

CLIENT : RESORT MUNICIPALITY OF WHISTLER

4325 BLACKCOMB WAY WHISTLER B.C. VON 1B0

TEL.(604) 932-5535 FAX.(604) 932-6734

PROJECT : SANITARY LIFT

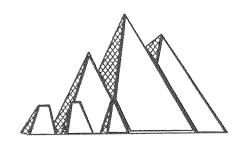
STATION S-103

RECONSTRUCTION

\_OCATION: 6671 CRABAPPLE DRIVE

WHISTLER, B.C.

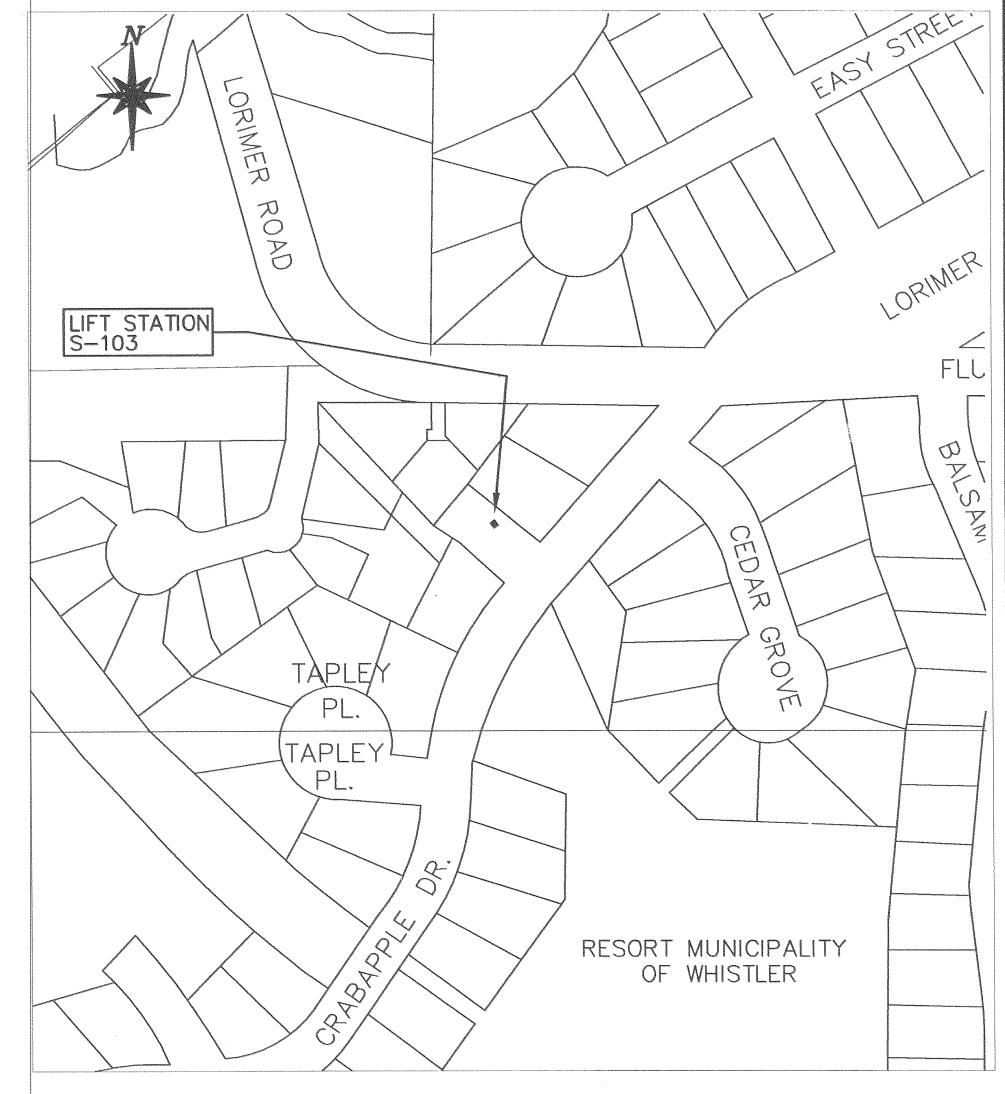
CONSULTANT:



PARAGON ENGINEERING LTD.

12442-205 STREET, MAPLE RIDGE, B.C. V2X OA8

TELEPHONE: (604) 465-3096 FAX: (604) 465-3055



LOCATION PLAN

PARAGON

ALL-SPAN

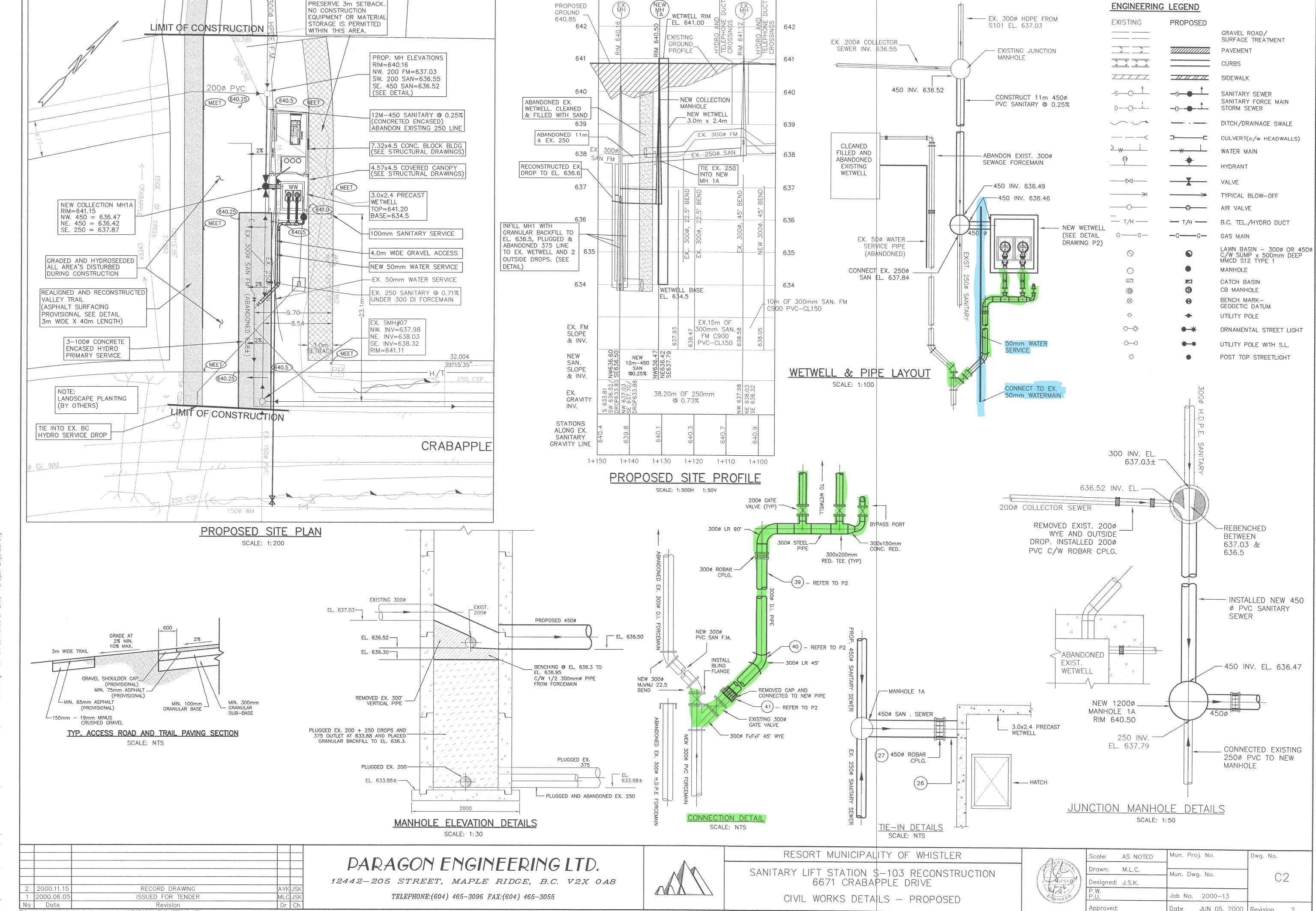
L.R. PEARSON

Terresis de la constitución de l	DRAWING INDEX				
***************************************	SHEET TITLE	SHEET No.			
	COVER PAGE, LOCATION PLAN & DRAWING INDEX ^				
	CIVIL WORKS DETAILS — EXISTING	2000-13-C1			
	CIVIL WORKS DETAILS - PROPOSED	2000-13-C2			
and the second second	GENERAL AND CONSTRUCTION NOTES	2000-13-C3			
	MECHANICAL DETAILS OF GENERATOR AND BUILDING	2000-13-P1			
	WETWELL AND MECHANICAL DETAILS	2000-13-P2			
	STRUCTURAL - GENERAL NOTES	00060-S1			
	STRUCTURAL - ELEVATIONS	00060-S2			
	STRUCTURAL - PLAN SECTION 1-1	00060-S3			
	STRUCTURAL - PRECAST CONCRETE WETWELL, PLATFORM SECTIONS	00060-S4			
	STRUCTURAL - CAST IN PLACE CONCRETE WETWELL, PLATFORM SECTIONS	00060-S4a			
	STRUCTURAL - ROOF PLAN DETAILS	00060-S5			
	STRUCTURAL - ARCHITECTURAL & STRUCTURAL SECTIONS & DETAILS	00060-S6			
	ELECTRICAL DISTRIBUTION	P-0-014-E1			
	ELECTRICAL ELEMENTARY	P-0-014-E2			
	ELECTRICAL CONTROL WIRING	P-0-014 ESTY OF			

Paragon No. 2000-13

JUN 05, 2000 Revision

destroy all prints bearing previous number



This drawing and design is the property of PARAGON ENGINEERING LTD. and cannot be used, reused or reprinted without the written consent of said company.

#### A. GENERAL NOTES:

- 1. CONSTRUCTION IS TO BE IN ACCORDANCE WITH APPLICABLE MUNICIPAL MASTER CONSTRUCTION DOCUMENTS AND STANDARD DETAIL DRAWINGS (MMCD 1996).
- 2. TRAFFIC CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE CONTRACTOR SHALL COMPLY WITH SECTION 52 OF THE WORKER'S COMPENSATION BOARD OF B.C. AND THE INSTRUCTIONS OUTLINED ON THE CITY ROAD AND RIGHT-OF-WAY PERMIT AND TRAFFIC OBSTRUCTION PERMIT ISSUED BY THE MUNICIPALITY.

THE CONTRACTOR IS TO HAVE, ON SITE, A COPY OF THE CURRENT "B.C. TRAFFIC CONTROL MANUAL FOR WORK ON ROADWAYS" AS PUBLISHED BY THE MINISTRY OF TRANSPORTATION AND HIGHWAYS.

- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FROM OBTAINING ALL PERMITS FOR WORK WITHIN THE MUNICIPAL ROAD ALLOWANCE.
- 4. WHERE UTILITY OR SERVICE CROSSINGS ARE REQUIRED ACROSS EXISTING PAVEMENTS, AN UNDERGROUND METHOD OF INSTALLATION IS REQUIRED UNLESS SPECIAL APPROVAL IS GIVEN FROM THE MUNICIPALITY FOR AN OPEN CUT OPERATION. ALL EXISTING PAVEMENTS, BOULEVARDS, DRIVEWAYS, ETC. ARE TO BE REINSTATED TO ORIGINAL OR BETTER CONDITION AND IN ACCORDANCE WITH SPECIFICATIONS.
- 5. WHERE INFILLING OF EXISTING DITCHES IS REQUIRED OR WHERE SERVICES ARE CONSTRUCTED IN A FILL MATERIAL IS TO BE IN ACCORDANCE WITH SPECIFICATIONS AND IS TO BE COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY.
- 6. DRIVEWAY BOULEVARD CROSSINGS TO EACH OF THE PROPOSED LOTS ARE TO BE INSTALLED IN ACCORDANCE WITH THE MUNICIPAL STANDARD DRAWINGS.
- 7. RESIDENTS DIRECTLY AFFECTED BY CONSTRUCTION OF THIS PROJECT MUST BE GIVEN 48 HOUR WRITTEN NOTICE OF THE START OF THE CONSTRUCTION.
- 8. THE CONTRACTOR SHALL FACILITATE AND SUPPLY SAFETY EQUIPMENT REQUIRED UNDER THE WCB REGULATIONS FOR THE MUNICIPALITY OR IT'S REPRESENTATIVE OR THE ENGINEER OF RECORD TO INSPECT THE SANITARY SEWER AND STORM SEWER SYSTEMS. THE EQUIPMENT SHALL BE SUPPLIED UNTIL SUCH TIME AS A CERTIFICATE OF COMPLETION IS ISSUED BY THE MUNICIPALITY.
- 9. CONTRACTOR IS TO VERIFY THE LOCATION AND ELEVATION OF ALL PIPES, OR OTHER UTILITY CROSSINGS, PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF RECORD OF ANY CONFLICTS A MINIMUM OF 48 HRS. PRIOR TO CONSTRUCTION.

EXISTING UTILITY INFORMATION WAS TAKEN FROM SURVEY AND RECORD DRAWINGS. ALL UTILITY LOCATIONS AND ELEVATIONS TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.

- 10. NO PERSON TO ENTER OR PLACE ANY OBJECT IN ANY POWER OR TELEPHONE VAULT WITHOUT THE AUTHORIZATION FROM THE PROPER UTILITY DEPARTMENT.
- 11. ADJUST ALL VALVES AND MANHOLES TO FINISHED DESIGN GRADE.
- 12. TRENCH BACK FILL AND SURFACE RESTORATION TO COMPLY WITH STANDARD DETAIL DRAWINGS G4 AND G5 OF THE MASTER MUNICIPAL SPECIFICATIONS, WITH THE FOLLOWING PERMANENT RESTORED PAVEMENT STRUCTURE UNLESS OTHERWISE NOTED:

65mm ASPHALTIC CONCRETE 100mm BASE COURSE(MMS SEC. 02233) 200mm SUBBASE (MMS SEC. 02234)

- 13. ALL PAVEMENT REMOVALS TO BE NEATLY SAW CUT.
- 14. INSTALL TEMPORARY PUMPS OR OTHER DEWATERING SYSTEMS AS NECESSARY TO CONTROL WATER INFLUX INTO EXCAVATIONS.
- 15. MAINTAIN ACCESS OR PROVIDE TEMPORARY ACCESS TO ALL PROPERTIES DURING CONSTRUCTION.
- 16. A MINIMUM OF 72 HOURS NOTICE TO BE GIVEN TO GOVERNING AUTHORITIES PRIOR TO COMMENCING WORK ON ROAD RIGHTS-OF-WAY.
- 17. CONTRACTOR TO ENSURE THAT MONUMENTS ARE NOT DISTURBED DURING CONSTRUCTION. (ANY MONUMENT IN DANGER OF DISTURBANCE TO BE REFERENCED BY AND, IF DISTURBED, BE REPLACED BY A B.C.L.S. AT THE CONTRACTOR'S EXPENSE).

### B. ROADWORK NOTES:

- 1. EXISTING VALVE BOXES, MANHOLES, ETC. WITHIN THE ROAD ALLOWANCE MUST BE ADJUSTED TO SUIT THE PROPOSED FINISHED GRADE.
- 2. ALL LOOSE, ORGANIC, OTHERWISE DELETERIOUS MATERIALS OR SOFT SPOT(S) ARE TO BE EXCAVATED AND REMOVED FROM THE ROADWAY AND UTILITY TRENCHES IN THE ROADWAY AS PER GEOTECHNICAL CONSULTANT'S REPORT OR AS DIRECTED BY THE MUNICIPALITY.

# C. SANITARY SEWER AND STORM SEWER NOTES:

- 1. ALL SERVICE CONNECTIONS SHALL BE MADE TO THE MAIN WHEREVER POSSIBLE. SHOULD A CONNECTION HAVE TO BE MADE TO A MANHOLE. THE CONNECTION INVERT SHALL BE AT THE SAME ELEVATION AS THE CROWN OF THE HIGHEST SEWER MAIN.
- 2. ALL MANHOLES ARE TO BE MINIMUM OF 1050mm DIAMETER UNLESS OTHERWISE
- 3. ALL GRANULAR PIPE BEDDING SHALL BE EITHER TYPE 1 OR TYPE 2 ONLY AS PER THE SPECIFICATIONS.
- 4. ALL PVC FORCEMAIN TO BE PVC SCH 40 ALL EMBEDMENT MATERIAL COMPACTED TO MINIMUM 95% MODIFIED PROCTOR DENSITY. BACK FILL IN LANDSCAPED AREAS NATIVE, COMPACTED TO 90%. TRENCHES IN ALL OTHER AREAS BACK FILLED WITH IMPORTED GRANULAR BASE PER MMS SECTION 02233. ALL BENDS TO BE COMPLETE WITH CONCRETE THRUST BLOCKS. TESTING TO BE IN ACCORDANCE WITH MMS SECTION 02732-3.15-TEST PRESSURE = 100psi. ALLOWABLE LEAKAGE PER MMCD SECTION 02732-3.15.2.
- 5. SANITARY SERVICES TO CROSS UNDER WATERMAIN WITH A MINIMUM 0.5m VERTICAL CLEARANCE.

- 6. ASSURANCE OF PROTECTION OF WATERMAIN:
- G. 0.5 METRES VERTICAL SEPARATION OF THE WATERMAIN FROM ANY STORM OR SANITARY SEWER — WITH THE WATERMAIN BEING ABOVE;
- b. 3.0m HORIZONTAL SEPARATION OF THE WATERMAIN FROM ANY STORM OR SANITARY SEWER;

WHERE THE ABOVE WAS NOT POSSIBLE THE FOLLOWING MEASURES TO BE TAKEN:

- WHEN THE FORCEMAIN IS CLOSER THAN 0.5m TO THE WATERMAIN BUT
ABOVE THE WATERMAIN, THE FORCEMAIN TO BE LAID IN SUCH A MANNER THAT
CROSSING IS MADE MIDWAY BETWEEN JOINTS ON A FULL LENGTH OF FORCEMAIN.

- WHEN THE FORCEMAIN IS BENEATH THE WATERMAIN, TO HAVE A MINIMUM 300mm SEPARATION. CROSSINGS TO BE MADE MIDWAY ON A FULL LENGTH OF FORCEMAIN PIPE.

## D. WATER WORKS NOTES:

- 1. THE DEVELOPER SHALL SUPPLY ALL MATERIALS AND FITTINGS REQUIRED FOR THE TIE-IN OF THE NEW WATER MAINS BY THE MUNICIPALITY.
- 2. THE PROPOSED WATER MAIN IS TO BE SET AT THE LINE AND GRADE TO MEET THE EXISTING WATER MAIN.
- 3. TIE-INS TO EXISTING WATER MAINS AND FINAL TESTING AND CHLORINATION OF NEW MAINS IS TO BE PERFORMED BY THE CONTRACTOR.

## E. SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ALL REGULATORY AUTHORITIES, FEDERAL AND PROVINCIAL GOVERNMENT DEPARTMENTS INCLUDING THE DEPARTMENT OF THE ENVIRONMENT; IN THE PRODUCTION OF FISH AND WILDLIFE DURING THE CONSTRUCTION OF THE WORKS.

SPECIFICALLY, THE CONTRACTOR SHALL ENSURE THAT ALL EXCAVATION AND CONSTRUCTION PROCEDURES ARE UNDERTAKEN IN SUCH A MANNER AS TO PREVENT SILT—LADEN RUNOFF DOWNSTREAM DRAINAGE SYSTEM, AND SHALL FOLLOW PROCEDURES AS RECOMMENDED IN THE PUBLICATION "LAND DEVELOPMENT GUIDELINES" FOR THE PROTECTION OF AQUATIC HABITAT" AS ISSUED BY THE MINISTRY OF ENVIRONMENT, LAND AND PARKS.

- 2. DURING CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED AREAS ARE KEPT DEWATERED WITH CONCENTRATED SURFACE RUNOFF EITHER DIRECTED AROUND WORK AREAS OR TEMPORARILY CONTAINED WITHIN CLOSED CONDUITS.
- 3. WHERE CUTOFF TRENCHES ARE CONSTRUCTED AND THE GRADE EXCEED 5% TRENCH INVERTS ARE TO BE RIP—RAP ARMOURED ON GEOFABRIC WITH CHECK WEIRS FILTER BERMS INSTALLED AT MAX. 30.0m O.C.
- 4. ALL CATCH BASINS TO HAVE UPSTREAM SEDIMENT TRAPS.
- 5. WHERE INDIVIDUAL UNIT CONSTRUCTION INTERFERES WITH CUT-OFF TRENCHES AND SWALES, CONTRACTOR TO ARRANGE FRO DIVERSION OR ENCLOSURE OF THESE DRAINAGE FACILITIES TO PERMANENT STORM SEWER SYSTEM.
- 6. CONTRACTOR TO INSPECT SEDIMENT CONTROL FACILITIES WEEKLY DURING SERVICING AND BUILDING STAGES AND CLEAN OUT, MAINTAIN OR IMMEDIATELY REPLACE FAILING SYSTEMS AS NECESSARY OR PROPER OPERATION.
- 7. CONTRACTOR TO ENSURE THAT ALL PERMITS ARE IN PLACE PRIOR TO START OF CONSTRUCTION.
- 8. CONTRACTOR TO INSTALL SILT FENCE AT TOP FISHERIES RESTRICTIVE COVENANT BOUNDARY. (AS SHOWN ON DRAWINGS).
- 9. SILTATION CONTROL IS TO REMAIN IN PLACE UNTIL 90% OF THE SITE LANDSCAPING HAS BEEN COMPLETED AND CONFIRMATION OR REMOVAL HAS BEEN PROVIDED BY THE ENGINEER.
- 10. REMOVAL OF THE SEDIMENT CONTROL SYSTEM SHALL BE COMPLETED AS FOLLOWS:

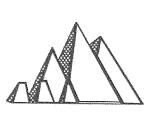
   ALL INLET AND OUTLET STRUCTURES SHALL BE REMOVED. INLET AND OUTLET PIPING SHALL BE REMOVED TO EDGE OF PAVEMENT AND CAPPED. INLET AND OUTLET PIPES AT MANHOLES SHALL BE PLUGGED WITH CONCRETE AND THE MANHOLES REBENCHED FOR THE ULTIMATE FLOW
- ALL SILT FENCES AND SECURITY FENCING SHALL BE REMOVED.
- 11. THE CONTRACTOR SHALL ENSURE TO COMPLY WITH ALL THE REQUIREMENTS OF THE ENVIRONMENTAL MONITOR THAT WILL BE ASSIGNED TO THE PROJECT.

- 1. NO WORKS, EQUIPMENT OR MATERIALS STORAGE TO ENCROACH WITHIN 3m SETBACK ZONE FROM EXISTING PROPERTY TO EAST. TEMPORARY WORKING EASEMENT MAY BE GRANTED THROUGH OWNER'S REPRESENTATIVE.
- 2. CONTRACTOR WILL BE RESPONSIBLE FOR TRANSPORT (TO RMOW WORKS YARD) OF DISCHARGE ELBOW, CHECK VALVES, GATE VALVES AND OTHER MECHANICAL EQUIPMENT DEEMED SALVABLE BY THE OWNER'S REPRESENTATIVE.
- CONTRACTOR BE RESPONSIBLE FOR DISPOSAL OF ALL OTHER ITEMS NOT IDENTIFIED.
- VALLEY TRAIL BETWEEN CRABAPPLE DRIVE AND LORIMER ROAD WILL BE UNDER CONSTRUCTION BY OTHERS AND CLOSED DURING RECONSTRUCTION OF S-103. SECTION THROUGH LIFT STATION SITE TO BE REALIGNED BY CONTRACTOR.
- 4. SUGGESTED CONSTRUCTION SEQUENCE
- A. EXPOSE ALL PIPING TO CONFIRM ELEVATIONS ON CRITICAL LOCATIONS.
- B. CONSTRUCT NEW WETWELL C/W INLET AND OUTLET PIPING AND BYPASS PORT. (C/W DEWATERING AS NECESSARY)
- C. PLUG N.W. INVERT AT EX. SMH07. BYPASS PUMP FLOW FROM MH07 TO EXISTING WETWELL (OVERLAND TEMPORARY PIPING).
- D. CONSTRUCT NEW OVERFLOW MH1A TIE-IN EX. 250 FROM CRABAPPLE DRIVE.
- E. CONSTRUCT NEW 450 INLET PIPE FROM EX. COLLECTION MH1 TO NEW COLLECTION MH1A (CONCRETE ENCASE BESIDE BUILDING).
- F. BLOCK FLOW FROM 200 GRAVITY LINE TO COLLECTION MH1 AND BYPASS FLOW TO EXISTING WETWELL (OVERLAND BYPASS).
- G. CONTACT RMOW OPERATIONS 932-2423. TO ARRANGE ACCESS TO LIFT STATION S101 AT 8330 RAINBOW DRIVE. ARRANGE FOR STATION S101 SHUTDOWN AND PUMP TO TANKER TRUCK (TO STOP FLOW FROM 300mm PIPE IN COLLECTION MH1).
- H. COMPLETE TIE-IN OF FLOW 450 LINE AT EX. COLLECTION MH1.
- I. PLUG ALL PIPES IN EX. MH1 BELOW ELEVATION 636 AND INFILL MH1 WITH QUICK SETTING CONCRETE. TEMPORARILY BENCH MH1. COMPLETE CONNECTIONS TO NEW MH1 AND NEW FORCEMAIN.
- J. REBENCH AS REQUIRED. BYPASS PUMP FROM EX. MH TO BYPASS PORT
- K. RELOCATE 1 PUMP FROM EX. WETWELL IN NEW WETWELL
- L. RE-ESTABLISH FLOW THROUGH NEW 450 PIPE TO NEW COLLECTION MH AND WETWELL.
- M. REMOVE PUMPS AND PIPING FROM EX. WETWELL, REMOVE LID AND TOP SECTION. BACKFILL AND ABANDON.
- N. INSTALL PUMP 2 IN NEW WETWELL.
- O. USE EXISTING LIFT STATION FOR DISCHARGE OF GROUND WATER OR PUMP INTO BYPASS PORT OR CONNECT TO SEPARATE BYPASS PORT TO FORCEMAIN. DISCHARGE INTO CRABAPPLE CREEK WILL NOT BE PERMITTED.
- \* THE ABOVE SEQUENCE IS SUGGESTED FOR PURPOSES OF FAMILIARIZING TENDERER WITH CONTRACT REQUIREMENTS. ACTUAL CONSTRUCTION SEQUENCE AND PLAN OF WORK TO BE SUBMITTED BY THE CONTRACTOR AND ACCEPTED BY THE MUNICIPALITY BEFORE STARTING WORK. CONTRACTOR WILL BE RESPONSIBLE FOR MANAGING, COORDINATING, AND IMPLEMENTING ACCEPTED CONSTRUCTION SEQUENCE. ANY EXTRA COSTS RELATED TO ACCEPTED CONSTRUCTION SEQUENCE WILL BE THE CONTRACTOR'S RESPONSIBLITY. NO PAYMENT WILL BE MADE FOR EXTRA WORKS ASSOCIATED WITH CHANGES TO CONSTRUCTION SEQUENCE.

1 2000.06.05 ISSUED FOR TENDER JSK
No Date Revision Dr. Ch

PARAGON ENGINEERING LTD.

12442-205 STREET, MAPLE RIDGE, B.C. V2X OA8
TELEPHONE:(604) 465-3096 FAX:(604) 465-3055

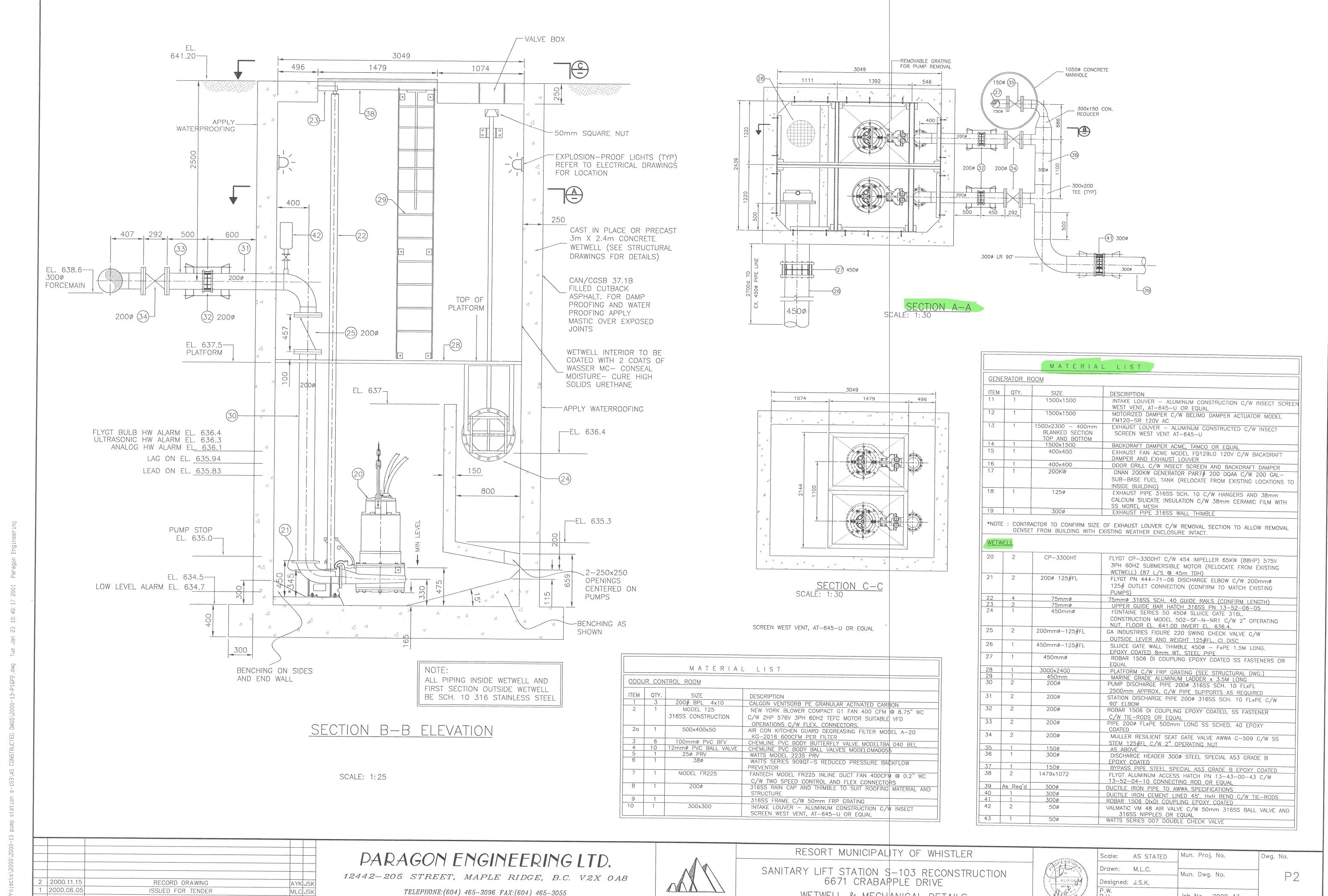


RESORT MUNICIPALITY OF WHISTLER

SANITARY LIFT STATION S-103 RECONSTRUCTION 6671 CRABAPPLE DRVIE GENERAL AND CONSTRUCTION NOTES

ASSESSON	Scale:	1:250	Mun. Pro	j. No.	Dwg.	No.
	Drawn:	M.L.C.	Mun. Dwg. No.		1 03	
J S. KUPSKAY	Designed:	J.S.K.	I W.	g. 140.		CO
	P.W. P.U.		Job No.	2000-13	Of	
	Approved:		Date	JUN 05, 2000	Revisio	on 1

destroy all prints bearing previous number



No Date

This drawing and design is the property of PARAGON ENGINEERING LTD. and cannot be used, reused or reprinted without the written consent of said company.

WETWELL & MECHANICAL DETAILS

Job No. 2000-13

Date JUN 05, 2000 Revision destroy all prints bearing previous number

Approved: