BRISTOL WEST WATERLINE REPLACEMENT PROJECT BRISTOL, VERMONT

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GENERAL NOTES:

- 1. UTILITIES SHOWN DO NOT PURPORT TO CONSTITUTE OR REPRESENT ALL UTILITIES LOCATED UPON OR ADJACENT TO THE SURVEYED PREMISES. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CONFLICTS. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL CONTACT DIG SAFE (888-344-7233) PRIOR TO ANY CONSTRUCTION.
- 2. THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE. PROPERTY LINE INFORMATION IS APPROXIMATE AND BASED ON EXISTING TAX MAP INFORMATION. RIGHT OF WAY WIDTHS PROVIDED BY LAROSE SURVEYS LOCATIONS SHOWN ARE APPROXIMATE BASED ON THE CENTER LINE OF THE ROAD.
- 3. SITE INFORMATION IS BASED ON FIELD SURVEYS PERFORMED BY VTM ENGINEERING 2023-2024 AND THE NOTED PLAN REFERENCES. VTM ENGINEERING SURVEY ORIENTATION IS "GRID NORTH", VERMONT COORDINATE SYSTEM OF 1983 (HORIZONTAL) AND NAVD88 (VERTICAL) ESTABLISHED FROM GPS OBSERVATIONS ON SITE.
- 4. UTILITY POLES WITH NEED TO BE SUPPORTED AS REQUIRED DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING, COORDINATION WITH THE UTILITY COMPANY AND ANY EXPENSE INCURRED.
- 5. EXISTING TREES WILL REQUIRE TRIMMING AND/OR REMOVAL FOR WATER LINE AND SERVICE LINE INSTALLATION. FIELD CONDITIONS MAY DICTATE TRIMMING/REMOVAL AND MAY NOT BE NOTED IN ALL LOCATIONS ON PLANS.

PLAN REFERENCES:

- 1. NORTH STREET STORMWATER IMPROVEMENTS, BRISTOL, VERMONT RECORD DRAWINGS, PREPARED BY GREEN MOUNTAIN ENGINEERING, DATED 10/28/10.
- 2. WEST STREET & LOVERS LANE INFRASTRUCTURE IMPROVEMENTS, BRISTOL, VERMONT - RECORD DRAWINGS, PREPARED BY GREEN MOUNTAIN ENGINEERING, DATED 11/14/18.
- 3. WATER SERVICE CONNECTION PARK STREET STUB, BRISTOL VILLAGE
- CO-HOUSING, PREPARED BY GROVER ENGINEERING, DATED JANUARY 16, 2017.
 SIGNAL PROJECT HES 021-1 (28), SHEETS 12, 13, 19, 29, PREPARED BY STANTEC
- 5. VILLAGE OF BRISTOL SEWER/STORMWATER/WATER SYSTEM PLANS, PREPARED
- BY GREEN MOUNTAIN ENGINEERING, REVISION DATE APRIL 10, 2006.



DWSRF LOAN NUMBER: RF3-553-2.0 VTM JOB NO. 22-1.3

AUGUST, 2024

– PROJECT LOCATION: – BRISTOL, VT

LOCATION MAP - BRISTOL, VERMONT $1'' = \pm 500'$

90% REVIEW PLANS













1. THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE. PROPERTY LINE INFORMATION IS APPROXIMATE AND BASED ON EXISTING LOCATIONS SHOWN ARE APPROXIMATE BASED ON THE CENTER LINE OF THE







LOCATIONS SHOWN ARE APPROXIMATE BASED ON THE CENTER LINE OF THE ROAD.







CHURCH STREET - PROFILE SCALE: HORIZONTAL - 1" = 30'VERTICAL - 1" = 3'

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W W Secs S C OHPATAC ST ST ST C C OHPATAC ST C ST C C C C C C C C C C C C C C C	APPROXIMATE PROPERTY LINE EXISTING WATER LINE EXISTING WATER VALVE EXISTING WATER VALVE EXISTING CURB STOP EXISTING UTILITY POLE EXISTING UTILITY POLE EXISTING OVERHEAD UTILITIES EXISTING STORM LINE EXISTING STORM MANHOLE EXISTING TREE PROPOSED WATER LINE PROPOSED WATER LINE PROPOSED CURB STOP PROPOSED HYDRANT PROPOSED THRUST BLOCK PROPOSED STORM LINE PROPOSED STORM LINE PROPOSED STORM LINE	DESIGNED DESIGNED DRAWN PM CHECKED SP PRO E CHORCH SP PRO CHECKED SP DRAWN CHECKED SP DRAWN CHECKED CHORCH CHECKED C	PLOT DATE SCALE AS SHOWN DATE SCALE AS SHOWN DATE 1 SOUTH STREET, BRISTOL TOWN OF BRISTOL TOWN OF BRISTOL 1 SOUTH STREET, BRISTOL 2.1.3 WING NO. 2.1.3



GENERAL NOTES:

1. THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE. PROPERTY LINE INFORMATION IS APPROXIMATE AND BASED ON EXISTING TAX MAP INFORMATION. RIGHT OF WAY WIDTHS PROVIDED BY LAROSE SURVEYS. LOCATIONS SHOWN ARE APPROXIMATE BASED ON THE CENTER LINE OF THE ROAD.





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	VTM ENGINEERING, PLC 2941 SHELBURNE FALLS ROAD HINESBURG, VT 05461 (802) 233-7531
	PRELIMINARY PLANS NOT FOR CONSTRUCTION
Y LINE	SCHOOL STREET PLAN & PROFILE BRISTOL WEST WATER REPLACEMENT PROJECT TOWN OF BRISTOL SOUTH STREET, BRISTOL VT 05443
LITIES DLE E .VE	DESIGNED PLOT DATE SP DRAWN SCALE PM AS SHOWN CHECKED DATE SP PROJECT NO.
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SCALE: HORIZONTAL - 1" = 30'VERTICAL - 1" = 3'

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		PRELIMINARY PLANS NOT FOR CONSTRUCTION	
	LEGEND APPROXIMATE PROPERTY LINE WW *CS *CS EXISTING WATER VALVE EXISTING CURB STOP EXISTING OVERHEAD UTILITY POLE EXISTING OVERHEAD UTILITIES EXISTING STORM LINE EXISTING STORM LINE EXISTING TREE PROPOSED WATER VALVE EXISTING TREE PROPOSED WATER VALVE PROPOSED WATER VALVE PROPOSED HYDRANT PROPOSED THRUST BLOCK PROPOSED STORM LINE PROPOSED STORM LINE PROPOSED STORM LINE PROPOSED STORM LINE	LIDMOLE BRISTOL HILL OF CLARE HILL	1 SOUTH STREET, BRISTOL VT 05443







SCALE: NONE 1. ALL THRUST BLOCKS SHALL BE CLASS "B" CONCRETE, SEE SPEC. SECTION 03300 2. CONCRETE SHALL BE PLACED SO AS NOT TO HAMPER THE FUTURE REMOVAL OF A FITTING.

3. WRAP FITTINGS IN (2) LAYERS POLYETHYLENE PLASTIC SHEET PRIOR TO FORMING AND

POURING THRUST BLOCK.

				Т	hrust	Block -	Height	(H) an	d Widt	h(B)of	Requi	red Bea	aring Fa	ce				
Bearing Face Material	Pipe Size (in)	Horiz	zontal 11.25	5° Bend ¹	Hori	Horizontal 22.5° Bend ¹		Horizontal 45° Bend ¹			Horizontal 90° Bend ¹			Tees and Dead Ends ¹ , ²			Valves	Reducers
		Α	H (ft)	B(ft)	Α	H (ft)	B(ft)	Α	H (ft)	B(ft)	A	H (ft)	B(ft)	A	H (ft)	B(ft)		
	6	0.50	1.0	1.0	0.97	1.0	1.0	1.80	1.00	1.8	2.54	1.00	2.5	2.54	1.00	2.5		
Dense sandy gravel and gravel, cemented sands	8	0.88	1.0	1.0	1.73	1.0	1.7	3.20	1.00	3.2	4.52	2.00	2.3	4.52	2.00	2.3		
	12	1.98	1.0	2.0	3.89	1.0	3.9	7.19	1.50	4.8	10.17	2.00	5.1	10.17	2.00	5.1	-	
	6	0.57	1.0	1.0	1.11	1.0	1.1	2.06	1.00	2.1	2.91	1.00	2.9	2.91	1.00	2.9		
Dense course sands, sandy clays, very stiff silt	8	1.01	1.0	1.0	1.98	1.0	2.0	3.65	1.00	3.7	5.17	1.50	3.4	5.17	1.50	3.4		
	12	2.27	1.0	2.3	4.45	1.5	3.0	8.22	2.00	4.1	11.63	2.00	5.8	11.63	2.00	5.8	See Mechanical	See Mechanical
	6	0.99	1.0	1.0	1.95	1.0	1.9	3.60	1.00	3.6	5.09	1.50	3.4	5.09	1.50	3.4	Joint Restraint Table	Table
Medium dense sands, firm to stiff clays and silts	8	1.76	1.0	1.8	3.46	1.0	3.5	6.39	1.50	4.3	9.04	2.00	4.5	9.04	2.00	4.5		
	12	3.97	1.5	2.6	7.79	1.5	5.2	14.39	2.50	5.8	20.35	3.00	6.8	20.35	3.00	6.8		
	6	1.24	1.0	1.2	2.43	1.0	2.4	4.50	1.50	3.0	6.36	1.50	4.2	6.36	1.50	4.2		
Loose sands, firm clays, alluvial fills	8	2.21	1.0	2.2	4.33	1.5	2.9	7.99	2.00	4.0	11.30	2.00	5.7	11.30	2.00	5.7		
	12	4.96	1.5	3.3	9.73	2.0	4.9	17.98	3.00	6.0	25.43	3.00	8.5	25.43	3.00	8.5		
	6				-													
Uncompacted fill, peat, soft clays	8		Unsuitable	ebearingm	aterial fo	r thrust blo	ckuse. Use	eMechan	ical restrai	nts (see me	echanical	restraint ta	able)					
	12																	

	ivinimum Restraint Length						
Restraint	4'	5'	6'				
	Bury Depth	Bury Depth	Bury Depth				
11.25 Bend	3	2	2				
22.5 Bend	5	4	3				
45 Bend	9	7	6				
90 Bend	21	17	15				
Valve	63	51	40				
Dead End	63	51	40				
Tee ¹	20	20	20				
Reducer 8" to 6"	27	22	18				
Reducer 8" to 4"	46	37	31				

Minimum mechanically restrained pipe length when used in Lui of thrust block (8" C-900 PVC) 1 Minimum Producting I amoth

1. All pipe joints within 20' of mainline tees shall contain mechanical joint restraints regardless of thrust block usage.

Minimum mechanically restrained pipe length when used in Lui of thrust block (12" C-900 PVC)

		' Minimum Restraint Length							
Restraint	4'	5'	6'						
	Bury Depth	Bury Depth	Bury Depth						
11.25 Bend	4	3	2						
22.5 Bend	6	5	4						
45 Bend	13	10	9						
90 Bend	30	24	21						
Valve	90	73	60						
Dead End	90	73	60						
Tee ¹	20	20	20						
Reducer 12" to 8"	48	39	33						
Reducer 12" to 6"	66	53	45						

1. All pipe joints within 20' of mainline tees shall contain mechanical joint restraints regardless of thrust block usage.

		CONSTRUCTION NOTES			
1.	TRA				
	A.	UNIFORM TRAFFIC CONTROL SHALL BE PROVIDED FOR THE DURATION OF THE PROJECT.	o	EDC	
	В.	SCHEDULE & PHASING PLAN	σ.		
		WITHIN 7 DAYS OF BID AWARD, SELECTED CONTRACTOR SHALL PROVIDE ENGINEER AND OWNER WITH A PROPOSED		A.	SHALL BE IN AC
		PROJECT SCHEDULE AND A PHASING PLAN FOR REVIEW. SCHEDULE SHALL BE REFLECTIVE OF THE TIMELINES OUTLINED IN			CONTROL AND
		THE SPECIFICATIONS. ENGINEER AND OWNER SHALL PROMPTLY REVIEW AND PROVIDE FEEDBACK TO THE CONTRACTOR.			STABILIZED.
		ENGINEER SHALL HAVE SOLE AUTHORITY TO ACCEPT OR REJECT THE CONTRACTORS PHASING PLAN OR RECOMMEND		В.	SILT FENCE ANI
		CHANGES/MODIFICATIONS.			
	C.	TRAFFIC CONTROL PLAN			FINAL GRADING
		WITHIN 14 DAYS OF PROJECT, AWARD SELECTED CONTRACTOR SHALL SUBMIT A PROPOSED TRAFFIC CONTROL PLAN FOR		C.	CONSTRUCTION
		THE FIRST PHASE OF CONSTRUCTION FOR REVIEW BY ENGINEER. ALL TRAFFIC CONTROL FEATURES SHALL MEET CURRENT			OF GRADING, S
		MUTCH STANDARDS. SELECTED CONTRACTOR SHALL PROVIDE ENGINEER WITH PROPOSED TRAFFIC CONTROL PLANS FOR EACH NEW PHASE OF CONSTRUCTION AT LEAST 7 DAYS IN ADVANCE OF EACH NEW PHASE. TRAFFIC CONTROL PLANS SHALL		_	ONE TIME.
		CONSIDER IMPACTS ON WORKERS SAFETY THE TRAVELING PUBLIC EMERGENCY SERVICES SCHOOL BUSSES PARKING FOR		D.	PARTICULAR AT
		RESIDENTS AND COMMERCIAL CUSTOMERS, ETC. ENGINEER SHALL PROMPTLY REVIEW EACH PLAN AND PROVIDE		F	ANY SOILS TEM
		FEEDBACK TO THE CONTRACTOR. ENGINEER SHALL HAVE SOLE AUTHORITY TO ACCEPT OR REJECT SUCH PLANS AND		L .	STABILIZED.
		REQUIRE MODIFICATIONS TO ENSURE THAT ACCOMMODATIONS ARE MADE TO ADEQUATELY ADDRESS 3RD PARTY NEEDS.		F.	ALL EXISTING IN
		SUCH REVIEW IS NUT A SAFETY REVIEW, IT IS UNLY INTENDED TO ENSURE THAT IMPACTS TO OUTSIDE 3RD PARTIES ARE CONSIDERED (SLICH AS RARKING) AND IS NOT INTENDED TO NOR DOES IT RELIEVE THE CONTRACTOR FOR COMPLETE			BAG PRODUCT
		RESPONSIBILITY FOR SAFETY. THE CONTRACTOR SHALL PROVIDE A REPRESENTATIVE TO ATTEND A PUBLIC MEETING WITH		C	
		THE OWNER AND ENGINEER TO PRESENT PLANS AND DISCUSS ALL 3RD/ PARTY CONCERNS IN ADVANCE OF THE WORK.		в.	FROSION CONT
				H.	CONSTRUCTION
2.	BUF				GUIDE AND THE
	Α.	UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY, THOSE SHOWN ON THE DRAWINGS ARE BASED ON THE BEST		I.	SEE SPECIFICA
		AVAILABLE INFORMATION. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL MEET WITH THE ENGINEER, OWNER, AND REPRESENTATIVES OF THE WATER DEPARTMENT. TELEPHONE COMPANY, ELECTRIC COMPANY, GAS COMPANY, SEWER		J.	
		DEPARTMENT, AND ANY OTHER UTILITIES THAT MAY BE INVOLVED WITH THE CONSTRUCTION PROJECT TO COORDINATE THE			AND MORE FRE
		MARKING, AND TIMING OF DISRUPTIONS OF VARIOUS UTILITIES. IF ANY, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING	9.	EAS	EMENTS
		ALL UTILITY LOCATIONS, ELEVATIONS, OR CONFLICTS.		Α.	CONTRACTOR S
	В.	THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR REPAIR OF			WHERE TEMPO
		ANY SUCH DAMAGE AS QUICKLY AS POSSIBLE AT HIS/HER OWN EXPENSE. THE CONTRACTOR SHALL MAINTAIN A SUPPLY OF DEDAID MATEDIALS AND DIDE ON THE TOP SITE AT ALL TIMES IN OPDED TO MINIMIZE THE INCONVENIENCE CAUSED BY SUCH		В.	TOPOGRAPHIC
		DAMAGE			
	C.	ONCE ABANDONED, THE CONTRACTOR SHALL PERMANENTLY PLUG ALL EXISTING WATER LINES, PLUGS SHALL BE INSTALLED			OTHERS RIGHT
		AT THE POINT WHERE THEY ARE DISCONNECTED UNLESS THEY ARE TO REMAIN IN SERVICE.			o meno: mom
	D.	ABANDONED VALVE RISERS AND CURB STOP EXTENSIONS SHALL BE REMOVED TO THE TOP OF THE PIPE. THIS WORK SHALL	10.	TRE	E AND LANDSO
	E	BE CONSIDERED INCIDENTAL TO THE CONTRACT.		Α.	ALL TREE AND I
	۲.	WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.		-	EXPERIENCED (
				В.	
3.	WA	TER UTILITY CONSTRUCTION			THAT WHICH EX
	Α.	THE CONTRACTOR SHALL USE ONLY DESIGNATED BENCH MARKS FOR REFERENCE ELEVATIONS. WHICH SHALL BE PROVIDED		C.	CONTRACTOR S
	р	BY THE ENGINEER PRIOR TO CONSTRUCTION.		D.	ALL STUMPS RE
	D.	ORDER TO FURNISH A COMPLETE & FUNCTIONAL SYSTEM		F	
	C.	EXISTING WATER MAINS ARE UNDER PRESSURE. THE CONTRACTOR IS ADVISED TO TAKE PRECAUTIONS TO AVOID DAMAGE		с.	
		OR "BLOW OUT" OF EXISTING WATER MAINS FROM THE SIDES OF THE TRENCHES DURING CONSTRUCTION. HAND EXCAVATION	11.	PRE	SSURE TESTIN
	_	AS WELL AS TEMPORARY SHEETING AND BRACING MAY BE REQUIRED.		A.	PRIOR TO PLAC
	D.	THE CONTRACTOR SHALL INSTALL A MECHANICAL PLUG IN THE END OF THE PIPE AT THE COMPLETION OF EACH WORK DAY TO SEAL IT FROM WATER AND SOIL			TESTED IN ACC
	E.	ALL BURIED WATER PIPE SHALL BE PVC AWWA C-900 DR-18 (6"-12"Ø) PUSH ON TYPE JOINT UNLESS OTHERWISE NOTED. ALL		В.	FOLLOWING PR
		FITTINGS AND APPURTENANCES SHALL BE MECHANICAL JOINT WITH MEGA-LUG OR EQUAL RETAINER GLANDS UNLESS			
		OTHERWISE NOTED, AS PER SPECIFICATIONS.			LEAST A 16 HOL
	F.	THRUST RESTRAINTS SHALL BE PROVIDED FOR ALL WATERLINE TEES & BENDS, AS OUTLINED ON THRUST RESTRAINT			HEALTH CERTIF
	G	DETAILS. CONTRACTOR SHALL FULLY STAKE OR INDELIBLY MARK FACH SECTION OF LINE TO BE CONSTRUCTED STAKING SHALL			
	0.	CONSIST OF A WITNESS MARK AT EACH 50' STATION, AT EACH BEND LOCATION, AT EACH ACCESSORY (HYDRANT, AIR	12.	MEC	HANICAL CON
		RELEASE, GATE VALVE, BLOW OFF, MANHOLE, CATCH BASIN, ETC) STAKING SHALL BE COMPLETED AT LEAST 1000' AHEAD		A.	ALL BELOW GR
		OF ANY CONSTRUCTION CREW AT ANY TIME AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH ASSISTANCE			SPECIFICATION
		FROM THE ENGINEER AND THE OWNER.		В.	ALL ABOVE GRA
	п.	ASBESTUS-CEMENT (AC) PIPE IS CONSIDERED A HAZARDOUS SUBSTANCE. THE CONTRACTOR IS RESPONSIBLE FOR a) TAKING THE PROPER PRECALITIONS ASSOCIATED WITH WORKING WITH AC PIPE		C.	ALL BELOW GR/
		b.) ANY WORK WITH ASBESTOS CEMENT PIPE MUST COMPLY WITH ALL APPLICABLE VRAC. VOSHA, STATE OF		_	BE TIGHTLY TAP
		VERMONT, AND OSHA REQUIREMENTS		D.	MECHANICAL JO
		c.) AC PIPE SHALL BE ABANDONED IN PLACE WHEREVER POSSIBLE. WHERE ABANDONMENT IN PLACE IS NOT POSSIBLE,			RESTRAINED JU
		ALL AC PIPE REMOVED FROM THE PROJECT SHALL BE DISPOSED OF AT NO ADDITIONAL COST TO OWNER			
٨	SITIS		NOT	ES:	
4.		EXISTING FENCES FLOWERS RUSHES TREES MAILBOXES SIGNS CATCH RASINS CUILVERT HEADWALLS FTC	4	тог	
	73.	REMOVED BY THE CONTRACTOR SHALL BE REPLACED TO AT LEAST THEIR ORIGINAL CONDITION. THE CONTRACTOR	1. 2	THE	VERTICAL DATUM
		IS RESPONSIBLE FOR RECORDING PRE-CONSTRUCTION CONDITIONS BY USE OF PHOTOGRAPHS, VIDEO TAPES, AND	2. 3.	EXIS	STING GAS LINE LO
		OTHER METHODS. THE COST OF THIS PRE-CONSTRUCTION DOCUMENTATION SHALL BE CONSIDERED INCIDENTAL TO THE	4.	UNE	ERGROUND UTILI
	P	PROJECT. Some mail dover and signs are not shown allong project route for reagons of our rity, if removed to		INFC	ORMATION. PRIOR
	В.	SUME MAILBUXES AND SIGNS ARE NUT SHUWN ALUNG PRUJEUT RUUTE FUR REASUNS OF GLARITY. IF REMOVED TO FACILITATE CONSTRUCTION, THE CONTRACTOR, SHALL RESET ALL MAILBOYES AND SIGNS AS SOON AS DOSSIBLE		WAT	
	C.	THE CONTRACTOR SHOULD NOTE SPECIAL CONDITIONS IN THE SPECIFICATIONS REGARDING TREES. PLANTS, SHRUBS			BE INVOLVED WI
	<i>.</i> .	GRASS TURF, TREE ROOT FERTILIZATION, TIME LIMITATIONS, AND OTHER RELATED REQUIREMENTS.	5		
	D.	TREES LOCATED WITHIN THE R.O.W OR ANY CONSTRUCTION EASEMENT LIMIT SHALL NOT BE TRIMMED, DAMAGED, OR	5. 6.	ALL	EXISTING WSO'S
	_	DESTROYED WITHOUT PERMISSION FROM THE PROPERTY OWNER ON A LOCATION BY LOCATION BASIS.		CON	ISTRUCTION COM
	E.	THE CONTRACTOR SHALL ENTER INTO ONLY WRITTEN AGREEMENTS AS TO STAGING AREAS AND STORAGE AREAS.		OR	CUT @ VALVE PRI
	_	A OUT I OF THE AGREEMENT SHALL BE PROVIDED TO THE OWNER PRIOR TO THE USE OF THE SITE OR AREA.	7.	PRC	POSED WATER M

A COPY OF THE AGREEMENT SHALL BE PROVIDED TO THE OWNER PRIOR TO THE USE OF THE SITE OR ARE
 F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HOLDING UTILITY POLES AS NECESSARY. COSTS FOR
 WORKING NEAR AND AROUND UTILITY POLES SHALL BE PART OF THE UNIT PRICE BID FOR STORM DRAINS.
 CONTRACTOR SHALL COORDINATE ALL UTILITY POLE HOLDING WITH THE POLE OWNER (UTILITY). ALL

WORK SHALL BE IN CONFORMANCE WITH THE UTILITY COMPANY REQUIREMENTS.

5. RECORD DRAWINGS

A. ALL BURIED UTILITIES ENCOUNTERED SHALL BE DOCUMENTED WITH DEPTH AND THREE (3) TIES AND SHOWN BY

THE CONTRACTOR ON RECORD DRAWINGS. B. ALL NEW VALVES, FITTINGS, CURB STOPS, CORPORATION STOPS, WYES, AND SEWER CONNECTIONS SHALL BE DOCUMENTED WITH THREE (3) TILES AND SHOWN BY THE CONTRACTOR ON THE RECORD DRAWINGS. THESE TIES SHALL IMMEDIATELY BE PROVIDED TO THE ENGINEER.

6. CONNECTIONS TO EXISTING SYSTEM

- A. ALL WATER SERVICES ARE TO BE REPLACED WITH NEW SERVICES TO THE RIGHT-OF-WAY AND A NEW WATER CURB STOP INSTALLED. CONTRACTOR IS RESPONSIBLE TO MAKE FINAL CONNECTION TO EXISTING SERVICES AT THE R.O.W. ONCE THE NEW SYSTEM IS INSTALLED, TESTED, DISINFECTED, AND ACCEPTED.
 B. EXISTING WATER SERVICE SHALL BE MAINTAINED DURING CONSTRUCTION. THE NEW WATER SYSTEM SHALL BE
- TESTED, INSPECTED, CHLORINATED, AND ITS USE AUTHORIZED PRIOR TO TRANSFERRING SERVICE TO THE NEW SYSTEM. NO FLOW SHALL BE ALLOWED IN THE NEW SYSTEM UNTIL AUTHORIZED BY THE OWNER.
- C. CONTRACTOR IS TO INSTALL ALL NEW GATE VALVES AT CONNECTIONS TO EXISTING WATER SYSTEM. FINAL CONNECTIONS TO THE EXISTING SYSTEM AS WELL AS CUTTING, CAPPING AND ABANDONMENT OF SECTIONS OF THE EXISTING SYSTEM SHALL BE DONE AFTER THE NEW SYSTEM IS ACCEPTED. FINAL CONNECTIONS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS.

7. SAFETY AND PROTECTION

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF, AND SHALL PROVIDE THE NECESSARY PROTECTION TO PREVENT DAMAGE, INJURY, OR LOSS TO:

- a.) ALL EMPLOYEES ON THE WORK SITE AND OTHER PERSONS WHO MAY BE AFFECTED THEREBY
 b.) ALL THE WORK AND ALL MATERIALS OR EQUIPMENT TO BE INCORPORATED THEREIN, WHETHER IN STORAGE ON, OR OFF, THE SITE AND
- c.) OTHER PROPERTIES AT THE SITE OR ADJACENT THERETO, INCLUDING TREES, SHRUBS, LAWNS, WALKS, PAVEMENTS, ROADWAYS, STRUCTURES, AND UTILITIES NOT DESIGNATED FOR REMOVAL,
- RELOCATION, OR REPLACEMENT IN THE COURSE OF CONSTRUCTION. B. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STANDARDS (SPECIFICALLY INCLUDING OSHA, VOSHA, AND ANY OTHER STATE ADOPTED OSHA PROGRAM), LAWS, ORDINANCES, REGULATIONS AND ORDERS OF ANY PUBLIC BODY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY OR TO PROTECT THEM FROM DAMAGE, INJURY, OR LOSS, AND SHALL ERECT AND MAINTAIN ALL NECESSARY SAFEGUARDS FOR SUCH SAFETY AND PROTECTION. CONTRACTOR SHALL NOTIFY
- OWNERS OF ADJACENT PROPERTY AND UTILITIES WHEN EXCAVATION OF THE WORK MAY AFFECT THEM. C. CONTRACTOR'S DUTIES AND RESPONSIBILITIES FOR THE SAFETY AND PROTECTION OF THE WORK
- SHALL CONTINUE UNTIL SUCH TIME AS THE WORK IS COMPLETED AND ACCEPTED BY THE OWNER.
- D. THE CONTRACTOR SHALL CONTACT "DIGSAFE" AT 1-888-344-7233 PRIOR TO EXCAVATING IN CONSTRUCTION AREAS IN ORDER TO LOCATE BURIED UTILITIES.

OL & CONSTRUCTION SEQUENCE

NTROL SHALL BE PROVIDED AS NECESSARY BY THE CONTRACTOR. EROSION CONTROL MEASURES ACCORDANCE WITH THE VERMONT STATE STANDARDS AND SPECIFICATIONS LISTED BELOW. PREVENTATIVE EROSION D MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION AND ALL DISTURBED AREAS ARE TO BE IMMEDIATELY

IND SNOW FENCE SHALL BE INSTALLED PRIOR TO BEGINNING CONSTRUCTION. THESE AREAS ARE CONSIDERED TO HAVE POTENTIAL FOR EROSION DUE TO THE PROXIMITY TO WETLANDS OR STREAMS. RESTORATIONS (TOPSOIL, MATTING, D, FERTILIZER, AND MULCH) MEASURES IN THESE AREAS ARE CRITICAL AND SHALL BE COMPLETED WITHIN 48 HOURS OF IG. IN NO CASE SHALL WORK BE DONE IN THESE AREAS BETWEEN OCTOBER 15TH AND MAY 1ST. ON SHALL PROCEED AREA BY AREA TO FACILITATE INSTALLATION OF EROSION CONTROL MEASURES AND COMPLETION SEEDING AND MULCHING. THIS PROCEDURE IS INTENDED TO EXPOSE THE SMALLEST PRACTICAL LAND AREA AT ANY

ATTENTION SHALL BE GIVEN TO MAINTAINING THE STABILITY OF DOWN GRADIENT AREAS AND RUNOFF CONTROL WHERE WAYS AVOID CONCENTRATION OF STORM WATER RUNOFF.

EMPORARILY EXPOSED LONGER THAN SEVEN (7) DAYS OR IN ADVANCE OF PREDICTED LARGE STORMS SHALL BE

INLETS AND INLETS INSTALLED DURING CONSTRUCTION SHALL BE PROTECTED FROM EROSION VIA A "DROP-IN" FILTER T (ADS FLEXSTORM OR EQUAL) AND SHALL BE REGULARLY MONITORED AND MAINTAINED/REPLACED THROUGHOUT ON TO INSURE PROPER PERFORMANCE.

ETION OF CONSTRUCTION AND ONCE ALL PERMANENT VEGETATIVE COVER IS FIRMLY ESTABLISHED, ALL TEMPORARY ITROL DEVICES SHALL BE REMOVED.

ON SHALL BE CONDUCTED IN ACCORDANCE WITH THE VERMONT <u>EROSION PREVENTION AND</u> <u>SEDIMENT CONTROL FIELD</u> HE LOW RISK SITE HANDBOOK FOR EROSION CONTROL AND SEDIMENT PREVENTION. CATIONS FOR MORE INFORMATION.

SCHEDULED COMMERCIAL SWEEPING OF THE ENTIRE PROJECT AREA SHALL BE CONDUCTED (NOT TO EXCEED WEEKLY) REQUENTLY IF NECESSARY OR AS DIRECTED BY THE ENGINEER.

R SHALL PERFORM ALL WORK WITHIN EASEMENT LIMITS AND/OR RIGHTS-OF-WAY AS SHOWN ON THE PLANS EXCEPT PORARY CONSTRUCTION EASEMENTS AND OTHER LEGAL AGREEMENTS ALLOW. CAL SURVEY OBTAINED FROM GREEN MOUNTAIN ENGINEERING. PROPERTY LINES, RIGHTS-OF-WAY, AND EASEMENT HOWN FOR CONSTRUCTION PURPOSES AND ARE NOT TO BE CONSTRUED AS BOUNDARY SURVEY INFORMATION. & BOUNDARY SURVEY AND VTM ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY OF INFORMATION PROVIDED BY HTS-OF-WAY, PROPERTY LINES, AND EASEMENT BOUNDARIES ARE APPROXIMATE ONLY.

SCAPING TRIMMING AND SHAPING

D LANDSCAPING TRIMMING AND/OR REMOVAL SHALL BE DONE UNDER THE SUPERVISION AND DIRECTION OF AN

D CERTIFIED ARBORIST OR LICENSED FORESTER. BRANCHES, MULCH AND LOOSE VEGETATION GENERATED DURING THE WORK ACTIVITIES SHALL BE COLLECTED AND ISPOSED OF OFF-SITE BY THE CONTRACTOR. ALL DISTURBED AREAS SHALL BE LEFT IN A CONDITION COMPARABLE TO EXISTED PRIOR TO THE WORK.

R SHALL COORDINATE ALL TRIMMING AND REMOVAL ACTIVITIES WITH THE ENGINEER. REMAINING AFTER THE REMOVAL OF A TREE SHALL BE REMOVED BY GRINDING. STUMPS SHALL BE GROUND TO A PTH OF 6" BELOW GRADE.

MAINING FROM GRINDING SHALL BE BACKFILLED WITH TOPSOIL AND SEEDED/MULCHED AS NECESSARY.

ING, FLUSHING, DISINFECTION, BACTERIOLOGICAL SAMPLING

ACEMENT INTO OPERATION, THE NEWLY CONSTRUCTED PORTIONS OF THE WATER SYSTEM SHALL BE PRESSURE CCORDANCE WITH THE LATEST EDITION OF AWWA STANDARD C600.

PRESSURE TESTING, THE NEWLY CONSTRUCTED PORTIONS OF THE WATER SYSTEM SHALL BE FLUSHED, PRESSURE NFECTED, AND FLUSHED AGAIN. AFTER THIS PROCEDURE, AT LEAST TWO BACTERIOLOGICAL SAMPLES WILL BE ROM REPRESENTATIVE SAMPLE POINTS, COLLECTED AT LEAST 16 HOURS APART, OR 15 MINUTES APART AFTER AT DUR REST PERIOD AS PER AWWA STANDARD C651. THE SAMPLES SHALL BE SENT TO A VERMONT DEPARTMENT OF IFIED LABORATORY FOR A TOTAL COLIFORM/E. COLI (ENZYME SUBSTRATE) TEST.

NNECTIONS

RADE CONNECTIONS SHALL BE MADE USING FLUOROCARBON TEE-BOLTS AND NUTS (BLUE BOLTS) OR STAINLESS ROCARBON BOLTS AND NUTS SHALL BE MANUFACTURED WITH HIGH STRENGTH LOW ALLOY STEEL MEETING THE DNS OF AWWA C111/A21.111.

RADE CONNECTIONS (SUCH AS FIRE HYDRANTS) SHALL BE MADE USING STAINLESS STEEL BOLTS.

RADE BOLTED CONNECTIONS SHALL BE WRAPPED WITH 6-MIL (MINIMUM THICKNESS) POLY WRAP. POLY WRAP SHALLE APED TO PIPE.

JOINT (MJ) FITTINGS ARE REQUIRED FOR ALL TEES, REDUCERS AND MAINLINE VALVES. REFER TO MECHANICALLY JOINT TABLES.

EXISTING FEATURES INFORMATION OBTAINED FROM FIELD SURVEYS AND REFERENCE PLANS. JM IS NAD87. THE HORIZONTAL DATUM IS NAD83

LOCATIONS ARE APPROXIMATE.

LITY LOCATIONS ARE APPROXIMATE ONLY. THOSE SHOWN ON THE DRAWINGS ARE BASED ON THE BEST AVAILABLE R TO CONSTRUCTION, THE CONTRACTOR SHALL MEET WITH THE ENGINEER, OWNER AND REPRESENTATIVES OF THE IT, TELEPHONE COMPANY, ELECTRIC COMPANY, GAS COMPANY, SEWER DEPARTMENT, AND ANY OTHER UTILITIES THAT /ITH THE CONSTRUCTION PROJECT TO COORDINATE THE MARKING, AND TIMING OF DISRUPTIONS OF VARIOUS UTILITIES, ACTOR IS RESPONSIBLE FOR VERIFYING UTILITY LOCATIONS AND ELEVATIONS. ROVIDE PROPOSED SEQUENCE OF CONSTRUCTION WITHIN 10 DAYS OF PROJECT AWARD.

S (CURB STOPS) AND GATE VALVES SHALL BE TURNED OFF AND CURB BOXES / VALVE BOXES REMOVED UPON MPLETION. FILL AND REPAIR ALL CAVITIES LEFT AFTER BOX REMOVAL. CURB STOPS SHALL ALSO HAVE RODS REMOVED RIOR TO ABANDONMENT.

MAIN PIPE SHALL BE C900 PVC, DR 21.

ALL WATER MAIN CURVES / DEFLECTIONS SHALL BE MIN. 500' RADIUS (12" WATER MAIN) OR PER MANUFACTURER'S RECOMMENDATIONS.
 MAINTAIN 10' HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND POTABLE WATER PIPES ON PARALLEL RUNS. MAINTAIN 18" MINIMUM VERTICAL CLEARANCE BETWEEN ALL SANITARY SEWER AND POTABLE WATER PIPES AT CROSSINGS - SEE CROSSING DETAIL. MAINTAIN 5' HORIZONTAL CLEARANCE BETWEEN ALL STORM SEWER AND POTABLE WATER PIPES.
 CONTRACTOR TO PROVIDE, INSTALL, AND MAINTAIN INLET FILTER UNITS ON ALL INLETS THROUGHOUT PROJECT. FILTER UNITS TO BE

INSTALLED ON EXISTING INLETS PRIOR TO DISTURBANCE AND AT TIME OF INSTALLATION. INLET FILTER TO BE ADS FLEXSTORM, OR EQUAL -SEE SPECIFICATIONS.

 ALL EXISTING PIPES TO BE DECOMMISSIONED AND ABANDONED WHICH ARE LEFT IN PLACE SHALL BE CAPPED / PLUGGED.
 PRESSURIZED NATURAL GAS MAINS EXIST WITHIN THE PROJECT EXTENTS. CLOSE COORDINATION WITH NATURAL GAS PROVIDER IS REQUIRED TO PREVENT ACCIDENTAL IMPACTS.

13. ASSUME MINIMUM ONE LANE TRAFFIC AT ALL TIMES DURING CONSTRUCTION

14. SEE DETAILS AND SPECIFICATIONS FOR MORE INFORMATION.

	DESCRIPTION BY					
	REV. DATE					
VTM ENGINEERING, PLC 2941 SHELBURNE FALLS ROAD	HINESBURG, VT 05461 (802) 233-7531					
PRELIMINARY PLANS NOT FOR CONSTRUCTION						
CONSTRUCTION/GENERAL NOTES	BRISTOL WEST WATER REPLACEMENT PROJECT TOWN OF BRISTOL 1 SOUTH STREET, BRISTOL VT 05443					
E SP DRAWN PM CHECKED SP PRO 2 DRAV	PLOT DATE SCALE AS SHOWN DATE JECT NO. 2.1.3 WING NO.					