

# RESORT MUNICIPALITY OF WHISTLER

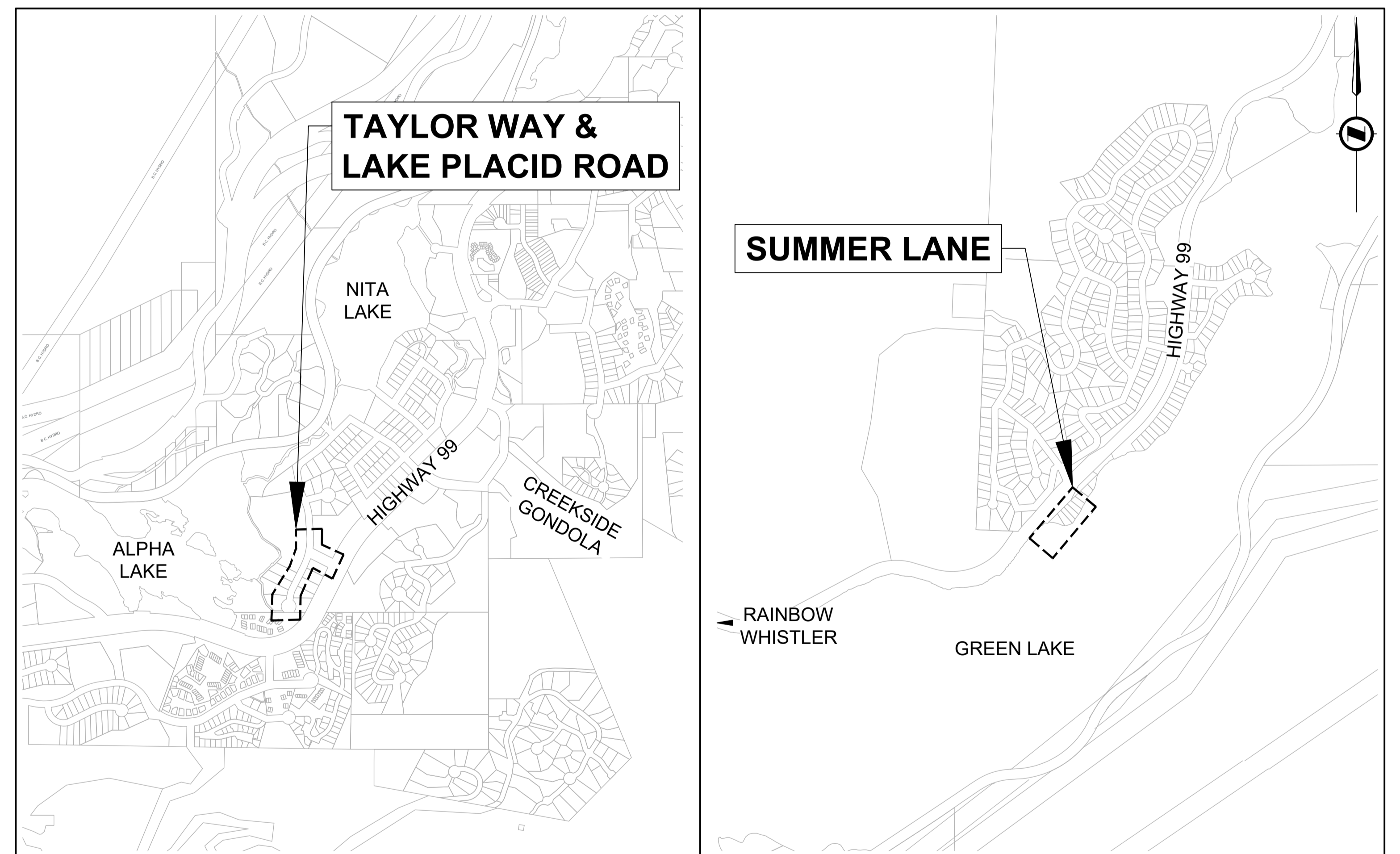
## 2024 WATERMAIN UPGRADES

ISSUED FOR TENDER

January 2024

WHISTLER, BRITISH COLUMBIA

DRAWING LIST	
SHEET NUMBER	SHEET TITLE
00	COVER
01	NOTES
02	DETAILS
TAYLOR WAY & LAKE PLACID ROAD	
03	TAYLOR WAY PHASING PLAN
04	LAKE PLACID ROAD PHASING PLAN
05	WATERMAIN PLAN / PROFILE 0+000 - 0+076
06	WATERMAIN PLAN / PROFILE 1+000 - 1+120
07	WATERMAIN PLAN / PROFILE 1+120 - 1+220
SUMMER LANE	
08	WATERMAIN PLAN / PROFILE 2+000 - 2+080



LOCATION PLAN



#101 - 38026 Second Avenue Squamish, BC V8B 0C3  
T: (604)815-4646 F: (604)815-4647



2023-12-21

33516

REV. 2

**GENERAL NOTES:**

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH:
  - THE MASTER MUNICIPAL CONSTRUCTION DOCUMENT AND STANDARD DETAIL DRAWINGS (MMCD 2009), (PLATINUM EDITION) AND RESORT MUNICIPALITY OF WHISTLER DETAILED DRAWINGS UNLESS OTHERWISE NOTED;
  - CONSTRUCTION PLANS, ACCEPTED AND SIGNED BY THE RESORT MUNICIPALITY OF WHISTLER;
  - APPLICABLE CONTRACT DOCUMENTS AND ALL SPECIFICATIONS REFERENCED THEREIN;
  - WORKSAFE BC, LATEST EDITION.

THE CONTRACTOR SHALL MAINTAIN ON SITE COPIES OF THE ABOVE DOCUMENTS AND SHALL ENSURE THAT ALL SUB CONTRACTORS ARE THOROUGHLY FAMILIAR WITH THE APPLICABLE SECTIONS OF THE DOCUMENTS.
- THE CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING STREETS, SERVICES, SIGNS, FENCES, LANDSCAPING, BOULEVARDS, CURBS, GUTTERS, SIDEWALKS, DRIVEWAY LETDOWNS, PRIVATE LANDSCAPING, OR PRIVATE IMPROVEMENTS THAT MAY BE DAMAGED AS A RESULT OF CONSTRUCTION. REPAIRS TO EXISTING RMOW SERVICES SUCH AS WATER, SANITARY SEWER, STORM SEWER, AND STREET OR TRAFFIC LIGHTING SHALL BE MADE AT COST TO THE CONTRACTOR. REPAIRS TO EXISTING SURFACE WORKS TO BE DONE BY THE CONTRACTOR AT THE DISCRETION OF THE CONTRACT ADMINISTRATOR.
- 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 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.
- REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION TO ENSURE THAT THE LINE AND GRADE OF THE PROPOSED WATERMAIN CAN BE ADJUSTED TO SUIT FIELD CONDITIONS AS REQUIRED.
- RESTORATION OF EXISTING DRIVEWAYS, CURBS AND WALKWAYS TO CONFORM TO THE RMOW SPECIFICATIONS AND TO BE INCIDENTAL TO THE UNIT PRICES IN THE CONTRACT FOR MAINLINE AND SERVICE CONNECTIONS.
- 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 IN OWNERS PROPERTY UPON THEIR REQUEST.
- 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 RMOW AT LEAST 72 HOURS IN ADVANCE OF SCHEDULING WORK.
- SURVEY PINS DISTURBED DURING THE COURSE OF CONSTRUCTION SHALL BE REPLACED BY A B.C. LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- ALL ELEVATIONS ARE GEODETIC AND REFERENCED TO INTEGRATED SURVEY MONUMENT ELEVATIONS LOCATED ON ROAD RIGHT-OF-WAYS.
- ALL PUBLIC ROADWAYS AFFECTED BY THE WORKS SHALL BE KEPT IN A CLEAN STATE AT ALL TIMES AND FREE OF EQUIPMENT AND MATERIALS AT ALL TIMES WHEN CONSTRUCTION ACTIVITY IS NOT UNDERWAY. DUST CONTROL MEASURES SHALL ALSO BE EMPLOYED.
- 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 ENGINEER A MINIMUM OF 72 HOURS PRIOR, AND OBTAIN APPROVAL FOR THE DISRUPTION.
- ALL DISTURBED AND GRASS AREAS TO BE REINSTATED WITH 150mm TOPSOIL AND HYDROSEEDDED TO EXISTING OR BETTER CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR A 1 YEAR MAINTENANCE PERIOD INCLUDING MOWING AND IRRIGATION.
- THE CONTRACTOR SHALL FIELD LAYOUT THE NEW SERVICES FOR CONFIRMATION BY ENGINEER PRIOR TO INSTALLATION.
- CONTRACTOR NOT TO OPEN OR CLOSE ANY VALVES ON RMOW WATER SYSTEM. ALL VALVE OPERATIONS BY RMOW.
- CONTRACTOR IS REQUIRED TO OBTAIN HYDRANT USE PERMIT FROM RMOW FOR ALL HYDRANT USE.
- CALL RMOW IMMEDIATELY IN CASE OF EMERGENCY OR BROKEN SERVICES ON WATERMAIN, CONTACT ENVIRONMENTAL OPERATIONS 604-935-8300
- THE CONTRACTOR IS TO CARRY OUT THE BEST MANAGEMENT PRACTICES FOR SEDIMENT CONTROL DURING THE CONSTRUCTION OF THE WORK. AT NO TIME MAY CONSTRUCTION DEBRIS BE ALLOWED TO ENTER THE DITCHES ALONG THE CONSTRUCTION ZONE AS THESE ARE FISH BEARING DITCHES. CONTRACTOR IS TO INSTALL SILT FENCING AS REQUIRED OR AS DIRECTED BY ENGINEER WHEN TRENCH LINE IS WITHIN 1M OF TOP OF DITCH.

**WATERMAIN NOTES:**

- ALL NEW WATERMAINS SHALL BE PVC C900 DR18 AND INSTALLED WITH 1.8m MINIMUM COVER UNLESS OTHERWISE NOTED. ALL WATERMAINS NOT MEETING THE REQUIRED 1.8m MINIMUM COVER SHALL BE INSTALLED WITH 100mm STYROFOAM SM.
- ALL FITTINGS ARE TO BE STANDARD DUCTILE IRON FITTINGS TO AWWA C153 CEMENT MORTOR LINED AS PER MMCD SPECIFICATIONS AND FULLY PROTECTED WITH DENSO PRIMER, MASTIC AND TAPE PER MANUFACTURER'S SPECIFICATIONS.
- MECHANICALLY RESTRAIN FULL LENGTH UNIFLANGE 1300/1390 SERIES c/w PIPE ANCHOR BLOCKS PER RMOW STD DWG G8 WHERE PIPE GRADE IS 10% OR MORE. ALL RESTRAINERS, TIE-RODS, BOLTS AND NUTS ARE TO BE FULLY PROTECTED WITH DENSO PRIMER, MASTIC AND TAPE PER MANUFACTURER'S SPECIFICATIONS.
- NO CHANGES TO BE MADE TO PIPE FITTINGS OR ALIGNMENTS WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE CONTRACT ADMINISTRATOR.
- THE CONTRACTOR IS TO EXPOSE EXISTING WATERMAINS AND WATER SERVICES AT TIE-IN LOCATION AND ALL EXISTING UTILITIES IN BETWEEN. UTILITY DEPTHS ARE TO BE RECORDED AND FORWARDED TO THE CONTRACT ADMINISTRATOR FOR REVIEW PRIOR TO CONSTRUCTION.
- ASSURANCE OF PROTECTION OF THE WATERMAIN AS PER VANCOUVER COASTAL HEALTH
 

PARALLEL LINES: WATERMAINS SHOULD BE LAID AT LEAST 3m HORIZONTALLY FROM ANY SANITARY OR STORM SEWER. WHERE THIS HORIZONTAL SEPARATION IS NOT POSSIBLE, THE BOTTOM OF THE WATERMAIN SHOULD BE AT LEAST 450mm ABOVE THE TOP OF THE SEWER AND SUFFICIENTLY TO ONE SIDE OF THE SEWER TO ALLOW FOR SEWER REPAIRS WITHOUT DISTURBING THE WATERMAIN. IF THIS VERTICAL SEPARATION IS NOT POSSIBLE, THE SEWER SHOULD BE OF THE SAME SERVICE CAPABILITY AS THE WATERMAIN, WITH PRESSURE CLASS JOINTS DESIGNED TO REMAIN WATERTIGHT IF THE GROUNDWATER TABLE PERIODICALLY RISES ABOVE THE SEWER, AND ARE TO BE PRESSURE TESTED BEFORE BACKFILLING. OTHER PRECAUTIONS, SUCH AS A WATERMAIN WITH IMPROVED JOINTS AND HIGHER STRENGTH MAY BE NEEDED. WHERE A WATERMAIN IS LAID WITHIN 3m OF EXISTING SANITARY OR STORM SEWER, A NILEX LLDPE 30 mil GEOMEMBRANE OR SIMILAR APPROVED MUST BE PLACED CONTINUOUSLY ALONG TRENCH TO PROVIDE A HYDRAULIC BARRIER.

CROSSINGS: WHERE A WATERMAIN CROSSES A SANITARY OR STORM SEWER, THE LINES SHOULD BE LAID WITH THE WATERMAIN CROSSING OVER THE SEWER AND WITH THE MIDDLE OF PIPE LENGTHS LOCATED AT THE CROSSING POINT, TO MAXIMIZE THE SEPARATION BETWEEN JOINTS. WHERE A MINIMUM 3m JOINT SEPARATION AND/OR 450mm CLEAR VERTICAL SEPARATION IS NOT POSSIBLE AT THE CROSSING, PRECAUTIONS TO IMPROVE WATER TIGHTNESS OF THE SEWER JOINTS AND STRUCTURAL IMPROVEMENTS SUCH AS HIGHER STRENGTH WATERMAIN AND/OR SEWER AT THE CROSSING AREA MAY BE NEEDED. SLEEVING, PIPE BRIDGING OR OTHER SUITABLE MEASURES MAY BE CONSIDERED. ALL JOINTS WITHIN 3m OF THE CROSSING SHOULD BE WRAPPED WITH T.C. ENVIROTAPE (50mm), MANUFACTURED BY TAPECOAT CANADA INC. TRENTON TEC-TAPE OR APPROVED EQUIVALENT, OR WATERMAIN SHOULD BE CONSTRUCTED USING A JOINLESS PIPE TO REMOVE ANY JOINTS WITHIN 3m OF THE CROSSING. BOTTOM OF THE WATERMAIN MUST HAVE MINIMUM 150MM CLEARANCE FROM TOP OF THE SANITARY OR STORM SEWER BEING CROSSED. WHERE A WATERMAIN IS LAID BELOW A SANITARY OR STORM SEWER, PIPEWORK WITHIN 3m OF THE CROSSING POINT MUST BE PROVIDED WITH A NILEX LLDPE 30 mil GEOMEMBRANE OR SIMILAR APPROVED FOR FULL WIDTH OF THE TRENCH AS A HYDRAULIC BARRIER IN ADDITION TO WRAPPING JOINTS OR USING A JOINLESS PIPE FOR BOTH WATERMAIN AND SEWER. TOP OF THE WATERMAIN MUST HAVE MINIMUM 150MM CLEARANCE FROM BOTTOM OF THE SANITARY OR STORM SEWER BEING CROSSED.

ALL JOINTS WITHIN 3M OF THE CROSSING OR WITHIN 3M OF A SANITARY SEWER, STORM SEWER OR DRAINAGE DITCH SHOULD BE WRAPPED WITH HEAT SHRINK PLASTIC OR PACKED WITH INERT PETROLATUM COMPOUND AND WRAPPED WITH TAPE BASED ON THE FOLLOWING STANDARDS: ANSIIAWWA C214 (FACTORY APPLIED), ANSIIAWWA C209 (FIELD APPLIED), ANSIIAWWA C217-90 (PETROLATUM TAPE). ALL MATERIALS USED ARE TO HAVE ZERO HEALTH HAZARD RATING.
- FOR SERVICE CONNECTIONS, WHEREVER POSSIBLE, THE ABOVE CONSTRUCTION PRACTICES SHOULD ALSO BE APPLIED.
- THE CONTRACTOR SHALL TRANSFER ALL WATER SERVICES AT PROPERTY LINE AFTER TESTING AND ACCEPTANCES OF THE NEW MAIN UNLESS OTHERWISE NOTED.
- ALL NEW WATER SERVICE CONNECTIONS SHALL BE 19mm DIAMETER GOLD STRIPE PE SERIES 160 MUNICIPAL SERVICE TUBING UNLESS OTHERWISE NOTED OR LOCATED IN FIELD. CONTRACTOR TO CONFIRM SIZE AND LOCATION OF EXISTING SERVICE PRIOR TO INSTALLATION OF NEW SERVICE.
- ALL SERVICE CURB STOPS ARE TO BE INSTALLED AS PER SUPPLEMENTAL STANDARD DETAIL DRAWING W2-BS & SHALL BE AT A DEPTH OF 1.8m WITH THE TRANSITION TO THE EXISTING SERVICE ELEVATION AFTERWARDS.
- FOR ALL WATER SERVICES TO BE TRANSFERRED AT THE PROPOSED WATERMAIN, THE CONTRACTOR IS TO INSTALL THE APPROPRIATE SIZED CORPORATION STOP AT THE SAME OFFSET AS THE EXISTING WATER SERVICE.
- THRUST BLOCKS AND JOINT RESTRAINTS ARE TO BE PROVIDED AT ALL FITTINGS AND CHANGES IN DIRECTION.
- MAXIMUM JOINT DEFLECTION SHOULD NOT EXCEED ONE-HALF OF THE MANUFACTURER'S RECOMMENDED SPECIFICATION.
- NEW SERVICE CONNECTIONS RANGING IN SIZED FROM 19mm TO 50mm SHALL BE AS PER RMOW STANDARD DETAIL DRAWINGS W2-A AND W2-B AND CONNECTED TO EXISTING BY THE CONTRACTOR AT THE EXISTING PROPERTY SHUT-OFF LOCATION.
- ALL PROPOSED HYDRANTS SHALL BE TERMINAL CITY UNLESS OTHERWISE PREVIOUSLY APPROVED IN WRITING AND INSTALLED PER RMOW STANDARD DETAIL W4. FIRE HYDRANT GATE VALVES TO BE OUTSIDE OF ROAD LANE AND WITHIN ROAD SHOULDER AND PLACED AS REQUIRED. ISOLATION VALVES TO BE FLANGED TO THE TEE ON MAIN. TRACER WIRE TO EXTEND TO THE HYDRANT ASSEMBLY C/W COBRA ACCESS POINT AND GROUNDING ROD AS NOTED ON THE DRAWINGS.
- ALL VALVES TO BE WITHIN A MINIMUM 1.0m ASPHALT OR CONCRETE (50mm) SURROUND UNLESS OTHERWISE SPECIFIED.
- TRACER WIRE TO BE INSTALLED OVER ALL WATERMAINS & SERVICES PER MANUFACTURER SPECIFICATIONS AND TO BE #12 AWG AS PER MANUFACTURERS SPECIFICATIONS c/w TRACER BOXES AS NOTED ON SHEET DRAWINGS.

**LEGEND**

**LINETYPES**

PROPOSED	EXISTING	DESCRIPTION
		RIGHT OF WAY
		CENTER LINE
		WATER MAIN
		WATER SERVICE
		STORM MAIN
		STORM SERVICE
		CB / DRAINAGE LEAD
		STREAM / CREEK / DITCH
		SANITARY SEWER MAIN
		SANITARY SERVICE
		ELECTRICAL
		CABLE
		NATURAL GAS
		CHAINLINK FENCE
		RETAINING WALL
		EDGE OF GRAVEL ROAD
		BOTTOM OF BANK
		TOP OF BANK
		EDGE OF PAVEMENT

**SYMBOLS**

PROPOSED	EXISTING	DESCRIPTION	PROPOSED	EXISTING	DESCRIPTION
		WATER VALVE AIR			STORM CATCHBASIN DOUBLE
		WATER VALVE			STORM CATCHBASIN
		WATER BEND			STORM CULVERT / HEADWALL
		WATER TEE			STORM LAWN DRAIN
		WATER CROSS			STORM MANHOLE
		WATER HYDRANT			SANITARY MANHOLE
		WATER REDUCER			GUY WIRE
		WATER ROBAR			TELUS MANHOLE
		WATER THRUST BLOCK			POLE
		WATER SERVICE			SIGN
		WATER BLOWOFF			STREETLIGHT
		WATER CAP			TREE
		WATER METER			JUNCTION BOX
		WATER HUB FLANGE			ELECTRICAL BOX

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PLOT DATE: December 20, 2023				
REV NO.	REVISION DESCRIPTION	DATE	DRAWN	APPRD
1	75% DESIGN	2023/06/14	JT	GS
2	ISSUED FOR TENDER	2023/12/19	JT	GS



**WATER WORKS**

**2024 WATERMAIN UPGRADES**  
NOTES

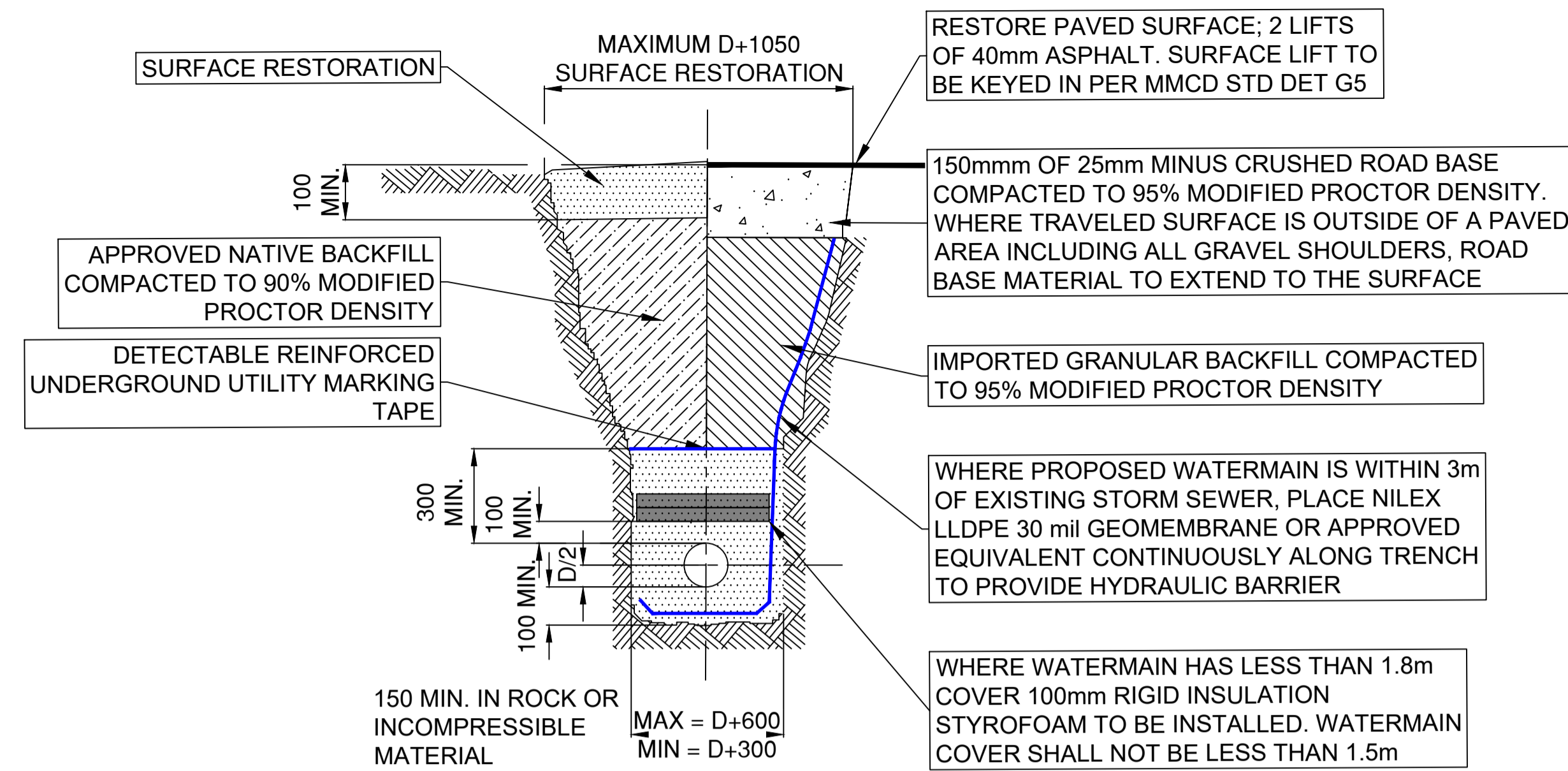


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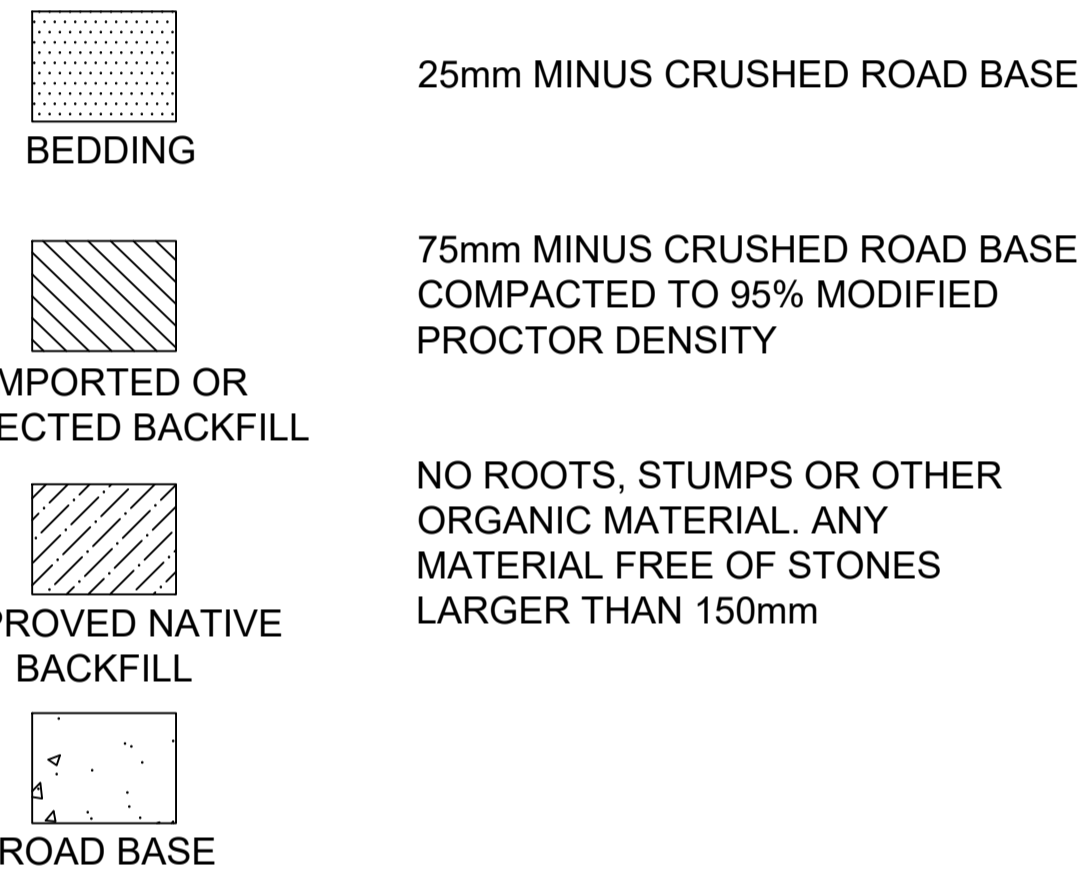
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DRAWN BY	JT	DESIGN BY	GS		
CHECKED BY	GS	APPROVED BY	GS		
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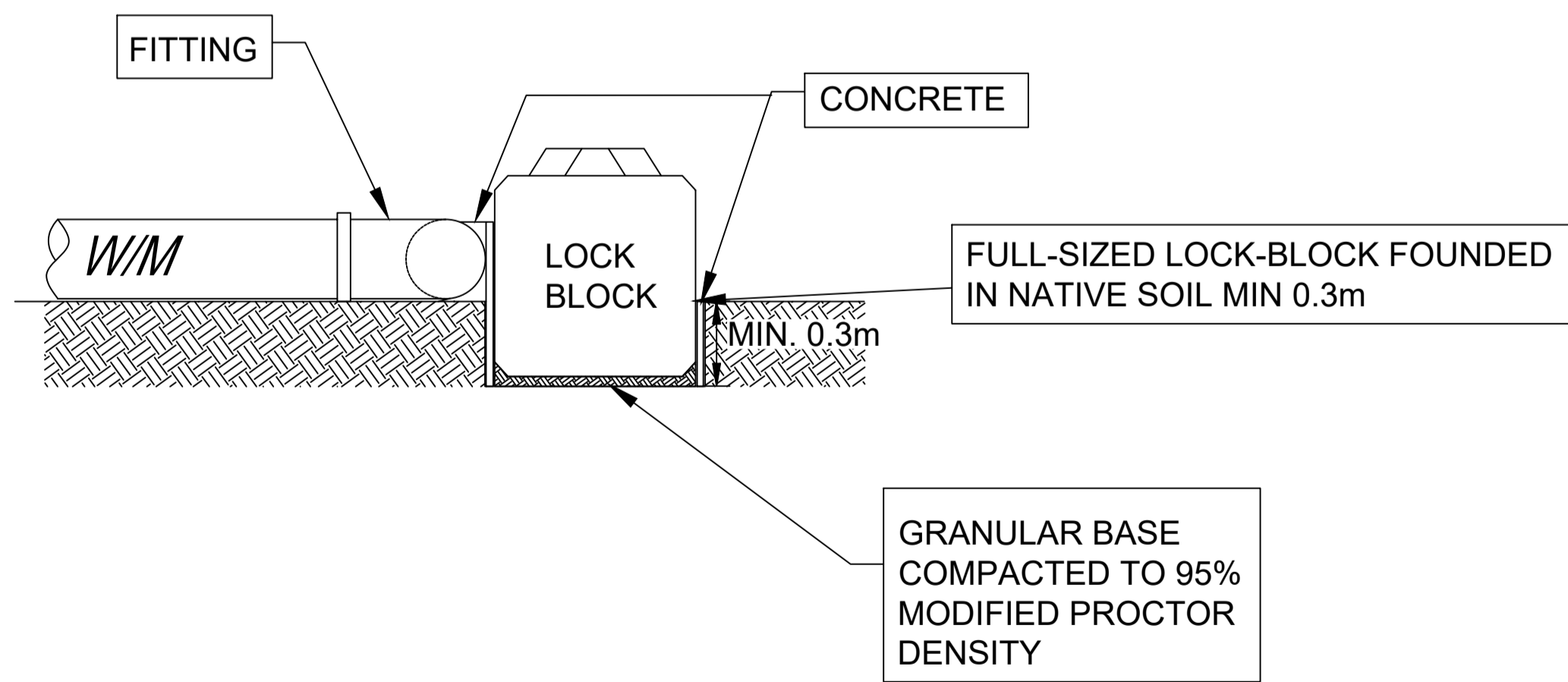


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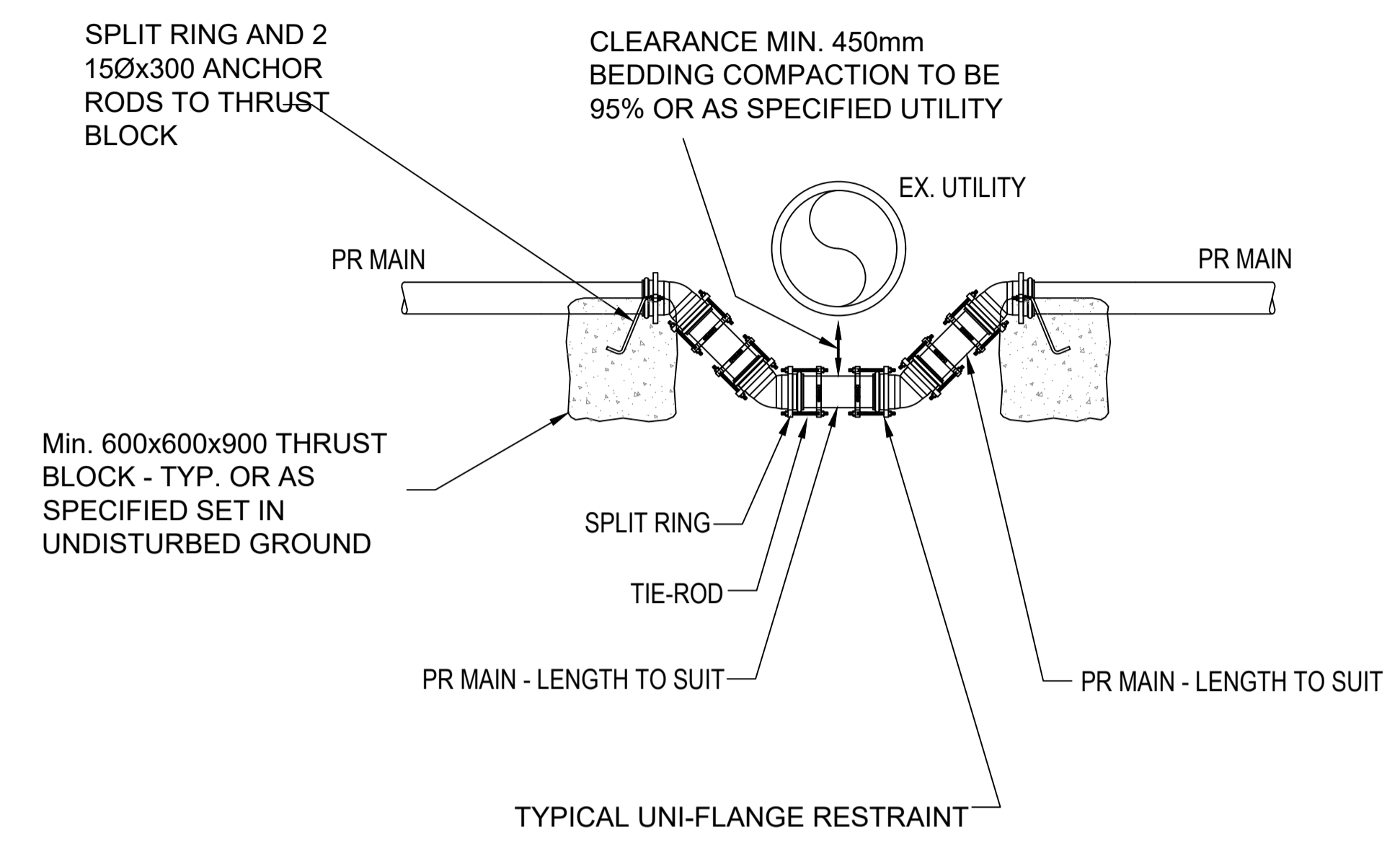
1. UNDER THE TRAVELED PORTION OF ROADS AND DRIVEWAYS OR WITHIN 1.5M FROM THE EDGE OF TRAVELED ROADWAY. THE TRENCH SHALL BE BACKFILLED WITH COMPACTED. IMPORTED BACKFILL UP TO 30mm BELOW ROAD SURFACE. THE REMAINING TRENCH TO BE BACKFILLED WITH 25mm MINUS CRUSHED ROAD GRAVEL.
2. CONTROLLED DENSITY BACKFILL MAY BE USED IN LIEU OF IMPORTED OR SELECT BACKFILL AND GRANULAR BASE.
3. D = OUTSIDE PIPE DIAMETER.



**UTILITIES TRENCH WITH HYDRAULIC BARRIER**  
NTS



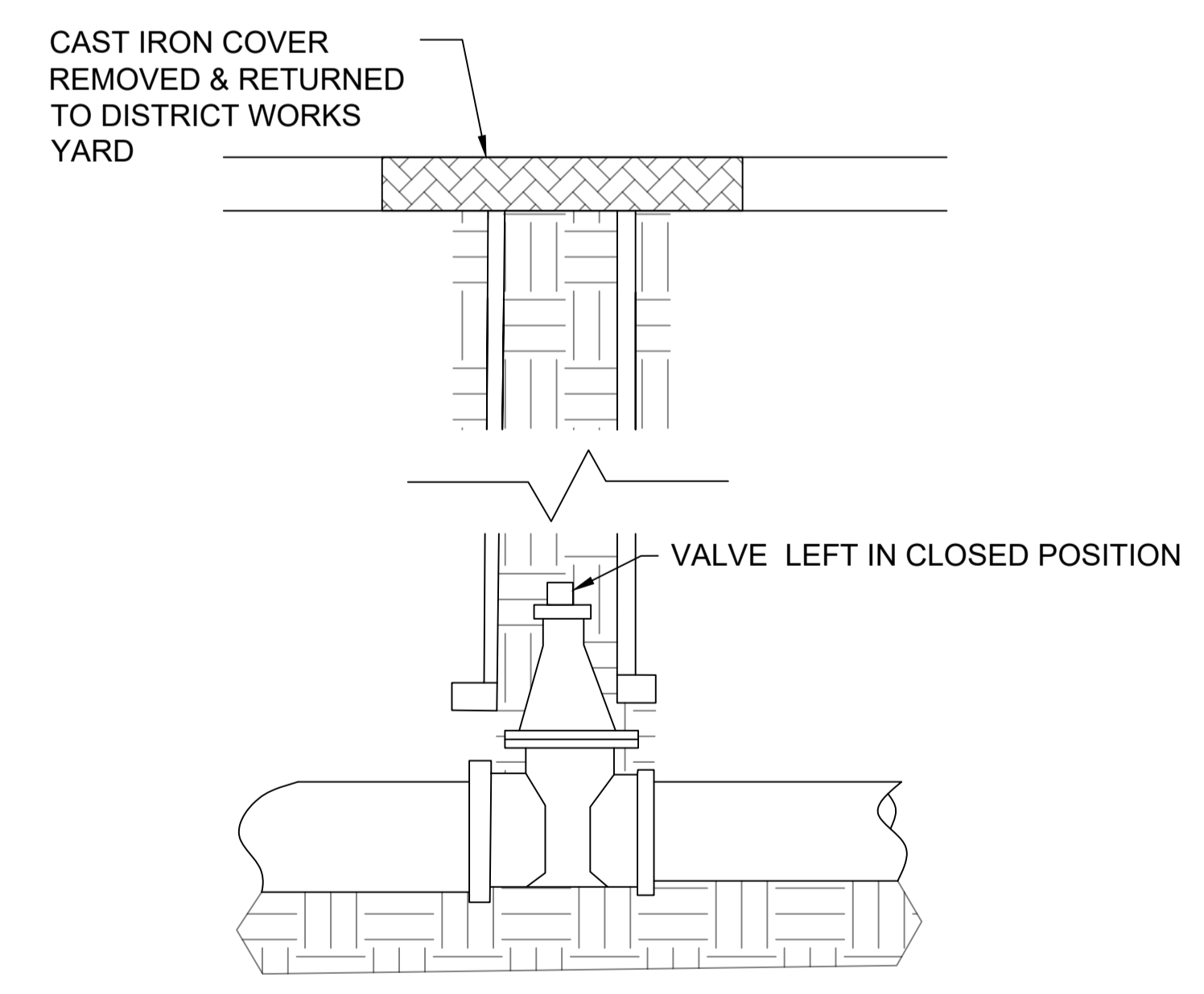
**LOCK-BLOCK THRUST BLOCK DETAIL**  
NTS



**NOTES:**

1. ALL PIPE TO BE SAME MATERIAL AND MEET OR EXCEED EXISTING MAIN CLASS OF MAINLINE.
2. ALL FITTINGS TO BE D.I. AWWA C153.
3. ALL RESTRAINERS TO BE UNI-FLANGE SERIES OF SAME MODEL AS REST OF MAIN OR APPROVED EQUAL.
4. THRUST BLOCKS MAY BE ELIMINATED, BY RESTRAINING EXISTING PIPE JOINTS, AS DIRECTED AND APPROVED BY CONTRACT ADMINISTRATOR.
5. WHEN TYING TO EXIST A.C. MAINS THRUST BLOCKS MUST BE USED.
6. TIE ROD BOLTS TO BE POSITIONED ON THE PIPE VERTICAL AXIS
7. FULL LENGTH OF PIPE TO BE CENTERED AT CROSSING POINT

**UTILITY CROSSING DETAIL**  
NTS



**ABANDONED VALVE DETAIL**  
NTS

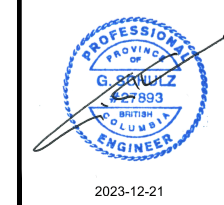
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**WATER WORKS**

**2024 WATERMAIN UPGRADES**  
DETAILS

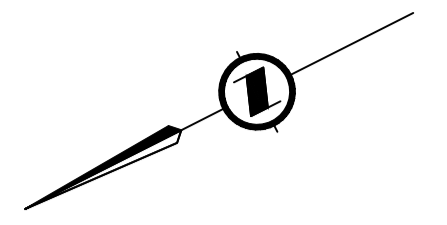


#101 - 58026 Second Avenue Squamish, BC V8B 0C3  
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SCALE	-	CREATION DATE	2023/12/19	DWG. NO.	02
DRAWN BY	JT	DESIGN BY	GS	OF	08
CHECKED BY	GS	APPROVED BY	GS	REV.	2

**33516**



**CONSTRUCTION SEQUENCING**  
 PHASE 1 WORKS  
 PHASE 2 WORKS  
 PHASE 3 WORKS  
 PHASE 4 WORKS

CONCRETE ENCASED WATERMAIN  
 6.0m AT SANITARY CROSSING

PHASE 2 - TEST AND COMMISSION NEW LINE WITH GATE VALVE CLOSEST TO LAKE PLACID ROAD SHUT OFF. TIE-IN TO EXISTING WATERMAIN WITH 90° BEND, COUPLER AND RESTRAIN BACK TO CONCRETE ENCASEMENT

PHASE 1 - INSTALL 200mmØ PVC C900 DR18 WATERMAIN WITH 1.5m OFFSET FROM EXISTING LINE

PHASE 1 - INSTALL HYDRANT, LEAD, TEE AND GATE VALVE CLUSTER

PHASE 1 - INSTALL TEE AND GATE VALVE

PHASE 2 - TEST AND COMMISSION NEW LINE WITH GATE VALVE CLOSEST TO LAKE PLACID ROAD SHUT OFF. TIE-IN TO EXISTING WATERMAIN WITH 2 x 45° BENDS, COUPLER AND RESTRAIN

PHASE 1 - INSTALL HYDRANT, LEAD, TEE AND GATE VALVE CLUSTER  
 PHASE 3 - COMMISSION TEMPORARY OVERLAND SERVICING TO RESIDENTS FROM INSTALLED HYDRANT. UTILIZE EX CULVERT TO ELIMINATE ROAD CROSSINGS

CONCRETE ENCASED WATERMAIN  
 6.0m AT SANITARY CROSSING

PHASE 1 - INSTALL TEMPORARY CAP TO WATERMAIN

PHASE 3 - INSTALL HYDRANT, LEAD, TEE, GATE VALVE AND TIE-IN TO EXISTING WITH COUPLER

PHASE 3 - SHUT OFF GATE VALVE AT KATHLEEN PLACE TO ISOLATE LAKE PLACID ROAD WATERMAIN. RUN OVERGROUND PIPE TO AFFECTED RESIDENTS

PHASE 3 - EXISTING WATERMAIN TO BE REMOVED/LAID OVER DEPENDING ON DEPTH. INSTALL 150mmØ PVC C900 DR18 WATERMAIN ALONG EXISTING LINE

PHASE 3 - EXISTING WATERMAIN TO BE REMOVED/LAID OVER DEPENDING ON DEPTH. INSTALL 200mmØ PVC C900 DR18 WATERMAIN ALONG EXISTING LINE

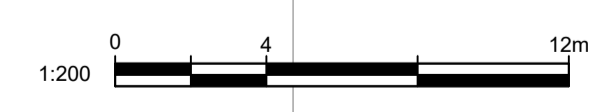
PHASE 3 - DECOMMISSION EX TEE AND VALVES AND INSTALL NEW TEE, VALVE CLUSTER, REDUCER AND HORIZONTAL BEND  
 PHASE 4 - TIE-IN TO PHASE 1 WATERMAIN FOLLOWING TESTING AND COMMISSIONING

LAKE PLACID ROAD

TAYLOR WAY

2208

PLAN  
 SCALE: 1:200

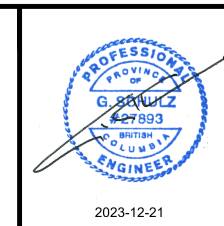


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WATER WORKS

2024 WATERMAIN UPGRADES  
 TAYLOR WAY PHASING PLAN



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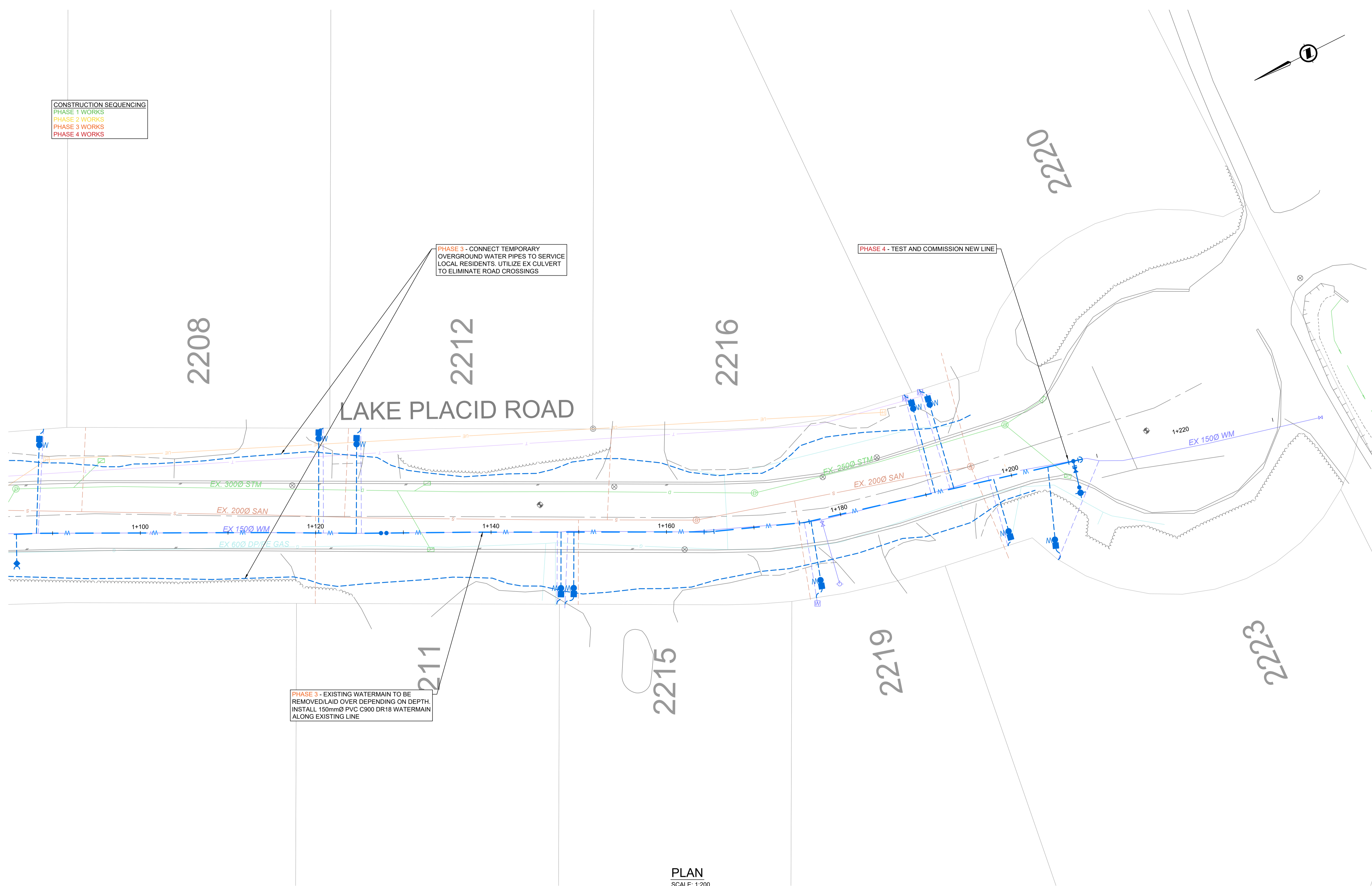
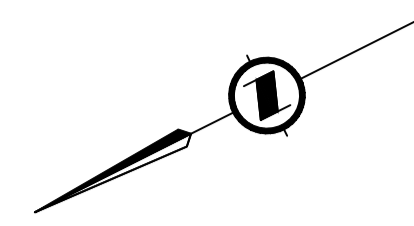
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SCALE	1:200	CREATION DATE	2023/12/19	DWG. NO.
DRAWN BY	JT	DESIGN BY	GS	03 OF 08
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**CONSTRUCTION SEQUENCING**  
 PHASE 1 WORKS  
 PHASE 2 WORKS  
 PHASE 3 WORKS  
 PHASE 4 WORKS



PHASE 3 - EXISTING WATERMAIN TO BE REMOVED/LAID OVER DEPENDING ON DEPTH. INSTALL 150mmØ PVC C900 DR18 WATERMAIN ALONG EXISTING LINE

PHASE 3 - CONNECT TEMPORARY OVERGROUND WATER PIPES TO SERVICE LOCAL RESIDENTS. UTILIZE EX CULVERT TO ELIMINATE ROAD CROSSINGS

PHASE 4 - TEST AND COMMISSION NEW LINE

PLAN  
SCALE: 1:200



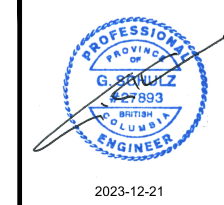
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**WATER WORKS**

**2024 WATERMAIN UPGRADES  
LAKE PLACID ROAD PHASING PLAN**



ISSUED FOR TENDER DESIGN NO.

**33516**

SCALE	1:200	CREATION DATE	2023/12/19	DWG. NO.	04
DRAWN BY	JT	DESIGN BY	GS	OF	08
CHECKED BY	GS	APPROVED BY	GS	REV.	2

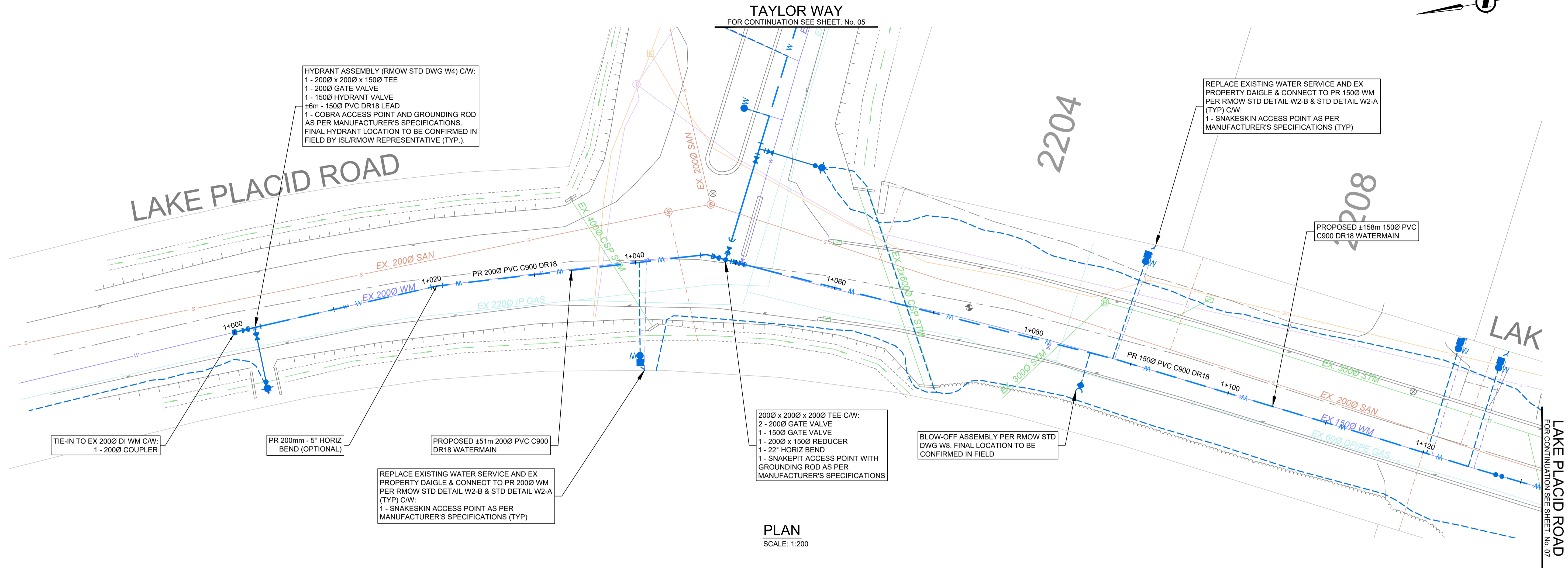
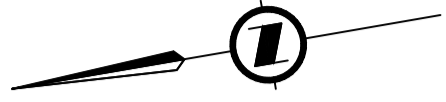


EXISTING UTILITIES SHOWN ARE BASED UPON AVAILABLE RECORD DRAWINGS AND MAY NOT BE COMPLETE OR ACCURATE. THE CONTRACTOR REMAINS RESPONSIBLE FOR THE FIELD LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND FOR THEIR PROTECTION DURING CONSTRUCTION. THE CONTRACTOR SHALL ARRANGE FOR FIELD LOCATES OF EXISTING UTILITY CROSSINGS, TIE-INS & SERVICES, CONFIRMING LOCATION AND ELEVATION PRIOR TO CONSTRUCTION AND COORDINATE WITH THE CONTRACT ADMINISTRATOR AS REQUIRED TO ACCOMMODATE THE WATERMAIN INSTALLATION

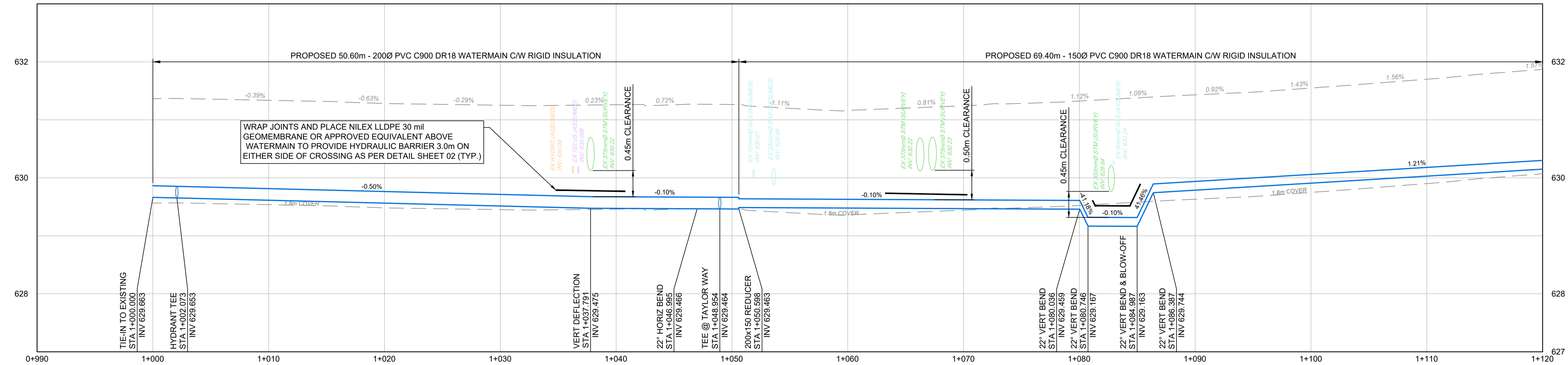
ALL FITTINGS RESTRAINED w/ SERIES 1300/1350/1390 UNFLANGED RESTRAINERS c/w POURED THRUST BLOCK (RMOW STD DWG W12-A AND W12-B) OR LOCK BLOCK AS PER DETAIL ON SHEET 2

ALL COUPLERS TO BE ROMAC HP/ALPHA OR XR 501. CONSIDERED INCIDENTAL. ANY WORKS DESCRIBED OR SHOWN ON DRAWINGS, BUT NOT SPECIFIED IN SCHEDULE OF QUANTITIES TO BE CONSIDERED INCIDENTAL.

ALL RESTORATION INCLUDING BUT NOT LIMITED TO ASPHALT, CONCRETE, GRAVEL, GRASS, TOPSOIL/SEED TO BE RESTORED BACK TO EXISTING CONDITION OR BETTER & IS CONSIDERED INCIDENTAL.



PLAN  
SCALE: 1:200



PROFILE  
SCALE: 1:200H / 1:40V



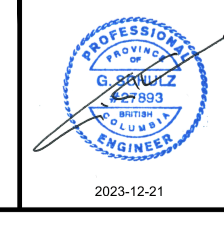
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REV NO.	REVISION DESCRIPTION	DATE	DRAWN	APPRD
1	75% DESIGN	2023/06/14	JT	GS
2	ISSUED FOR TENDER	2023/12/19	JT	GS



**WATER WORKS**

**2024 WATERMAIN UPGRADES**  
WATERMAIN PLAN / PROFILE 1+000 - 1+120



ISSUED FOR TENDER DESIGN NO.

SCALE	1:200	CREATION DATE	2023/12/19	DWG. NO.
DRAWN BY	JT	DESIGN BY	GS	06 OF 08
CHECKED BY	GS	APPROVED BY	GS	REV. 2

**33516**

EXISTING UTILITIES SHOWN ARE BASED UPON AVAILABLE RECORD DRAWINGS AND MAY NOT BE COMPLETE OR ACCURATE. THE CONTRACTOR REMAINS RESPONSIBLE FOR THE FIELD LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND FOR THEIR PROTECTION DURING CONSTRUCTION. THE CONTRACTOR SHALL ARRANGE FOR FIELD LOCATES OF EXISTING UTILITY CROSSINGS, TIE-INS & SERVICES, CONFIRMING LOCATION AND ELEVATION PRIOR TO CONSTRUCTION AND COORDINATE WITH THE CONTRACT ADMINISTRATOR AS REQUIRED TO ACCOMMODATE THE WATERMAIN INSTALLATION

ALL FITTINGS RESTRAINED w/ SERIES 1300/1350/1390 UNFLANGED RESTRAINERS c/w POURED THRUST BLOCK (RMOW STD DWG W12-A AND W12-B) OR LOCK BLOCK AS PER DETAIL ON SHEET 2

ALL COUPLERS TO BE ROMAC HP/ALPHA OR XR 501. CONSIDERED INCIDENTAL. ANY WORKS DESCRIBED OR SHOWN ON DRAWINGS, BUT NOT SPECIFIED IN SCHEDULE OF QUANTITIES TO BE CONSIDERED INCIDENTAL.

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HYDRANT ASSEMBLY (MMCD W4) C/W:  
 1 - 150Ø x 150Ø x 150Ø TEE  
 1 - 150Ø HYDRANT VALVE  
 ±4m - 150Ø PVC DR18 LEAD  
 1 - 150Ø END CAP FOR POTENTIAL FUTURE WORKS AGREED WITH CLIENT.  
 1 - SNAKEKIT ACCESS POINT WITH GROUNDING ROD AND COBRA ACCESS POINT WITH GROUNDING ROD AS PER MANUFACTURER'S SPECIFICATIONS. FINAL HYDRANT LOCATION TO BE CONFIRMED IN FIELD BY ISL/RMOW REPRESENTATIVE (TYP.).

DECOMMISSION EX VALVE PER DETAIL ON SHEET 02 (TYP.).

REPLACE EXISTING WATER SERVICE AND EX PROPERTY DAIGLE & CONNECT TO PR 150Ø WM PER RMOW STD DETAIL W2-B & STD DETAIL W2-A (TYP) C/W:  
 1 - SNAKESKIN ACCESS POINT AS PER MANUFACTURER'S SPECIFICATIONS (TYP)

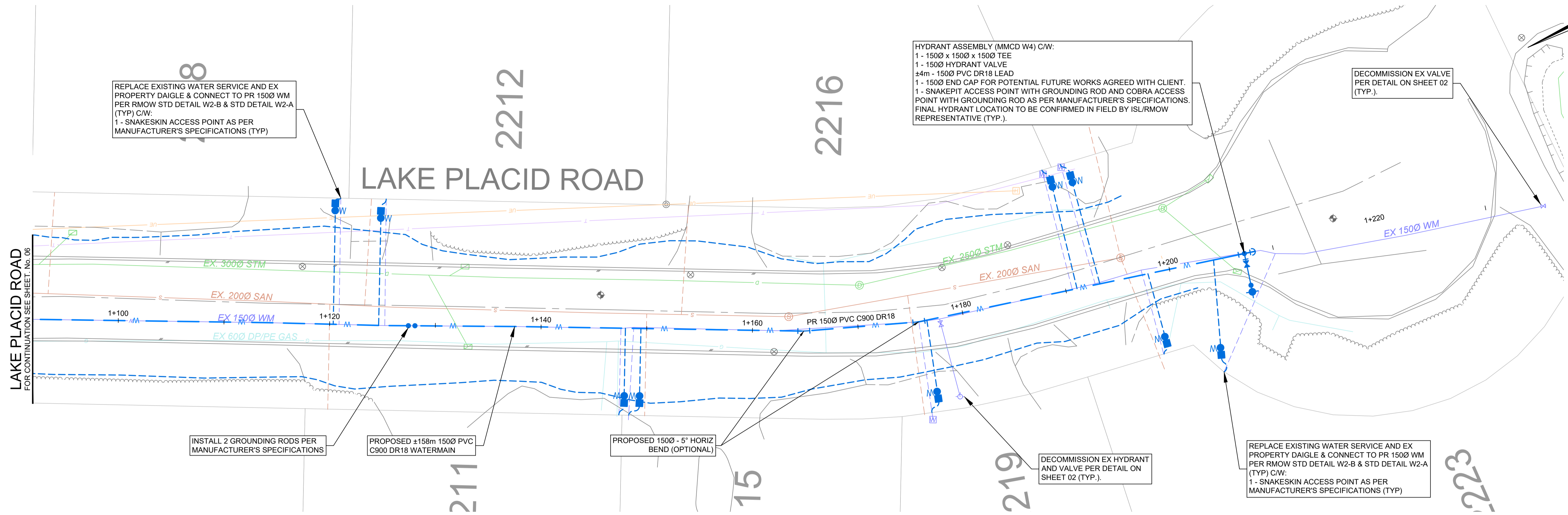
INSTALL 2 GROUNDING RODS PER MANUFACTURER'S SPECIFICATIONS

PROPOSED ±158m 150Ø PVC C900 DR18 WATERMAIN

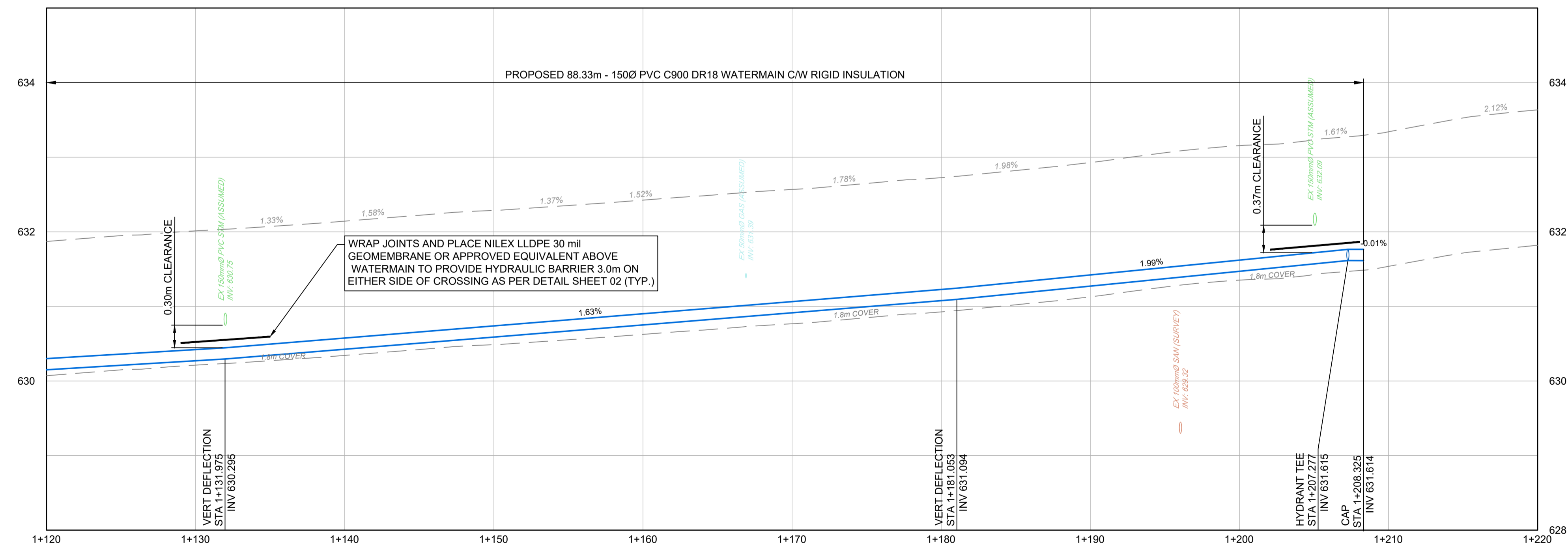
PROPOSED 150Ø - 5° HORIZ BEND (OPTIONAL)

DECOMMISSION EX HYDRANT AND VALVE PER DETAIL ON SHEET 02 (TYP.).

REPLACE EXISTING WATER SERVICE AND EX PROPERTY DAIGLE & CONNECT TO PR 150Ø WM PER RMOW STD DETAIL W2-B & STD DETAIL W2-A (TYP) C/W:  
 1 - SNAKESKIN ACCESS POINT AS PER MANUFACTURER'S SPECIFICATIONS (TYP)



PLAN  
SCALE: 1:200



PROFILE  
SCALE: 1:200H / 1:40V



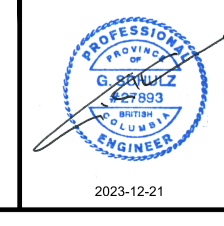
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REV NO.	REVISION DESCRIPTION	DATE	DRAWN	APPRD
1	75% DESIGN	2023/06/14	JT	GS
2	ISSUED FOR TENDER	2023/12/19	JT	GS



**WATER WORKS**

**2024 WATERMAIN UPGRADES**  
WATERMAIN PLAN / PROFILE 1+120 - 1+220



#101 - 38026 Second Avenue Squamish, BC V8B 0C3  
T: (604) 815-4646 F: (604) 815-4647

ISSUED FOR TENDER DESIGN NO.

SCALE	1:200	CREATION DATE	2023/12/19	DWG. NO.
DRAWN BY	JT	DESIGN BY	GS	07 OF 08
CHECKED BY	GS	APPROVED BY	GS	REV. 2

**33516**



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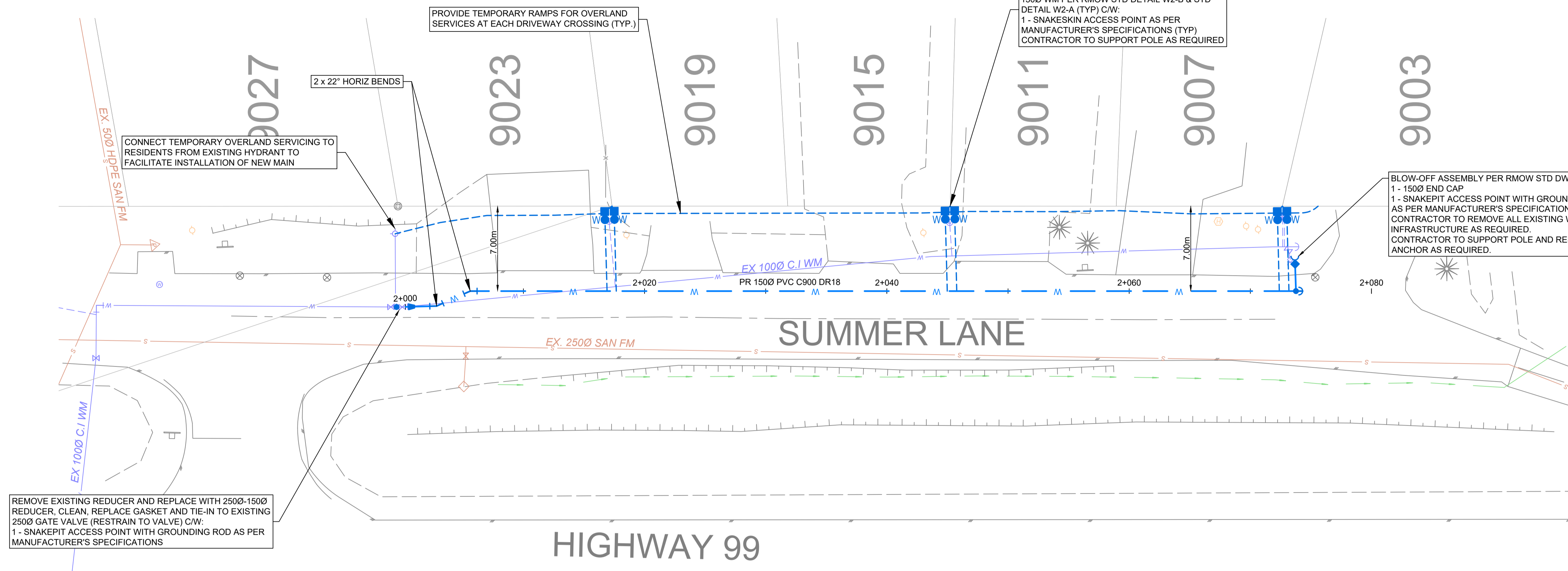
ALL FITTINGS RESTRAINED w/ SERIES 1300/1350/1390 UNFLANGED RESTRAINERS c/w POURED THRUST BLOCK (RMOW STD DWG W12-A AND W12-B) OR LOCK BLOCK AS PER DETAIL ON SHEET 2

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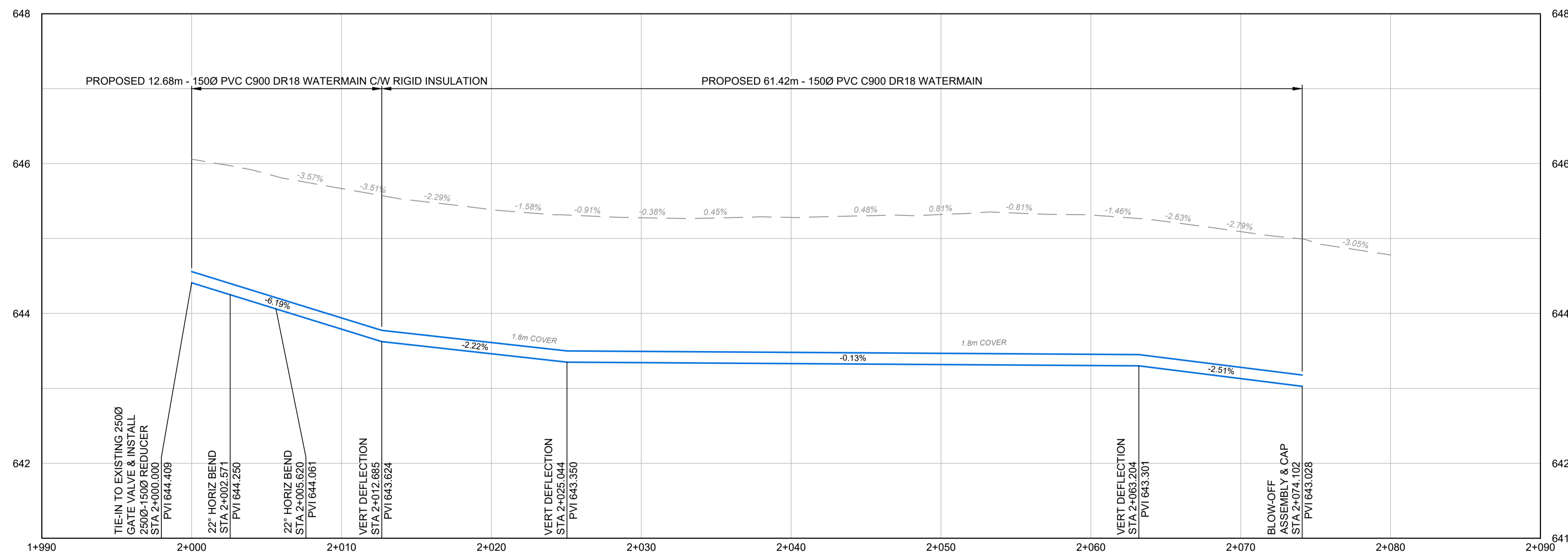
ALL RESTORATION INCLUDING BUT NOT LIMITED TO ASPHALT, CONCRETE, GRAVEL, GRASS, TOPSOIL/HYDROSEED TO BE RESTORED BACK TO EXISTING CONDITION OR BETTER & IS CONSIDERED INCIDENTAL.

REPLACE EXISTING WATER SERVICE AND EXISTING PROPERTY DAIGLE & CONNECT TO PR 1500 WM PER RMOW STD DETAIL W2-B & STD DETAIL W2-A (TYP) C/W:  
1 - SNAKESKIN ACCESS POINT AS PER MANUFACTURER'S SPECIFICATIONS (TYP)  
CONTRACTOR TO SUPPORT POLE AS REQUIRED

BLOW-OFF ASSEMBLY PER RMOW STD DWG W8 C/W:  
1 - 1500 END CAP  
1 - SNAKEPIT ACCESS POINT WITH GROUNDING ROD AS PER MANUFACTURER'S SPECIFICATIONS  
CONTRACTOR TO REMOVE ALL EXISTING WATER INFRASTRUCTURE AS REQUIRED.  
CONTRACTOR TO SUPPORT POLE AND RESET ANCHOR AS REQUIRED.



PLAN  
SCALE: 1:200



PROFILE  
SCALE: 1:200H / 1:40V



File: G:\Projects\33000\33516\_RMOW\_Creekside\_Water\_Main\_Upgrade\02\_Drafting\02\_Productions\SummerLane\_33516.dwg

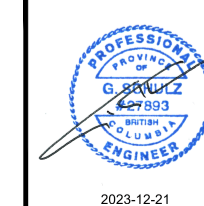
PLOT DATE: December 20, 2023

REV NO.	REVISION DESCRIPTION	DATE	DRAWN	APPRD
1	50% DESIGN	2023/09/22	JT	GS
2	ISSUED FOR TENDER	2023/12/19	PO	GS



**WATER WORKS**

**2024 WATERMAIN UPGRADES**  
WATERMAIN PLAN / PROFILE 2+000 - 2+080



#101 - 38026 Second Avenue Squamish, BC V8B 0C3  
T: (604) 815-4646 F: (604) 815-4647

ISSUED FOR TENDER DESIGN NO.

SCALE	1:200	CREATION DATE	2023/12/19	DWG. NO.
DRAWN BY	JT	DESIGN BY	GS	08 OF 08
CHECKED BY	GS	APPROVED BY	GS	REV. 2

**33516**