

ISSUED FOR TENDER 2025/10/01

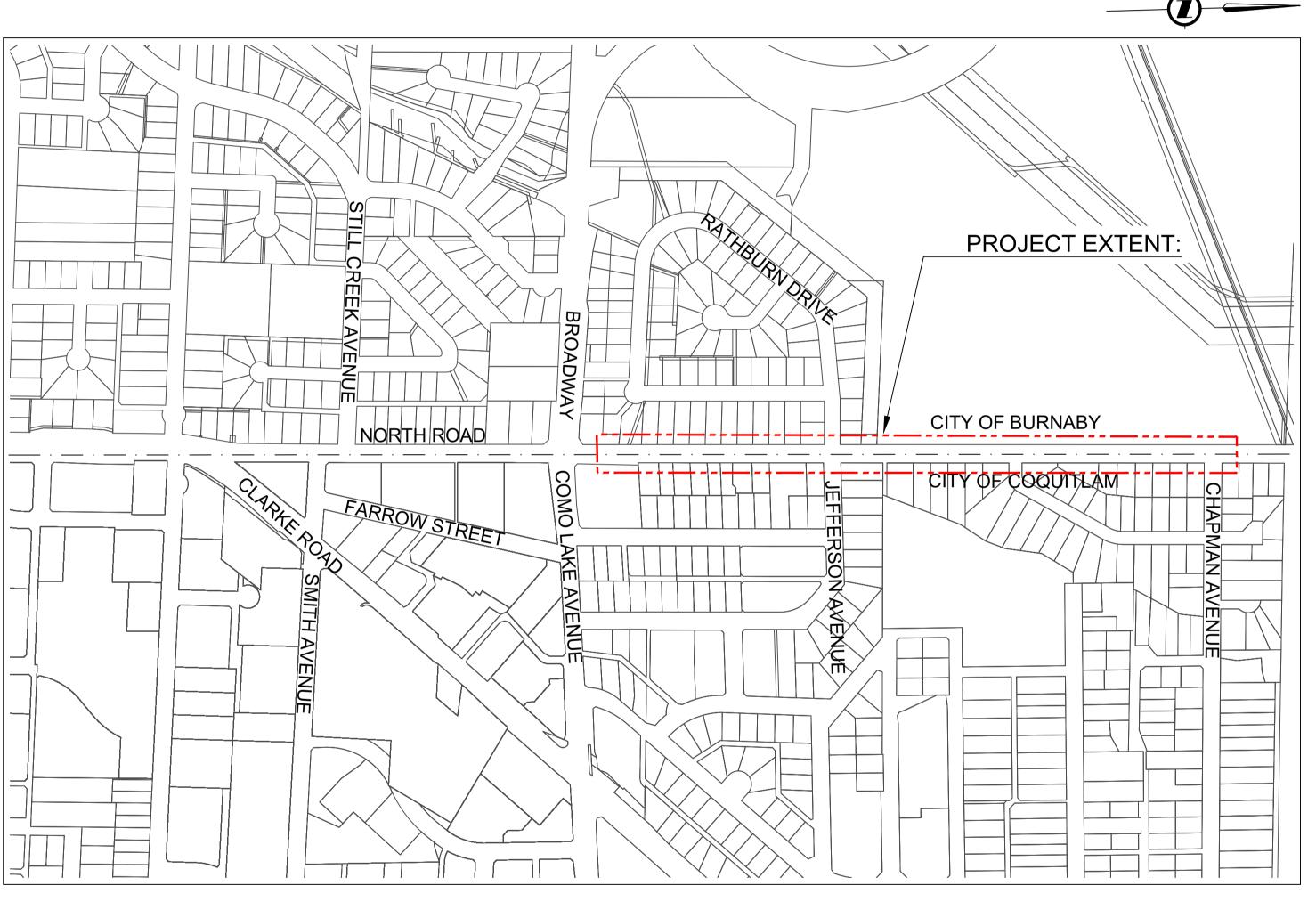
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CITY OF COQUITLAM

NORTH ROAD WATERMAIN

(COMO LAKE AVENUE - CHAPMAN AVENUE)

CONTRACT REF#: 87424



LOCATION PLAN



GENERAL NOTES:

- 1. ELEVATIONS ARE RELATIVE TO CVD28GVRD. HORIZONTAL COORDINATES ARE IN LOCAL PROJECT GROUND COORDINATES.
- 2. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE PLATINUM EDITION (2009) OF THE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD) AND MMCD SUPPLEMENTARY UPDATES TO DATE AND CITY OF COQUITLAM SUPPLEMENTARY SPECIFICATIONS AND DETAIL DRAWINGS UNLESS OTHERWISE NOTED.
- RESIDENTS DIRECTLY AFFECTED BY CONSTRUCTION SHALL BE GIVEN AT LEAST 5 DAYS NOTICE PRIOR TO THE START OF CONSTRUCTION. IF CONSTRUCTION ENTERS ONTO PRIVATE PROPERTY, THE CONTRACTOR WILL REQUIRE WRITTEN AUTHORIZATION FROM THE PROPERTY OWNER PRIOR TO UNDERTAKING ANY WORK.
- THE LOCATION OF EXISTING UTILITIES IS COMPILED FROM OWNER AND UTILITY SUPPLIED RECORD DRAWINGS AND ARE CONSIDERED APPROXIMATE ONLY. THE EXACT LOCATION AND EXTENT OF UTILITIES SHOULD BE DETERMINED BY CONSULTING THE LOCAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND INVERT ELEVATION BY HAND OR HYDROVAC EXCAVATION BEFORE CONSTRUCTION OF UTILITY CROSSINGS AND SHALL BE RESPONSIBLE FOR RESTORATION OF ANY DAMAGE TO EXISTING UTILITIES. ANY COSTS ASSOCIATED WITH UTILITY CONFLICTS THAT WERE NOT PRELOCATED WILL BE THE CONTRACTORS RESPONSIBILITY.
- EXISTING UTILITY TRENCHES ADJACENT TO THE PROPOSED UNDERGROUND UTILITY ARE TO BE ADEQUATELY PROTECTED FROM SLOUGHING IN ORDER TO PREVENT OVER-WIDTH EXCAVATION.
- 6. THE CONTRACTOR IS TO NOTIFY THE CITY OF COQUITLAM 48 HOURS IN ADVANCE OF ANY CONSTRUCTION OR UTILITY RELOCATION/CONFLICTS.
- 7. REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR A MIN 72 HOURS PRIOR TO CONSTRUCTION.
- RESIDENTS DIRECTLY AFFECTED BY CONSTRUCTION OF THE PROJECT AND/OR SCHEDULED SERVICE DISRUPTION, INCLUDING ROAD & DRIVEWAY BLOCKAGES. MUST BE GIVEN A MINIMUM OF 48 HOURS WRITTEN NOTICE OF THE PROPOSED. CONSTRUCTION START.
- 9. ALL SURVEY MONUMENTS WITHIN THE PROJECT BOUNDARIES SHALL BE PROTECTED DURING THE COURSE OF THE WORK. SHOULD ANY SURVEY MONUMENT REQUIRE RAISING OR RELOCATION, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEERING AND OPERATIONS DEPARTMENT AT LEAST 72 HOURS IN ADVANCE OF SCHEDULING WORK. ALL DISTURBED MONUMENTS WILL BE REPLACED BY A B.C. LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- 10. SURVEY PINS DISTURBED DURING THE COURSE OF CONSTRUCTION SHALL BE REPLACED BY A B.C. LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- 11. ALL PUBLIC ROADWAYS AFFECTED BY THE WORKS SHALL BE KEPT IN A CLEAN STATE AT ALL TIMES. DUST CONTROL MEASURES SHALL ALSO BE EMPLOYED DURING THE COURSE OF THE WORK.
- 12. ALL PAVEMENT RESTORATION AS PER MMCD.
- 13. SEE CITY SUPPLEMENTARY SPECIFICATIONS FOR ALL PIPE BEDDING AND TRENCH BACKFILL REQUIREMENTS, COMPACTED IN LIFTS TO 95% MODIFIED PROCTOR.
- 14. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, AND FOR COORDINATING THE VARIOUS PARTS OF THE WORK. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THERE IS NO DISRUPTION TO SERVICE, AND IF DISRUPTION IS ANTICIPATED, TO NOTIFY THE CONTRACT ADMINISTRATOR A MINIMUM OF 72 HOURS PRIOR, AND OBTAIN APPROVAL FOR THE DISRUPTION.
- 15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL EXCAVATED MATERIAL UNSUITABLE FOR REUSE AT A SUITABLE OFF-SITE DISPOSAL AREA, IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
- 16. THE CONTRACTOR SHALL PROVIDE TEMPORARY UTILITY POLE SUPPORTS NECESSARY TO COMPLETE THE WORKS AS AN INCIDENTAL ITEM TO GENERAL CONTRACT REQUIREMENTS WHERE AND AS REQUIRED.
- 17. CONTRACTOR TO MAINTAIN AN UP TO DATE SET OF AS-CONSTRUCTED DRAWINGS AT ALL TIMES. AS-CONSTRUCTED DRAWINGS TO BE DELIVERED TO THE CONTRACT ADMINISTRATOR AT SUBSTANTIAL PERFORMANCE FOR PREPARATION OF FINAL RECORD DRAWINGS. THE CONTRACT ADMINISTRATOR SHALL BE PROVIDED ACCESS TO REVIEW THE AS-CONSTRUCTED DRAWINGS AT ALL TIMES TO CONFIRM THEY ARE UP TO DATE.
- 18. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE PROVISIONS FOR EROSION CONTROL AND SEDIMENT AS PER THE CITY BYLAW 4403, 2013 AND AS PER THE CONTRACT DOCUMENTS.
- 19. CONTRACTOR TO REPORT AND REPAIR OR REPLACE ANY DAMAGE TO THE SANITARY/STORM SERVICES DURING MAIN INSTALLATION, ANY DAMAGE TO WATER SERVICES IS TO BE REPORTED TO THE CONTRACT ADMINISTRATOR AND REPAIRED BY CITY FORCES AT THE CONTRACTOR'S EXPENSE.
- 20. CONTRACTOR TO PROTECT EXISTING UTILITIES FROM DAMAGE
- 21. ALL EXISTING LIVE SERVICES SHALL BE MAINTAINED OPERATIONAL DURING CONSTRUCTION
- 22. CONTRACTOR SHALL NOTIFY THE VARIOUS UTILITY AGENCIES AND OBTAIN PERMITS AS REQUIRED PRIOR TO
- 23. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL CITY PERMITS FOR WORK WITHIN THE CITY ROAD ALLOWANCE.
- 24. ALL EXISTING SIGNAGE. BOULEVARDS, CURBS, UTILITIES, WALLS, LANDSCAPING, FENCES, PAINT MARKINGS AND SURFACES DISTURBED BY CONSTRUCTION TO BE RESTORED TO ORIGINAL CONDITION OR BETTER AND IN ACCORDANCE WITH THE CITY SPECIFICATIONS.
- 25. EVERY EFFORT IS TO BE MADE TO SAVE EXISTING LANDSCAPING WITHIN THE ROAD R.O.W.. LANDSCAPING IS TO BE RESTORED TO ITS ORIGINAL OR BETTER CONDITION. IN THE EVENT OF LANDSCAPING REMOVAL, THE PROPERTY OWNER SHALL BE ADVISED OF THE REMOVAL AND THE LANDSCAPING PLACED ON OWNERS PROPERTY UPON THEIR REQUEST.
- 26. NOT ALL EXISTING LANDSCAPING MAY BE SHOWN ON THE DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VIEW WORK AREAS AND PROVIDE REQUIRED ALLOWANCE TO RESTORE ALL EXISTING LANDSCAPING THAT IS DISTURBED BY THE WORKS TO EXISTING OR BETTER CONDITIONS FOLLOWING CONSTRUCTION.
- 27. CONTRACTOR TO PROTECT EXISTING RAISED PAVEMENT MARKERS ALONG NORTH ROAD CENTERLINE: REINSTATE PER ORIGINAL LOCATIONS IF DAMAGED.
- 28. ARBORIST SUPERVISION REQUIRED WHILE WORKING IN A DRIP LINE OF EXISTING TREES OR WHERE IDENTIFIED IN THE DRAWINGS, CONTRACTOR TO PROVIDE ARBORIST SERVICES AND REPORTING AS REQUIRED.

METRO VANCOUVER NOTES:

- CONTRACTOR IS RESPONSIBLE FOR RETAINING AN MV REPRESENTATIVE ON SITE TO WITNESS CONSTRUCTION PROXIMAL TO MV INFRASTRUCTURE.
- THE CONTRACTOR IS RESPONSIBLE FOR PHYSICALLY VERIFYING THE DEPTH AND LOCATION OF ALL GVWD MAINS AND OTHER UTILITIES PRIOR TO CONSTRUCTION. OBSERVE THE DISCLAIMERS ON ALL GVWD-SUPPLIED DRAWINGS AND DO NOT RELY SOLELY ON DRAWINGS OR AS-BUILT INFORMATION.
- IF THE MV MAIN IS TO BE EXPOSED, A HYDRO-EXCAVATOR SHALL BE USED (OR AUTHORIZED OTHERWISE) AND AN MV REPRESENTATIVE MUST BE PRESENT.
- 4. IF AN EXISTING GVWD MAIN IS EXPOSED, THE CONTRACTOR IS RESPONSIBLE TO RESTORE PIPE BEDDING AND BACKFILL TO MV STANDARDS.
- ONLY USE HAND TOOLS AND HYDRO-EXCAVATOR FOR EXCAVATION WITHIN 500mm OF THE OUTER EDGE OF MV UTILITIES.
- THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGES INCURRED AS A RESULT OF THE PROPOSED WORK.

TRAFFIC MANAGEMENT, NOTIFICATION AND APPROVALS NOTES:

- THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SIGNAGE, BARRIERS, FLASHING INDICATORS, ETC. AT ALL TIMES TO ENSURE THE SAFETY OF THE PUBLIC. THE CONTRACTOR SHALL COMPLY WITH ALL TRAFFIC REQUIREMENTS AS SPECIFIED WITHIN THE CONTRACT DOCUMENTS. NO ROAD SHALL BE CLOSED WITHOUT THE WRITTEN CONSENT OF THE DIRECTOR OF ENGINEERING AND OPERATIONS.
- THE CONTRACTOR SHALL ENSURE THAT ALL APPROVALS REQUIRED FOR THE PROPOSED WORKS HAVE BEEN OBTAINED FROM ALL AUTHORITIES AND AGENCIES PRIOR TO COMMENCING THE WORK.
- 3. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE PERSONNEL AT LEAST 72 HOURS PRIOR TO THE WORK. SCHEDULING AND OTHER CONSTRUCTION CONSTRAINTS IMPOSED BY THESE WORKS SHALL BE TAKEN INTO ACCOUNT.
- 4. A TRAFFIC AND PEDESTRIAN SAFETY CONTROL PLAN SHALL BE SUBMITTED BY THE CONTRACTOR PRIOR TO THE PRE-CONSTRUCTION MEETING.
- 5. APPROVALS FOR REQUIRED TREE CUTTING OR TRIMMING NOT INDICATED IN CONTRACT DRAWINGS SHALL BE OBTAINED BY THE CONTRACTOR FROM THE CITY PRIOR TO WORK BEING PERFORMED.
- CONTRACTOR TO OBTAIN APPROVED LANE CLOSURE REQUEST FORM FOR ALL WORKS. APPROVED REQUESTS ARE CIRCULATED TO ALL EMERGENCY SERVICES.
- 7. CONTRACTOR TO SUBMIT A TRAFFIC MANAGEMENT PLAN WITH LANE CLOSURE REQUEST FOR ALL MAJOR ROADS AND ANY LOCAL ROADS WHICH REQUIRE ANY DETOURS.
- ALL TRAFFIC CONTROL TO CONFORM TO THE LATEST EDITION OF THE BC TRAFFIC CONTROL MANUAL FOR WORK ON ROADWAYS.
- APPROVAL OF NOISE VARIANCE FOR ALL WORK OUTSIDE OF NORMAL APPROVED WORK HOURS REQUIRED BY THE CITY.
- 10. NOTICE OF CONSTRUCTION SIGNS TO BE INSTALLED AT ALL PROJECT LIMITS AND PREFERRED DETOUR ROUTE. NOTIFY CONTRACT ADMINISTRATOR WITH CONSTRUCTION SCHEDULE AND LOCATIONS. SIGNS PROVIDED AND INSTALLED BY THE CONTRACTOR.
- 11. THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLETION OF ALL TAPED TEMPORARY AND PERMANENT PAINT AND THERMOPLASTIC PAVEMENT MARKINGS IN THE PLACE OF THE WORK. PERMANENT LANE MARKINGS ARE TO BE PLACED WITHIN SEVENTY-TWO (72) HOURS OF FINAL PAVING AND PERMANENT THERMOPLASTIC PAVEMENT MARKINGS ARE TO BE PLACED WITHIN FIVE (5) DAYS OF FINAL PAVING. ALL TEMPORARY MARKINGS TO BE REMOVED IMMEDIATELY FOLLOWING PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 12. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE TRAFFIC MANAGEMENT DETAILED SPECIFICATIONS IN THE CONTRACT DOCUMENTS.

WATERWORKS NOTES

- EXISTING VALVES AND FIRE HYDRANTS SHALL NOT BE OPERATED BY NON COQUITLAM STAFF.
- 2. WATERMAIN TO BE DUCTILE IRON (DI) TR-FLEX (PC350 / SC52) TO AWWA C151 AND STANDARD CEMENT MORTAR LINED TO AWWA C104/A21.4 WITH GASKETS TO AWWA C111 TYTON.
- 3. WATERMAIN FITTINGS PER MMCD SPECIFICATION 31 11 01 SECTION 4.2.
- 4. TESTING OF THE WATERMAIN TO BE COMPLETED BY THE CONTRACTOR AS NOTED IN THE CONSTRUCTION SPECIFICATIONS AND PER MMCD AND AWWA STANDARDS. THE LATEST EDITION C600 AND C651-14 FOR DISINFECTION REQUIREMENTS AND STANDARDS. CONTRACT ADMINISTRATOR MUST BE NOTIFIED 48 HOURS IN ADVANCE OF ANY TESTING. WATERMAIN WORKING PRESSURE TO BE CONFIRMED WITH CONTRACT ADMINISTRATOR PRIOR TO PRESSURE TESTING.
- 5. DURING CONSTRUCTION AND AT ANY TIME PRIOR TO ACCEPTANCE AND PRESSURING OF MAINS, THE CONTRACTOR SHALL PLACE A 0.3m SQUARE 20mm SHEET OF PLYWOOD OVER THE PUMPER NOZZLE OF THE HYDRANT TO INDICATE THE HYDRANT IS NOT IN USE.
- 6. HYDRANTS TO BE IN ACCORDANCE WITH MMCD STANDARD DETAIL DRAWING W1. HYDRANT PUMPER PORT TO BE 0.5m TO 1.0m ABOVE FINISHED GRADE. HYDRANT BODY SHALL BE INSTALLED 150mm ABOVE FINISHED GRADE. GATE VALVES TO BE DUCTILE IRON SUITABLE FOR 1050kPa WORKING PRESSURE.
- 7. PIPE BEDDING TO CONFORM TO STD. DWG COQ-G4 AND TO BE COMPACTED TO 95% MODIFIED PROCTOR PRIOR TO BACKFILLING TRENCH.
- 8. BLOW OFFS AND AIR VALVES IN ACCORDANCE WITH STD. DWGS COQ-W6 AND COQ-W8.
- 9. SERVICE CONNECTIONS TO BE 19mm TYPE K ANNEALED COPPER (CU) TO ASTM B88M, UNLESS OTHERWISE INDICATED, IN ACCORDANCE WITH STD. DWG. COQ-W2 AND W3. PROVIDE A METER SETTER AS PER COQ-W2C ON PRIVATE PROPERTY, 300MM FROM PROPERTY LINE FOR ALL RESIDENTIAL DEVELOPMENTS FOR WATER SERVICE CONNECTIONS.
- 10. SERVICE CONNECTIONS TO BE MARKED WITH A 40mm X 90mm POST PAINTED BLUE AT TERMINATION.
- 11. WHERE WATER MAIN PIPE GRADE EXCEEDS 10%, PIPE TO BE ANCHORED/TRENCH DAMS INSTALLED AS PER MMCD STD. DWG G8.
- 12. MIN. COVER ON WATERMAIN TO BE 1.0m.
- 13. WATERMAINS ARE TO BE CONSTRUCTED A MINIMUM OF 0.5m ABOVE A STORM OR SANITARY SEWER AND MAINTAIN MINIMUM 3.0m HORIZONTAL SEPARATION BETWEEN THE WATERMAIN AND STORM OR SANITARY SEWER. WHERE THE WATERMAIN IS LESS THAN 0.5m ABOVE A STORM OR SANITARY SEWER OR 3.0m HORIZONTAL SEPARATION IS NOT POSSIBLE THE WATERMAIN JOINTS ARE TO BE WRAPPED WITH HEAT SHRINK PLASTIC, OR PACKED WITH INERT PETROLATUM COMPOUND AND WRAPPED IN TAPE IN ACCORDANCE WITH MINISTRY OF HEALTH STANDARDS; ANSI/AWWA STANDARDS C214 (FACTORY APPLIED), C217 (PETROLATUM TAPE) OR C209 (FIELD APPLIED); ALL TO MINISTRY OF HEALTH STANDARDS. WATERMAIN CROSSINGS OF STORM AND SANITARY SEWER TO BE MADE AT MIDPOINT OF PIPE.
- 14. PROPOSED WATERMAIN TO BE INSTALLED WITH POLYETHYLENE V-BIO ENCASEMENT WRAP PER ANSI/AWWA C105/A21.5 ALONG THE WHOLE RUN
- 15. THRUST BLOCKS ARE REQUIRED AT ALL BENDS, TEES, CROSSES, WYES, REDUCERS, PLUGS, CAPS, VALVES, HYDRANTS AND BLOW-OFFS AS PER MMCD STD. DWG W1.

EROSION AND SEDIMENT CONTROL

1.0 GENERAL NOTES

- 1. ALL CONSTRUCTION ACTIVITIES ARE TO BE UNDERTAKEN IN ACCORDANCE WITH THE CITY OF COQUITLAM STREAM AND DRAINAGE SYSTEM PROTECTION BYLAW NO. 4403,
- 2. CONTRACTOR TO INSTALL ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES INCLUDING CATCH BASIN (CB) FILTER INSERTS, SILT FENCES, TREE PROTECTION FENCES OR ANY OTHER FACILITY DEEMED NECESSARY BY THE ESC DESIGNER OR MONITOR.
- 3. ALL VEHICULAR ACCESS TO THE SITE IS TO BE VIA EXISTING ROADS OR CLEAN GRAVEL SURFACES.
- 4. ALL EXCAVATION, STOCKPILING, AND GRADING TO OCCUR IN A MANNER THAT MINIMIZES DISTURBANCE TO EXISTING VEGETATION
- 5. ALL ASPHALT PATCHING TO BE COMPLETED THE SAME DAY AS SERVICING.
- 6. ANY EXCAVATION SPOIL AND/OR MATERIAL STOCKPILES ARE TO BE COVERED WITH POLY TO MINIMIZE THE WASHING OF PARTICLES INTO THE STORM FLOWS AND/OR STORM SEWER SYSTEM. PILES SHOULD BE COVERED WITH 4MIL POLY LAPPED MINIMUM 0.5 M. ALL POLY IS TO BE ANCHORED SUCH THAT IT CANNOT EXPOSE THE COVERED MATERIAL IN THE EVENT OF RAIN AND/OR WIND STORMS. THIS WILL INCLUDE, BUT NOT BE LIMITED TO, SECURING THE PERIMETER IN 0.3 M TRENCHES.
- 7. ALL GROUND SURFACES EXPOSED DURING GRADING, SERVICING OR ROAD BUILDING ARE TO BE COMPACTED WITH A STEEL DRUMMED ROLLER TO ENSURE THAT THE SOIL DOES NOT ABSORB EXCESS MOISTURE. ALL AREAS DISTURBED ARE TO BE GRADED SUCH THAT FOLLOWING COMPACTING, NO PUDDLES OR STANDING WATER CAN FORM. UPON COMPLETION OF GRADING ALL EXPOSED SURFACES ARE TO BE COVERED USING HYDROSEED, SOD OR ROLLED EROSION CONTROL PRODUCT (RECP) WITH SEED, OR WHAT ESC SUPERVISOR INDICATES.
- 8. UPON INSTRUCTION/NOTIFICATION BY THE ENGINEER OF RECORD OR ESC SUPERVISOR; PERSONS RESPONSIBLE ARE REQUIRED TO UNDERTAKE MAINTENANCE ACTIVITIES AS DEEMED SPECIFIED TO MODIFY OR MAINTAIN ESC FACILITIES.
- 9. THE CONTRACTOR MUST REGULARLY CLEAN PAVED ROAD SURFACES OF ACCUMULATED SEDIMENTS AT THE END OF EACH DAY OR AS REQUIRED. NO SOIL, SAND OR OTHER MATERIAL SHALL BE DEPOSITED OR PILED OUTSIDE OF THE PROPERTY BOUNDARIES, PARTICULARLY ON PAVED ROAD SURFACES.
- 10. ALL SEDIMENT REMOVED FROM ESC CONTROL FACILITIES TO BE DISPOSED OF IN A MANNER AS TO NOT COMPOUND OR COMPROMISE THE SEDIMENT LOADING OF OTHER CONTROL MEASURES.
- 11. ALL EXPOSED SOILS ARE TO BE SUITABLY COVERED OR ALTERNATIVELY KEPT DAMP TO PREVENT EXCESS DUST IN THE AIR.
- 12. WET WEATHER SHUT DOWN PROCEDURES ARE TO BE IMPLEMENTED IF A RAIN EVENT IN EXCESS OF 25MM IN A 24-HOUR PERIOD IS FORECAST. ADDITIONALLY, REACTIVE WET WEATHER SHUT DOWNS ARE TO BE IMPLEMENTED WHERE THE INTENSITY AND/OR DURATION OF THE PRECIPITATION RESULTS IN THE SATURATION OF THE OVERLAYING SURFACE MATERIAL AND SIGNIFICANT PONDING OR SURFACE RUN OFF OCCURS.

13. SITE SIGNAGE REQUIRED TO IDENTIFY ESC FACILITIES WITH 24-HR CONTACT INFORMATION FOR ESC SUPERVISOR AND THE CITY SITE ADDRESS AND PERMIT NUMBER.

2.0 MAINTENANCE NOTES

- 1. ALL STREETS AND CATCH BASINS ARE TO BE INSPECTED DAILY AND CLEANED IF REQUIRED AT THE END OF EACH WORK DAY.
- 2. STREETS ARE TO BE SWEPT (NOT FLUSHED) TO ENSURE THAT MINIMUM DEBRIS ENTERS THE STORM DRAINAGE SYSTEMS.
- 3. CONSTRUCTION ACTIVITIES ARE TO BE STOPPED AND MAINTENANCE UNDERTAKEN IF WEATHER CONDITIONS OR GRAVEL ACCESS PADS, OR OTHER SITUATION ALLOW EXCESSIVE CONSTRUCTION MATERIAL TO BE DEPOSITED ON THE ROAD SURFACES.
- 4. SILT FENCE MAINTENANCE:
- INSPECT IMMEDIATELY AFTER EACH RAINFALL. AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIR AS NECESSARY - SEDIMENT SHOULD BE REMOVED WHEN IT REACHES APPROXIMATELY ONE THIRD OF THE HEIGHT OF THE FENCE, ESPECIALLY IF HEAVY RAINS ARE EXPECTED.

3.0 MONITORING PROGRAM

- 1. THE CONTRACTOR IS TO RETAIN AN ESC MONITOR TO INSPECT ALL ESC FACILITIES. TEST WATER QUALITY AT THE DESIGNATED TESTING POINTS. AND RECOMMEND NEW ESC MEASURES AND/OR MAINTENANCE REQUIREMENTS. ALL DISCHARGE TO MEET THE PH REQUIREMENT RANGE OF 6.5 TO 8.0 AND TURBIDITY NOT EXCEEDING 25 NTU EXCEPT DURING AND FOR 24 HOURS FOLLOWING A SIGNIFICANT RAINFALL EVENT, A DISCHARGE SHALL NOT EXCEED 100 NTU. ALL RESULTS ARE TO BE SUBMITTED TO THE CITY OF COQUITLAM AS WELL AS THE APPROPRIATE FEDERAL AND PROVINCIAL AGENCIES.
- 2. IF DURING ANY CONSTRUCTION WORK, ANY WASTE, DELETERIOUS SUBSTANCE, OR WATER THAT EXCEEDS THE LIMITS OUTLINED IN S.3.4. IS BEING RELEASED DIRECTLY OR INDIRECTLY INTO THE DRAINAGE SYSTEM, OR OTHERWISE IMPEDES THE DRAINAGE SYSTEM AS DESCRIBED IN S.3.1. THE CONTRACTOR PERFORMING THE WORK MUST IMMEDIATELY NOTIFY THE CITY, AS WELL AS THE APPROPRIATE FEDERAL AND PROVINCIAL AGENCIES.
- 3. CONTRACTOR TO PROVIDE NAME, SITE CONTACT INFORMATION AND EMAIL ADDRESS OF COMPANY PROVIDING MAINTENANCE & ENVIRONMENTAL MONITORING BEFORE START OF CONSTRUCTION.
- 4. A RECORD OF THE MAINTENANCE PROCEDURES ARE TO BE FILED WITH THE CITY OF COQUITLAM.
- 5. REAL-TIME MONITORING FACILITIES MUST BE INSTALLED AS PER SCHEDULE D OF THE STREAM AND DRAINAGE PROTECTION BYLAW NO. 4403.
- 6. REAL-TIME MONITORING AND ESC FACILITIES MUST BE POWERED BY AN ELECTRICAL SERVICE CONNECTION; ON-SITE GENERATORS MAY NOT BE USED.
- 7. ENVIRONMENTAL MONITORING BY A QUALIFIED ENVIRONMENTAL PROFESSIONAL MUST BE CONDUCTED AT A MINIMUM, WEEKLY DURING WET SEASON (OCTOBER 15 TO MAY 15), BI-WEEKLY DURING DRY SEASON (MAY 16 TO OCTOBER 14). ENVIRONMENTAL MONITORING SHALL ALSO BE CONDUCTED 48 HOURS PRIOR, DURING, AND 24 HOURS AFTER A SIGNIFICANT RAINFALL EVENT, TO ENSURE THAT THE ESC MEASURES ARE WORKING EFFECTIVELY AND THAT THERE IS NO OFF-SITE DISCHARGE OF SEDIMENT-LADEN WATER INTO CITY DRAINAGE INFRASTRUCTURE OR WATERCOURSES.
- 8. MINIMUM REPORTING FREQUENCY WILL BE BI-WEEKLY DURING THE WET SEASON (OCTOBER 15 TO MAY 15), MONTHLY DURING THE DRY SEASON (MAY 16 TO OCTOBER 14), AND WITHIN SEVEN (7) DAYS OF A SIGNIFICANT RAINFALL EVENT.
- 9. INSPECTION OF ESC MEASURES, ASSESSMENT OF INSTALLED ESC MEASURES AND RECOMMENDATIONS OF MAINTENANCE AS REQUIRED.
- 10. FAILURE TO REPORT WILL RESULT IN ISSUANCE OF A STOP WORK ORDER.

ISSUED FOR TENDER DESIGN NO

34092

REV NO. | REVISION DESCRIPTION DATE DRAWN APPR'E 2025/03/18 AA A PRELIMINARY DESIGN TSB B DETAILED DESIGN 2025/07/31 AA ISSUED FOR TENDER AA 2025/10/01

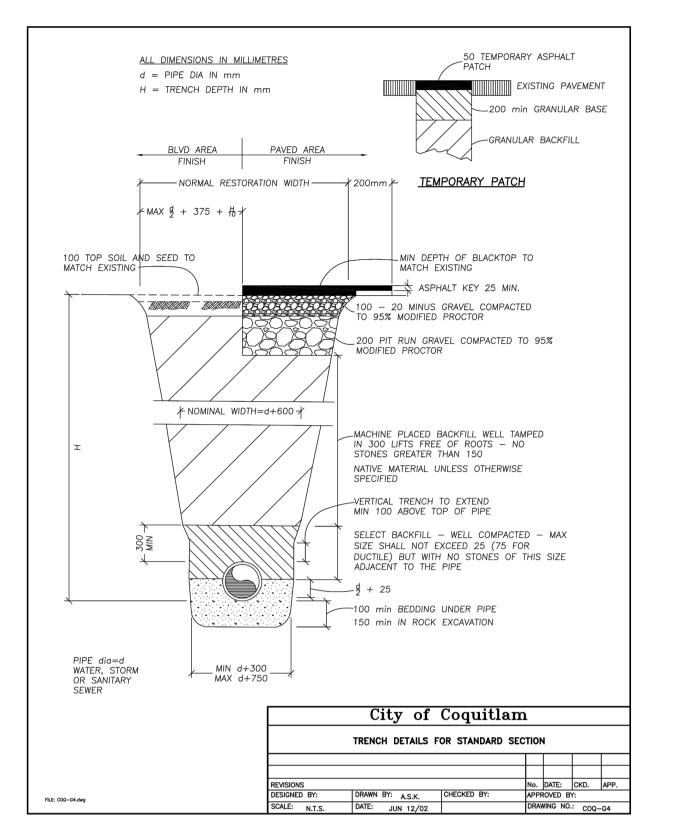




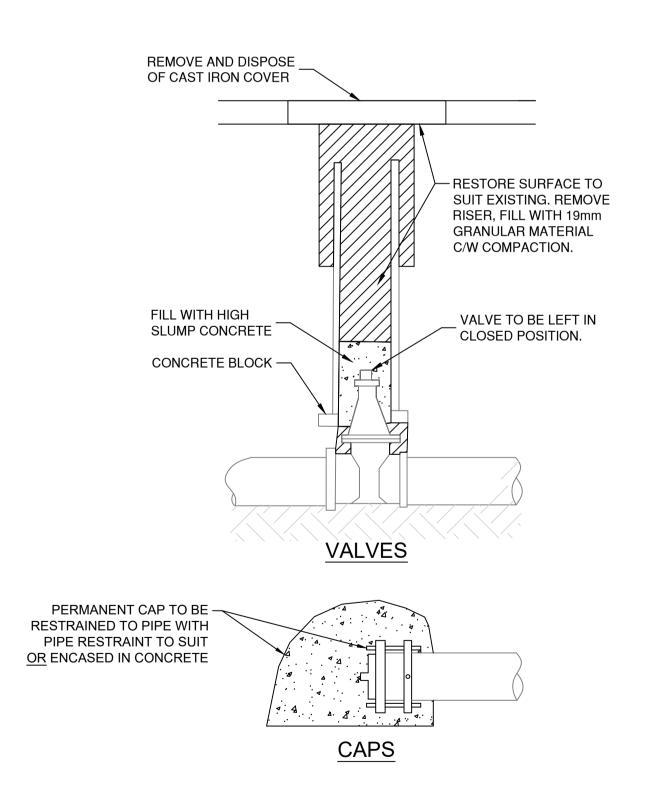




	DESIGN NO.			
SCALE	AS SHOWN	CREATION DATE	FEBRUARY, 2025	DWG. NO.
DRAWN BY	AA	DESIGN BY	AA	01 of
CHECKED BY	TSB	APPROVED BY	TSB	06
PLOT DATE	October 1, 2025			rev. C



DETAIL 1 - TYPICAL TRENCH WATERMAIN



DETAIL 3 - WATERMAIN ASSET ABANDONMENT

TSB

DATE DRAWN APPR'E

AA

AA

AA

2025/03/18

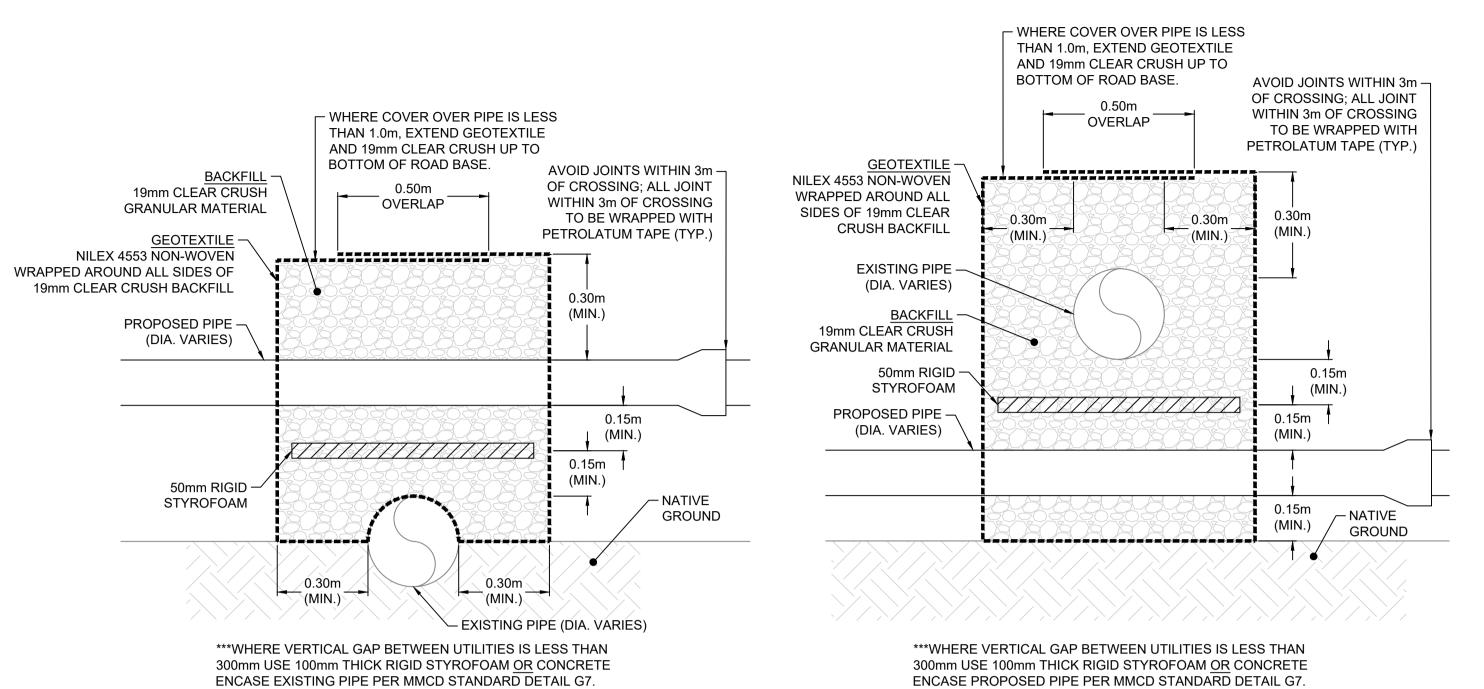
2025/10/01

REV NO. | REVISION DESCRIPTION

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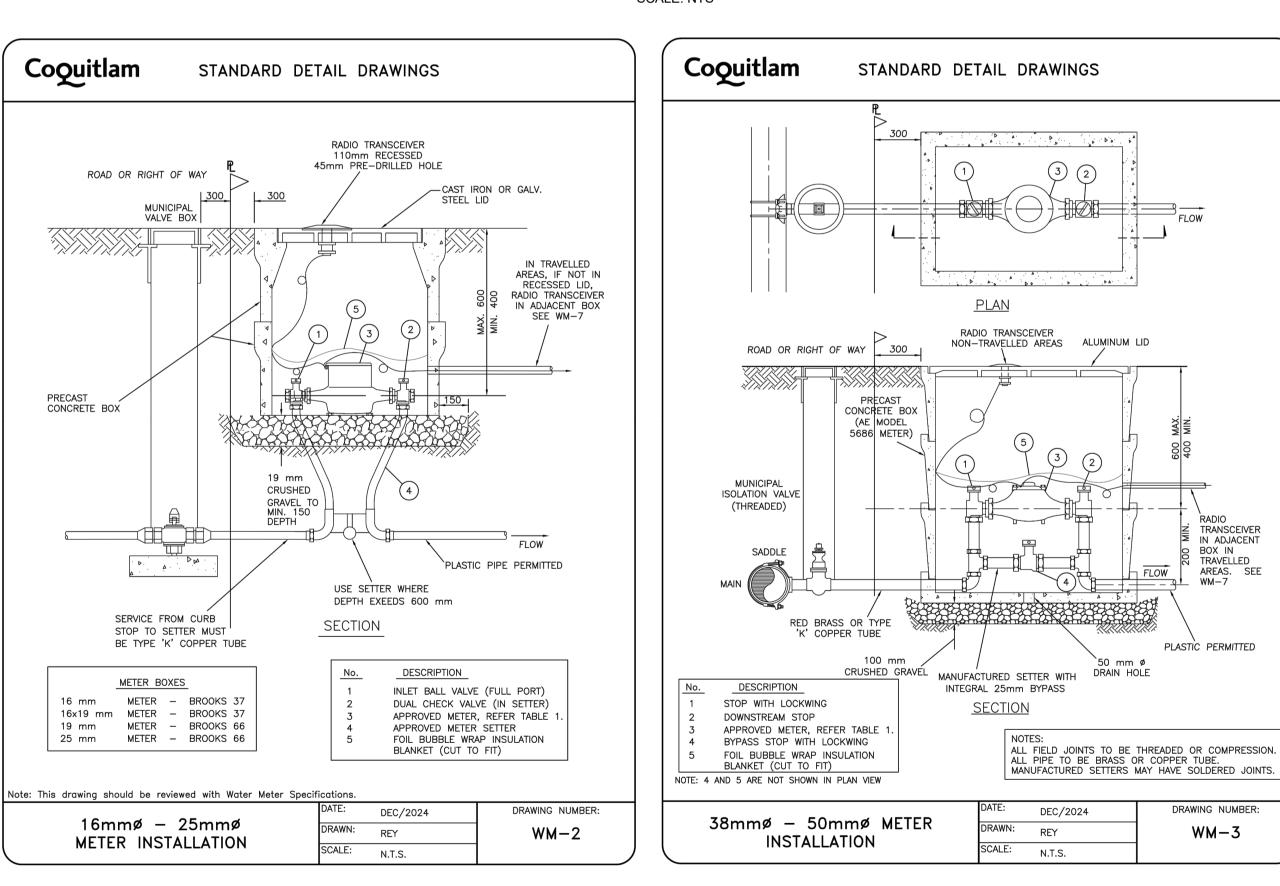
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B DETAILED DESIGN



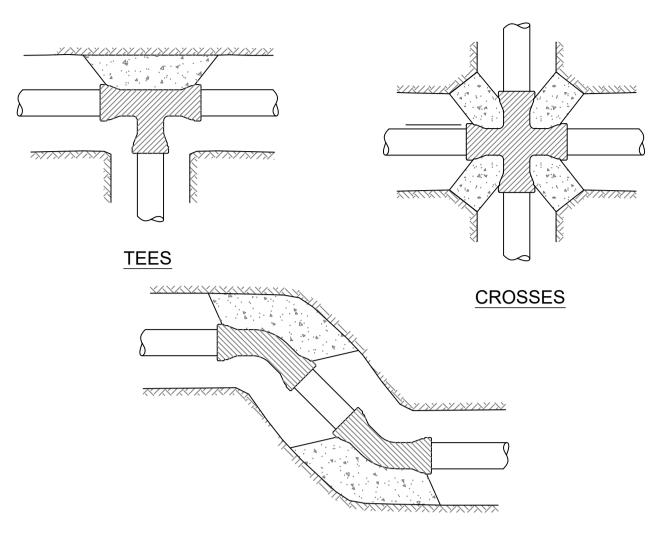
DETAIL 2 - TYPICAL UTILITY CROSSING

BELOW

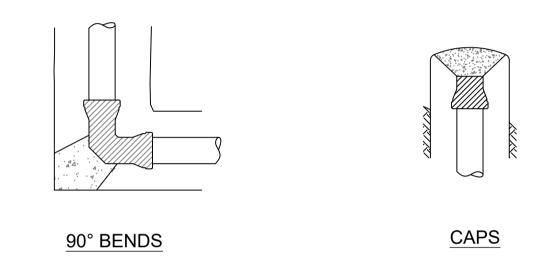


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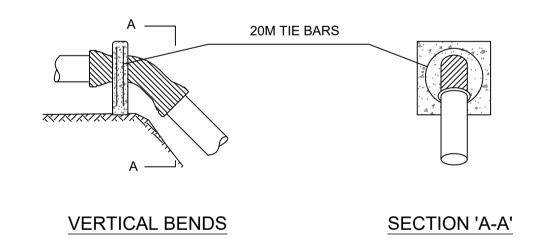
DETAIL 4 - TYPICAL WATER SERVICE



11 1/4°, 22 1/2°, 45° BENDS



GENERAL ARRANGEMENTS - PLAN VIEWS



GENERAL ARRANGEMENTS - ELEVATIONS

NOTE:

- 1. PLACE 6 mil POLYETHYLENE ON INTERFACE BETWEEN CONCRETE AND FITTING.
- 2. PLACE 20 MPa CONCRETE AGAINST UNDISTURBED GROUND; KEEP CONCRETE CLEAR OF FITTING JOINTS. REFER TO CONTRACT DOCUMENTS AND SECTIONS 33 11 16 FOR DETAILED SPECIFICATIONS.

DETAIL 5 - TYPICAL THRUST BLOCK ARRANGEMENTS

ISSUED FOR TENDER

34092

Coouitlam

WATER WORKS TYPICAL DETAILS



TRANSCEIVER IN ADJACENT

BOX IN TRAVELLED

PLASTIC PERMITTED

DRAWING NUMBER:

WM-3

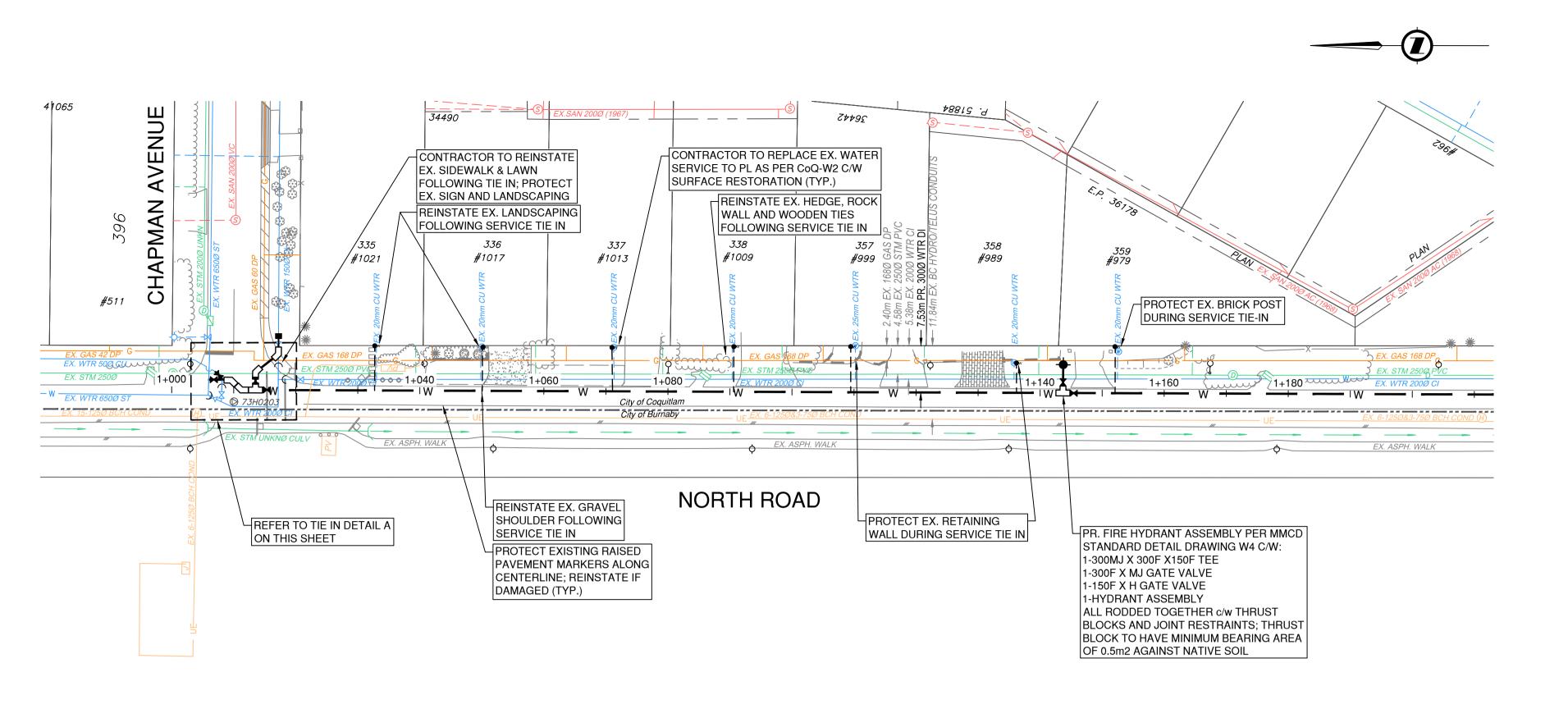
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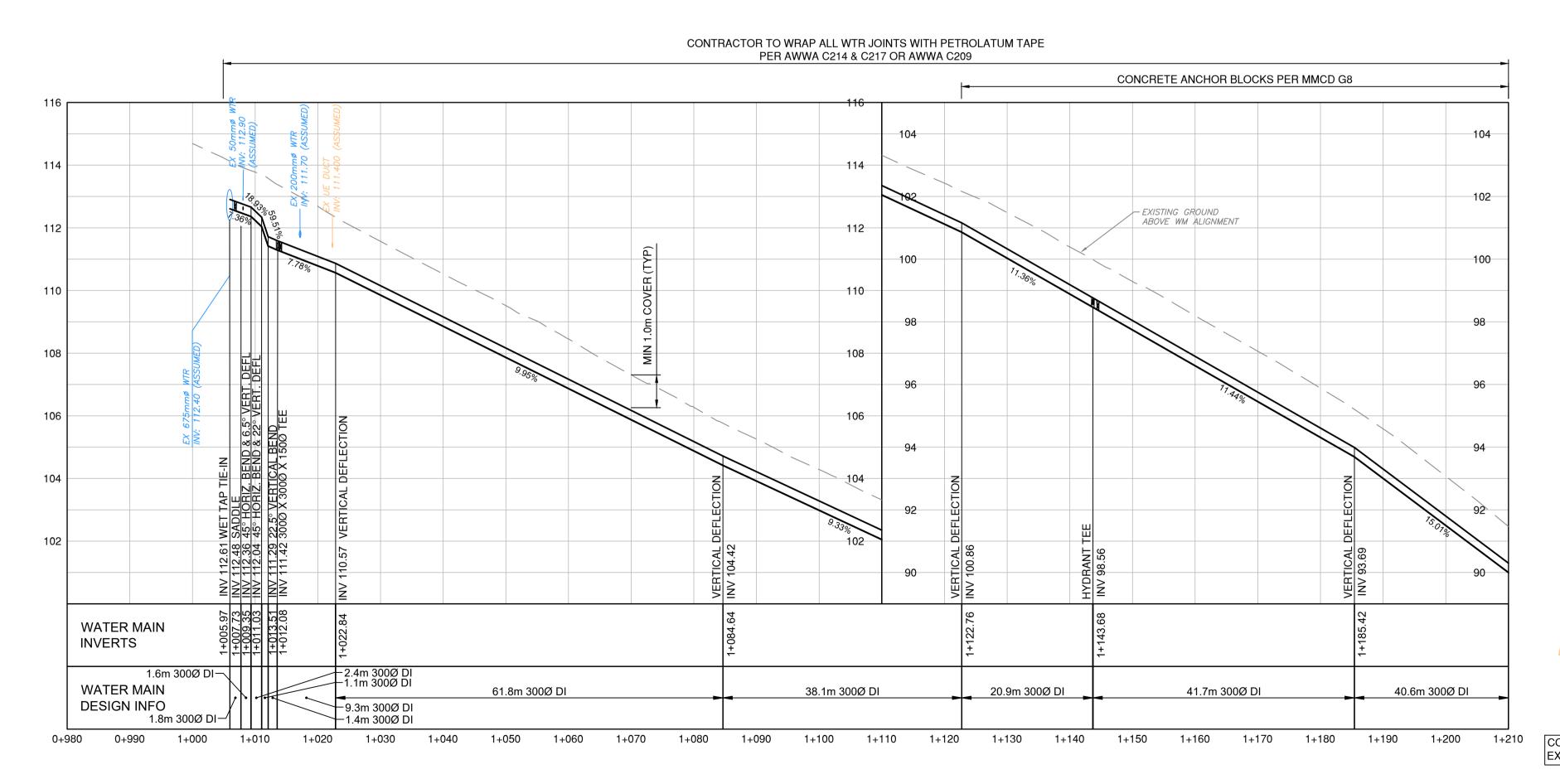
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DESIGN NO. CREATION DATE FEBRUARY, 2025 AS SHOWN DRAWN BY AA **DESIGN BY** 06 CHECKED BY TSB APPROVED BY rev. C PLOT DATE October 1, 2025

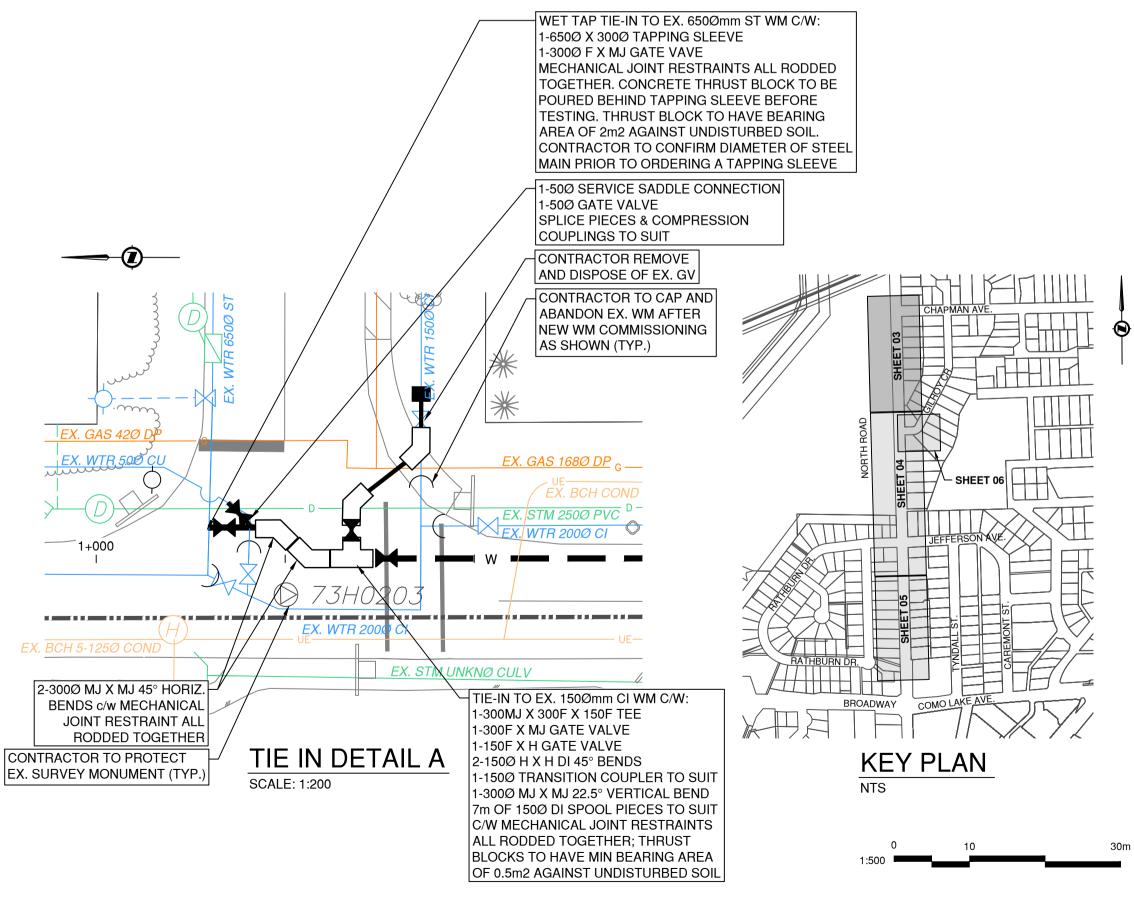


PLAN SCALE: 1:500



- 1. REFER TO COVER SHEET FOR SURVEY CONTROL.
- 2. REFER TO SHEETS 01 AND 02 FOR WATERMAIN CONSTRUCTION NOTES AND TYPICAL
- 3. ALL SERVICE CROSSINGS TO BE PRELOCATED PRIOR TO CONSTRUCTION AND ENGINEER TO BE NOTIFIED OF ANY DISCREPANCIES.
- 4. ALL EXISTING WATERMAIN TIE INS, POWER CONDUITS AND DUCTS ARE TO BE PRELOCATED WITH HYDROVAC PRIOR TO CONSTRUCTION TO CONFIRM DEPTH OF COVER. ENGINEER TO BE NOTIFIED OF ANY DISCREPANCIES.
- 5. PROPOSED HYDRANT LOCATIONS TO BE CONFIRMED ON SITE. ENGINEER TO BE NOTIFIED OF ANY RELOCATIONS.
- 6. ALL PROPOSED WATERMAINS TO BE DI TR-FLEX (PC350 / SC52).
- 7. PROPOSED WATERMAIN TO BE INSTALLED WITH POLYETHYLENE V-BIO ENCASEMENT WRAP PER ANSI/AWWA C105/A21.5 ALONG THE WHOLE RUN.
- 8. WHERE THE WATERMAIN IS LESS THAN 0.5m ABOVE A STORM OR SANITARY SEWER OR 3.0m HORIZONTAL SEPARATION IS NOT POSSIBLE THE WATERMAIN JOINTS ARE TO BE WRAPPED WITH HEAT SHRINK PLASTIC, OR PACKED WITH INERT PETROLATUM COMPOUND AND WRAPPED IN TAPE IN ACCORDANCE WITH MINISTRY OF HEALTH STANDARDS; ANSI/AWWA C214, C217 OR AWWA C209.
- 9. ALL SERVICE CONNECTIONS TO BE INSTALLED IN ACCORDANCE WITH STANDARD DETAIL COQ-W2 & W3 ON SHEET 02 C/W TRACER WIRE AND CURB STOP IN BROOKS BOX C/W STEEL LID AT PROPERTY LINE.
- 10. SERVICES TO HAVE SADDLES OR TEES. NO DIRECT TAPS TO MAIN ALLOWED.
- 11. RETURN ALL REPLACED HYDRANTS AND REMOVED VALVES TO CITY WORKS YARD.
- 12. ARBORIST SUPERVISION REQUIRED WHILE WORKING IN A DRIP LINE OF EXISTING TREES OR WHERE IDENTIFIED IN THE DRAWINGS. CONTRACTOR TO PROVIDE ARBORIST SERVICES AND REPORTING AS REQUIRED.

WATER SERVICE CONNECTIONS				
PROPERTY	EX. PROPERTY OFFSET	EX. SERVICE	COMMENTS	
#1021	12.38m S OF N PL	20mm CU (UNKN AGE)	REPLACE TO PL (PER COQ-W2)	
#1017	9.28m S OF N PL	20mm CU (FEB 2002)	REPLACE TO PL (PER COQ-W2)	
#1013	8.07m N OF S PL	20mm CU (DEC 1967)	REPLACE TO PL (PER COQ-W2)	
#1009	9.63m N OF S PL	20mm CU (UNKN AGE)	REPLACE TO PL (PER COQ-W2)	
#999	7.04m N OF S PL	25mm CU (SEPT 2013)	REPLACE TO PL (PER COQ-W2)	
#989	14m S OF N PL	20mm CU (APR 1971)	REPLACE TO PL (PER COQ-W2)	
#979	7.64m S OF N PL	20mm CU (JAN 1971)	REPLACE TO PL (PER COQ-W2)	



PROFILE
SCALE: 1:500H / 1:50

DATE DRAWN APPR'E TSB Coouitlam

REV NO. | REVISION DESCRIPTION

A PRELIMINARY DESIGN

ISSUED FOR TENDER

B DETAILED DESIGN

2025/03/18

2025/10/01

AA

AA

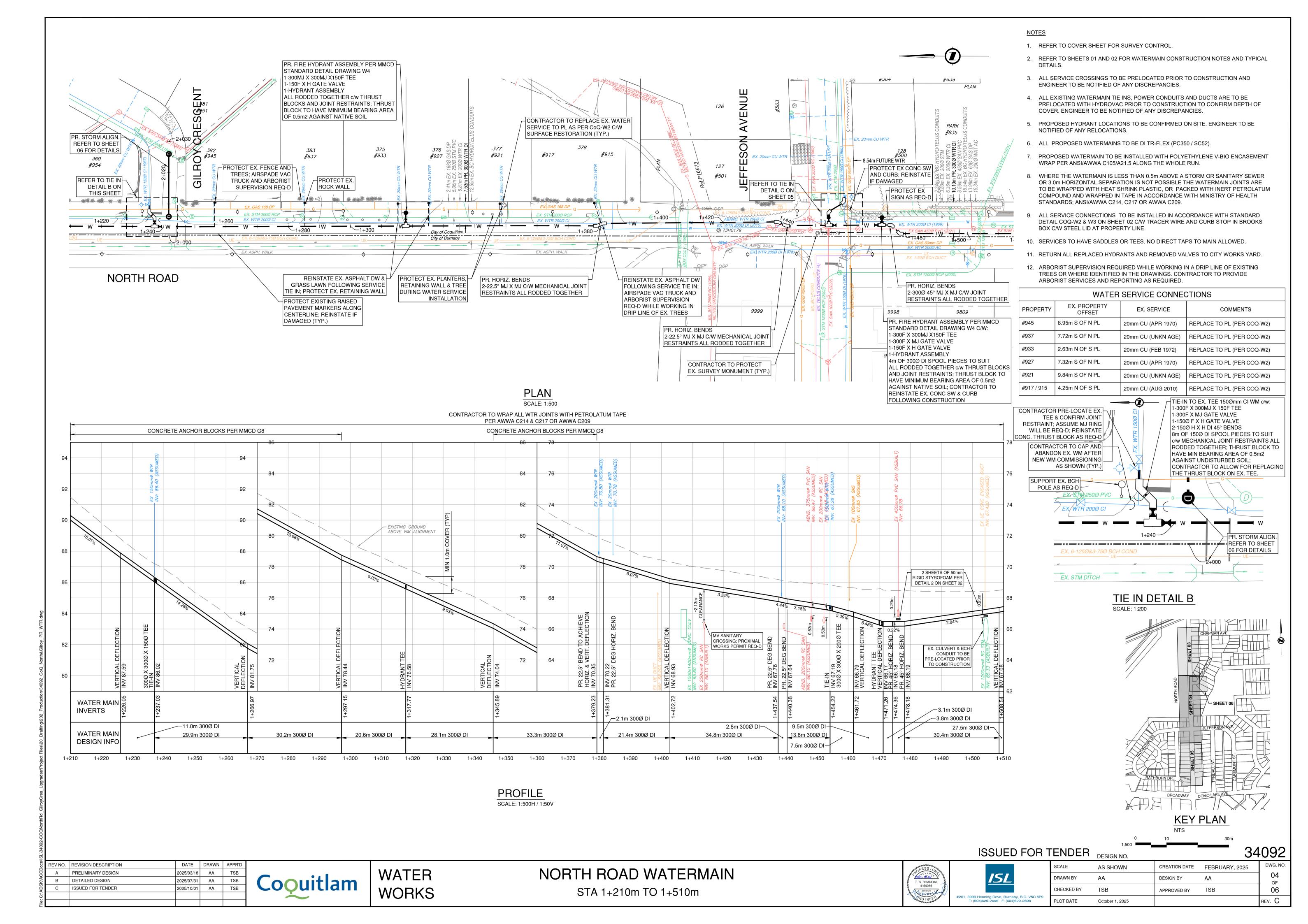
WATER

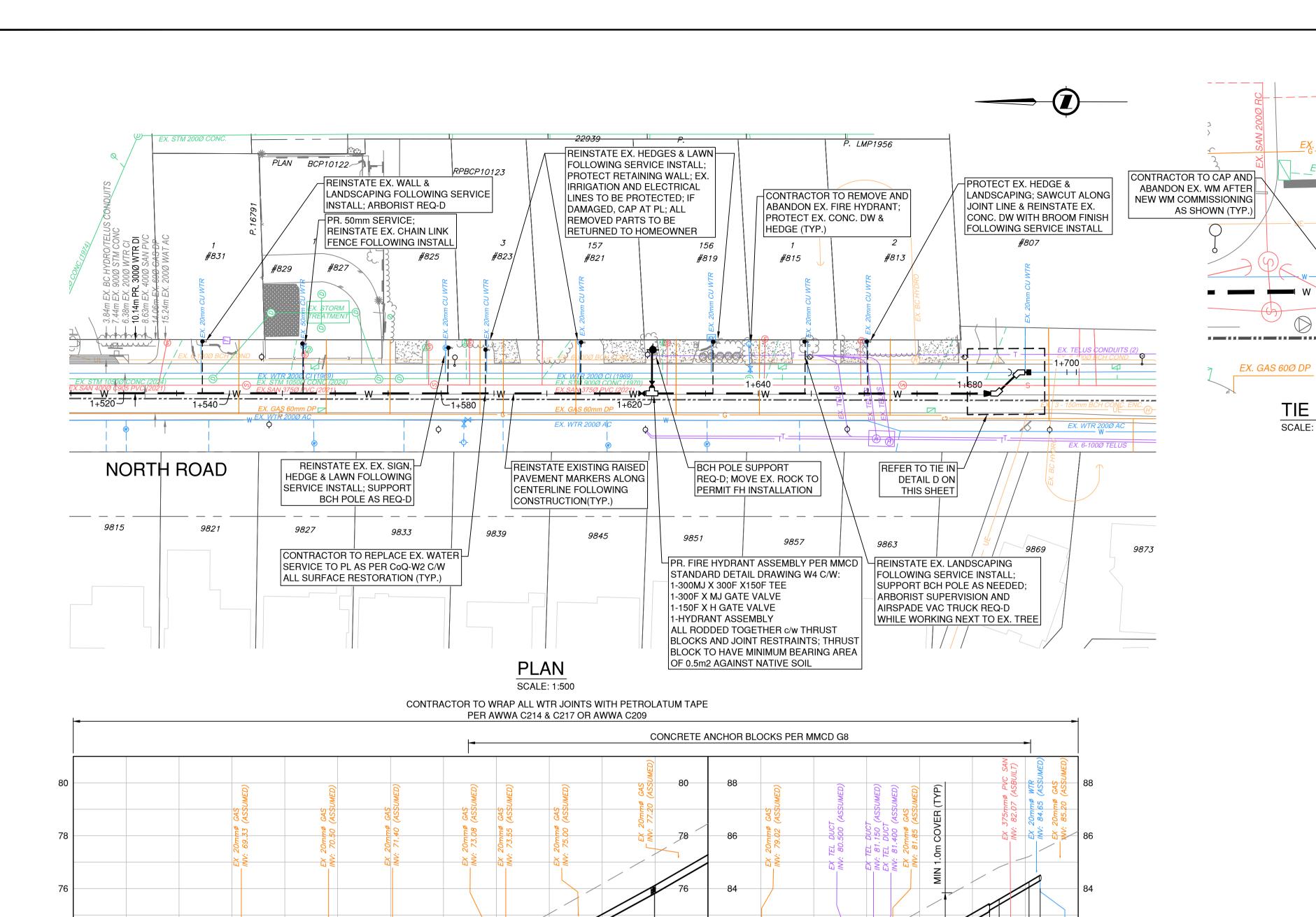
NORTH ROAD WATERMAIN STA 1+000m TO 1+210m





ISSUED FOR T	TENDER	DESIGN NO.		34	1092
	SCALE	AS SHOWN	CREATION DATE	FEBRUARY, 2025	DWG. NO.
<i>ISL</i>	DRAWN BY	AA	DESIGN BY	AA	03 of
	CHECKED BY	TSB	APPROVED BY	TSB	06
999 Henning Drive, Burnaby, B.C. V5C 6P9 : (604)629-2696 F: (604)629-2698	PLOT DATE	October 1, 2025			rev. C





82

76

74

72

70

1+620

<u>NOTES</u>

CONTRACTOR PRE-LOCATE TEE & CONFIRM JOINT RESTRAINTS; REMOVE

EX. GATE VALVE & TIE-IN TO EX. TEE ASSUME MJ RING WILL BE REQ-D

CONSTRUCTION (TYP.)

EX. BCH 6-125Ø& 3-75Ø COND

Lundunden

EX. SAN 450Ø PVC

1-300MJ X 300F X 200F TEE

I-200Ø F X 150Ø H REDUCER 2-150Ø H X H DI 45° BENDS

1-300Ø FXMJ GATE VALVE

1-200Ø FXF GATE VALVE

TIE IN DETAIL C

SCALE: 1:200

TIE-IN TO EX. TEE OF 150Ømm CI WM C/W:

11m OF 150Ø DI SPOOL PIECES TO SUIT

MIN BEARING AREA OF 1m2 AGAINST

C/W MECHANICAL JOINT RESTRAINTS ALL

RODDED TOGETHER; THRUST BLOCK TO HAVE

UNDISTURBED SOIL; CONTRACTOR TO ALLOW FOR REPLACING THE THRUST BLOCK ON EX. TEE.

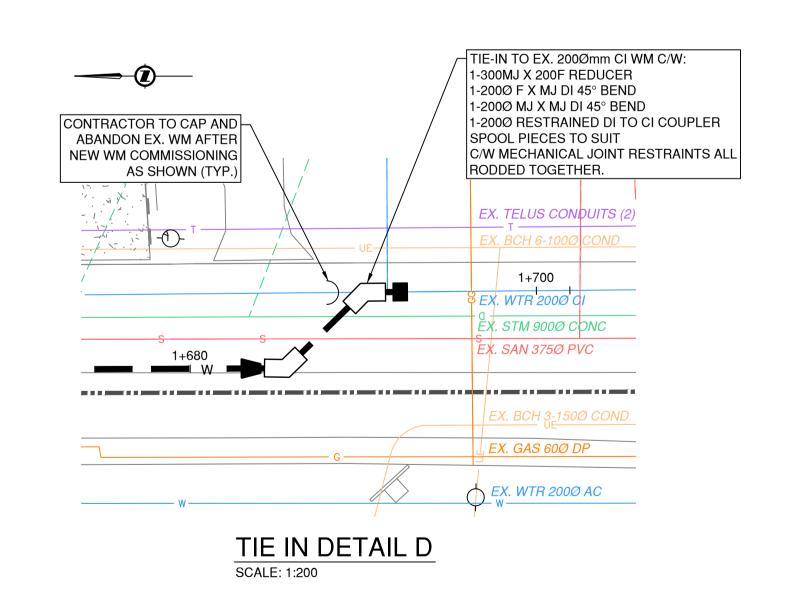
EX. STM 3000

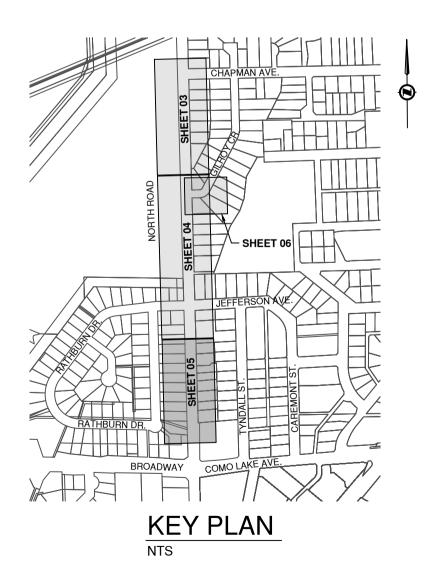
CONTRACTOR TO PROTECT EX.

CONC SW AND CURB DURING

- REFER TO COVER SHEET FOR SURVEY CONTROL.
- REFER TO SHEETS 01 AND 02 FOR WATERMAIN CONSTRUCTION NOTES AND TYPICAL
- ALL SERVICE CROSSINGS TO BE PRELOCATED PRIOR TO CONSTRUCTION AND ENGINEER TO BE NOTIFIED OF ANY DISCREPANCIES.
- 4. ALL EXISTING WATERMAIN TIE INS, POWER CONDUITS AND DUCTS ARE TO BE PRELOCATED WITH HYDROVAC PRIOR TO CONSTRUCTION TO CONFIRM DEPTH OF COVER. ENGINEER TO BE NOTIFIED OF ANY DISCREPANCIES.
- PROPOSED HYDRANT LOCATIONS TO BE CONFIRMED ON SITE. ENGINEER TO BE NOTIFIED OF ANY RELOCATIONS.
- 6. ALL PROPOSED WATERMAINS TO BE DI TR-FLEX (PC350 / SC52).
- PROPOSED WATERMAIN TO BE INSTALLED WITH POLYETHYLENE V-BIO ENCASEMENT WRAP PER ANSI/AWWA C105/A21.5 ALONG THE WHOLE RUN.
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- 9. ALL SERVICE CONNECTIONS TO BE INSTALLED IN ACCORDANCE WITH STANDARD DETAIL COQ-W2 & W3 ON SHEET 02 C/W TRACER WIRE AND CURB STOP IN BROOKS BOX C/W STEEL LID AT PROPERTY LINE.
- 10. SERVICES TO HAVE SADDLES OR TEES. NO DIRECT TAPS TO MAIN ALLOWED.
- 11. RETURN ALL REPLACED HYDRANTS AND REMOVED VALVES TO CITY WORKS YARD.
- 12. ARBORIST SUPERVISION REQUIRED WHILE WORKING IN A DRIP LINE OF EXISTING TREES OR WHERE IDENTIFIED IN THE DRAWINGS. CONTRACTOR TO PROVIDE ARBORIST SERVICES AND REPORTING AS REQUIRED.

WATER SERVICE CONNECTIONS				
PROPERTY	EX. PROPERTY OFFSET	EX. SERVICE	COMMENTS	
#831	8.17m S OF N PL	20mm CU (MAY 1970)	REPLACE TO PL (PER COQ-W2)	
#829 / 827	7.21m S OF N PL	50mm CU (2024)	REPLACE TO PL (PER COQ-W3)	
#825	2.5m N OF S PL	20mm CU (OCT 2005)	REPLACE TO PL (PER COQ-W2)	
\$ 823	5.2m S OF N PL	20mm CU (MAY 2005)	REPLACE TO PL (PER COQ-W2)	
#821	7.78m S OF N PL	20mm CU (JULY 1992)	REPLACE TO PL (PER COQ-W2)	
\$ 819	9.11m N OF S PL	20mm CU (UNKN AGE)	REPLACE TO PL (PER COQ-W2)	
#815	10.85m S OF N PL	20mm CU (UNKN AGE)	REPLACE TO PL (PER COQ-W2)	
\$ 813	5.67m S OF N PL	20mm CU (UNKN AGE)	REPLACE TO PL (PER COQ-W2)	
	<u> </u>			





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2.1m 200Ø DI-

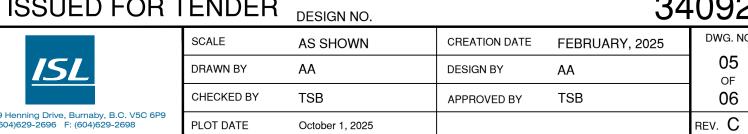
5.6m 200Ø DI-1.9m 200Ø DI-

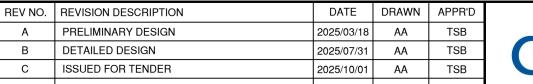
1+670

63.3m 300Ø DI









- EXISTING GROUND

WATER MAIN **INVERTS**

WATER MAIN

DESIGN INFO

ABOVE WM ALIGNMENT

27.5m 300Ø DI

1+550



23.1m 300Ø DI

VERTICAL INV 72.09

WATER WORKS

34.0m 300Ø DI

PROFILE

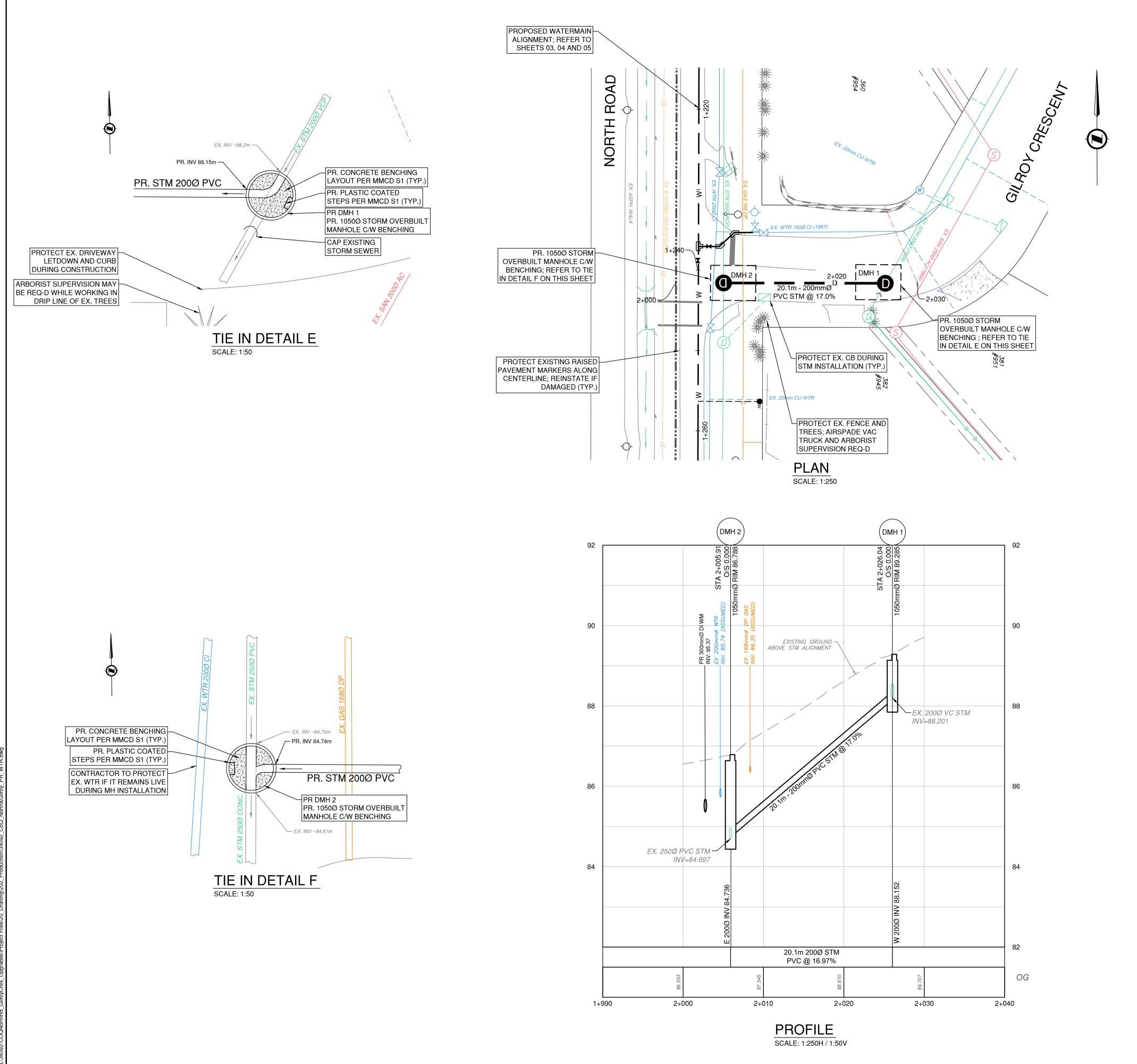
SCALE: 1:500H / 1:50V

NORTH ROAD WATERMAIN

o DEG HORIZ. BEND 4.05 1.25 TIE-IN

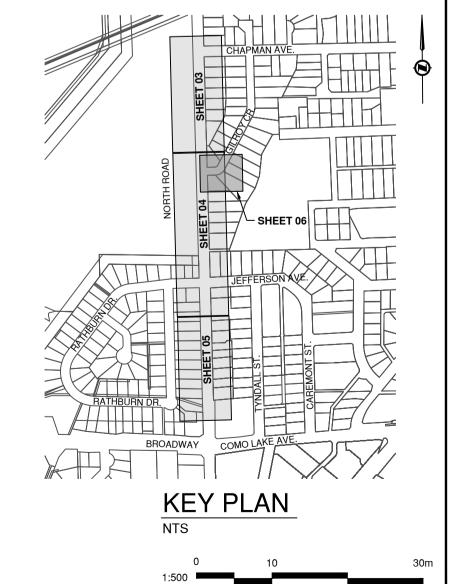
1+690

PR. 300F X 2 INV 83.37 INV 83.39 PF PR. 45° DEG INV 84.05 INV 84.25 TIII



<u>NOTES</u>

- 1. REFER TO COVER SHEET FOR SURVEY CONTROL.
- 2. ALL CROSSINGS AND TIE-IN LOCATIONS TO BE PRELOCATED PRIOR TO CONSTRUCTION AND ENGINEER TO BE NOTIFIED OF ANY DISCREPANCIES.
- 3. EXISTING WATERMAIN, POWER CONDUITS AND DUCTS ARE TO BE PRELOCATED WITH HYDROVAC PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY DISCREPANCIES.
- 4. ALL PROPOSED STORM SEWER PIPES TO BE PVC DR28 AS SHOWN.
- 5. MANHOLES SHALL BE INSTALLED AS PER MMCD STANDARD DRAWINGS S1 AND S2. BENCHING SHALL BE AS PER MMCD STANDARD DRAWING S3. MANHOLE FRAMES AND COVERS SHALL CONFORM TO CITY OF COQUITLAM STANDARD DRAWING COQ-S16.
- 6. TRENCHING SHALL BE AS PER CITY OF COQUITLAM STANDARD DRAWING COQ-G4.
- 7. SURFACE RESTORATION IS INCIDENTAL, CONTRACTOR TO RESTORE ALL SURFACES TO THE SAME OR BETTER CONDITION. ASPHALT RESTORATION PER STANDARD SECTION COQ-G4 C/W ASPHALT KEY (200mm WIDE)
- 8. ARBORIST SUPERVISION REQUIRED WHILE WORKING IN A DRIP LINE OF EXISTING TREES OR WHERE IDENTIFIED IN THE DRAWINGS. CONTRACTOR TO PROVIDE ARBORIST SERVICES AND REPORTING AS REQUIRED.



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REV NO. | REVISION DESCRIPTION

A ISSUED FOR TENDER