Coquitlam

Addendum No. 1

City of Coquitlam
Tender 78036

Booth Creek Bridge at Lucille Starr Rehabilitation

Issue Date: February 21, 2025
(Consists of 17 Pages)

Tenderers shall note the following amendments to the **CONTRACT DOCUMENT** as follows:

Revisions

1. **Refer to:** INSTRUCTIONS TO TENDERERS

   AMEND: Clause 3.1- Submissions of Tenders

   From: Tenders must be received on or before:

   Tender Closing Time: **2:00 p.m. local time**
   Tender Closing Date: **February 24, 2025**

   To: Tenders must be received on or before:

   Tender Closing Time: **2:00 p.m. local time**
   Tender Closing Date: **February 27, 2025**

2. **Refer to:** INSTRUCTIONS TO TENDERERS

   AMEND: Clause 1.2 - Introduction

   From: The deadline for inquiries is **2:00 PM** local time**, Wednesday, February 19, 2025.**

   To: The deadline for inquiries is **2:00 PM** local time**, Monday, February 24, 2025.**

3. **Refer to:** FORM OF TENDER

   REMOVE: Appendix 1
   REPLACE with: ***Revised*** **- Appendix 1 - Revision No. 1**
   NOTE: Revisions shown in red.

4. **ADD:** Appendix E – Record Drawings

NOTE: Record drawings are provided for information only. Some as-builts are not complete records. The Contractor is responsible for prelocating and verifying all existing utilities as well as obtaining 3rd party utility as-builts on their own.

Questions & Clarifications

Q1) Please provide us with the as-built or record drawings for the bridge.

A1) Refer to Appendix E.

Q2) Drawing S-200 shows 2-staged construction for the approach slabs; however, page 136 of the Tender Documents (allowable times for full road closures) shows that Lucille Starr Drive can be fully closed during the approach slab works, as long as at least half of each driveway to all businesses is maintained and a detour plan is in place. Please advise if the staging plan on S-200 must be followed.

A2) The Construction Sequence noted on S-200 will be removed from the IFC set. The Contractor is required to follow the restrictions and schedules outlined in Appendix A – Traffic Management Detail Specifications.

Q3) The geotechnical documents indicate that the excavation at each abutment will reach the peat layers. Is the intention to excavate partially into the peat and install the lightweight fill on top of the partially excavated peat?

A3) The intent is to partially remove a portion of the underlying peat and backfill the excavation with the geotextile-wrapped lightweight fill.

Q4) Will there be a separate pay item generated for disposal of peat, separate from the common excavation pay item?

A4) Excavation, removal, and disposal offsite of all native materials is included in the payment clause for Common Excavation (Pay Item 10.05).

Q5) What is the expected dewatering method used for each abutment excavation?

A5) The Contractor is responsible for making their own assessments to select a suitable means and methods of controlling ground water and placing the lightweight fill in the dry excavation.

Cost for excavation dewatering via typical sump and pump method is considered incidental to the Contract. In the event that groundwater conditions cannot be accommodated via sump and pump method, then this will be considered an Unknown or Concealed Condition.

Q6) Drawing 23-0147-R2-1 has a note on the right side of the page stating that the full depth milled/excavated area is to be reinstated with 50mm UC#1 asphalt and 50mm LC#1 asphalt,

whereas the pay items 15.01 and 15.02 indicate they should be 75mm thick. Please confirm desired asphalt thickness.

A6) Refer to *Revised* - Appendix 1 - Revision No. 1, where the asphalt thicknesses are updated.

Q7) Due to supplier requests, can the tender date be extended one week?

A7) Tender closing date has been extended to February 27, 2025 at 2:00PM.

Q8) What rates will City Staff be charged to the contractor for Sunday or Holiday work?

A8) The Contractor is not permitted to work on Sundays nor Statutory Holidays, unless otherwise permitted in Appendix A – Traffic Management Detail Specifications for specific operations only.

Any rates to be charged for City Inspection on Sundays or Statutory Holidays will be discussed between the Contractor and Contract Administrator as per a Change Order process for a credit to the City. Rate will be based on actual cost to the City.

Q9) Will additional payment be made to the successful proponent if additional Tariffs are applied after the tender close date?

A9) The Contractor may request adjustment of unit prices if international tariffs are applied to certain materials from Tender Closing date to the time of material order. Requests for unit price adjustments must be made prior to installation and the Contractor must provide the supporting documents as requested by the Contract Administrator. Approval of price adjustments due to tariffs will be at the sole discretion of the Contract Administrator.

The Contractor must order materials as soon as possible after Notice of Award to avoid possibility of tariffs.

Q10) What testing is required to confirm that fill is free of contaminants.

A10) The Qualified Contractor should be familiar with testing of imported fill. Typically certifications like these are provided by the Contractor's supplier.

Q11) Will environmental monitoring be completed by the City or by the contractor?

A11) Refer to Supplementary Contract Specifications – Section 01 57 01S – "Environmental Protection" for requirements. The Contractor is required to comply with these requirements and to be familiar with best practices around construction.

Q12) Is biodegradable hydraulic fluid required for equipment?

A12) Refer to Supplementary Contract Specifications – Section 01 57 01S – "Environmental Protection" for requirements.

Q13) Can you confirm that equipment and fuel storage can take place at least 15m from the watercourse but refueling requires being 30m from the water course.

A13) Refer to Supplementary Contract Specifications – Section 01 57 01S – "Environmental Protection" for requirements.

Q14) Are recycle aggregate products expected to be approved for this project?

A14) Refer to Supplementary Contract Specifications – Section 31 05 17S – "Aggregates and Granular Materials, Clause 2.11.

Q15) Can you confirm that COQ will be responsible for all payment quantity surveying?

A15) The City of Coquitlam will provide survey. Tenderers should also refer to each payment clause as some indicate how quantities are to be measured and verified. For example, Common Excavation payment quantities are determined via truck slips.

Q16) Can groundwater be discharged to storm?

A16) The Contractor may discharge groundwater to the storm system subject to all requirements as specified in the contract. The Contractor is also responsible for reviewing and complying with Supplementary Contract Specifications Section 01 51 01S - "Environmental Protection" to ensure any discharge from the site is free from sediment, if it is to be released into watercourses, ditches, or swales. Booth Creek is a known fish-bearing watercourse.

Q17) Can groundwater be discharged to sanitary?

A17) Groundwater can be discharged to the sanitary main.

Q18) Can you provide an environmental report with soil analytics for this project or confirm that contaminated material will be considered extra to the base contract?

A18) There is no environmental report with soil analytics available outside of what's provided in Appendices B and C. No tests have been completed for contaminated soils and, if encountered, it would be considered an Unknown or Concealed Condition.

Q19) Can you provide ground water contamination analytics or confirm that contaminated ground water will bc considered extra to the base contract if required?

A19) There is no information available regarding groundwater contamination.

Q20) Can you provide ground water infiltration data or provide a specification for dewatering flow rates in GPM?

A20) This information is not available.

Q21) Can you confirm that the required mix for structural concrete for the approach slab is 35MPa C1?

A21) The required mix for structural concrete for the approach slab is 35MPa C1.

Q22) Please confirm that SS 413, 931 & 933 do not apply to pay item 6.01. 413 refers to bridge deck; 931 has not been included in MOTI specifications for the past 10 years. If these specifications apply, can you please provide these documents? 933 was removed from the current specifications. If this applies, please provide the documents that apply.

A22) MOTI SS 413, 931, 933 do not apply to Pay Item 6.01.

Q23) Can you confirm that a full MOTI QC plan and full-time 3rd party QC monitoring is required for Cast In Place Structural Concrete?

A23) This is confirmed.

Q24) Can a pay item for peat excavation removal and disposal of peat be included to separate the peat and clean spoil removal?

A24) See response to Question 4 above.

Q25) Can you provide the volume per load for Peat and Light weight fill?

A25) The Contractor should have this information depending on the type of equipment they intend to use.

Q26) Can you confirm the asphalt thickness for the proposed road? SOQ indicated 75mm lifts but the drawings show 50mm.

A26) Refer to *Revised* - Appendix 1 - Revision No. 1, where the asphalt thicknesses have been updated for consistency with the Contract Drawings.

Q27) Does the existing watermain have mechanically restrained joints or thrust blocks? COQ Webmaps is indicating thrust blocks which will separate/lose pressure when undermined.

A27) As-built drawings are attached for reference only. Records indication potential presence of either restrained joints or thrust blocks.

Q28) Can you provide a detail for reinstatement of existing thrust block in the lightweight fill zone?

A28) If encountered at the 45° bends, joint restraints in accordance with COQ specifications shall be within 3.5 m of the fittings prior to removal of the thrust blocks. Notify the

Contract Administrator and Project Engineer prior to undertaking the works. Cost for supply and installation of joint restraints, if required, will be paid under Force Account.

Q29) Can the existing watermain be shut down? Temporary connection to business would be installed.

A29) The watermain on Lucille Starr Dr cannot be shut down.

Q30) Can the existing watermain be bypassed on the surface if a shutdown is not allowed? What material of pipe is acceptable for this bypass if allowed? Will existing hydrant need to remain in service? Can a temporary hydrant be installed outside of the peat removal area if hydrants need to remain in service?

A30) The Contractor may choose to provide a temporary bypass at no extra cost to the City. If a surface bypass is to be installed, the Contractor is responsible for all reinstatement costs and operations, including rechlorinating and testing the isolated pipe. Water service connections and hydrants cannot be disrupted at any time. The bypass pipe must provide the same flows as the existing pipe. The Contractor is responsible to coordinate these works with the Contract Administrator and City of Coquitlam Water Department.

Q31) Can you provide an as built drawing of the existing Telus ducting?

A31) The Contractor can obtain 3rd Party utility as-builts via BCOneCall. Refer to Supplementary Contract Specifications, Section 00 72 43S – Contract Specific Notations, Clause 1.07 for Contractor responsibilities regarding locating existing utilities.

Q32) Can you provide an asbuilt drawing of the existing street lights?

A32) See Appendix E.

Q33) Can you provide an asbuilt drawing of the existing storm?

A33) See Appendix E.

Q34) Can you provide an asbuilt drawing of the existing sanitary?

A34) See Appendix E.

Q35) Can you provide an asbuilt drawing of the existing watermain?

A35) See Appendix E.

Q36) Is the existing telus duct bank direct buried or concrete encased?

A36) The Contractor can obtain 3rd Party utility as-builts via BCOneCall. Refer to Supplementary Contract Specifications, Section 00 72 43S – Contract Specific Notations, Clause 1.07 for Contractor responsibilities regarding locating existing utilities.

Q37) Can you provide an asbuilt drawings for the BC Hydro Pad/vault at station 2+145? The excavation is in proximity to this vault and may require shoring.

A37) The Contractor can obtain 3rd Party utility asbuilts via BCOneCall.

Q38) Can you provide a topographic map and grading plan for this project?

A38) Refer to Contract drawings. A Qualified Contractor should be able to review the plan, profile, and typical cross sections.

Q39) What is the maximum load rating of the existing bridge?

A39) Refer to Appendix E which is provided for reference only.

Q40) Can you clarify Item 10.06? Description states 1.5m thick pumice layer but drawings show 2.0m thick.

A40) Refer to Revised - Appendix 1 - Revision No. 1, where the pumice layer thickness is updated.

Q41) Can you confirm the intent is to undermine the existing storm manhole and fill pumice underneath it? Is the contractor responsible for mitigating any settling of the manhole?

A41) It is the Contractor's responsibility to protect and maintain all existing infrastructure. The Contractor is to select the means and methods to comply with this requirement.

End of Addendum No. 1

Tenderers shall take into account the content of this Addendum in the preparation and submission of the Tender which will form part of the contract and should be acknowledged on the Tender form where indicated.

Upon submitting a Tender, Tenderers will be deemed to have received all addenda and considered the information for inclusion in the Tender submitted.

Issued by:

M. Pain
Manager Procurement
Email: bid@coquitlam.ca

Revised **- APPENDIX 1 - Revision No. 1**
FORM OF TENDER

Contract 78036
Booth Creek Bridge at Lucille Starr Rehabilitation

SCHEDULE OF QUANTITIES AND PRICES
(see paragraph 5.3.1 of the Instruction to Tenderers)
(All Tender and Contract Prices shall NOT include GST. GST will apply upon payment)
(Should there be any discrepancy in the information provided, the City's original file copy shall prevail)

ITEM NO.	MMCD Ref. / (Supplementary Contract Specifications)	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED AMOUNT
1.00	**01 55 00S**	**TRAFFIC CONTROL, VEHICLE ACCESS AND PARKING**				
1.01	(1.5.1)	Traffic Control and Management		Incidental to Contract		
2.00	**01 57 01S**	**ENVIRONMENTAL PROTECTION**				
2.01	(1.6.1)	ESC supply & installation, maintenance and removal		Incidental to Contract		
3.00	**01 58 01S**	**PROJECT IDENTIFICATION**				
3.01	(1.3.1)	Construction Zone Information Signs	ea.	3		
3.02	(1.3.2)	Changeable Message Signs (CMS) (x3 Signs)	month	2		
4.00	**03 20 01S**	**CONCRETE REINFORCEMENT**				
4.01	(1.5.1)	Supply and installation of plain steel rebar	kg	2,475		
4.02	(1.5.1)	Supply and installation of stainless steel rebar	kg	3,025		
5.00	**03 30 20S**	**CONCRETE WALKS, CURBS AND GUTTERS**				
5.01	(1.4.3)	Barrier Type Concrete Curb and Gutter (MMCD C5)	l.m	90		
5.02	(1.4.5)	Concrete Sidewalk, Utility Strip & Wheelchair Letdowns - 100mm Thick - Broom Finished (excl. gravel)	sq.m	100		
5.03	(1.4.5)	Concrete Driveway Letdown, sidewalk crossing - 190mm thick - COQ-C7A	sq.m	75		
6.00	**03 30 53S**	**CAST-IN-PLACE CONCRETE**				
6.01	(1.5.6)	Supply and placement of concrete approach slabs, sidewalk, barriers, and curb - Structural Scope (Provisional)	cu.m	50		
7.00	**03 40 01**	**PRECAST CONCRETE**				
7.01	(1.4.2)	Supply and install Allan Block Wall as per Kontur Drawings - (Provisional)	sq.m	15		
8.00	**26 56 01S**	**ROADWAY LIGHTING**				
8.01	1.9.2	Adjustment of all streetlight bases to suit new grade, and all labor, material and equipment to complete the work.	l.s	1		
9.00	**31 22 16S**	**RESHAPING GRANULAR ROADBED**				
9.01	(1.4.1)	Reshaping Road Bed	sq.m	540		
10.00	**31 24 13S**	**ROADWAY EXCAVATION, EMBANKMENT, & COMPACTION**				
10.01	(1.8.4)	Removal and Offsite Disposal of Existing Asphalt Driveways (All Depths)	sq.m	135		
10.02	(1.8.4)	Removal and Offsite Disposal of Existing Approach Slabs	sq.m	60		
10.03	(1.8.4)	Removal and Offsite Disposal of Existing Concrete Driveways and Sidewalks (All Depths)	sq.m	80		
10.04	(1.8.4)	Removal and Offsite Disposal of Existing Concrete Curb	l.m	90		
10.05	(1.8.5)	Common Excavation - (Provisional)	cu.m	1,600		
10.06	(1.8.7)	2.0m Thick Layer of Light Weight Pumice - Wrapped in Two Layers of Non-Woven Geotextile (Texel 80C or Approved Equivalent)	cu.m	1,150		
10.07	(1.8.7.1)	Reinstatement of Pipe Zone c/w Geotextile Surround for Existing Utilities within Lightweight Fill Zone as per Contract Drawings	l.m	130		
11.00	**32 01 16.7S**	**COLD MILLING**				
11.01	(1.5.4)	Full Depth Milling up to 150mm depth	sq.m	665		
12.00	**32 11 16.1S**	**GRANULAR SUBBASE**				
12.01	(1.4.3)	75mm Crushed Minus Granular Subbase - Lightweight Fill Zone	tonne	190		
12.02	(1.4.3)	75mm Crushed Minus Granular Subbase - Outside of Lightweight Fill Zone (Provisional)	tonne	120		
13.00	**32 11 23S**	**GRANULAR BASE**				
13.01	(1.4.3)	19mm Clear Crushed - 150mm Thick c/w Two (2) layers of 6mm Polyethylene Sheet	tonne	360		
13.02	(1.4.3)	19mm Crushed Minus Granular Base - (Provisional)	tonne	45		
14.00	**32 12 13.1S**	**ASPHALT TACK COAT**				
14.01	(1.5.1)	Asphalt Tack Coat	sq.m	730		
15.00	**32 12 16S**	**HOT-MIX ASPHALT CONCRETE PAVING**				
15.01	(1.5.1)	MMCD UC #1 Asphalt - 50mm Thick	tonne	90		
15.02	(1.5.1)	MMCD LC#1 Asphalt - 50mm Thick	tonne	100		
15.03	(1.5.3)	Hand Laid MMCD Upper Course #1 (Driveway) - 75mm Thick	sq.m	110		
15.04	(1.5.4)	Supply and Install MMCD C6 Style 1 Asphalt Concrete Curb	l.m	55		
16.00	**32 17 23S**	**PAINTED PAVEMENT MARKINGS**				
16.01	(1.5.3)	Thermoplastic Line and Pavement Markings	l.s	1		
16.02	(1.5.4)	Remove, Protect, and Reinstate Existing Signage	l.s.	1		
17.00	**32 31 13S**	**CHAIN-LINK FENCES AND GATES**				
17.01	(1.5.1)	Supply and Install 1.8m-tall Chain Link Fence as per MMCD C13	l.m	14		
17.02	1.5.2	Supply and install 1.2m-wide Locking Chain Link Gate	ea.	1		

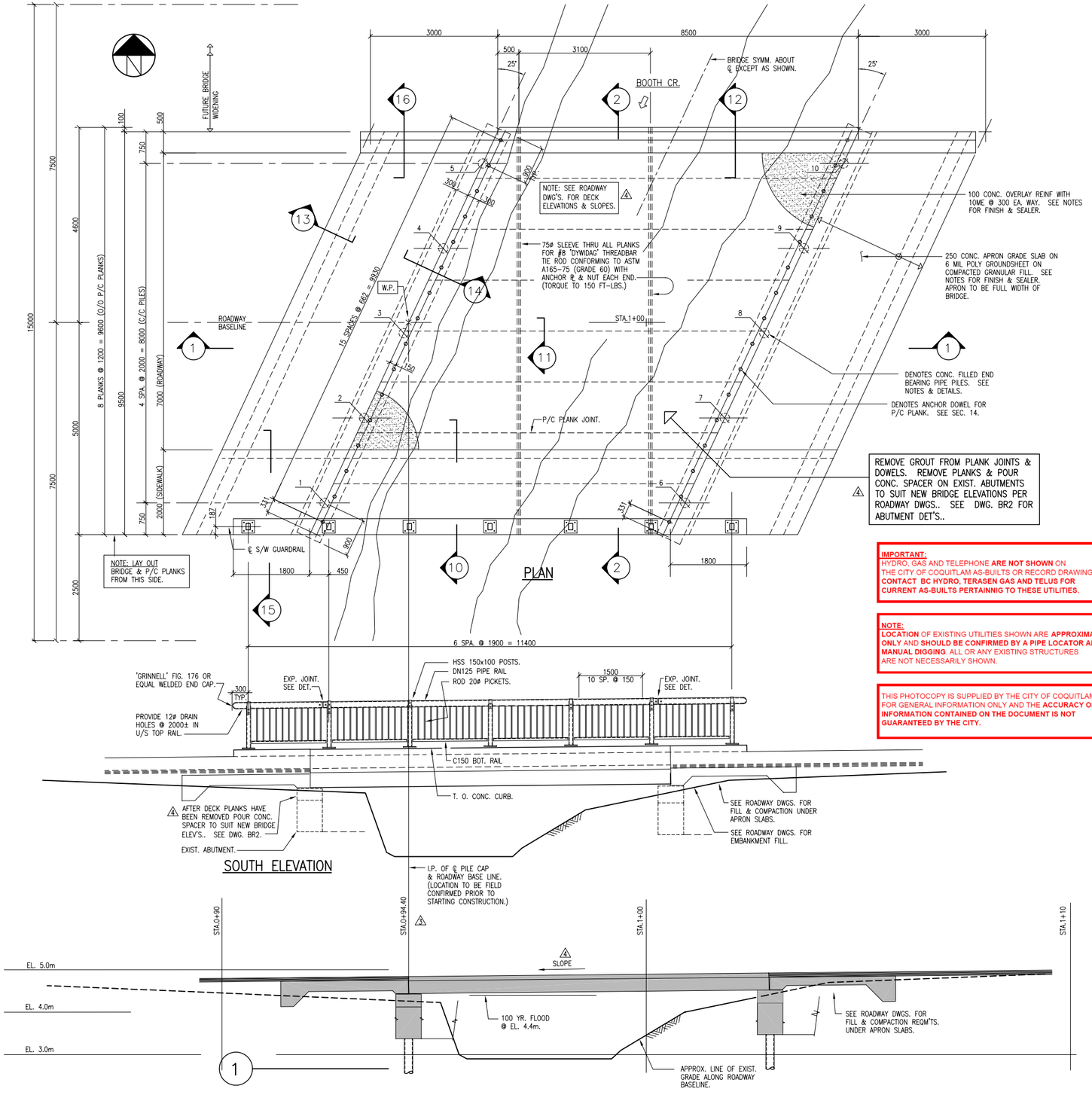
ITEM NO.	MMCD Ref. / (Supplementary Contract Specifications)	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED AMOUNT
17.03	(1.5.4)	Supply and Install MMCD C14 Handrail - Attached Mounting	l.m	9		
18.00	**32 91 21S**	**TOP SOIL AND FINISH GRADING**				
18.01	(1.4.1)	Imported Topsoil - 150mm Thick for Seed	cu.m	30		
19.00	**32 92 20S**	**SEEDING**				
19.01	1.8.1	Seeding (Lawn Grass #1, Sun and Shade Mix)	sq.m	400		
20.00	**33 44 01S**	**MANHOLE AND CATCH BASINS**				
20.01	(1.5.2)	Remove and Replace Side Inlet Catch Basin (COQ-S11A) - (Provisional)	ea.	1		
20.02	(1.5.3.1)	Manhole Frame and Cover Adjustment Only - (Provisional)	ea.	2		
20.03	(1.5.3.1)	Manhole Frame and Lid Replacement and Adjustment - (Provisional)	ea.	5		

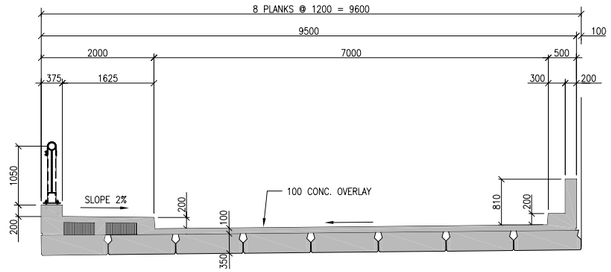
Total Tendered Price (exclude GST):

(Transfer the amount to Form of Tender Summary Page 1)

Name of Contractor: _____

Appendix E -
Record Drawings





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IMPORTANT:
HYDRO, GAS AND TELEPHONE **ARE NOT SHOWN** ON THE CITY OF COQUITLAM AS-BUILTS OR RECORD DRAWINGS. **CONTACT BC HYDRO, TERASEN GAS AND TELUS FOR CURRENT AS-BUILTS PERTAINNIG TO THESE UTILITIES.**

NOTE:
LOCATION OF EXISTING UTILITIES SHOWN ARE **APPROXIMATE ONLY** AND **SHOULD BE CONFIRMED BY A PIPE LOCATOR AND MANUAL DIGGING**. ALL OR ANY EXISTING STRUCTURES ARE NOT NECESSARILY SHOWN.

STRUCTURAL NOTES

DESIGN BASIS

1 THE BRIDGE STRUCTURE AS DESCRIBED IN THESE PLANS HAS BEEN DESIGNED IN SUBSTANTIAL COMPLIANCE WITH CAN/CSA S6-88.

2 SPECIFIED DESIGN LOADS
LIVE LOAD CS-600

3 SEISMIC DESIGN PARAMETERS
ACCELERATION-RELATED SEISMIC ZONE (Za) 4
VELOCITY-RELATED SEISMIC ZONE (Zv) 4
ZONAL VELOCITY RATIO (v) 0.2

GENERAL

1 VERIFY ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS BEFORE COMMENCING CONSTRUCTION AND REPORT DISCREPANCIES TO THE ENGINEER.
2 UNDERTAKE RESPONSIBILITY FOR ALL ASPECTS OF CONSTRUCTION AND CONSTRUCTION SAFETY INCLUDING BUT NOT LIMITED TO CONSTRUCTION METHODS AND PROCEDURES, TEMPORARY WORKS, FORMWORK, AND FALSEWORK.
3 PERFORM ALL WORK IN ACCORDANCE WITH REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
4 ENSURE ALL WORK, PROCEDURES & MATERIALS CONFORM TO THE B.C. DEPARTMENT OF THE ENVIRONMENT REQUIREMENTS FOR FISH BEARING STREAMS.
5 UNDERTAKE AN INDEPENDENT PROGRAM OF QUALITY ASSURANCE.
NOTE: FIELD REVIEW AND SUBMITTAL REVIEW BY THE ENGINEER OR HIS REPRESENTATIVE ARE UNDERTAKEN TO CONFIRM GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND TO INFORM THE CLIENT OF THE PROGRESS AND QUALITY OF THE CONTRACTOR'S WORK AND ARE NOT FOR THE BENEFIT OF THE CONTRACTOR. TESTING BY INDEPENDENT AGENCIES REPORTING TO THE CLIENT ARE UNDERTAKEN TO INFORM THE CLIENT OF THE QUALITY OF THE CONTRACTOR'S PERFORMANCE AND ARE NOT FOR THE BENEFIT OF THE CONTRACTOR.
6 REFERENCES TO CODES AND STANDARDS APPLY TO THE CURRENT EDITION OF THE RESPECTIVE CODE OR STANDARD INCLUDING REVISIONS, AMENDMENTS, AND ADDENDA UNLESS NOTED OTHERWISE.

GEOTECHNICAL CONSIDERATIONS

1 REFER TO GEOTECHNICAL REPORT FOR REQUIREMENTS CONCERNING SUBGRADE PREPARATION, EXCAVATION, BACKFILL, COMPACTION, FILL MATERIAL, DRAINAGE, AND RELATED WORK AND MATERIALS.

STEELWORK

1 DO STRUCTURAL STEEL WORK IN ACCORDANCE WITH CSA S16.1.
2 DO WELDING IN ACCORDANCE WITH CSA STANDARD W59.
3 USE A FABRICATOR CERTIFIED BY THE CANADIAN WELDING BUREAU TO CSA W47.1, DIVISION 1 OR DIVISION 2.1.
4 SUBMIT 3 SETS OF SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. INDICATE SHOP AND ERECTION DETAILS INCLUDING CUTS, COPES, CONNECTIONS, HOLES, BOLTS, AND WELDS. INDICATE WELDS BY SYMBOLS DEFINED IN CSA W59.
6 OBTAIN WRITTEN PERMISSION FROM THE ENGINEER PRIOR TO SPLICING, FIELD CUTTING, OR OTHERWISE ALTERING STRUCTURAL MEMBERS EXCEPT AS SHOWN ON THE DRAWINGS.
7 MATERIALS:
ROLLED SECTIONS AND PLATE CSA G40.21-M 300W
PIPE SECTIONS ASTM A53 GRADE B
HSS SECTIONS (CLASS C) CSA G40.21-M 350W
STRUCTURAL STEEL BOLTS ASTM A307
ANCHOR BOLTS ASTM A307
8 ALL STEELWORK SHALL BE BLAST CLEANED TO SSPC SP-6.
9 ALL STEELWORK INCLUDING BOLTS & HARDWARE SHALL BE HOT DIP GALVANIZED AFTER FABRICATION TO CSA G164.

STEEL PIPE PILES

1 STEEL PIPE PILES SHALL BE DN200x8.18 (219 OD x 42.5) CONFORMING TO ASTM A252 GRADE 2 MIN..
2 MINIMUM LENGTH OF PILE SECTION USED IN PILE SHALL BE 3m.
3 PILES SHALL BE CONCRETE FILLED & REINF. AS SHOWN ON THE DWGS..
4 STEEL PIPE PILES ARE DESIGNED FOR A MIN. CAPACITY OF 25 TONS.
5 ALL PILE DRIVING SHALL BE MONITORED & INSPECTED BY 'GOLDER ASSOC. LTD.' EXERCISE CAUTION TO PREVENT ANY DISTURBANCE OF CREEK.
6 FINAL PILE CENTRES SHALL NOT BE MORE THAN 75mm FROM SPECIFIED LOCATIONS NOR MORE THAN 2% OUT OF PLUMB.
7 ANY PILE DAMAGED IN DRIVING OR DRIVEN OUT OF PLACE AND JUDGED BY THE ENGINEER TO BE UNFIT FOR IT'S INTENDED USE SHALL BE WITHDRAWN & REDRIVEN OR AN ADDITIONAL PILE DRIVEN AT NO COST TO THE OWNER.
8 PORTION OF PILES ABOVE EL. 0.0m SHALL BE PAINTED WITH A HEAVY COAT OF BITUMASTIC.

CAST-IN-PLACE CONCRETE

1 DO CAST-IN-PLACE CONCRETE MATERIALS & METHODS IN ACCORDANCE WITH CSA A23.1.
2 DO TESTING IN ACCORDANCE WITH CSA STANDARD A23.2.
3 USE NORMAL PORTLAND CEMENT UNLESS NOTED OTHERWISE.
4 PROPORTION CONCRETE TO GIVE THE FOLLOWING PROPERTIES:

LOCATION	MIN. 28 DAY COMP. STGTH.	MAX. AGG. SIZE. mm	AIR CONTENT %	SLUMP mm	MAX. W/C RATIO
PIPE PILE FILL	30 MPa	28	5 ± 1	50 ± 20	0.50
PILE CAP	30 MPa	28	5 ± 1	50 ± 20	0.45
APRON SLABS & PARAPET	35 MPa	20	5 ± 1	30 ± 20	0.38
OVERLAY	35 MPa	20	6 ± 1	20 ± 20	0.35
KEYWAY GROUT	35 MPa	12	6 ± 1	20 ± 20	0.35

5 THE USE OF CALCIUM CHLORIDE IS PROHIBITED.
6 CHAMFER EXPOSED EDGES OF SLABS, BEAMS, COLUMNS, AND WALLS. PROVIDE BULLNOSING ON TOP EDGES.
7 PROVIDE CURING AND PROTECTION IN ACCORDANCE WITH CSA A23.1.
8 THE COLD WEATHER PROTECTION REQUIREMENTS OF CSA A23.1 SHALL APPLY TO WORK OF THIS CONTRACT.
9 CONCRETE FINISHES:
FORMED SURFACES SHALL BE CLASS 3 IN CONFORMANCE WITH MOTH 'GENERAL SPECIFICATION OF HIGHWAY CONSTRUCTION'.
ROADWAY SURFACE SHALL BE STEEL TROWELLED WITH TRANSVERSE BROOM FINISH TO MUNICIPAL REQUIREMENTS.
SIDEWALK SURFACE SHALL BE PATTERNED & FINISHED TO MUNICIPAL REQUIREMENTS.
10 SCREEDS FOR DECK OVERLAY SHALL BE SET TO GIVE A UNIFORM GRADE FROM END TO END OF THE BRIDGE & TO ACCOMODATE HOGGING OF THE PLANKS.
11 ALL CONCRETE SURFACES SHALL BE BE TREATED WITH 40% SILANE SOLUTION IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. 1 COAT FOR FLAT SURFACES & 2 COATS ON VERTICAL SURFACES.

CONCRETE REINFORCEMENT

1 DO REINFORCING WORK IN ACCORDANCE WITH CSA STANDARD A23.1.
2 MATERIALS: DEFORMED BARS TO CSA G30.18 GRADE 400R.
'ME' DESIGNATION DENOTES EPOXY COATED.
3 CLEAR COVER TO PRINCIPAL REINFORCEMENT UNLESS NOTED OTHERWISE.
FORMED TO MAIN REINF: 50mm
FORMED TO TIES: 40mm
UNFORMED AGAINST GROUND: 75mm
4 MINIMUM LAP LENGTHS: LAP

	STD. BARS	'ME' BARS
10M BARS	450 mm	600 mm
15M BARS	650 mm	900 mm
20M BARS	770 mm	1050 mm
25M BARS	1150 mm	1500 mm

5 ALL REINFORCEMENT SHALL BE PLACED, SUPPORTED & FULLY TIED IN PLACE BEFORE PROCEEDING WITH ANY CONC. POUR. WET DOWELLING IS NOT PERMITTED.

COQ. ASBUILT No.
B0220-01

No.	DATE	REVISION	BY
5	20 JAN/99	'AS BUILT' FOR RAISED PIERS & PLANKS ONLY	PFS
4	24 NOV/98	BRIDGE PLANKS RAISED ±300mm. ISSUED FOR CONSTRUCTION	PFS
3	16 SEP/97	BRIDGE MOVED 600 WEST. ISSUED FOR CONSTRUCTION.	PFS
2	11 JUL/97	BRIDGE EL'S. & SLOPE REVISED. ISSUED FOR TENDER	PFS
1	23 JAN/97	ISSUED FOR PERMIT APPLICATION	PFS

BINNIE
R.F. Binnie & Associates Ltd.
CIVIL ENGINEERS
BURNABY TEL. 604-420-1721
P.O. Box 2089 - 38144 CLEVELAND AVENUE SQUAMISH TEL. 604-892-8222 FAX. 604-892-2249
SURREY TEL. 604-574-3336

25 CIVIL ENGINEERING YEARS

CLIENT
ZEPHYR ENTERPRISES LTD.

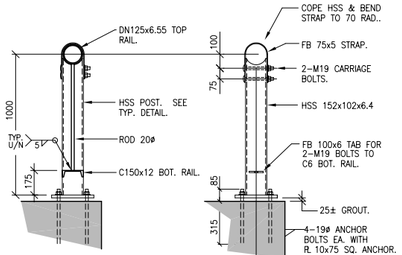
DRAWING DESCRIPTION
BOOTH CREEK BRIDGE
GENERAL ARRANGEMENT

DRAWN BY PFS
DESIGNED BY A. D'A
SCALE 1:50 U/N

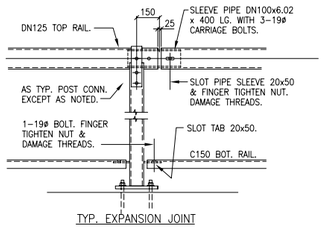
B51-35

RKTG ROBERTSON KOLBEINS TEEVAN GALLAHER ASSOCIATES LTD
CONSULTING ENGINEERS

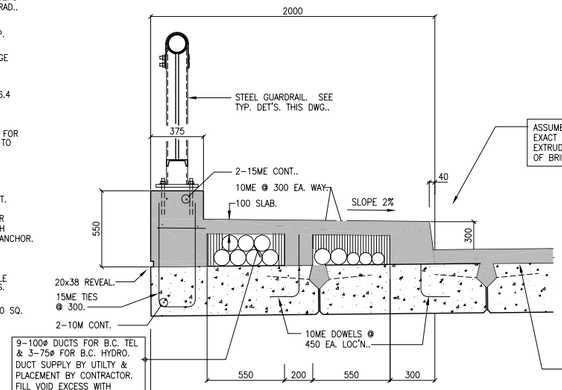
DATE JAN 7/97
DRAWING No. B9620-BR1
SHEET 9 OF 10
REV. 5
DESTROY ALL PRINTS BEARING PREVIOUS No.

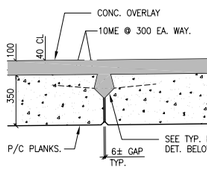


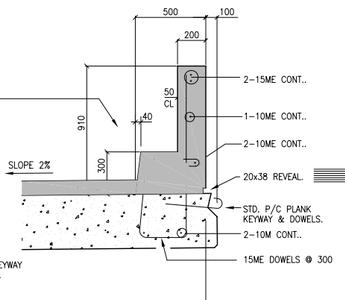
NOTE: GUARDRAIL INCLUDING ANCHOR BOLTS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION

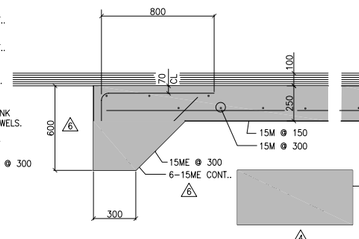


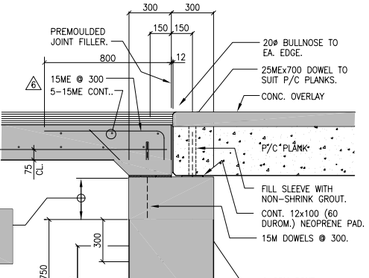
GUARDRAIL DETAILS

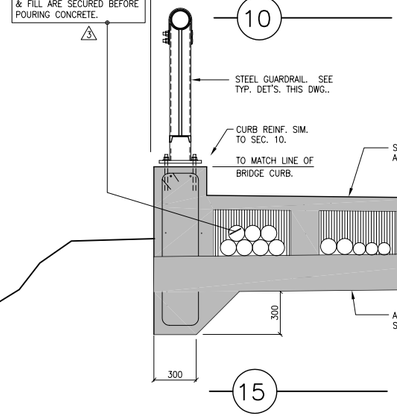


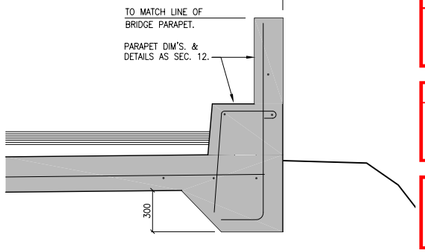












IMPORTANT:
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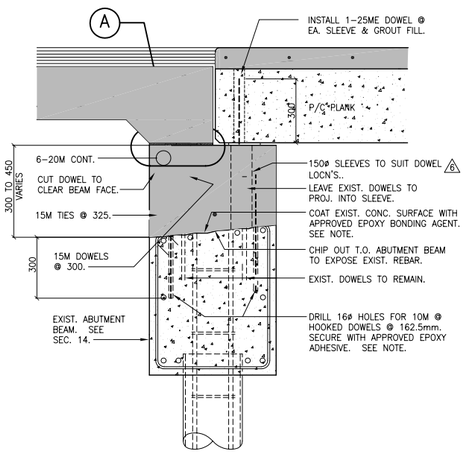
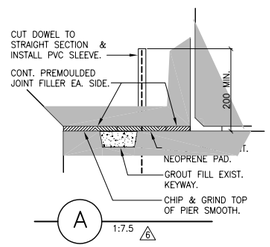
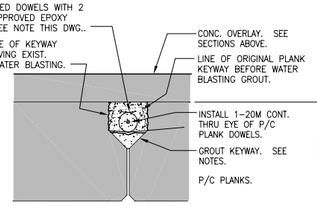


RAISED BEAM DETAIL
1:15

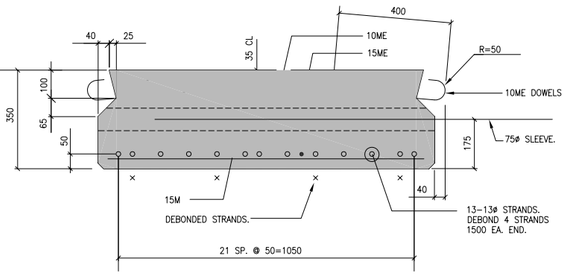
DETAIL TO BE READ IN CONJUNCTION WITH SEC. 14.



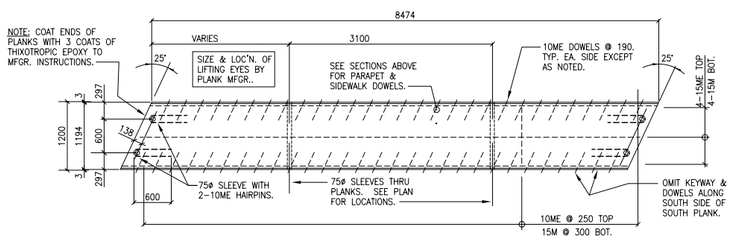
NOTE:
APPROVED EPOXY FOR BONDING, GROUTING & COATING SHALL BE 'EPO/BOND 30' SUPPLIED BY RICHFORM CONSTRUCTION SUPPLY CO. LTD.. EPOXY SHALL BE STORED, MIXED & APPLIED IN STRICT CONFORMANCE THE MANUFACTURER'S INSTRUCTIONS.



TYP. KEYWAY DET.



TYP. P/C PLANK SECTION



NOTE: COAT ENDS OF PLANKS WITH 3 COATS OF THIXOTROPIC EPOXY TO MFGR. INSTRUCTIONS.

TYP. P/C PLANK PLAN

P/C PLANK NOTES

1. PROPORTION CONCRETE FOR THE P/C PLANKS TO OBTAIN AN ULTIMATE COMPRESSIVE STRENGTH OF 40 MPa @ 28 DAYS. MAX. AGGREGATE SIZE TO BE 20mm, AIR CONTENT OF 5% ± 1 SLUMP OF 30mm ± 20, & A MAX. W/C RATIO OF 0.38. MIN. COMPRESSIVE STRENGTH @ RELEASE OF STRANDS; 30 MPa.
2. PLANKS SHALL BE MANUFACTURED IN ACCORDANCE WITH CSA A23.4 BY A QUALIFIED PLANT CONFORMING TO CSA A251.
3. PRESTRESSING STRANDS SHALL BE 13ø (7 WIRE) UNCOATED LOW RELAXATION STRANDS CONFORMING TO CSA G279 GRADE 1862MPa. MIN. ULTIMATE TENSILE STRENGTH = 184kN/STRAND. STRAND TENSION IMMEDIATELY PRIOR TO RELEASE = 138kN/STRAND.
4. DEFORMED BARS SHALL CONFORM TO CSA G30.18 GR. 400R. 'ME' DESIGNATION DENOTES EPOXY COATED.
5. MIN. CONCRETE COVER TO ANY REINFORCEMENT SHALL BE 35mm U/N.
6. BOTTOM EDGES OF STRINGERS SHALL BE CHAMFERED 20mm.
7. LIFTING DEVICES SATISFACTORY TO THE ENGINEER SHALL BE PROVIDED. ONLY VERTICAL LIFTS WILL BE PERMITTED. CARE SHALL BE TAKEN TO PREVENT SUDDEN IMPACT LOADS ON THE PLANKS.
8. ENDS OF THE PLANKS SHALL BE PAINTED WITH AN APPROVED EPOXY COATING.
9. TOP OF PLANKS SHALL HAVE A RAKED FINISH.
10. P/C PLANKS SHALL BE FABRICATED AT LEAST ONE MONTH PRIOR TO ERECTION.
11. PROVIDE 65mm DEEP RECESS AROUND AROUND LIFTING EYES. RECESS SHALL BE BACKCUT & SANDBLASTED. AFTER ERECTION BURN OFF EYE & FILL RECESS WITH NON-SHRINK GROUT.
12. SUBMIT 3 SETS OF SHOP DRAWINGS FOR REVIEW BEFORE PROCEEDING WITH ANY FABRICATION.

COQ. ASBUILT No.

B0220-02

No.	DATE	REVISION	BY
6	17 JAN/99	RAISED BRIGE DECK AS BUILT & APRON SLAB MODIFIED	PFS
5	24 NOV/98	RAISED BRIGE DECK ISSUED FOR CONSTRUCTION	PFS
4	10 NOV/98	RAISED BRIGE DECK ISSUED FOR PRICING	PFS
3	16 SEP/97	UTILITY DUCTS ADDED. ISSUED FOR CONSTRUCTION.	PFS
2	11 JUL/97	ISSUED FOR TENDER	PFS
1	23 JAN/97	ISSUED FOR PERMIT APPLICATION	PFS

BINNIE
R.F. Binnie & Associates Ltd.
CIVIL ENGINEERS
BURNABY TEL. 604•420•1721
SQUAMISH P.O. Box 2089 - 38144 CLEVELAND AVENUE TEL. 604•892•8222 FAX. 604•892•2249
SURREY TEL. 604•574•3336
25 CIVIL ENGINEERING YEARS

CLIENT: ZEPHYR ENTERPRISES LTD.

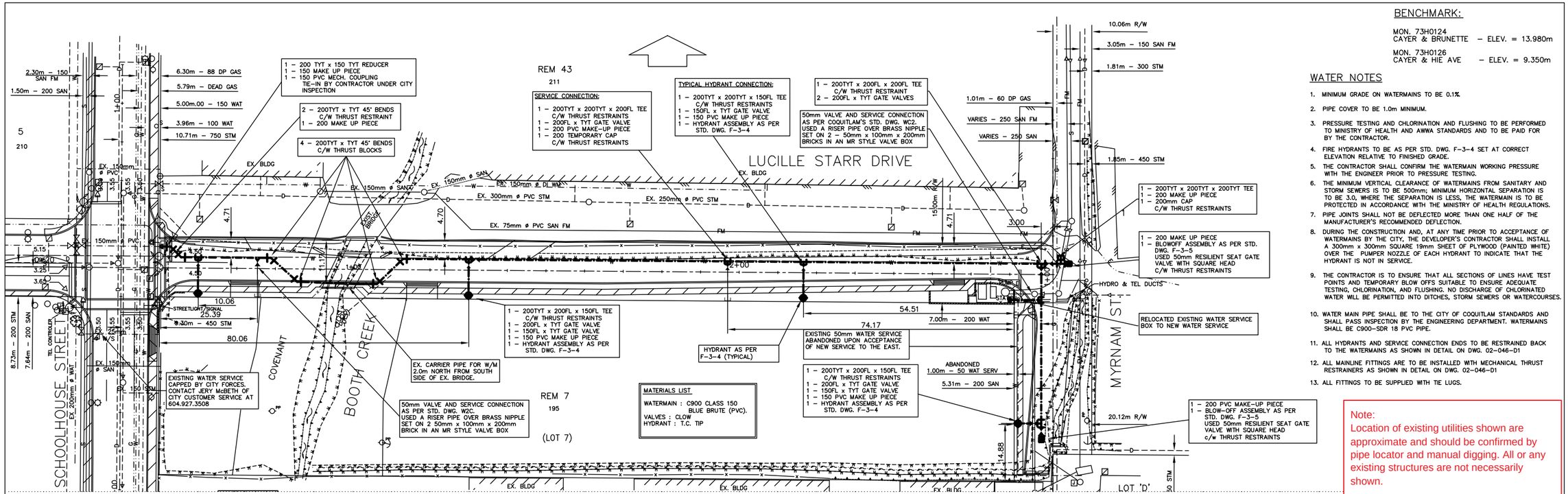
DRAWING DESCRIPTION: BOOTH CREEK BRIDGE SECTIONS & DETAILS

DRAWN BY PFS
DESIGNED BY A. D'A
SCALE 1:20 U/N

B51-35

RKTG ROBERTSON KOLBEINS TEEVAN GALLAHER ASSOCIATES LTD
CONSULTING ENGINEERS

DATE JAN 7/97
DRAWING No. B9620-BR2
SHEET 10 OF 10 REV. 6
DESTROY ALL PRINTS BEARING PREVIOUS No.



BENCHMARK:

MON. 73H0124
CAYER & BRUNETTE – ELEV. = 13.980m

MON. 73H0126
CAYER & HIE AVE – ELEV. = 9.350m

WATER NOTES

1. MINIMUM GRADE ON WATERMAINS TO BE 0.1%.
2. PIPE COVER TO BE 1.0m MINIMUM.
3. PRESSURE TESTING AND CHLORINATION AND FLUSHING TO BE PERFORMED TO MINISTRY OF HEALTH AND AWWA STANDARDS AND TO BE PAID FOR BY THE CONTRACTOR.
4. FIRE HYDRANTS TO BE AS PER STD. DWG. F–3–4 SET AT CORRECT ELEVATION RELATIVE TO FINISHED GRADE.
5. THE CONTRACTOR SHALL CONFIRM THE WATERMAIN WORKING PRESSURE WITH THE ENGINEER PRIOR TO PRESSURE TESTING.
6. THE MINIMUM VERTICAL CLEARANCE OF WATERMAINS FROM SANITARY AND STORM SEWERS IS TO BE 500mm; MINIMUM HORIZONTAL SEPARATION IS TO BE 3.0, WHERE THE SEPARATION IS LESS, THE WATERMAIN IS TO BE PROTECTED IN ACCORDANCE WITH THE MINISTRY OF HEALTH REGULATIONS.
7. PIPE JOINTS SHALL NOT BE DEFLECTED MORE THAN ONE HALF OF THE MANUFACTURER'S RECOMMENDED DEFLECTION.
8. DURING THE CONSTRUCTION AND, AT ANY TIME PRIOR TO ACCEPTANCE OF WATERMAINS BY THE CITY, THE DEVELOPER'S CONTRACTOR SHALL INSTALL A 300mm x 300mm SQUARE 19mm SHEET OF PLYWOOD (PAINTED WHITE) OVER THE PUMPER NOZZLE OF EACH HYDRANT TO INDICATE THAT THE HYDRANT IS NOT IN SERVICE.
9. THE CONTRACTOR IS TO ENSURE THAT ALL SECTIONS OF LINES HAVE TEST POINTS AND TEMPORARY BLOW OFFS SUITABLE TO ENSURE ADEQUATE TESTING, CHLORINATION, AND FLUSHING. NO DISCHARGE OF CHLORINATED WATER WILL BE PERMITTED INTO DITCHES, STORM SEWERS OR WATERCOURSES.
10. WATER MAIN PIPE SHALL BE TO THE CITY OF COQUITLAM STANDARDS AND SHALL PASS INSPECTION BY THE ENGINEERING DEPARTMENT. WATERMAINS SHALL BE C900–SDR 18 PVC PIPE.
11. ALL HYDRANTS AND SERVICE CONNECTION ENDS TO BE RESTRAINED BACK TO THE WATERMAINS AS SHOWN IN DETAIL ON DWG. 02–046–D1
12. ALL MAINLINE FITTINGS ARE TO BE INSTALLED WITH MECHANICAL THRUST RESTRAINERS AS SHOWN IN DETAIL ON DWG. 02–046–D1
13. ALL FITTINGS TO BE SUPPLIED WITH TIE LUGS.

Note:
Location of existing utilities shown are approximate and should be confirmed by pipe locator and manual digging. All or any existing structures are not necessarily shown.

COQUITLAM AS–BUILT NO.
W 2048

CLIENT:
JPD REALTY ADVISORS LTD.
2177 WEST 51st STREET VANCOUVER B.C. V6P 1E6
Tel. 604.264.0254 Fax 604.263.0126

BINNIE
R.F. Binnie & Associates Ltd.
ENGINEERS, PROJECT MANAGERS & SURVEYORS
Fraser Valley: #101 - 19232 Enterprise Way, Surrey, B.C. V3S 6J9, 604-574-3336, surrey@binnie.com
Lower Mainland: #103 - 7382 Winston Street, Burnaby, B.C. V5A 2G9, 604-420-1721, burnaby@binnie.com
Sea to Sky Country: P.O. Box 2089, 38144 Cleveland Avenue, Squamish, B.C. V0N 3G0, 604-892-8222, squamish@binnie.com
Est. 1989 CIVIL ENGINEERING

REV'D	DATE	DR'N	CH'D	
	03/25/04	AH	MR	AS CONSTRUCTED

CITY OF COQUITLAM — Engineering Department

DESIGNED – SJ
DRAWN – HR
METRIC SCALE – HORIZ. 1:500, VERT. 1:50
APPROVED– MR
DATE – JAN. 8, 2002

LUCILLE STARR DRIVE
WATER WORKS

FILE –
CONSULTANTS DWG No– 02–046–W1
CITY DWG No
SHEET 4 OF 10

NOTES:

1. ELEVATIONS ARE GEODETIC.
2. SURVEY IS BASED UPON NAD27 UTM GROUND COORDINATES. DATE OF SURVEY COMPLETION IS NOV 25, 2008.
3. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE INDICATED IN THE PUBLIC ROAD ALLOWANCE ONLY AND ARE SHOWN APPROXIMATE.

IMPORTANT:
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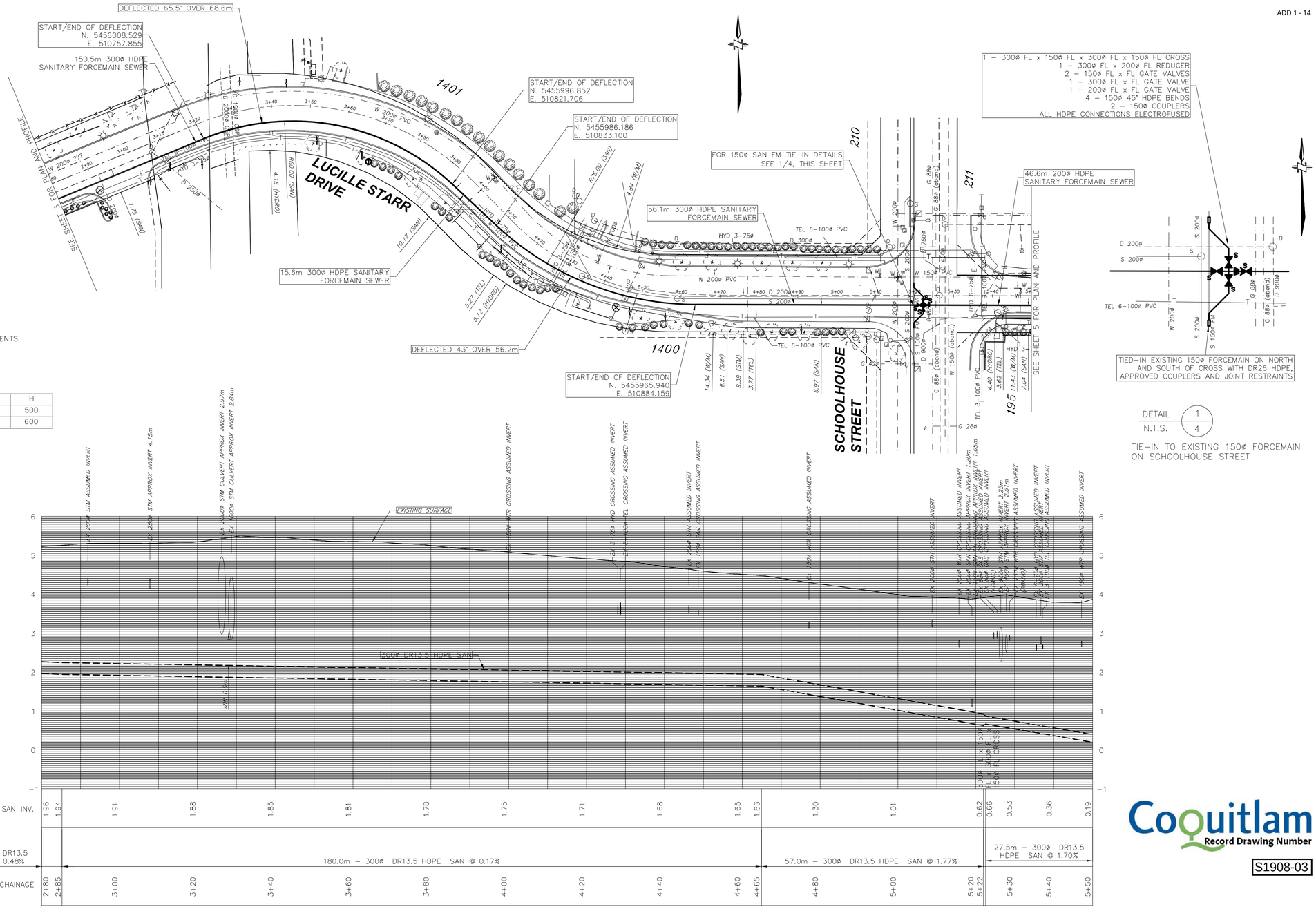
REFER TO MMCD W1 FOR THRUST BLOCK ARRANGEMENTS
D=FITTING SIZE
L=LENGTH OF TRENCH WALL
W=DISTANCE FROM FITTING TO TRENCH WALL
H=THICKNESS OF THRUST BLOCK AT TRENCH WALL
ALL DIMENSIONS ARE IN mm

	D	W	L	H
TEE/CROSS	150/200	300	600	500
	300	350	800	600

TEES AND CROSSES HAVE THRUST BLOCKS. (TYP.)



DETAIL 1/4 N.T.S.

TIE–IN TO EXISTING 150ø FORCEMAIN ON SCHOOLHOUSE STREET

0.3 Ø42.77 Tree, diameter indicated in metres, ground elevation
Bushline or edge of shrubs
t.o.b. Top of bank
b.o.b. Bottom of bank
Iron pin found
Indicates old concrete post found
Control point placed
IC Inspection chamber (utility unknown)
Lamp Standard (Private)
Side Inlet with no catch basin
Future Property Lines

GRAPHIC SCALE
10 0 10 20 30 40

DESIGN CONSULTANT:
ISL Engineering and Land Services
#503, 4190 Lougheed Hwy, Burnaby, V5C 6A8
T: (604)629-2696 F: (604)629-2698

Coquitlam Record Drawing Number
S1908-03

PROJECT #: 85321

EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED	
		Edge of pavement	D	D	Sanitary sewer and MH	S	S	U/G signal/light duct	L	L	
		Asphalt curb	D	D	Sanitary service, Cleanout	S	S	Streetlight, davit			
		Concrete sidewalk			Sanitary sewer, forcemain	FS	FS	Streetlight, post top			
		Concrete curb			U/G electrical duct and MH	E	E	Traffic signal pole			
W	W	Watermain and valve			Utility pole			Traffic signal post			
W	W	Water service box/curb stop			Utility pole with light			Traffic street sign			
H	H	Hydrant			Junction box			Flasher			
W	W	Water blowoff			U/G telephone and MH	T	T	Signal fixture			
W	W	Water air valve			U/G gas main and valve	G	G	Combination traffic signal pole			
		Drainage sewer and MH			Catch basin, top inlet						
		Drainage service, Cleanout			Catch basin, side inlet						
		Drainage sewer, forcemain			Catch basin, round						
		U/G electrical duct and MH			Swale						
		Utility pole			Ditch						
		Utility pole with light			Culvert						
		Junction box			Inlet/Outlet Structure						

Destroy All Prints Bearing Rev. No. less than one indicated below

REV.	DATE	REVISION
4	AUG 31 10	AS CONSTRUCTED
3	JAN 5 10	TENDER ISSUE
2	DEC 14 09	100% DESIGN ISSUE
1	DEC 4 09	DETAILED ISSUE

Coquitlam
Engineering & Public Works
3000 Guildford Way, Coquitlam, B.C. V3B 7N2

Project
SOUTHWEST COQUITLAM SANITARY FORCEMAIN

SANITARY FORCEMAIN
Lucille Starr Drive

DESIGNED KPT/SMB	SCALE Horiz. 1:500 Vert. 1:50
DRAWN SB	DATE NOV 16 09
CHECKED KPT	DWG FILE: Sheets – Seguin 01–05
APPROVED	SHEET 4 OF 5
	REV. 4

PLOT DATE/TIME: Friday, December 17, 2010 10:12:22 AM

N:\Projects\30595 Seguin Drive Forcemain\02 drafting\02-1 project\4a-Builts\Sheets – Seguin 01-05.dwg

NOTES:

1. ELEVATIONS ARE GEODETIC.
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3. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE INDICATED IN THE PUBLIC ROAD ALLOWANCE ONLY AND ARE SHOWN APPROXIMATE.

REFER TO MMCD W1 FOR THRUST BLOCK ARRANGEMENTS
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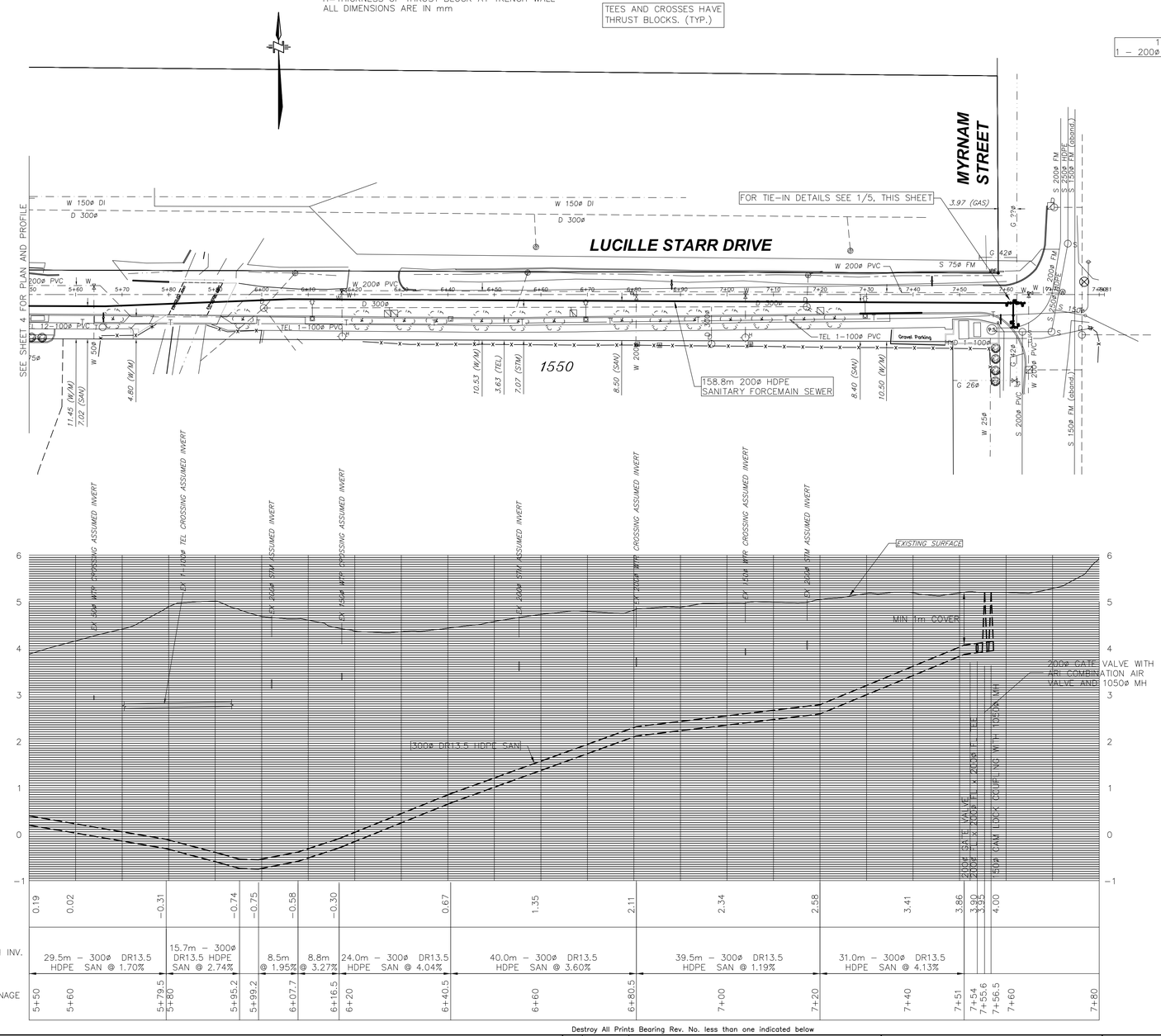
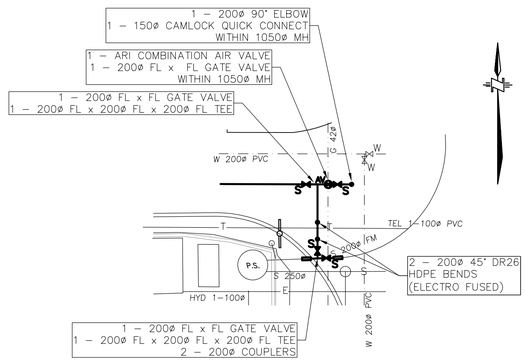
W=DISTANCE FROM FITTING TO TRENCH WALL
H=THICKNESS OF THRUST BLOCK AT TRENCH WALL
ALL DIMENSIONS ARE IN mm

	D	W	L	H
TEE/CROSS	150/200	300	600	500
	300	350	800	600

TEES AND CROSSES HAVE THRUST BLOCKS. (TYP.)





DETAIL 1/5 N.T.S.

TIE–IN TO EXISTING LIFT STATION ALONG LUCILLE STARR DRIVE

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THIS PHOTOCOPY IS SUPPLIED BY THE CITY OF COQUITLAM FOR GENERAL INFORMATION ONLY AND THE **ACCURACY OF INFORMATION CONTAINED ON THE DOCUMENT IS NOT GUARANTEED BY THE CITY.**

0.3 @42.77 *Tree, diameter indicated in metres, ground elevation*
Bushline or edge of shrubs
t.o.b. Top of bank
b.o.b. Bottom of bank
Iron pin found
Indicates old concrete post found
Control point placed
IC Inspection chamber (utility unknown)
Lamp Standard (Private)
Side Inlet with no catch basin
Future Property Lines

GRAPHIC SCALE
10 0 10 20 30 40

DESIGN CONSULTANT:
ISL Engineering and Land Services
#503, 4190 Lougheed Hwy, Burnaby, B.C. V5C 6A8
T: (604)629-2696 F: (604)629-2698

	EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED
Edge of pavement			Drainage sewer and MH			Sanitary sewer and MH			U/G signal/light duct		
Asphalt curb			Drainage service, Cleanout			Sanitary service, Cleanout			Streetlight, davit		
Concrete sidewalk			Catch basin, top inlet			Sanitary sewer, forcemain			Streetlight, post top		
Concrete curb			Catch basin, side inlet			U/G electrical duct and MH			Traffic signal pole		
Watermain and valve			Catch basin, round			Utility pole			Traffic signal post		
Water service box/curb stop			Swale			Utility pole with light			Traffic street sign		
Hydrant			Ditch			Junction box			Flasher		
Water blowoff			Culvert			U/G telephone and MH			Signal fixture		
Water air valve			Inlet/Outlet Structure			U/G gas main and valve			Combination traffic signal pole		

Destroy All Prints Bearing Rev. No. less than one indicated below

REV.	DATE	REVISION
4	AUG 31 10	AS CONSTRUCTED
3	JAN 5 10	TENDER ISSUE
2	DEC 14 09	100% DESIGN ISSUE
1	DEC 4 09	DETAILED ISSUE

Coquitlam
Engineering & Public Works
3000 Guildford Way, Coquitlam, B.C. V3B 7N2

Project
SOUTHWEST COQUITLAM SANITARY FORCEMAIN

SANITARY FORCEMAIN
Lucille Starr Drive

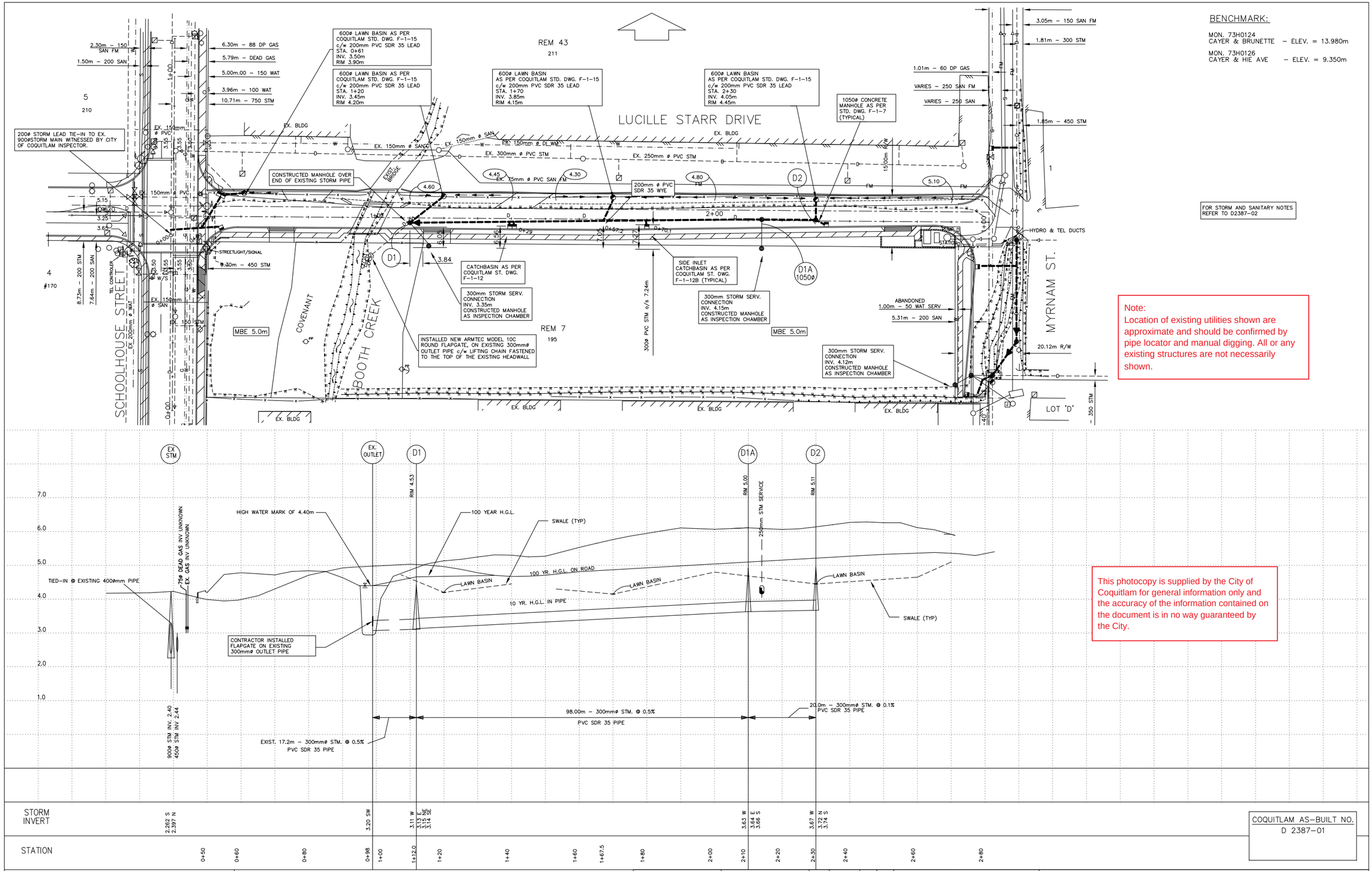
DESIGNED KPT/SMB	SCALE Horiz. 1:500 Vert. 1:50	DATE NOV 16 09	
DRAWN SB	DWG FILE: Sheets – Seguin 01–05		
CHECKED KPT	SHEET 5	OF 5	REV. 4
APPROVED			

Coquitlam Record Drawing Number
S1908-04

PROJECT #: 85321

PLOT DATE/TIME: Friday, December 17, 2010 10:23:08 AM

N:\Projects\30593 Seguin Drive Forcemain\02 drafting\02-1 project\As-Builts\Sheets – Seguin 01-05.dwg



CLIENT:
JPD REALTY ADVISORS LTD.
2177 WEST 51st STREET VANCOUVER B.C. V6P 1E6
Tel. 604.264.0254 Fax 604.263.0126

R.F. Binnie & Associates Ltd.
ENGINEERS, PROJECT MANAGERS & SURVEYORS
Fraser Valley: #101 - 19232 Enterprise Way, Surrey, B.C. V3S 6J9, 604-574-3336, surrey@binnie.com
Lower Mainland: #103 - 7382 Winston Street, Burnaby, B.C. V5A 2G9, 604-420-1721, burnaby@binnie.com
Sea to Sky Country: P.O. Box 2089, 38144 Cleveland Avenue, Squamish, B.C. V0N 3G0, 604-892-8222, squamish@binnie.com

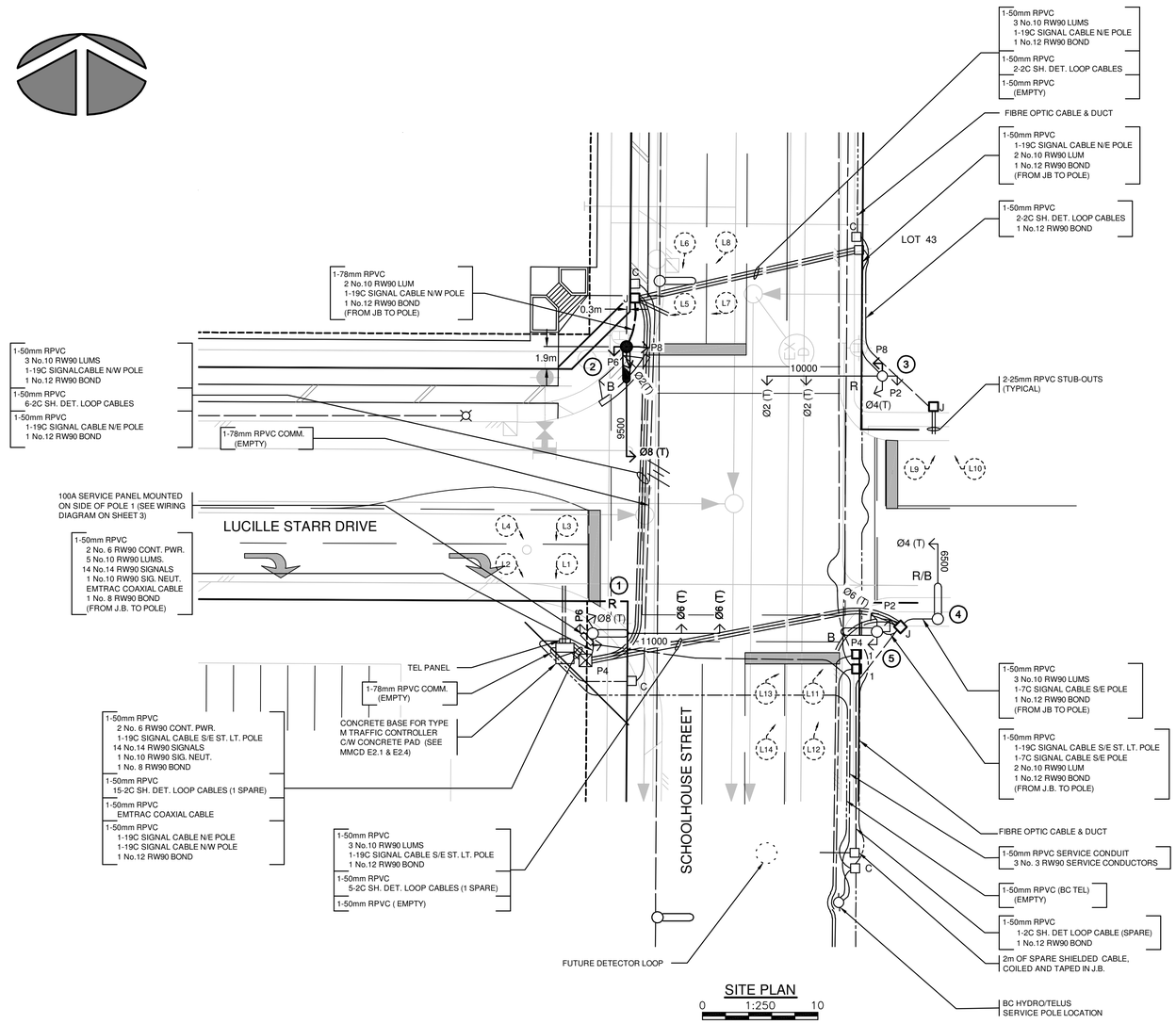
REV'D	DATE	DR'N	CH'D	
	03/25/04	AH	MR	AS CONSTRUCTED

CITY OF COQUITLAM — Engineering Department

DESIGNED – SJ
DRAWN – HR
METRIC SCALE – HORIZ. 1:500, VERT. 1:50
APPROVED – MR
DATE – JAN. 8, 2002

LUCILLE STARR DRIVE
STORM SEWER

FILE –
CONSULTANTS DWG No– 02-046-STS1
CITY DWG No
SHEET 5 OF 10



* REPLACES DWG. E 929-02

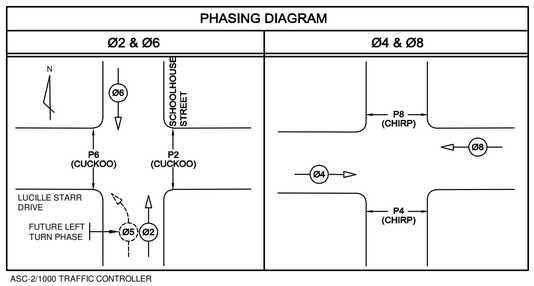
LEGEND

- COMBINATION TRAFFIC SIGNAL POLE
- COMBINATION TRAFFIC SIGNAL POLE
- DAVIT STREETLIGHT POLE
- POST TOP STREETLIGHT POLE
- J — ROUND PLASTIC JUNCTION BOX (ONE SECTION DEEP) C/W GALVANIZED STEEL LID LABELED "ELEC"
- 1 — TYPE 37 CONCRETE JUNCTION BOX C/W GALVANIZED STEEL LID LABELED "ELEC"
- CONCRETE JUNCTION BOX C/W GALVANIZED STEEL LID
- C — COMM. JUNCTION BOX
- JUNCTION BOX
- Ø2 — SIGNAL HEAD VEHICLE PHASE
- P4 — SIGNAL HEAD PEDESTRIAN PHASE
- R — LUMINAIRE ON RED PHASE CONDUCTORS
- B — LUMINAIRE ON BLACK PHASE CONDUCTOR
- TRAFFIC CONTROLLER C/W CONCRETE SERVICE PAD
- CONDUIT AND CONDUCTORS
- CONDUIT AND CONDUCTORS

COLOUR CODING (FROM HANDHOLE TO SIGNAL HEAD)		
PHASE	SIGNAL SECTION	COLOUR
Ø2	RED YELLOW GREEN	RED YELLOW BLUE
Ø4	RED YELLOW GREEN	RED BROWN BLUE
Ø5 (SPARE)	YELLOW ARROW GREEN ARROW	ORANGE (WHITE T.T.) BLUE (WHITE T.T.)
Ø6	RED YELLOW GREEN	RED YELLOW (RED T.T.) BLUE
Ø8	RED YELLOW GREEN	RED BROWN (ORANGE T.T.) BLUE
P2	DON'T WALK WALK PUSHBUTTON	YELLOW BLUE PURPLE (YELLOW T.T.)
P4	DON'T WALK WALK PUSHBUTTON	BROWN BLUE PURPLE (BROWN T.T.)
P6	DON'T WALK WALK PUSHBUTTON	YELLOW (RED T.T) BLUE PURPLE (RED T.T.)
P8	DON'T WALK WALK PUSHBUTTON	BROWN (ORANGE T.T.) BLUE PURPLE (ORANGE T.T.)
DESCRIPTION	CIRCUITS	COLOUR
NEUTRAL	NEUTRAL	WHITE
STREET LIGHTING	`R' `B'	RED BLACK
TRAFFIC CONTROLLER	POWER	BLACK
GROUND/BOND	GROUND/BOND	GREEN

NOTES

1. ALL WORK HAS BEEN CONSTRUCTED IN ACCORDANCE (IN ORDER OF PRECEDENCE) WITH THE SUPPLEMENTAL SPECIFICATIONS, MASTER MUNICIPAL CONSTRUCTION DOCUMENT, 2000 ISSUE AND THE MOST CURRENT M.o.T. STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION UNLESS OTHERWISE NOTED ON DESIGN DRAWINGS.
2. CONDUCTORS INSIDE POLES ARE:
   No. 14 RW90 X-LINK FOR SIGNALS
   No. 12 RW90 X-LINK FOR ALL OTHERS
3. A TRON HEB AA WATER-RESISTANT FUSE HOLDER, C/W A 10A BUSS KTK FUSE AND 2 'L' TYPE INSULATING BOOTS, ARE INSTALLED IN EACH LUMINAIRE & SIGN LIVE CONDUCTOR, IN THE HANDHOLE.
4. ALL SINGLE CONDUCTORS ARE STRANDED COPPER, TYPE RW90 INSULATED AND COLOR CODED.
5. EMPTY CONDUITS HAVE A No.8 HB POLY YELLOW/GRN Mk PULL STRING AND CAPPED AT BOTH ENDS AS PER MMCD E3.6.
6. WHERE INDIVIDUAL CONDUCTORS OR CABLES ARE RUN, ALL OF THE COMMON CIRCUITS ARE BUNDLED, TY-RAPPED TOGETHER WITH IDENTIFICATION TAGS IN ALL JUNCTION BOXES, VAULTS, HAND HOLES, CONTROLLER AND ACCESS POINTS AS NOTED IN THE MMCD. TAGS ARE MARKED AS FOLLOWS CABLE N/W POLE, STREET LIGHTING CCTS R OR B, PHOTOCELL, CONTROLLER POWER, WITH BLACK INDELIBLE MARKING PEN. TAGS ARE ATTACHED NO FURTHER THAN 75mm FROM WIRE OR CABLE TERMINATION POINT.
7. TRAFFIC SIGNAL NEUTRALS ARE KEPT SEPARATE FROM STREET LIGHTING NEUTRAL CONDUCTORS.
8. ALL SIGNAL HEADS AND LUMINAIRES ARE BONDED WITH A SEPARATE No.12 RW90 CONDUCTOR (GREEN) AT THE HANDHOLE.
9. ALL CONDUITS ENTERING POLES AND CABINETS ARE SEALED WITH "DUCT SEAL".
10. SEE B.C. HYDRO STANDARDS FOR SERVICE CONNECTION DETAILS.
11. TRAFFIC CONTROL IS TO CITY STANDARDS. (M.o.T.)
12. ALL POLES, ARMS, SERVICE BASE ETC. ARE GALVANIZED, PRIMED & POWDER COATED IN COLOUR EQUIVALENT TO COQUITLAM LAMP STANDARD GREEN - GENERAL PAINT #16-214 B1Y12F36 EXTERIOR U.V STABILIZED INDUSTRIAL ENAMEL OR WEST COAST ENGINEERING COLOUR CODE "GREENFERN COQUITLAM" PWD P5399-9.
13. BELL END FITTING INSTALLED ON ALL CONDUITS ENTERING JUNCTION BOXES.
14. HANGER BAR & TY-RAP WIRES INSTALLED TO BAR IN JUNCTION BOXES AS PER MMCD DRAWING E3.6.
15. ALL CONDUITS ARE BURIED MINIMUM 600mm DEEP. A `BURIED CABLE' MAKER TAPE IS INSTALLED 300mm ABOVE CONDUIT IN ALL TRENCHES. DETECTABLE (METALIC) TAPE TO USED ABOVE CONDUIT IN TRENCHES CONTAINING ONLY INTERCONNECT CONDUIT.
16. ALL STEEL JUNCTION BOX LIDS ARE BONDED.
17. AUDIBLE PEDESTRIAN SIGNAL ENTRANCE TO POLE (MOUNTING HOLE) IS SEALED WITH SILICONE SEALANT.
20. SIGNAL WIRING IS TAGGED AND LABELED USING PANDUIT MP250-C TAGS AND THE APPROPRIATE PANDUIT INDELIBLE MARKER.
21. TYPE 5686 PULL BOXES ARE INSTALLED AS SHOWN ON STANDARD DETAIL MMCD DRAWING E3.3 C/W BOLT DOWN LIDS.
22. TAMPER RESISTANT FASTENERS ARE USED FOR PEDESTRIAN BUTTONS AND PLATES (SEE CEDMS DOCUMENT NUMBER 371920 FOR DIAGRAM):
    i. LOCAL SUPPLIER IS AIRARMS INDUSTRIAL INC.
    ii. MANUFACTURER IS TAMPERPROOF SCREWS INC (TSI)
    1. BOLT FOR PLATE TO POLE CONNECTION:
       TSI P/N 22410, 3/8-16 BY 1 INCH LENGTH, 7/32" HEX DRIVE WITH CENTER PIN
    2. SCREW FOR BUTTON TO HOUSING CONNECTION:
       TSI P/N 21930, 8-32 BY 1 INCH LENGTH, 5/32" HEX DRIVE WITH CENTER PIN
23. ALL DETECTOR TO LOOP CABLE SPLICES ARE SOLDERED WITH ROSIN CORE SOLDER (NO ACID CORE OR ACID FLUX) THEN CAP WITH WATERPROOF GEL FILLED WIRE NUT AND TAPE WITH VINYL DI-ELECTRIC TAPE. SPLICES IN TOP OF JUNCTION BOX ARE SUSPENDED AND TY-WRAPPED WITH OPEN END OF WIRE NUTS POINTING DOWN.
24. DETECTOR CABLE ARE IMSA 50-2 SPECIFICATION:
    2 CONDUCTOR 16 GAUGE STRANDED IMSA 50-2 SPECIFICATION SHIELDED LOOP DETECTOR CABLE. THE TEXCAN PART NUMBER FOR THIS PRODUCT IS:12193-01-001 (TEXCAN CONTACT IS CHRIS YOUDS 604-606-1031).
25. EACH 2C No.18 SHIELDED DETECTOR LOOP CABLE RUNS CONTINUOUS, WITH NO SPLICES, FROM THE CONTROLLER TO THE RESPECTIVE LOOP.



ASC-2/1000 TRAFFIC CONTROLLER

IMPORTANT:
HYDRO, GAS AND TELEPHONE **ARE NOT SHOWN** ON THE CITY OF COQUITLAM AS-BUILTS OR RECORD DRAWINGS. **CONTACT BC HYDRO, TERASEN GAS AND TELUS FOR CURRENT AS-BUILTS PERTAINNIG TO THESE UTILITIES.**

NOTE:
LOCATION OF EXISTING UTILITIES SHOWN ARE **APPROXIMATE ONLY** AND **SHOULD BE CONFIRMED BY A PIPE LOCATOR AND MANUAL DIGGING**. ALL OR ANY EXISTING STRUCTURES ARE NOT NECESSARILY SHOWN.

Coquitlam Record Drawing Number

• E 1042-01 TS
C 0140-01

REF. 1042-02, 03 TS

DMD & Associates Ltd.
#12-17358 104A Avenue, Surrey, BC, Canada V4N 5M3
www.dmdeng.com 604/589-9010
office@dmdeng.com Fax 604/589-9012
DMD PROJECT No. 2004-07-01 of 04

REV'N	DATE	DRN	CH'D	
3	2009-06-01	ALM		RECORD DRAWING
2	2008-11-21	JDM		REVISED AS PER CITY'S COMMENTS
1	2008-09-12	JDM		REVISED AS PER CITY'S COMMENTS

CITY OF COQUITLAM — Engineering Department

DESIGNED – JDM
DRAWN – ALM
METRIC SCALE – 1:250
APPROVED – DJW
DATE – 2007-08-30

TRAFFIC SIGNAL MODIFICATIONS

SCHOOLHOUSE ST. & LUCILLE STARR DR.

FILE –
CONSULTANTS PROJ. No. –2004-07
DISTRICT DWG. No. –
SHEET 1 OF 3