MANUFACTURER'S CABLES, SEE 3/E1	FROM R, PER DETAIL 3/E1	CONNECT PER MANUFACTURER'S REQUIREMENTS
R QTY 4	FLOWMETER REMOTE INDICATOR	#18 AWG SHIELDED PAIR IN CONDUITS THROUGH PULLBOXES	2#14, #14G FROM NEW PANELBOARD SEE DETAIL 3/E1	CONNECT PER MANUFACTURER'S REQUIREMENTS

PROFESSIONAL
PROVINCE OF
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#161220
BRITISH COLUMBIA
ENGINEER
3/28/2014

HDR
Fisheries
DESIGN CENTER

DWG. NO.	REFERENCE	DRAWINGS

NO.	DATE	REVISIONS

DESIGNED	SM
DRAWN	ACB
CHECKED	RS
RECOMMENDED	
APPROVED	
APPROVED	

FISHERIES & OCEANS CANADA REAL PROPERTY AND TECHNICAL SUPPORT BRANCH	
KITIMAT RIVER HATCHERY CONTRACT NO F1700-130721 AERATION TOWER MODIFICATIONS	
ELECTRICAL AND INSTRUMENTATION PLANS	
SCALE AS NOTED	DATE 03/20/2014
DRAWING NUMBER E2	REVISION