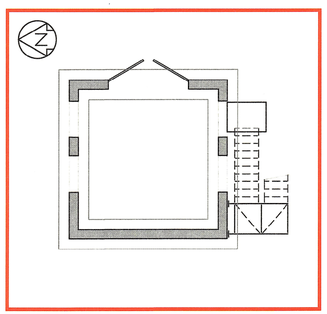
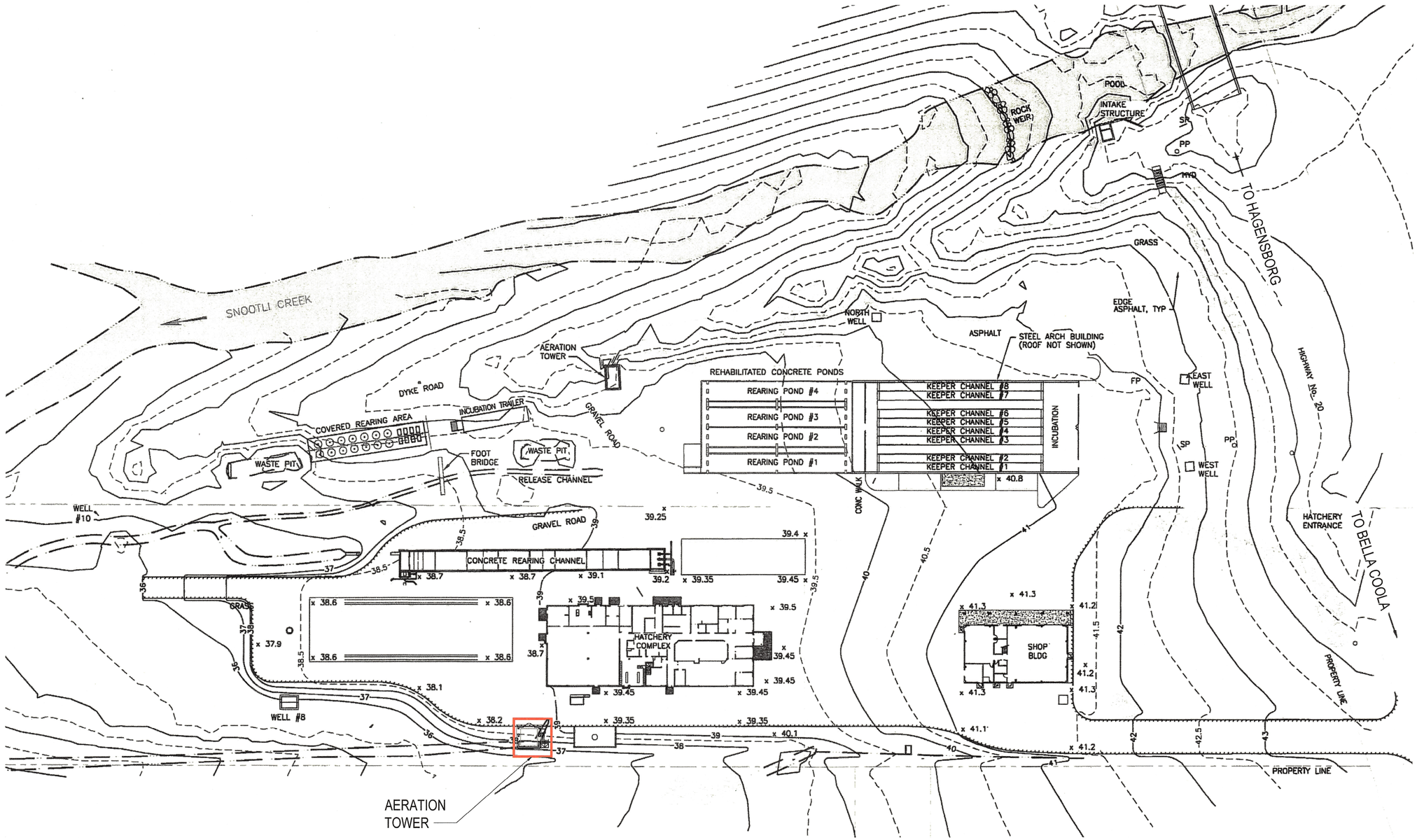
STRUCTURAL DRAWINGS LIST:



AERATION TOWER
NTS



SITE PLAN
NTS

Sep 07 2021 - 2:46pm S:\proj\101944-01\CAD\0000s\dtg\101944-01-0000-S-001.dwg - Jakub.Svoboda

REF.	DRAWING No.	REFERENCE DRAWING	No.	BY	DATE	REVISION DETAILS	CHKD	ENG	APPR
			E	JS	07SEP2021	ISSUED FOR TENDER	JK	PB	JK

DRAWN	D. MACDONALD	23SEPT2019
DWG. CHECKED	P. BAZARGANI	23SEPT2019
DESIGNED	P. BAZARGANI	23SEPT2019
DES. APPR.	J. KARLSSON	23SEPT2019
PROJ. APPR.		

Ausenco
Vancouver, British Columbia, Canada
T +1 604 684 9311
W www.ausenco.com

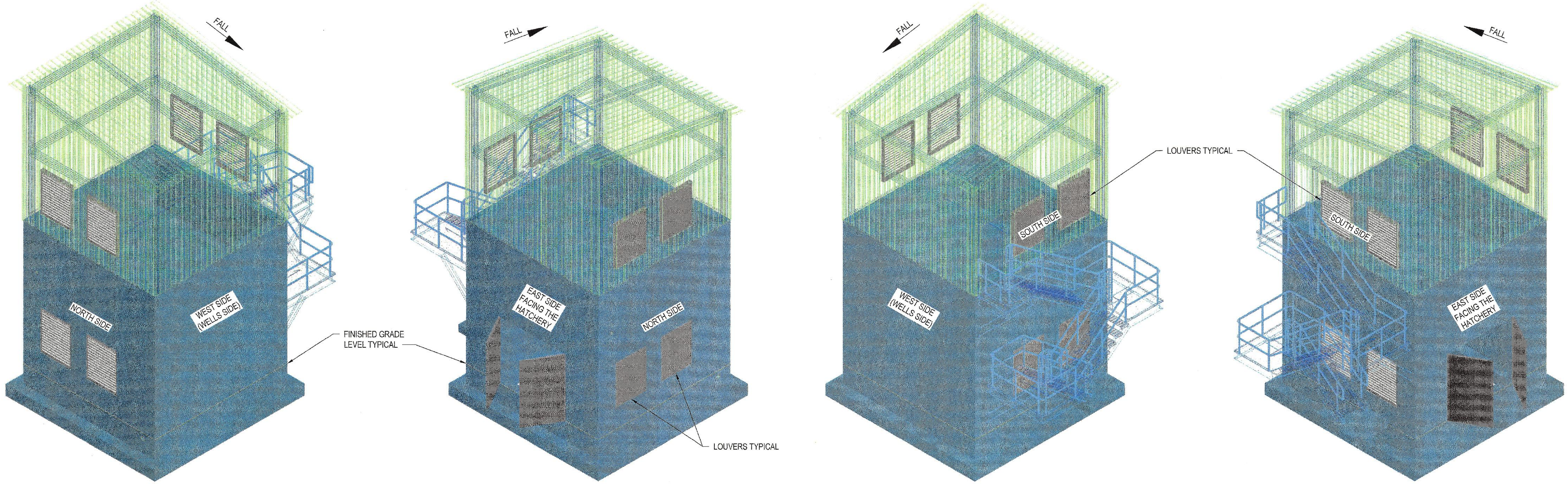
Ausenco

CLIENT: DEPARTMENT OF FISHERIES & OCEANS

TITLE: SNOOTLI CREEK HATCHERY FACILITY
AERATION TOWER
SITE PLAN

PROJECT No.	SCALE	SIZE
2101944-01	NTS	D

DRAWING No.	REV
101944-01-0000-S-001	E



LOUVERS NOTE:

1. LOUVERS SHALL BE GREENHECK 'ESD-202' 1.219m x 1.219m WITH MILL FINISH, OR APPROVED EQUIVALENT.

No.	BY	DATE	REVISION DETAILS	CHKD	ENG	APPR
E	JS	07SEP2021	ISSUED FOR TENDER	JK	PB	JK

REF.	DRAWING No.	REFERENCE DRAWING

DRAWN	D. MACDONALD	23SEP2019
DWG. CHECKED	P. BAZARGANI	08JUN2020
DESIGNED	P. BAZARGANI	23SEP2019
DES. APPR.	J. KARLSSON	08JUN2020
PROJ. APPR.		

Ausenco
Vancouver, British Columbia, Canada
T +1 604 684 9311
W www.ausenco.com

Ausenco

CLIENT: DEPARTMENT OF FISHERIES & OCEANS

TITLE: SNOOTLI CREEK HATCHERY FACILITY
AERATION TOWER
3D VIEWS

PROJECT No.	SCALE	SIZE
2101944-01	AS SHOWN	D

DRAWING No.	REV
101944-01-0000-S-002	E

06/10/2021

Sep 07,2021 - 2:46pm S:\proj\101944-01\CAD\0000\st\drg\101944-01-0000-S-002.dwg - Jakub.Svoboda

A. GENERAL REQUIREMENTS:

1. GENERAL:

1.1 PERFORM THE WORK IN A MANNER SO AS TO MINIMIZE INCONVENIENCE TO OPERATIONS.

1.2 ENSURE THAT ALL BUILDING SERVICES REMAIN IN OPERATION AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE OWNER.

1.3 CUT, FILL, PATCH AND PAINT AND IN ALL RESPECTS MAKE GOOD ANY DAMAGE DUE TO CONSTRUCTION WORK.

1.4 DIMENSIONS AND ELEVATIONS ARE SHOWN IN METRIC UNITS UNLESS NOTED OTHERWISE.

1.5 USE DRAWINGS ONLY FOR THE PURPOSE INDICATED IN THE REVISION COLUMN. ONLY DRAWINGS "ISSUED FOR CONSTRUCTION" CAN BE USED FOR CONSTRUCTION, UNLESS NOTED OTHERWISE.

1.6 ALL STRUCTURAL ITEMS MUST BE REVIEWED BY A STRUCTURAL ENGINEER OR BY ANOTHER SUITABLE QUALIFIED PERSON RESPONSIBLE TO THE STRUCTURAL ENGINEER BEFORE THEY ARE COVERED. ALSO SEE CLAUSE 1.10

1.7 NOTIFY ENGINEER 48 HOURS IN ADVANCE FOR REVIEW OF PLACE OF WORK OF THE FOLLOWING:

1.7.1 EXCAVATION - BEFORE FORMING

1.7.2 REINFORCING STEEL AND POUR CONDITIONS - BEFORE EACH CONCRETE POUR

1.7.3 STRUCTURAL STEEL AND MISC. METALS - BEFORE COVERING

1.8 CHECK AND CONFIRM THAT WORK IS COMPLETED IN ACCORDANCE WITH CONTRACT DOCUMENTS PRIOR TO REVIEW BY CONSULTANTS AND INSPECTIONS BY APPOINTED AGENCIES. WORK FOR CONSTRUCTION REVIEW IS TO BE COMPLETED IN REASONABLY SIZED SEGMENTS.

1.9 SITE PLAN FOR SITE ACCESS, STAGING AREAS AND CONTRACTOR'S WORK AREAS TO BE APPROVED BY THE OWNER

1.10 DO NOT INTERFERE WITH ANY EXISTING FACILITIES AND SERVICES. DO NOT SHUT DOWN OR SUSPEND ANY EXISTING FACILITIES AND SERVICES WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER OR OWNER'S REPRESENTATIVE.

1.11 ALL AREAS MUST BE RE/RE AND MAKE GOOD TO MATCH EXISTING CONDITIONS, UNLESS NEW FINISHES ARE SPECIFIED.

2. SITE SAFETY:

2.1 OBSERVE AND ENFORCE ALL CONSTRUCTION SAFETY MEASURES REQUIRED BY THE OWNER, WorkSafe BC, LOCAL BUILDING BY-LAW AND IN ACCORDANCE WITH BUILDING CODE EQUIREMENTS.

2.2 ENSURE ALL FIRE EXITS AND EMERGENCY EGRESSES REMAIN CLEAR AND OPERATIONAL DURING CONSTRUCTION. ENSURE ALL FIRE PREVENTION AND FIRE-FIGHTING EQUIPMENT ARE OPERATIONAL DURING CONSTRUCTION.

2.3 USE ONLY LIGHT EQUIPMENT AND HAND TOOLS WHEN WORKING INSIDE THE EGRESS ROUTE SUCH THAT IN CASE OF EMERGENCY WORKER CAN REMOVE IMMEDIATELY ALL EQUIPMENT AND TOOLS AND LEAVE THE EGRESS ROUTE UNOBSTRUCTED.

2.4 PROVIDE TEMPORARY FENCE AND HOARDING TO MEET WorkSafe BC REQUIREMENTS AND LOCAL BUILDING BY-LAW AS REQUIRED.

3. EXISTING STRUCTURE AND UTILITIES:

3.1 NOTE EXISTING BUILDINGS, FOUNDATIONS OR UTILITIES (BOTH ABOVE AND BELOW GROUND) IN CLOSE PROXIMITY TO THE WORK AREA. TAKE ALL MEASURES NECESSARY TO PROTECT BUILDINGS, EQUIPMENT AND UTILITIES AGAINST SETTLEMENT, DUST, VIBRATION, WATER, WEATHER, FIRE AND ALL OTHER DAMAGE DURING CONSTRUCTION OPERATIONS.

3.2 CONTRACTOR IS RESPONSIBLE TO VERIFY THE ACTUAL LOCATION AND DIMENSIONS OF STRUCTURAL AND NON-STRUCTURAL ELEMENTS BEFORE CONSTRUCTION. CONTRACTOR IS ALSO RESPONSIBLE TO VERIFY EXISTENCE, SIZE, DEPTH AND ACTUAL LOCATION OF UTILITIES WITH SERVICES COMPANIES.

3.4 THE CONSTRUCTION METHOD BEING USED AND THE PLANNING OF TEMPORARY WORKS SHOULD TAKE INTO CONSIDERATION OF EXISTING UTILITIES AND ELECTRICAL AND MECHANICAL SERVICES. VERIFY THERE ARE ADEQUATE INSTALLATION CLEARANCES.

3.4 CONTRACTOR IS REQUIRED TO READ NEW DRAWINGS IN CONJUNCTION WITH EXISTING REFERENCE DRAWINGS. INFORMATION ON THE EXISTING REFERENCE DRAWINGS SHOULD BE VERIFIED AND FIELD REVIEWED.

4. TEMPORARY WORK:

4.1 CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF ALL TEMPORARY WORKS REQUIRED FOR THE PROJECT.

4.2 THE NEED OF SHORING OF EXISTING STRUCTURE SHALL BE DETERMINED BY A PROFESSIONAL ENGINEER REGISTERED IN BRITISH COLUMBIA. SIGNED AND SEALED SHORING DRAWINGS SHALL BE SUBMITTED, INDICATING AREAS TO BE SHORED, PROCEDURE FOR INSTALLATION AND REMOVAL, BRACING, ANCHORAGE, DIMENSIONS AND MATERIAL STRENGTH OF SUPPORTING ELEMENTS. WHEN SUPPORTING ELEMENTS ARE LOCATED IN THE VICINITY OF EXCAVATIONS, APPROVAL OF THE GEOTECHNICAL CONSULTANT IS REQUIRED.

5. HAZARDOUS AND REGULATED MATERIALS:

5.1 HAZARDOUS AND REGULATED MATERIALS ARE:

- ASBESTOS CONTAINING MATERIAL
- OZONE DEPLETING SUBSTANCE
- UREA FORMALDEHYDE FOAM INSULATION
- LEAD PAINT

5.2 PROVIDE SAFETY BARRIERS AROUND THE SITE IN COMPLIANCE WITH REGULATORY AGENCIES, AS APPLICABLE AND REMOVE UPON PROJECT COMPLETION.

5.3 MAINTAIN THE SITE IN A STABLE, TIDY, WELL-DRAINED CONDITION FOR THE DURATION SET OUT IN THE CONTRACT DOCUMENTS. DO NOT OBSTRUCT THE FLOW OF SURFACE DRAINAGE OR NATURAL WATER COURSES. DO NOT CONTAMINATE WATER COURSES WITH SILT. MEET ALL SEDIMENT CONTROL REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.

5.4 SHIELD ALL FIELD WELDING FROM DIRECT OBSERVATION BY OTHERS.

B. SITE CONDITIONS AND CONTRACTOR REQUESTED CHANGES:

1. THE GENERAL CONTRACTOR SHALL MARK UP A SET OF STRUCTURAL DRAWINGS WITH DETAILED DIMENSIONS AND SKETCHES OF ALL MODIFICATIONS TO THE STRUCTURE WHICH WERE MADE AS A RESULT OF FIELD CONDITIONS AND CONSTRUCTION PROCEDURES NOT PREDICTED AT THE TIME OF DESIGN AND/OR TENDER. THIS SHALL INCLUDE AS-BUILT MARK-UPS OF STRUCTURAL OUTLINES, REINFORCEMENT CHANGES, CHANGE LOCATIONS, SIZES, ETC.

2. CONTRACTORS TO SUBMIT REQUESTS FOR CHANGES WHERE SUCH CHANGE CAN RESULT IN MORE EFFICIENT CONSTRUCTION WITH THE SAME OR BETTER PRODUCT. EACH REQUEST FOR CHANGE SHOULD BE ACCOMPANIED BY A SKETCH INDICATING THE PROPOSED CHANGE TO THE DRAWINGS, WHICH MAY BE REVIEWED OR MODIFIED BY THE ENGINEER. THE STRUCTURAL ENGINEER MAY ACCEPT, REJECT OR MODIFY THE SUBMISSION AT HIS SOLE DISCRETION.

C. DESIGN DATA:

1. ENVIRONMENTAL DESIGN LOADS:

- SNOW: GROUND SNOW LOAD S_s = 5.5 KPa
  ASSOCIATED RAIN LOAD S_r = 0.8 KPa
  IMPORTANCE FACTOR I_s = 1.0

- WIND: HOURLY WIND PRESSURE q(1/50) = 0.39 KPa
  IMPORTANCE FACTOR I_w = 1.0

- SEISMIC: SITE CLASS = C
  $S_a(0.2)$ = 0.38g
  $S_a(0.5)$ = 0.24g
  $S_a(1.0)$ = 0.14g
  $S_a(2.0)$ = 0.10g
  IMPORTANCE FACTOR I_E = 1.0
  R_d = 2.0
  R_o = 1.3

D. CONSTRUCTION LOAD:

1. FORMWORK TO BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN BRITISH COLUMBIA. CONTRACTOR TO SUBMIT FORMWORK LAYOUT PLAN SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, INCLUDING ERECTION PROCEDURES.

E. FOUNDATION AND SLAB ON GRADE:

1. FOUNDATIONS HAVE BEEN DESIGNED FOR THE SOIL BEARING CAPACITY AS INDICATED BELOW:

- ALLOWABLE BEARING PRESSURE: 250 KPa
- ULTIMATE BEARING PRESSURE: 325 KPa

2. FOOTING ELEVATIONS SHOWN ARE NOT FINAL AND MAY VARY ACCORDING TO SITE CONDITIONS.

3. BEARING SURFACES MUST BE PROTECTED FROM FREEZING BEFORE AND AFTER FOOTINGS ARE POURED.

4. ALL NEW SLAB ON GRADE SHALL HAVE 6 mil POLYETHYLENE VAPOUR BARRIER ON GRANULAR FREE DRAINING FILL COMPACTED TO AT LEASET 95% MODIFIED PROCTOR DRY DENSITY (MPDD). PROVIDE SAWCUT 25mm OR 1/4 OF SLAB DEPTH, WHICHEVER IS DEEPER, AT 2.5m O/C MAXIMUM.

F. EXCAVATION, TRENCHING AND BACKFILL:

1. PROVIDE ENGINEERS INSPECTION OF EXCAVATIONS REQUIRED BY WorkSafe BC.

2. ESTABLISH LOCATION AND STATE OF USE OF BURIED UTILITIES AND STRUCTURES. MAINTAIN AND PROTECT FROM DAMAGE WATER, SEWER, GAS ELECTRIC, TELEPHONE AND OTHER UTILITIES AND STRUCTURES ENCOUNTERED.

3. CUT PAVEMENTS NEATLY ALONG LIMITS OF PROPOSED EXCAVATION.

4. MAINTAIN THE SITE IN A WELL DRAINED CONDITION. DO NOT OBSTRUCT THE FLOW OF SURFACE DRAINAGE OR NATURAL WATERCOURSES. DO NOT CONTAMINATE WATERCOURSES WITH SILT.

5. PROVIDE SETTLEMENT POND AND/OR FILTER FABRIC SCREEN ON DRAINAGE INLET.

6. EXCAVATE WITH CARE NEAR EXISTING FOUNDATIONS AND ENSURE THAT FOUNDATIONS OF EXISTING STRUCTURES ADJACENT TO EXCAVATED AREAS ARE NOT DAMAGED, WEAKENED OR IMPAIRED.

7. ENSURE THE BOTTOM OF EXCAVATION IS UNDISTURBED SOIL, LEVEL AND FREE OF ALL LOOSE, SOFT OR ORGANIC MATTER, AND IS PROTECTED AND KEPT DRY UNTIL CONCRETE IS PLACED. THOROUGHLY COMPACT THE BASE OF THE EXCAVATION PRIOR TO FOUNDATION CONSTRUCTION, TO DENSIFY THE SOIL LOOSENED BY THE EXCAVATION EQUIPMENT. PROTECT COMPACTED BASE WITH 75mm 15MPa BLINDING LAYER.

8. USE HAND-OPERATED COMPACTION EQUIPMENT WITHIN 1m OF WALLS AND FOOTINGS.

9. DO NOT BACKFILL AROUND CONCRETE STRUCTURES WITHIN FOURTEEN (14) DAYS OF CONCRETE PLACEMENT UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE. HOWEVER, BACKFILLING AROUND SPREAD FOUNDATIONS MAY BE CARRIED OUT AFTER FOUR (4) DAYS.

10. PLACE BACKFILL LAYERS ON BOTH SIDES OF INSTALLED WORK TO EQUALIZE LOADING.

11. ALL BACKFILL SHALL BE CLEAN FREE DRAINING GRANULAR MATERIAL AND SHALL BE PLACED AND COMPACTED IN THIN LAYERS. SOIL COMPACTION WITHIN 1m OF THE WALL TO BE ACHIEVED USING LIGHT HAND COMPACTING EQUIPMENT SUCH AS A 305mm (12") TO 455mm (18") PLATE TAMPER.

12. PROTECT AND MAINTAIN ALL EXISTING TREES, PLANTS AND VEGETATION.

13. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF TEMPORARY SHORING TO EXCAVATION.

14. BASED ON AVAILABLE INFORMATION, THE SOIL TO BE EXCAVATED IS NOT EXPECTED TO BE CONTAMINATED. HOWEVER, IF THE SOIL OR A PART OF IT IS FOUND TO BE CONTAMINATED, THE CONTRACTOR SHALL INFORM THE OWNER'S REPRESENTATIVE IMMEDIATELY, AND CONDUCT THEMSELVES ACCORDING TO CONTAMINATED SITE REGULATIONS AND AS PER THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

G. CAST-IN-PLACE CONCRETE:

1. PRODUCTS:

CEMENT	PORTLAND CEMENT TO CSA A3001
AGGREGATES	NORMAL DENSITY, MAX 20mm
VAPOR MEMBRANE	6 MIL POLYETHYLENE SHEETING
JOINT SEALANT/JOINT FILLER	AS SHOWN ON DRAWINGS

1.1 DO NOT USE ADMIXTURES CONTAINING CALCIUM CHLORIDE.

1.2 MIX DESIGN (U.N.O.)

MIN. 28 DAYS STRENGTH (MPa)	MAX. WATER/ CEMENT RATIO	SLUMP (mm)	MAX. AGG. SIZE (mm)	EXPOSURE CLASS	AIR CONTENT (%)
30	0.55	80±20	20	F2	4 TO 7

1.3 USE KRYTON KIM WATERPROOFING ADMIXTURE OR APPROVED EQUIVALENT FOR ALL WATERTIGHT CONCRETE AS NOTED ON DRAWINGS. FOLLOW MANUFACTURER'S APPLICATION PROCEDURE.

2. EXECUTION:

2.1 LOCATE CONSTRUCTION JOINTS AS SHOWN ON THE DRAWINGS, AND PROVIDE CONTROL JOINTS AS REQUIRED. DO NOT EXCEED 9ft SPACING BETWEEN CONTROL JOINTS IN GRADE SLABS.

2.2 BEFORE POURING CONCRETE, FIX ANCHOR BOLTS SECURELY BY WIRING THE BOTTOMS TO REINFORCING STEEL AND SECURING THE TOPS WITH TEMPLATES. SET ANCHOR BOLTS PERPENDICULAR TO THE BEARING SURFACE AND PROTECT THE THREADS. AFTER POURING CONCRETE, ENSURE NUTS TURN FREELY.

2.3 PLACE ANCHOR BOLTS FOR BUILDING STRUCTURES TO MEET THE FOLLOWING TOLERANCES:

BOLTS WITHIN A GROUP:	+/- 3 mm
BOLT GROUP TO ADJACENT BOLT GROUP:	+/- 6 mm
MAXIMUM ACCUMULATION:	+/- 6 mm OR 30 m MAX. +/- 25 mm
PROJECTION FROM DESIGNATED SURFACES:	+/- 6 mm

2.4 FINISH THE CONCRETE TO SUIT THE INTENDED USE OF THE SURFACE. GRIND EXPOSED SHARP EDGES OF CONCRETE. IF FLOOR FINISHES ARE NOT OTHERWISE SPECIFIED, PROVIDE THE FOLLOWING:

CONCRETE FLOORS:	STEEL TROWEL
WET AREAS:	STEEL TROWEL THEN BROOM

2.5 CONCRETE TO BE MIXED, PLACED AND MOIST CURED ACCORDING TO CSA A23.1-19 U.N.O.

2.6 ALL EXPOSED CONCRETE CORNERS TO HAVE 20mm CHAMFER.

2.7 BEFORE POURING CONCRETE, ENSURE THAT ALL EMBEDDED ITEMS, SUCH AS ANCHOR BOLTS, SLEEVES AND WATER STOPS ARE IN PLACE TO THE SATISFACTION OF THE ENGINEER.

2.8 SUBMIT PROPOSED CONCRETE MIX DESIGNS FOR APPROVAL TO THE ENGINEER AND TESTING AGENCY RETAINED BY THE CONTRACTOR WITH EACH MIX DESIGN HAVING ITS AREAS OF USE CLEARLY IDENTIFIED. CONTRACTOR TO SUBMIT TO THE ENGINEER WRITTEN DOCUMENTATION CONFIRMING THAT EACH AGGREGATE SOURCE TO BE USED ON THE PROJECT WILL COMPLY WITH CSA A23.1-CLAUSE 5.5 ON ALKALI - REACTIVITY OF AGGREGATES AND OTHER REACTIONS.

2.9 CONCRETE QUALITY IS TO BE TESTED BY THE TESTING AGENCY ACCORDING TO CSA-A23.2-19 INCLUDING STRENGTH AND SLUMP TESTS, AIR CONTENT AND W/C RATIOS FOR EACH CONCRETE POUR, WITH REPORTS SUBMITTED TO THE STRUCTURAL ENGINEER.

2.10 THE CONTRACTOR SHALL NOT PROCEED WITH PLACING CONCRETE THAT FAILS TO MEET THE REQUIREMENTS. IF CONCRETE TESTS SHOW CONCRETE TO BE LESS THAN REQUIRED QUALITY, THE ENGINEER SHALL HAVE THE RIGHT TO HAVE MIX DESIGN ALTERED FOR THE REMAINDER OF THE WORK AT NO EXTRA COST TO THE OWNER. FURTHER TESTS AND REMEDIAL MEASURES MAY BE REQUIRED AS NOTED IN CLAUSE 4.4.6.7.1 OF CSA-23.1. WHEN REQUIRED, CORE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH CSA-23.1 CLAUSE 4.4.6.6.2. THE EXPENSE OF SUCH WORK SHALL BE PAID BY THE CONTRACTOR

2.11 VERTICAL DROP OF CONCRETE NOT TO EXCEED 1.5m .

2.12 COMPACT AND CONSOLIDATE CONCRETE WITH INTERNAL VIBRATORS TO SIZE, SPACING, ETC. IN CSA A23.1 CLAUSE 19.4. WORK CONCRETE AROUND ALL EMBEDDED MATERIAL AND INTO PREVIOUSLY PLACED CONCRETE LIFT.

2.13 OPENINGS, PIPE SLEEVES, ETC. IN STRUCTURAL CONCRETE ARE NOT PERMITTED EXCEPT AS SHOWN ON DRAWINGS OR SPECIFICALLY APPROVED BY THE ENGINEER.

3. CURING AND PROTECTION:

3.1 CURE WATERTIGHT CONCRETE AS FOLLOWS:

- CURE WATERTIGHT CONCRETE FOR A MINIMUM OF 7 DAYS AT A MINIMUM TEMPERATURE OF 10°C BY MAINTAINING CONCRETE SURFACES CONTINUOUSLY MOIST; AND UNTIL IT REACHES 70% OF SPECIFIED 56-DAY STRENGTH AS DETERMINED BY FIELD CURED CYLINDERS.
- CURE WATERTIGHT CONCRETE BY EXTENDING WET CURING, REGARDLESS OF EXPOSURE CLASS. EXTENDED WET CURING SHALL ONLY BE ACHIEVED BY PONDING, CONTINUOUS SPRINKLING, ABSORPTIVE MAT OR FABRIC KEPT CONTINUOUSLY WET.

3.2 IN ADDITION TO THE REQUIREMENTS OF 3.1, CURE RESERVOIR BASE SLAB FOR MINIMUM OF 14 DAYS.

3.3 IN ADDITION TO THE REQUIREMENTS OF 3.1, CURE WATERTIGHT CONCRETE WALLS BY CONTINUOUSLY SOAKING TOP OF WALL; LOOSEN FORMS AS SOON AS POSSIBLE WITHOUT DAMAGING CONCRETE. MAINTAIN A CONTINUOUS SUPPLY OF WATER TO TOP OF THE WALL TO KEEP INSIDE OF THE FORMS WET.

3.4 CURE STRUCTURAL CONCRETE AS FOLLOWS:

- FOR A MINIMUM OF 7 DAYS AT A MINIMUM TEMPERATURE OF 10°C BY MAINTAINING CONCRETE SURFACES CONTINUOUSLY MOIST; OR
- UNTIL CONCRETE REACHES 70% OF SPECIFIED 28-DAY STRENGTH AS DETERMINED BY FIELD CURED CYLINDERS.

3.5 DO NOT USE CURING COMPOUNDS IN CONSTRUCTION JOINTS OR ON SURFACES THAT WILL SUBSEQUENTLY RECEIVE PERMANENT PROTECTIVE COATINGS.

3.6 HAVE EQUIPMENT THAT IS NEEDED FOR PROTECTION AND CURING ON-HAND AND READY FOR USE BEFORE PLACING CONCRETE.

3.7 DO NOT LOAD NEW CONCRETE UNTIL IT HAS SUFFICIENT STRENGTH AND RIGIDITY AS APPROVED BY THE ENGINEER.

3.8 WHEN TEMPERATURE IS BELOW 4°C PROVIDE HEAT AND PROTECTION IN ACCORDANCE WITH CSA-A23.1-04, CLAUSE 7.4.1.5. WHEN TEMPERATURE IS 27°C OR ABOVE, PROTECT IN ACCORDANCE WITH CLAUSE 7.4.1.2 AND 7.4.1.4.

SEE DWG. 101944-01-0000-S-004 FOR CONTINUATION.

PROFESSIONAL ENGINEER — Dr. P. BAZARGANI — BRITISH COLUMBIA — 06/10/2021

Safety in all we do

REF.	DRAWING No.	REFERENCE DRAWING	No.	BY	DATE	REVISION DETAILS	CHKD	ENG	APPR
			E	JS	07SEP2021	ISSUED FOR TENDER	JK	PB	JK

DRAWN	B. AZIMI	02DEC2019
DWG. CHECKED	P. BAZARGANI	02DEC2019
DESIGNED	P. BAZARGANI	02DEC2019
DES. APPR.	J. KARLSSON	02DEC2019
PROJ. APPR.		

Ausenco
Vancouver, British Columbia, Canada
T +1 604 684 9311
W www.ausenco.com

Ausenco

CLIENT: DEPARTMENT OF FISHERIES & OCEANS

TITLE: SNOOTLI CREEK HATCHERY FACILITY
AERATION TOWER
GENERAL NOTES
SHEET 1 OF 2

PROJECT No. 2101944-01 | SCALE AS SHOWN | SIZE D

DRAWING No. 101944-01-0000-S-003 | REV E

H. CONCRETE REINFORCEMENT:

1. PRODUCTS:

REINFORCING STEEL: GRADE 400W DEFORMED BARS TO CSA G30.18M-09

PROTECTIVE COATING (IF SHOWN): EPOXY

DO NOT USE MATERIALS WITH LOOSE SCALY RUST, DIRT, OIL, PAINT OR OTHER BOND-BREAKING COATINGS.

2. EXECUTION:

2.1 DO NOT FIELD BEND REINFORCEMENT EXCEPT WHERE AUTHORIZED BY THE ENGINEER.

2.2 CLEAN ALL REINFORCING STEEL BEFORE PLACING CONCRETE.

2.3 PROVIDE THE FOLLOWING MINIMUM CONCRETE COVER FOR REINFORCEMENT:

CONCRETE SURFACE IS EXPOSED TO GROUND OR WEATHER	CONCRETE IS PLACED AGAINST GROUND	75mm
	CONCRETE IS PLACED AGAINST FORMWORK OR LEAN MIX	50mm
CONCRETE SURFACE NOT EXPOSED TO GROUND OR WEATHER	BEAMS, COLUMNS, PADS AND PIERS	40mm
	SLABS ON GRADE (TOP STEEL)	50mm

2.4 REINFORCEMENT TO BE DETAILED AND FABRICATED AS ACCORDING TO CSA A23.3-04 APPENDIX A.

2.5 ALL TIES TO BE 135° UNLESS NOTED OTHERWISE.

2.6 SPLICES ARE STAGGERED SO THAT NO MORE THAN 50% OF EACH INDIVIDUAL LAYER OF REINFORCEMENT IS SPLICED AT ANY CROSS SECTION, UNLESS NOTED OTHERWISE.

2.7 LAP SPLICE LENGTH OF REINFORCEMENT BASED ON LARGER BAR BEING SPLICED, UNLESS NOTED OTHERWISE. WHERE SPLICE LENGTHS ARE NOT DIMENSIONED ON THE DRAWINGS, SEE THE FOLLOWING TABLE FOR DIMENSIONS:

MINIMUM TENSION LAP SPLICE (mm)				
BAR	25 MPa	30 MPa	35 MPa	40 MPa
10M	400	400	400	400
15M	600	550	500	450
20M	750	700	650	600
25M	1200	1100	1000	950

2.8 DOWELS SHALL BE SPLICED BEFORE CONCRETE FOOTINGS ARE POURED. TEMPLATES SHALL BE USED TO ENSURE CORRECT PLACEMENT OF DOWELS. DOWELS TO MATCH VERTICAL BARS.

2.9 REINFORCEMENT REQUIREMENTS ARE SHOWN ON DETAIL DRAWINGS. WHERE DETAILS OF BAR SIZING AND SPACING ARE NOT SHOWN, ALLOW FOR MINIMUM REINFORCEMENT IN ACCORDANCE WITH CAN/CSA A23.3-04.

2.10 ALL HOOKED BARS TO BE STANDARD HOOKS U.N.O. HOOK CAN BE INSTALLED HORIZONTALLY OR VERTICALLY.

2.11 PROVIDE SUFFICIENT CHAIRS AND SUPPORT BARS TO MAINTAIN COVER AS SPECIFIED, AND TO MAINTAIN REINFORCEMENT STEEL SECURELY IN PLACE DURING CONCRETE PLACEMENT.

2.12 ALL REBAR AT THE END OF FOUNDATION ELEMENTS TO END WITH A STANDARD HOOK.

I. CONCRETE FORMWORK:

1. PRODUCTS:

FORM TIES: FORM TIES PATTERN TO BE APPROVED BY THE OWNER.

FORM LINER: 20mm MEDIUM DENSITY OVERLAY PLYWOOD.

FORM RELEASE AGENT: USE A PRE-APPROVED CHEMICAL FORM RELEASE AGENT WHICH WILL NOT STAIN, PENETRATE OR DISCOLOUR THE CONCRETE.

FORM TAPE: VINYL

2. EXECUTION:

2.1 ALIGN FORM JOINTS AND MAKE WATERTIGHT. KEEP FORM JOINTS TO A MINIMUM.

2.2 LINE FORMS FOR EXPOSED CONCRETE SURFACES. DO NOT STAGGER JOINTS OF FORM LINING MATERIAL. ALIGN JOINTS TO OBTAIN A UNIFORM PATTERN.

2.3 SPACE FORM TIES FOR EXPOSED CONCRETE WORK EVENLY IN STRAIGHT HORIZONTAL AND VERTICAL LINES.

2.4 FORM CHASES, SLOTS, OPENINGS, DRIPS, RECESSES, EXPANSION AND CONTROL JOINTS, AND INSTALL ALL INSERTS AND EMBEDDED ITEMS AS INDICATED. EXAMINE DRAWINGS FOR OTHER TRADES AND PROVIDE ALL REQUIRED OPENINGS, INSERTS AND ANCHOR BOLTS.

2.5 USE 20mm CHAMFER STRIPS ON EXTERNAL CORNERS OF BEAMS, JOISTS, WALLS AND COLUMNS, U.N.O.

2.6 CLEAN FORMWORK BEFORE PLACING CONCRETE.

2.7 LEAVE FORMWORK IN PLACE UNTIL CONCRETE HAS ATTAINED SUFFICIENT STRENGTH TO ADEQUATELY SUPPORT ITS OWN WEIGHT TOGETHER WITH CONSTRUCTION LOADS LIKELY TO BE IMPOSED. WHEN FALSEWORK REMOVAL TIMES ARE NOT SPECIFIED USE THE FOLLOWING MINIMUM PERIODS OF SUPPORT:

- FOOTINGS: 2 DAYS
- RESERVOIR WALLS: 7 DAYS
- RESERVOIR SLAB: 7 DAYS
- OTHER WALLS: 3 DAYS

2.8 GROUT FORM TIE HOLES TO PREVENT RUST STAINING.

J. CONSTRUCTION TOLERANCES:

(TOLERANCES AS PER CSA-A23.1 EXCEPT AS NOTED BELOW.)

CLOSER TOLERANCES SHALL BE MAINTAINED WHERE NOTED ON DRAWINGS.

WHERE ANY DEVIATION OCCURS, AND IT IS ACCEPTABLE TO THE ENGINEER, THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTMENT OF OTHER BUILDING ELEMENTS TO ACCOMMODATE SUCH DEVIATION. COSTS FOR REMEDIAL WORK FOR DEVIATIONS NOT ACCEPTED SHALL BE BOURNE BY THE CONTRACTOR.

1. VARIATION FROM THE PLUMB:

1.1 IN THE LINES AND SURFACES OF COLUMNS, PIERS AND WALLS:

- 0.25% OF HEIGHT (1 IN 400), MAXIMUM 40mm.
- ONLY ONE CURVATURE ALLOWED PER 3m.
- THE TOLERANCE GIVEN IS THE MAXIMUM VARIATION FROM A PLUMB LINE.
- ALL MEASUREMENTS SHALL BE TO THE SAME SIDE OF THE PLUMB LINE.

1.2 UNLESS SPECIFIED ELSEWHERE IN CONSTRUCTION DOCUMENTS, TOLERANCES FOR EXPOSED CORNER COLUMNS, CONTROL-JOINTS GROOVES, AND OTHER CONSPICUOUS LINES SHALL BE:

- 0.125% OF HEIGHT (1 IN 800), MAXIMUM 20mm.
- ONLY ONE CURVATURE ALLOWED PER 6m.

K. STRUCTURAL AND MISCELLANEOUS STEEL:

1. PRODUCTS:

1.1 STRUCTURAL STEEL SHALL CONFORM TO THE GENERAL REQUIREMENTS OF CAN/CSA-G40.20-13 AND CAN/CSA-G40.21-13. ALL STEEL WORKS TO BE IN ACCORDANCE WITH NBC 2015 AND CSA S16-19.

1.2 STRUCTURAL STEEL GRADE:

STRUCTURAL STEEL:	ROLLED ANGLES & CHANNELS:	GRADE 300W, U.N.O.
	OTHER ROLLED SECTIONS:	GRADE 350W
	PLATE:	GRADE 350W
	HOLLOW STRUCTURAL SECTIONS:	GRADE 350W, CLASS C
	CHECKER PLATE:	ASTM A36
ELECTRODES:		E-490XX
ANCHOR BOLTS:		ASTM F1554 GALVANIZED OR TYPE 304 STAINLESS STEEL (IN CONTACT WITH FLUID CONTENTS), U.N.O.
BOLTS, NUTS AND WASHERS:		ASTM F3125 GRADE A325 HOT DIP GALVANIZED
HANDRAIL PIPE:		ASTM A53, 240 MPa
GRATING:		25 mm x 3 mm SERRATED BAR GRATING, GALVANIZED, U.N.O.

1.3 THREADED RODS AND ANCHOR RODS: ASTM F1554 GRADE 36.

1.4 ALL BOLTS SHALL BE GALVANIZED HIGH STRENGTH STRUCTURAL BOLTS CONFORMING TO ASTM F3125 GRADE A325 TYPE 1, 20mm DIAMETER MINIMUM, U.N.O. ON DRAWINGS.

1.5 ALL WEATHER EXPOSED STEEL TO BE HOT DIP GALVANIZED TO CAN/CSA-G164. TOUCH UP DAMAGED OR WELDED AREAS

1.6 ALL WELDING ELECTRODES: E70XX. MINIMUM FILLET WELD SIZE SHALL BE 6mm U.N.O.

1.7 PROVIDE SHOP DRAWINGS SIGNED AND SEALED BY P. ENG. REGISTERED IN BC OF ALL STRUCTURAL STEEL AND MISCELLANEOUS METAL FOR REVIEW, PRIOR TO FABRICATION. SHOP DRAWING TO SHOW ALL DETAILS AND MATERIAL SPECIFICATION.

1.8 REQUIREMENTS BY CSA W59 MUST BE FULFILLED BY FABRICATORS CERTIFIED TO CSA W47.1 DIV. 1 OR DIV. 2.

1.9 NO BURNING OF HOLES SHALL BE PERMITTED IN STRUCTURAL STEEL.

2. EXECUTION:

2.1 ALL WELDING TO BE IN ACCORDANCE WITH C.S.A. W59. FABRICATION SHOP TO HAVE FULL APPROVAL OF C.W.B. TO THE REQUIREMENTS OF C.S.A. W47.1 DIVISION 1 OR 2. ALL WELDERS TO BE CERTIFIED.

2.2 CONTRACTOR MUST NOTIFY THE ENGINEER OR OWNER REPRESENTATIVE WELL IN ADVANCE OF THE TIME WELDING WILL BE READY FOR QUALITY ASSURANCE TESTING. WELDS MUST REMAIN UNCOVERED AND ACCESSIBLE UNTIL RESULTS FROM TESTING AGENCIES ARE SUBMITTED & APPROVED BY ENGINEER.

2.3 DO NOT FIELD BURN BASE PLATE HOLES OR CONNECTION BOLT HOLES. IF BOLT HOLES ARE MISALIGNED, INFORM ENGINEER.

2.4 STRUCTURAL STEEL CONTRACTOR TO PROVIDE ALL TEMPORARY BRACING REQUIRED TO STABILIZE THE STEEL FRAME UNTIL THE STRUCTURE IS COMPLETE.

2.5 PAINT ALL STEELWORK AND CLADDING TO MATCH CURRENT COLOUR SCHEME OF THE FACILITY.

2.6 ALL "STANDARD" AND "TYPICAL DETAILS" SHOWN ON DRAWINGS APPLY TO ALL STEELWORK, WHETHER SPECIFICALLY REFERENCED ON PLAN OR NOT.

2.7 STEELWORK EXPOSED TO THE EXTERIOR TO BE COATED AND PAINTED AS PER OWNER'S COATING SPECIFICATIONS.

2.7.1 FIELD TOUCH UP ABRASIONS AND PAINT BOLTS.

2.8 SITE WELDS AND THE SURROUNDING AFFECTED AREA SHALL BE CLEANED BY WIRE BRUSH AND TOUCHED UP WITH ZINC RICH PRIMER. MINIMUM DRY THICKNESS TO BE 50 MICRONS. APPLY AT LEAST ONE COAT OF ZINC PRIMER TO MINIMUM DRY FILM THICKNESS OF 50 TO 75 MICRONS. ALL EXPOSED WELDS SHALL BE GROUND SMOOTH.

2.9 CONNECT BRACE RODS TO COLUMNS EXCEPT AT MIDSPAN OF ROOF LEVEL WHERE RODS CONNECT TO W200 PERIMETER ROOF BEAMS. SUBMIT CONNECTION DETAIL TO ENGINEER FOR APPROVAL BEFORE PROCUREMENT. HAND-TIGHTEN TURN-BUCKLES ONCE ROD INSTALLED.

2.10 CONTRACTOR TO SELECT APPROPRIATE DOORS AND RELATED ACCESSORIES, AND SUBMIT SPECIFICATIONS TO OWNER AND ENGINEER FOR APPROVAL BEFORE PROCUREMENT.

3. CONNECTION NOTES:

3.1 DESIGN ALL CONNECTIONS TO THE FORCES GIVEN IN THE FOLLOWING TABLE.

22mm BRACE RODS (TENSION)	50 kN
L75x75 (TENSION / COMPRESSION)	15 kN
C200 (COMPRESSION)	35 kN
C200 (SHEAR)	15 kN
W150 (SHEAR)	15 kN
W200 BEAMS (SHEAR)	50 kN
W200 COLUMNS (COMPRESSION)	110 kN
W200 COLUMNS (SHEAR)	50 kN
W200 COLUMNS (UPLIFT)	40 kN

3.2 CONNECTION DETAILS, BOLT SIZES, BOLT PATTERNS AND WELD SIZES SHOWN ON DRAWINGS ARE FOR CONCEPTUAL DEMONSTRATION. STRUCTURAL STEEL FABRICATOR TO SHOW CONNECTION DETAILS ON SHOP DRAWINGS AND SUBMIT TO THE ENGINEER FOR APPROVAL BEFORE PROCUREMENT.

4. CLADDING NOTES:

4.1 CLADDING SYSTEM OF THE UPPER STEEL PORTION OF THE STRUCTURE TO BE DESIGNED BY OTHERS. SUBMIT DESIGN TO ENGINEER FOR APPROVAL PRIOR TO PROCUREMENT.

4.2 CLADDING SYSTEM TO SHELTER THE UPPER STEEL PORTION OF THE STRUCTURE FROM WEATHER ELEMENTS WITHOUT THE NEED TO BE WATERTIGHT. NO THERMAL INSULATION IS REQUIRED. DRAPE CLADDING SYSTEM A MINIMUM OF 100mm OVER CONCRETE WALL AT TOP OF RESERVOIR.

4.3 CONNECT GIRTS TO COLUMNS. SAG RODS TO HANG FROM MAIN W200 BEAMS. PURLINS TO PROVIDE 500mm EVES ON EAST AND WEST SIDES OF THE BUILDING.

4.4 ROOF CLADDING TO BE 24ga METAL CLADDING WITH STANDING SEAM, PAINTED IN SIG 200 CHARCOAL GREY. SIDE CLADDING TO BE 24ga PBR STEEL CLADDING WITH STANDING SEAM, PAINTED IN ASH GREY. PAINT COLOR TO MATCH EXISTING FACILITY COLOR SCHEME.

PROFESSIONAL ENGINEER Dr. P. BAZARGANI BRITISH COLUMBIA
06/10/2021

Safety in all we do

REF.	DRAWING No.	REFERENCE DRAWING	No.	BY	DATE	REVISION DETAILS	CHKD	ENG	APPR
			E	JS	07SEP2021	ISSUED FOR TENDER	JK	PB	JK

DRAWN	B. AZIMI	02DEC2019
DWG. CHECKED	P. BAZARGANI	02DEC2019
DESIGNED	P. BAZARGANI	02DEC2019
DES. APPR.	J. KARLSSON	02DEC2019
PROJ. APPR.		

Ausenco
Vancouver, British Columbia, Canada
T +1 604 684 9311
W www.ausenco.com

Ausenco

CLIENT: DEPARTMENT OF FISHERIES & OCEANS

TITLE: SNOOTLI CREEK HATCHERY FACILITY
AERATION TOWER
GENERAL NOTES
SHEET 2 OF 2

PROJECT No. 2101944-01 | SCALE AS SHOWN | SIZE D

DRAWING No. 101944-01-0000-S-004 | REV E

Sep 07,2021 - 2:47pm S:\proj\101944-01\CAD\0000\s\drg\101944-01-0000-S-005.dwg - Jakub.Svoboda

REF.	DRAWING No.	REFERENCE DRAWING	No.	BY	DATE	REVISION DETAILS	CHKD	ENG	APPR
			E	JS	07SEP2021	ISSUED FOR TENDER	JK	PB	JK

DRAWN	D. MACDONALD	23SEP2019
DWG. CHECKED	P. BAZARGANI	08JUN2020
DESIGNED	P. BAZARGANI	23SEP2019
DES. APPR.	J. KARLSSON	08JUN2020
PROJ. APPR.		

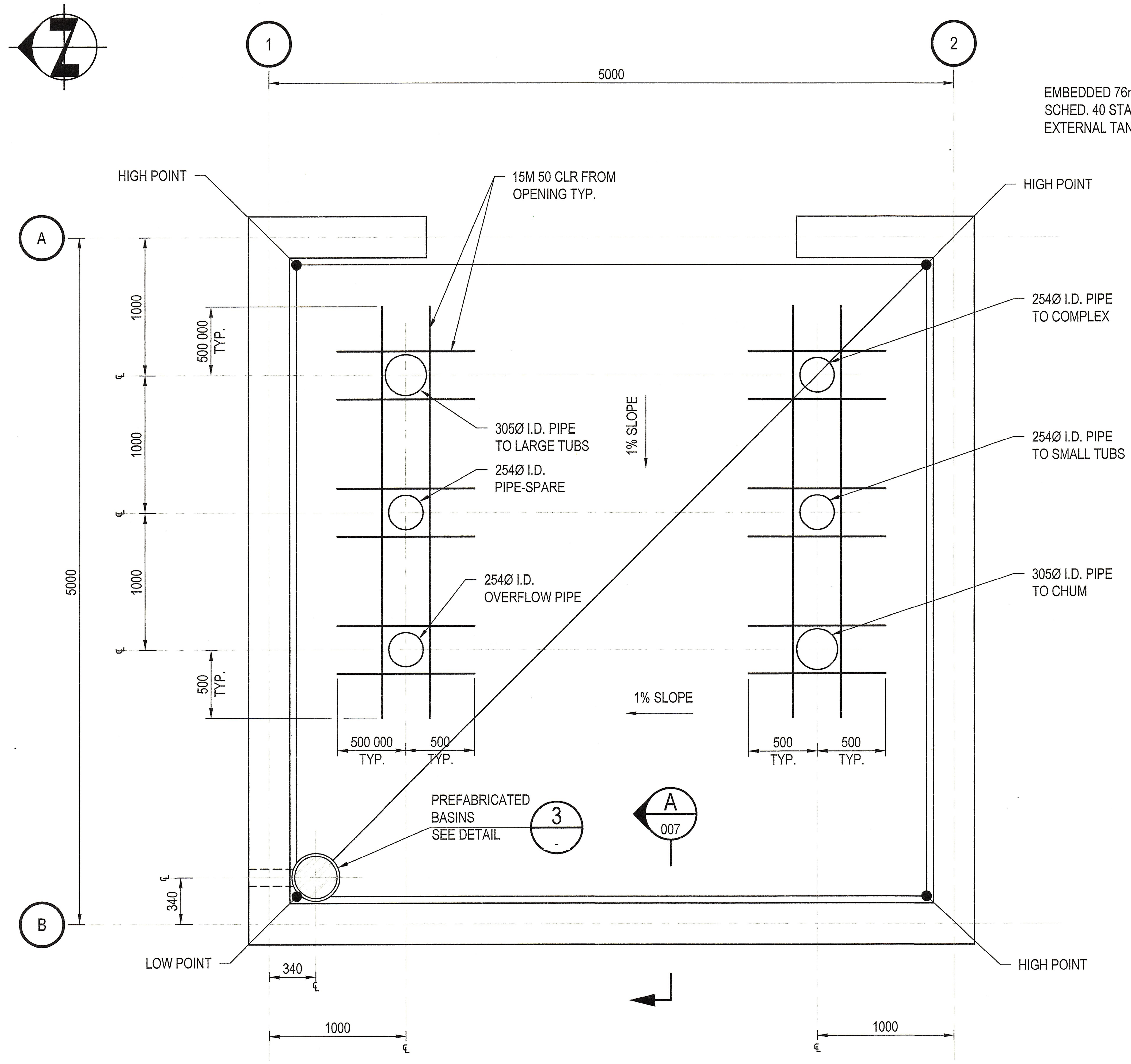
Ausenco
Vancouver, British Columbia, Canada
T +1 604 684 9311
W www.ausenco.com

Ausenco

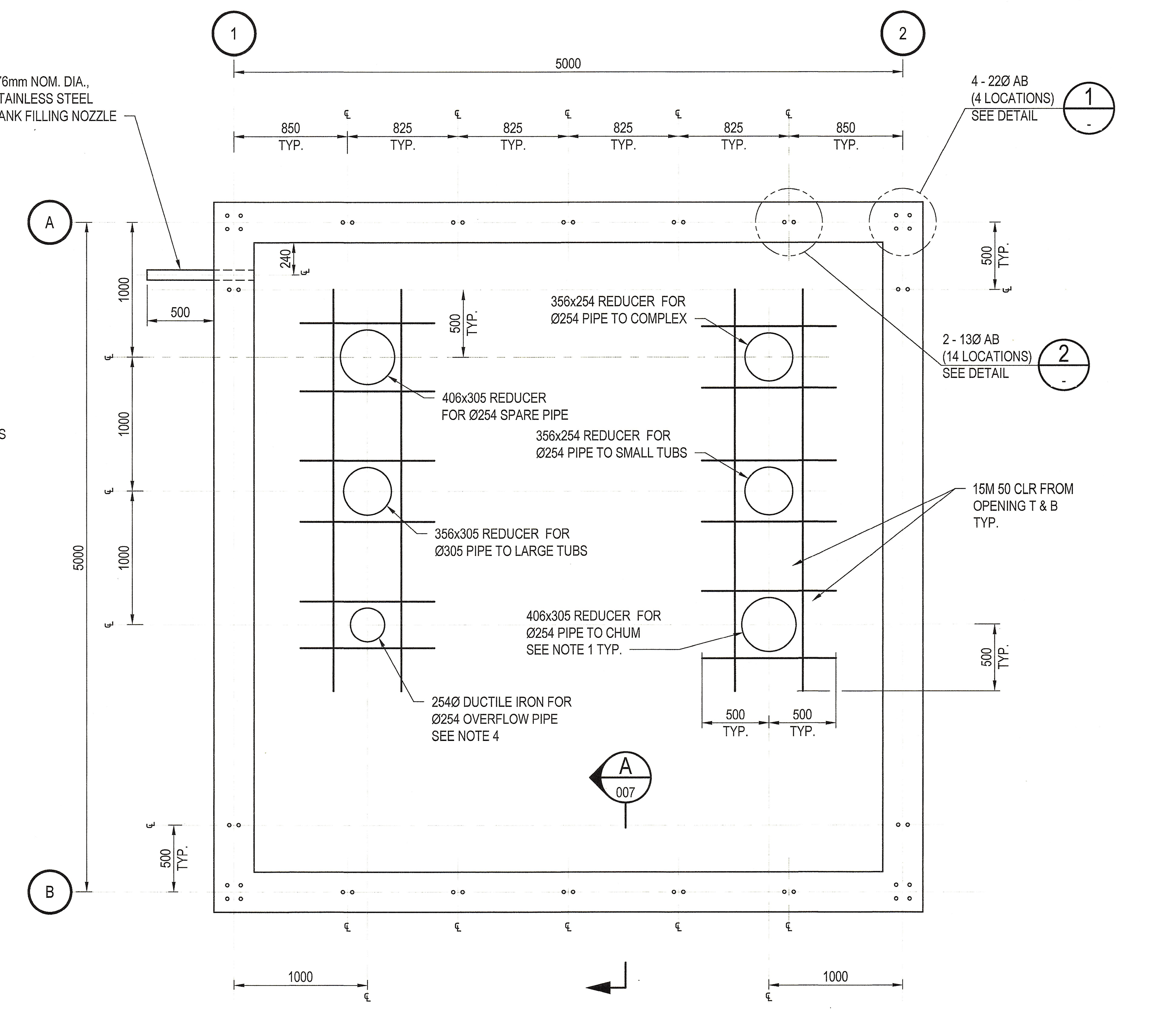
CLIENT: DEPARTMENT OF FISHERIES & OCEANS

TITLE: SNOOTLI CREEK HATCHERY FACILITY
AERATION TOWER
CONCRETE AND STEEL OUTLINE

PROJECT No. 2101944-01
SCALE AS SHOWN
SIZE D
DRAWING No. 101944-01-0000-S-005
REV E



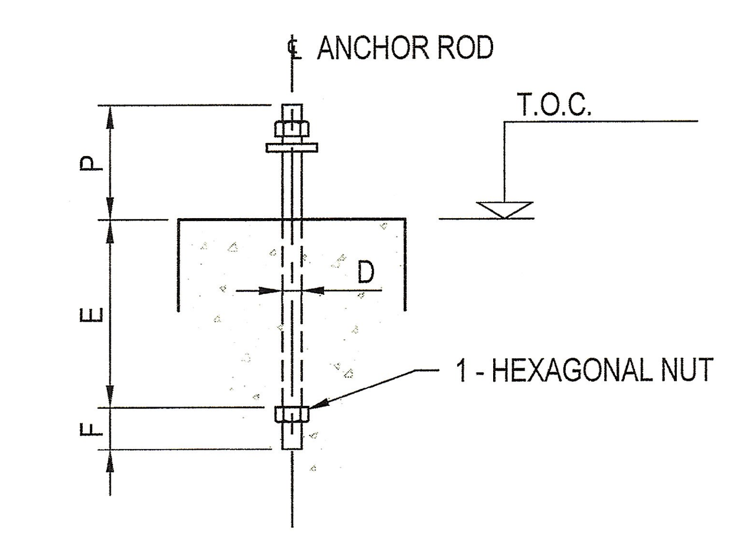
PLAN VIEW OF CONCRETE SLAB ON GRADE
(ADDITIONAL REINFORCEMENTS AROUND OPENINGS)
1:25



PLAN VIEW FROM TOP OF CONCRETE WALL
(ADDITIONAL REINFORCEMENTS AROUND OPENINGS)
1:25

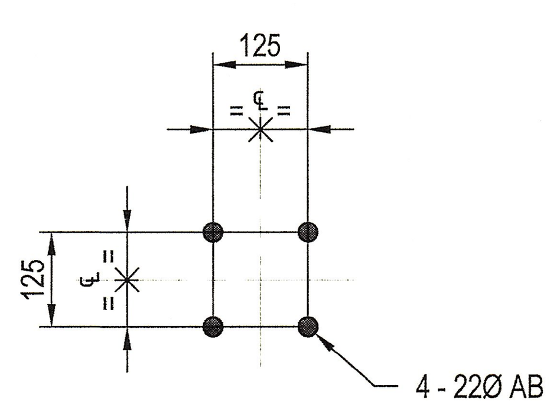
NOTES:

1. ALL DIMENSIONS IN MILLIMETERS.
2. SEE DRAWINGS S-003 AND S-004 FOR GENERAL NOTES.
3. SEE DRAWING C-005 FOR PIPING NOTES.

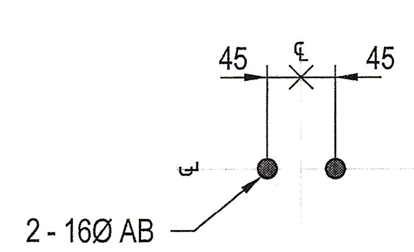


ANCHOR BOLT DETAIL

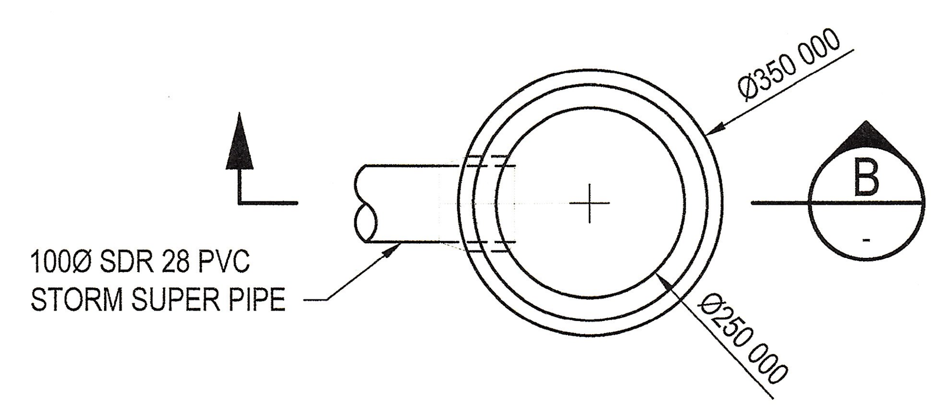
D	E	F	P
M16	250	50	100
M22	300	50	150



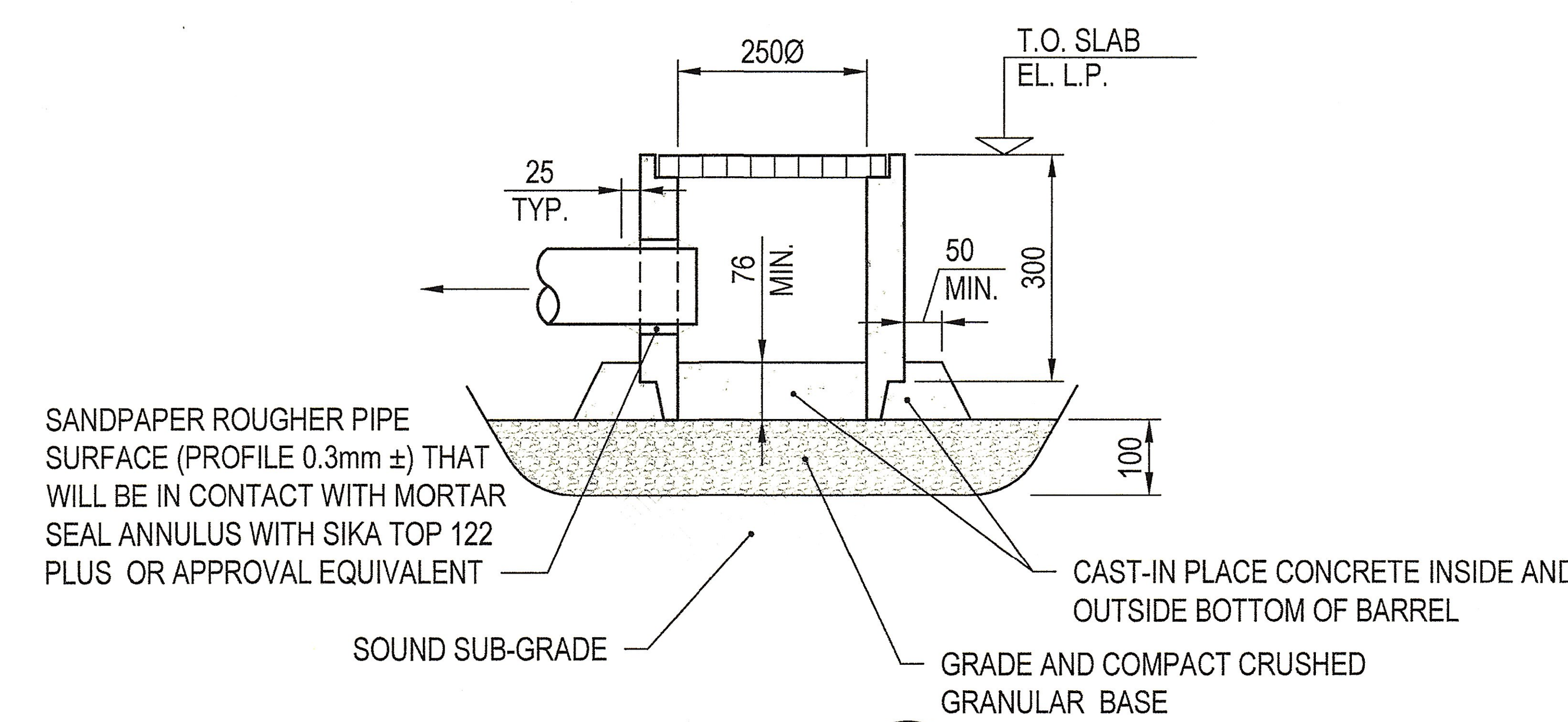
DETAIL 1
1:10
COLUMN ANCHOR BOLTS



SEE PLAN FOR ROTATION
DETAIL 2
1:10
ANCHOR BOLTS FOR W150x24



DETAIL 3
1:10



SECTION B
1:10

NOTE: LANGLEY CONCRETE LAWN BASIN C/W CAST IRON CIRCULAR SLOT DRAIN; OR APPROVED EQUIVALENT

06/10/2021

Safety in all we do

REF.	DRAWING No.	REFERENCE DRAWING	No.	BY	DATE	REVISION DETAILS	CHKD	ENG	APPR
			E	JS	07SEP2021	ISSUED FOR TENDER	JK	PB	JK

DRAWN	B. AZIMI	03DEC2019
DWG. CHECKED	P. BAZARGANI	08JUN2020
DESIGNED	P. BAZARGANI	03DEC2019
DES. APPR.	J. KARLSSON	08JUN2020
PROJ. APPR.		

Ausenco
Vancouver, British Columbia, Canada
T +1 604 684 9311
W www.ausenco.com

Ausenco

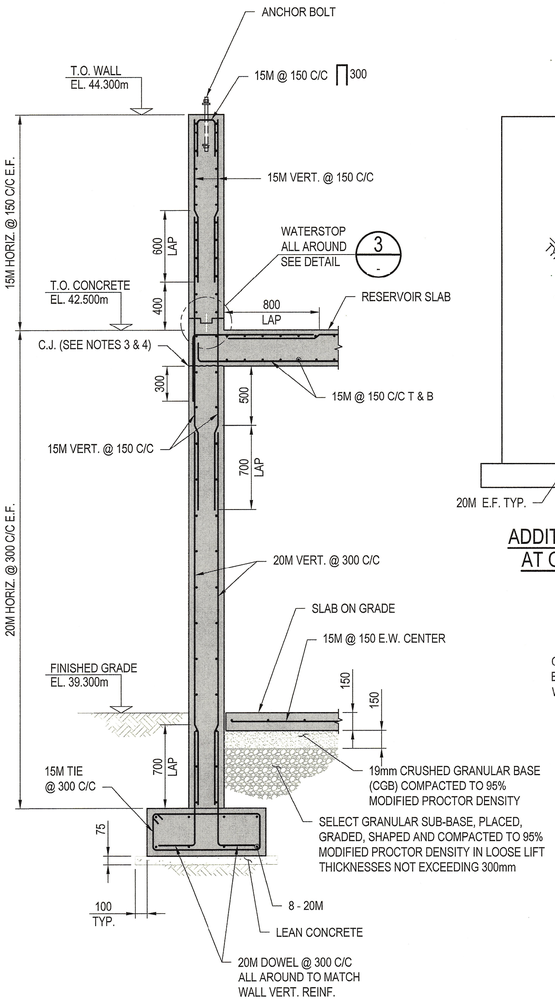
CLIENT: DEPARTMENT OF FISHERIES & OCEANS

TITLE: SNOOTLI CREEK HATCHERY FACILITY
AERATION TOWER
CONCRETE STRUCTURE DETAILS
SHEET 1 OF 2

PROJECT No. 2101944-01 | SCALE AS SHOWN | SIZE D

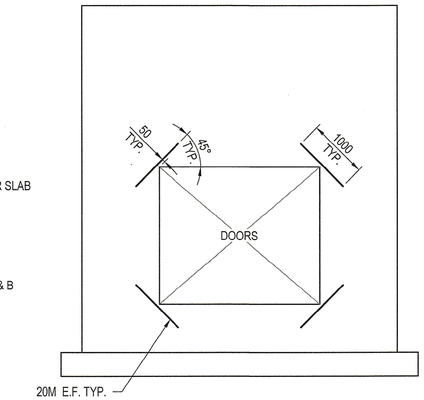
DRAWING No. 101944-01-0000-S-006 | REV E

Sep 07,2021 - 2:47pm S:\proj\101944-01\CAD\0000\s\drg\101944-01-0000-S-006.dwg - Jakub.Svoboda

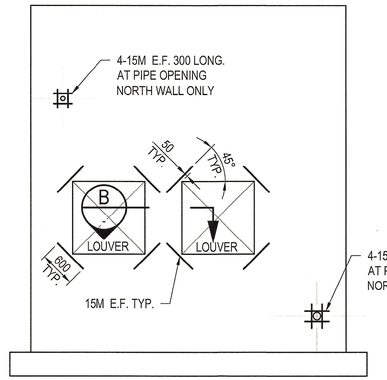


SECTION A
1:25
006

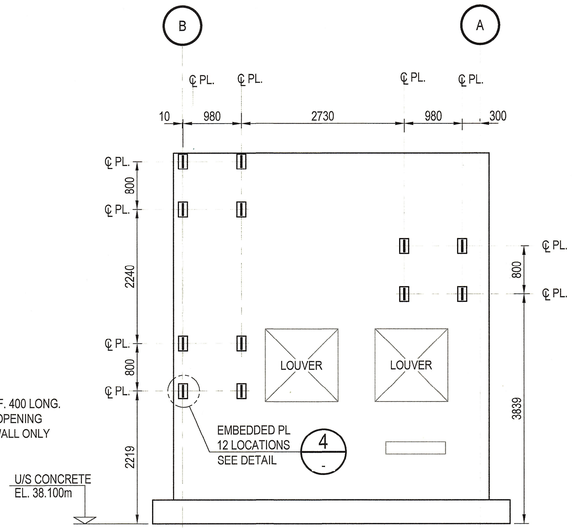
TYPICAL CONCRETE WALL, SLAB AND
STRIP FOOTING REINFORCING DETAIL



ADDITIONAL REINFORCING DETAIL
AT OPENING - EAST ELEVATION
1:50



ADDITIONAL REINFORCING DETAIL AT
OPENINGS - NORTH ELEVATION
1:50
(SOUTH ELEVATION SIMILAR)

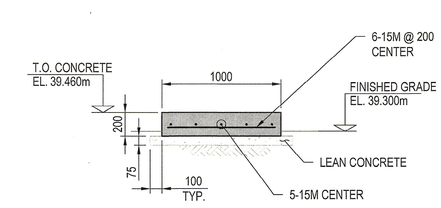


LOCATIONS OF ANCHOR PLATES ON
SOUTH ELEVATION
1:50

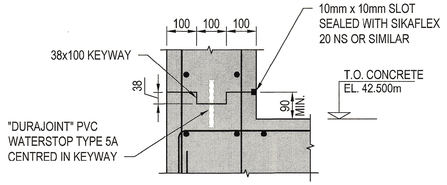
NOTES:

1. ALL DIMENSIONS IN MILLIMETERS.
2. SEE DRAWINGS S-003 AND S-004 FOR GENERAL NOTES.
3. ROUGHEN CONSTRUCTION JOINT SURFACE TO 5mm AMPLITUDE AND CLEAN SURFACE BEFORE CASTING CONCRETE ON TOP.
4. ALL CONCRETE ABOVE CONSTRUCTION JOINT TO BE TREATED AS WATERTIGHT CONCRETE. SEE GENERAL NOTES FOR CONCRETE ADMIXTURE AND CURING REQUIREMENTS.

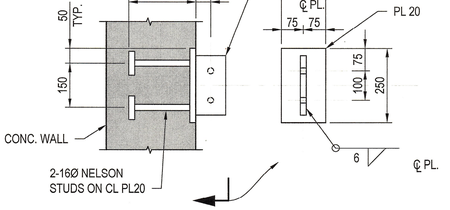
REINFORCEMENT DETAIL
AT CORNERS OF WALLS
1:25



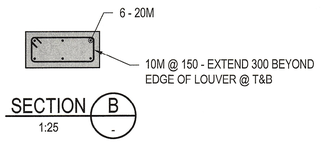
STAIR LANDING PAD
REINFORCING DETAIL
1:25



DETAIL 3
1:10

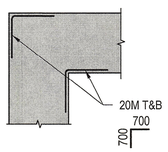


DETAIL 4
1:10
005



SECTION B
1:25
-

REINFORCEMENT DETAIL AT PILLAR
BETWEEN LOUVERS



ADDITIONAL REINFORCEMENT DETAIL
AT CORNERS OF FOUNDATION
1:50

Sep.07.2021 - 2:47pm S:\proj\101944-01\CAD\0000\stdrgt\101944-01-0000-S-007.dwg - Jakub.Svoboda

REF.	DRAWING No.	REFERENCE DRAWING	No.	BY	DATE	REVISION DETAILS	CHKD	ENG	APPR.
			E	JS	07SEP2021	ISSUED FOR TENDER	JK	PB	JK

DRAWN	B. AZIMI	03DEC2019
DWG. CHECKED	P. BAZARGANI	08JUN2020
DESIGNED	P. BAZARGANI	03DEC2019
DES. APPR.	J. KARLSSON	08JUN2020
PROJ. APPR.		

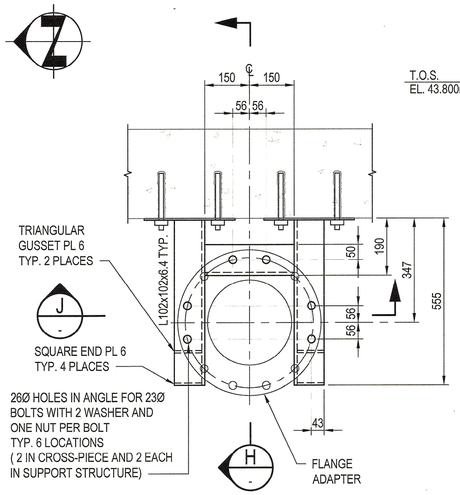
Ausenco
Vancouver, British Columbia, Canada
T +1 604 684 9311
W www.ausenco.com

CLIENT: DEPARTMENT OF FISHERIES & OCEANS

TITLE: SNOOTLI CREEK HATCHERY FACILITY
AERATION TOWER
CONCRETE STRUCTURE DETAILS
SHEET 2 OF 2

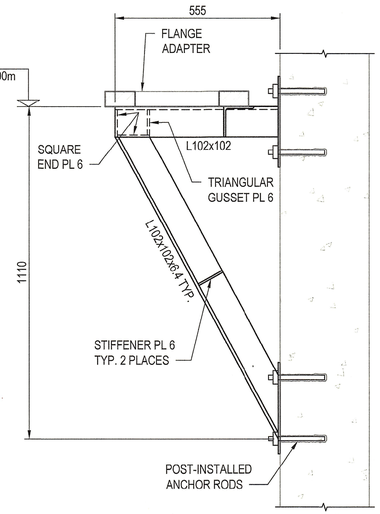
PROJECT No. 2101944-01 | SCALE AS SHOWN | SIZE D

DRAWING No. 101944-01-0000-S-007 | REV E

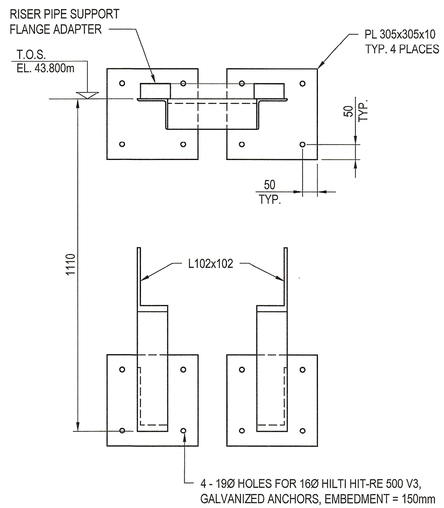


POST-INSTALLED RISER PIPE SUPPORTS PLAN T.O.S. EL. 43.800m

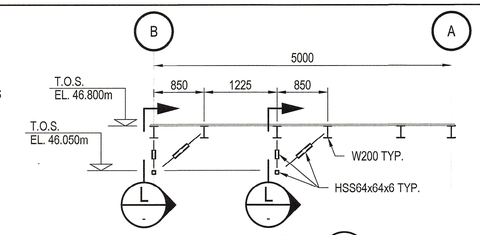
1:10
SEE NOTES



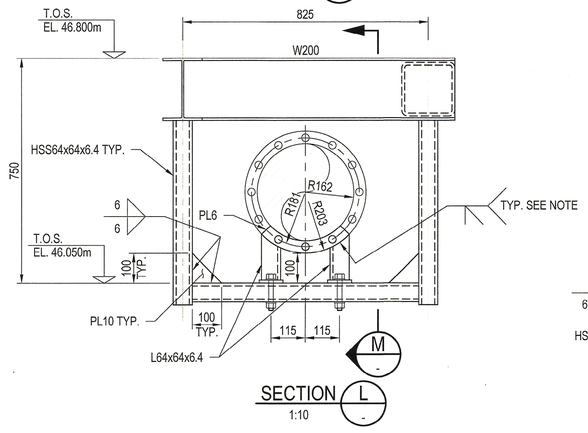
SECTION H
1:10



SECTION J
1:10

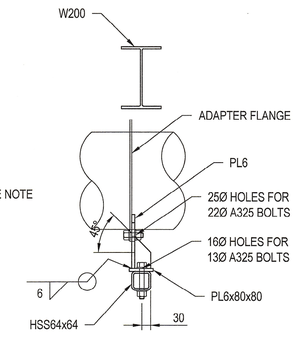


SECTION K
1:50
005



SECTION L
1:10

NOTE: GRIND WELD TO ACHIEVE SMOOTH FLAT SURFACE.



SECTION M
1:10

NOTES:

1. ALL DIMENSIONS IN MILLIMETERS.
2. SEE DRAWINGS S-003 AND S-004 FOR GENERAL NOTES.

PIPE SUPPORT NOTES:

1. ALL METAL (ANGLE IRON, PLATES, BOLTS, WASHERS, NUTS, ANCHORS) HOT-DIP GALVANIZED AT 600 g/m^2.
2. FLANGE ADAPTER: UNI-FLANGE SERIES 900, OR ACCEPTABLE EQUIVALENT, INSTALLED FACE DOWN.
3. FULL GASKET BETWEEN FLANGE FACE AND SUPPORTS 3.175mm (⅛") THICK NATURAL RUBBER WITH LAYER OF COTTON ON BOTH FACE.
4. ALL WELDS NOM. 6mm.

TYPICAL BEAM-TO-COLUMN CONNECTION

1:10

SECTION A
1:10

DETAIL 5
1:10
005

SECTION B
1:10

DETAIL 6
1:10
005

DOOR POST BASE PLATE (TOP CONNECTION SIM.)

1:5

DETAIL 10
1:10
005

TOP FLANGE NOT SHOWN FOR CLARITY

DETAIL 11
1:10
005

DETAIL 7
1:10
005

TYPICAL HORIZ. BRACE TO BEAM CONNECTION

1:10

SECTION C
1:10

DETAIL 8
1:10
005

DISTRIBUTOR LATERAL SUPPORT ANGLE CONNECTION

1:10

SECTION D
1:10

DETAIL 9
1:10
005

SECTION E
1:10

SECTION F
1:10

SECTION G
1:10

NOTE: GRIND WELD TO ACHIEVE SMOOTH FLAT SURFACE.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA Dr. P. BAZARGANI # 40286
06/10/2021

Safety in all we do

Sep 07,2021 - 2:47pm S:\proj\101944-01\CAD\0000\sdrg\101944-01-0000-S-008.dwg - Jakub.Svoboda

REF.	DRAWING No.	REFERENCE DRAWING	No.	BY	DATE	REVISION DETAILS	CHKD	ENG	APPR
			E	JS	07SEP2021	ISSUED FOR TENDER	JK	PB	JK

DRAWN	B. AZIMI	03DEC2019
DWG. CHECKED	P. BAZARGANI	08JUN2020
DESIGNED	P. BAZARGANI	03DEC2019
DES. APPR.	J. KARLSSON	08JUN2020
PROJ. APPR.		

Ausenco
Vancouver, British Columbia, Canada
T +1 604 684 9311
W www.ausenco.com

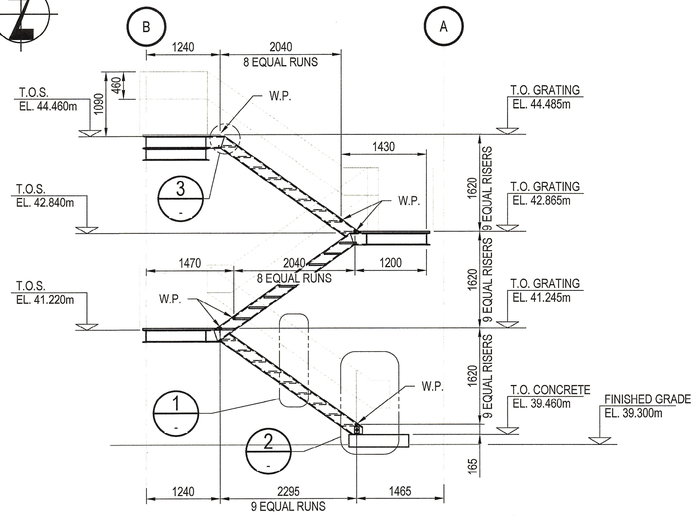
Ausenco

CLIENT: DEPARTMENT OF FISHERIES & OCEANS

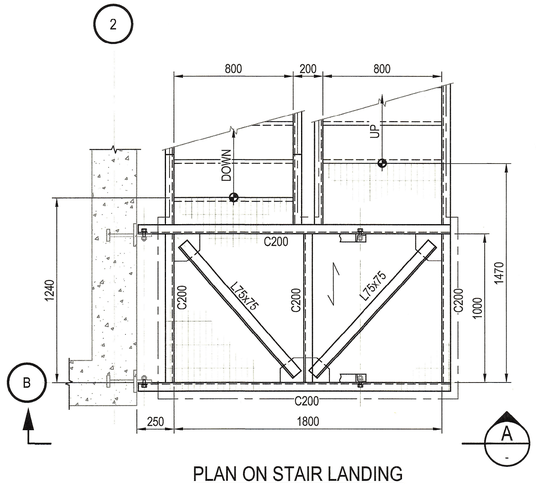
TITLE: SNOOTLI CREEK HATCHERY FACILITY
AERATION TOWER
STEEL STRUCTURE DETAILS

PROJECT No. 2101944-01 | SCALE AS SHOWN | SIZE D

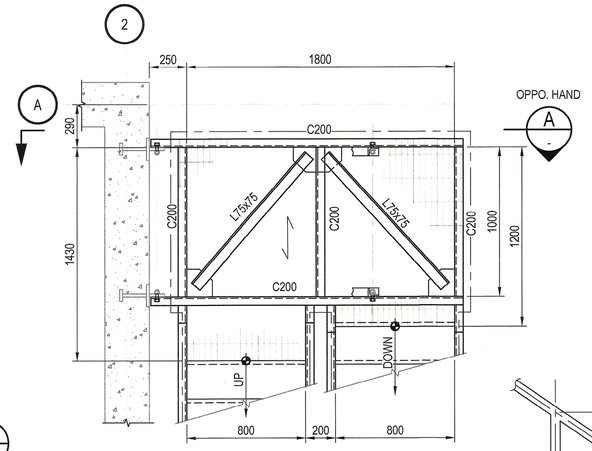
DRAWING No. 101944-01-0000-S-008 | REV E



STAIRS ON SOUTH ELEVATION
1:50



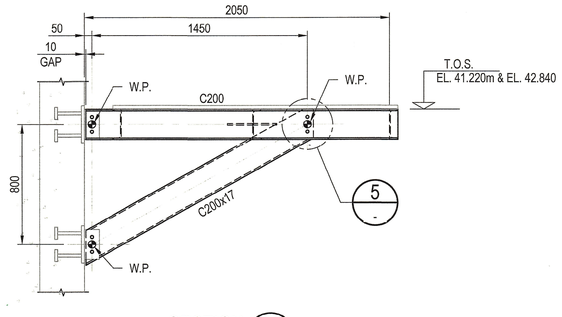
PLAN ON STAIR LANDING
T.O.S. EL. 41.220
1:20



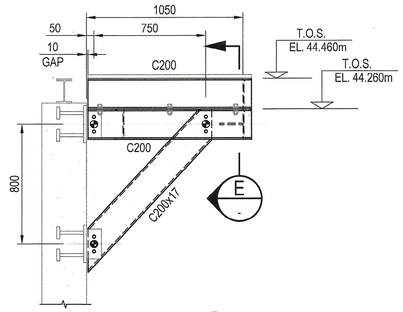
PLAN ON STAIR LANDING
T.O.S. EL. 42.840
1:20

NOTES:

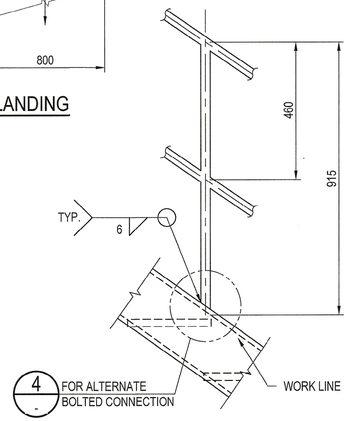
1. ALL DIMENSIONS IN MILLIMETERS.
2. SEE DRAWINGS S-003 AND S-004 FOR GENERAL NOTES.



SECTION A
1:20

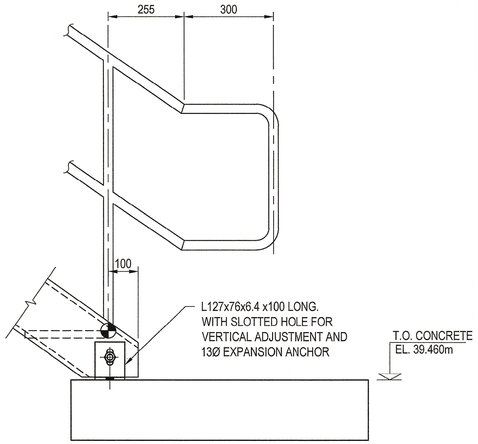


SECTION B
1:20



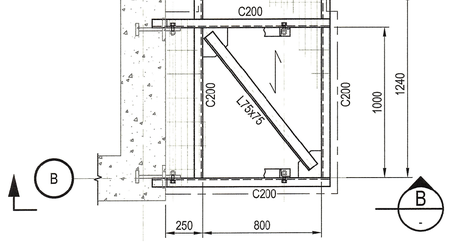
DETAIL 1
1:10

TYPICAL HANDRAIL CONNECTION TO STRINGER

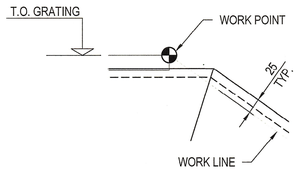


DETAIL 2
1:10

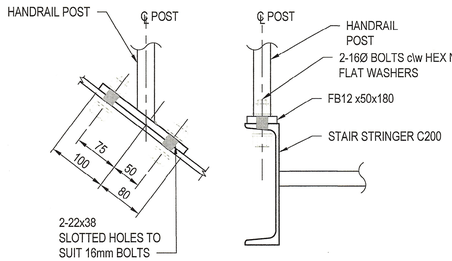
TYPICAL STRINGER CONNECTION TO LANDING PAD



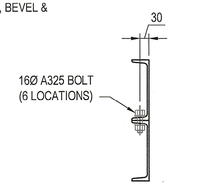
PLAN ON STAIR LANDING
T.O.S. EL. 44.460
1:20



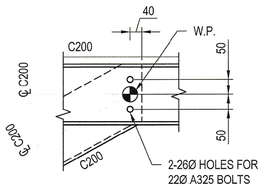
DETAIL 3
1:5



DETAIL 4
1:5



SECTION E
1:10



DETAIL 5
1:10

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
Dr. R BAZARGANI
45255
06/10/2021

Safety in all we do

REF.	DRAWING No.	REFERENCE DRAWING	No.	BY	DATE	REVISION DETAILS	CHKD	ENG	APPR
			E	JS	07SEP2021	ISSUED FOR TENDER	JK	PB	JK

DRAWN	B. AZIMI	03DEC2019
DWG. CHECKED	P. BAZARGANI	03DEC2019
DESIGNED	P. BAZARGANI	03DEC2019
DES. APPR.	J. KARLSSON	03DEC2019
PROJ. APPR.		

Ausenco
Vancouver, British Columbia, Canada
T +1 604 684 9311
W www.ausenco.com

Ausenco

CLIENT: DEPARTMENT OF FISHERIES & OCEANS

TITLE: SNOOTLI CREEK HATCHERY FACILITY
AERATION TOWER
STAIR DETAILS

PROJECT No. 2101944-01 | SCALE AS SHOWN | SIZE D

DRAWING No. 101944-01-0000-S-009 | REV E