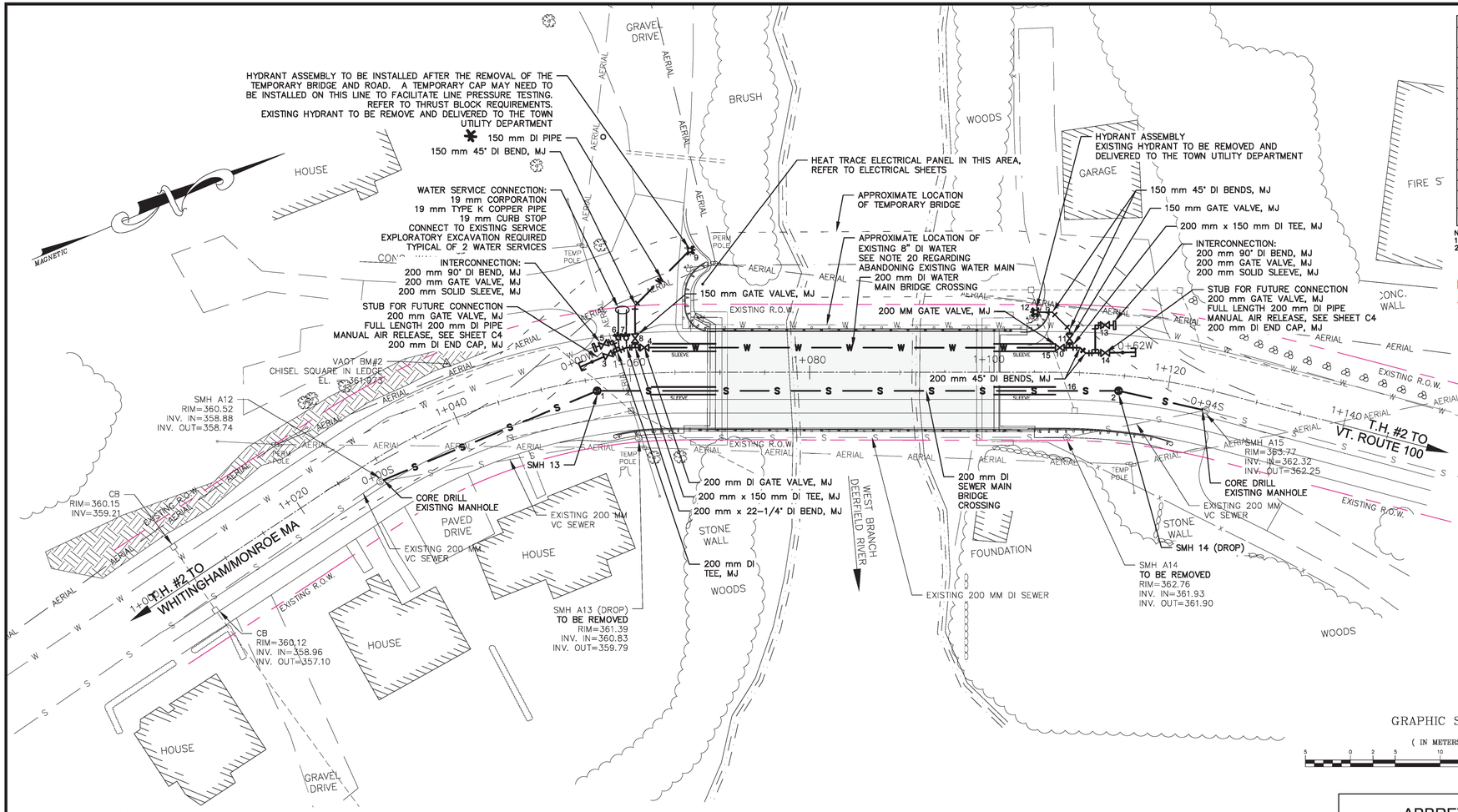

GRAPHIC SCALE
(IN METERS)
5 0 2 5 10 15 20 25

UTILITY ITEM LOCATIONS			
ITEM	DESCRIPTION	ROAD STA	OFFSET
1	SMH 13	1+056.0	1.35 M RIGHT
2	SMH 14	1+114.5	1.72 M RIGHT
3	200 mm GATE VALVE	1+057.9	2.4 M LEFT
4	200 mm GATE VALVE	1+061.8	2.9 M LEFT
5	200 mm GATE VALVE	1+057.5	3.9 M LEFT
6	19 mm CURB STOP	1+059.1	4.2 M LEFT
7	19 mm CURB STOP	1+060.0	4.1 M LEFT
8	150 mm GATE VALVE	1+060.9	4.0 M LEFT
9	HYDRANT	1+066.6	13.5 M LEFT
10	200 mm GATE VALVE	1+107.8	2.7 M LEFT
11	150 mm GATE VALVE	1+108.8	3.8 M LEFT
12	HYDRANT	1+105.1	6.7 M LEFT
13	200 mm GATE VALVE	1+112.4	5.4 M LEFT
14	200 mm GATE VALVE	1+112.7	2.4 M LEFT
15	WATER & STORM DRAIN CROSSING	1+106.9	2.7 M LEFT
16	SEWER & STORM DRAIN CROSSING	1+108.7	2.0 M LEFT

NOTES:
1. ITEM 15 – WATER & STORM DRAIN CROSSING: INVERT OF SLEEVE ELEVATION 360.016.
2. ITEM 16 – SEWER & STORM DRAIN CROSSING: INVERT OF SEWER MAIN ELEVATION 359.108.

FOR SHEETS C1, C2, C3 & C4
SEE AS BUILT PLANS

GENERAL NOTES:

1. DRAWINGS PROVIDED BY VTRANS. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE BASED ON INFORMATION PROVIDED BY THE TOWN OF READSBORO. THIS IS NOT A BOUNDARY SURVEY.
2. EXPLORATORY EXCAVATION IS REQUIRED TO LOCATE UNDERGROUND UTILITIES. CONTRACTOR SHALL USE EXTREME CAUTION TO PREVENT DAMAGE TO EXISTING UTILITIES. CONTRACTOR SHALL COORDINATE WITH DIG SAFE (1-888-DIG SAFE) A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION.
3. LOCATION OF PROPOSED WATER MAIN IS INTENDED NOT TO DISTURB ROOT SYSTEMS OF EXISTING TREES OR SHRUBS. CONTRACTOR SHALL EXERCISE DUE CARE TO PREVENT DAMAGE THERETO. ALL DISTURBED AREAS SHALL BE RESTORED TO PRECONSTRUCTION CONDITIONS.
4. ALL WORK IS TO BE DONE SHALL BE IN PUBLIC RIGHT-OF-WAY OR EASEMENT AREAS. REFER TO R.O.W. AND EASEMENT LIMITS ON SEPARATE VAOT SHEETS.
5. LISTING OF ADAPTERS, FITTINGS, NIPPLES, ETC. IS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. ADDITIONAL MATERIAL MAY BE REQUIRED. SOLID SLEEVE COUPLINGS WILL BE REQUIRED FOR CONNECTION TO EXISTING MAINS.
6. MINIMUM VERTICAL CLEARANCE BETWEEN NEW WATER MAINS AND ALL EXISTING UTILITIES, EXCEPT SEWERS AND STORM DRAINS TO BE 150 mm AT CROSSING LOCATIONS.
7. ALL BURIED FITTINGS MUST BE BLOCKED. REFER TO THRUST BLOCK DETAILS, AND TRENCH DETAIL SHOWN ON DRAWING C4.
8. MECHANICAL JOINT RESTRAINTS SHALL BE USED WHERE VALVES WILL BE SUBJECTED TO SERVICE PRESSURES ON ONE SIDE BEFORE BEING FULLY INCORPORATED INTO THE DISTRIBUTION SYSTEM.
9. WATER MAINS TO HAVE 1.675 METERS MINIMUM COVER UNLESS OTHERWISE STATED OR SHOWN ON THE PROFILES. WHEN 1.675 METERS OF COVER CANNOT BE MAINTAINED 100 mm RIGID BOARD INSULATION SHALL BE USED. DEPTH OF COVER SHALL NOT BE LESS THAN 1.200 METERS EVEN WITH INSULATION. SEE MATERIAL SPECIFICATION SECTION 735.01.
10. ALL MECHANICAL JOINT FITTINGS AND VALVES SHALL INCORPORATE A WEDGE-STYLE RETAINER GLAND INSTEAD OF THE COMMON FOLLOWER GLAND, AT THE CONTRACTOR'S EXPENSE.
11. ALL EXISTING UNDERGROUND UTILITIES WERE LOCATED USING THE BEST AVAILABLE INFORMATION. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL UTILITES WHETHER OR NOT THEY ARE SHOWN ON THE PLANS. ALL REPAIRS TO DAMAGED UTILITIES SHALL BE MADE BY THE CONTRACTOR USING MATERIALS APPROVED BY THE ENGINEER PRIOR TO INSTALLATION, AT THE CONTRACTORS EXPENSE.
12. CONTRACTOR IS RESPONSIBLE FOR FLUSHING, PRESSURE TESTING AND DISINFECTING ALL NEW WATER MAIN. CHLORINE INJECTION POINTS SHALL BE INSTALLED WHERE REQUIRED AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION AND REMOVED UPON COMPLETION OF TESTING. CONTRACTOR IS RESPONSIBLE FOR TESTING ALL SEWER MANHOLES AND SEWER MAIN ACCORDING TO THE SPECIFICATIONS.
13. CONTRACTOR SHALL VERIFY LOCATION OF ALL OVERHEAD AND UNDERGROUND ELECTRIC, CABLE AND TELEPHONE LINES AND TAKE NECESSARY PRECAUTIONS IN STRICT ACCORDANCE WITH OSHA STANDARDS DURING CONSTRUCTION. CONTRACTOR SHALL CONTACT THE LOCAL POWER UTILITY AND TELEPHONE UTILITY REGARDING ANY NECESSARY SUPPORT OF ANY UTILITY POLES DURING CONSTRUCTION. LOCAL ELECTRIC UTILITY IS CVPS. LOCAL PHONE UTILITY IS FAIRPOINT.
14. TEMPORARY WATER AND SEWER ARE REQUIRED FOR THIS PROJECT. TEMPORARY SEWER SHALL BE PROVIDED USING A TEMPORARY GRAVITY SYSTEM OR BY MEANS OF BYPASS PUMPING. ANY ABOVE GROUND PIPING SHALL BE SECURED TO THE TEMPORARY BRIDGE OR OTHER RIGID STRUCTURES AT A SPACING OF 3.05 M MINIMUM. THE CONTRACTOR SHALL SUBMIT A TEMPORARY UTILITIES PLAN TO THE ENGINEER PRIOR TO THE INSTALLATION. TEMPORARY UTILITIES SHALL NOT AFFECT TRAFFIC. REFER TO THE SPECIFICATIONS FOR MORE INFORMATION.
15. GENERALLY HEAVY OR DARK LINE WORK OR NOTES REFER TO PROPOSED IMPROVEMENTS. LIGHT LINE WORK OR SCREENED GENERALLY DENOTES EXISTING FEATURES.
16. TECHNICAL SPECIFICATIONS PROVIDE NECESSARY INFORMATION AND ARE PART OF THE CONTRACT DOCUMENTS FOR THIS PROJECT.
17. CONTRACTOR SHALL CONNECT WATER SERVICES TO IDENTIFIED WATER USERS UPON COMPLETION OF INSTALLATION OF WATER MAIN AND RECEIPT OF SUCCESSFUL BACTERIOLOGICAL TESTS.
18. REFER TO ELECTRICAL SHEETS FOR HEAT TRACE REQUIREMENTS.
19. ALL EXISTING SEWER MAIN AND MANHOLES BETWEEN SMH A12 AND SMH A15 SHALL BE REMOVED UNDER CONTRACT ITEM 204.21
20. ALL EXISTING WATER MAIN AND FITTINGS LOCATED BETWEEN THE TWO PROPOSED INTERCONNECTIONS ON EITHER SIDE OF THE PROPOSED BRIDGE SHALL BE ABANDONED AND REMOVED AS PART OF THIS PROJECT.
21. CONTRACTOR SHALL REBUILD EXISTING SEWER MANHOLE INVERTS AS NECESSARY TO MAINTAIN PROPER FLOW BETWEEN THE EXISTING STRUCTURE AND NEW SEWER MAINS.
22. CONTRACTOR IS RESPONSIBLE FOR CONNECTING ALL EXISTING WATER AND SEWER CUSTOMERS TO THE PROPOSED WATER AND SEWER MAINS. CONTRACTORS IS RESPONSIBLE FOR COORDINATING AND RESOLVING CONFLICTS BETWEEN ANY NEW OR EXISTING UTILITY.
23. TOWN OF READSBORO WATER SYSTEM STANDARDS:
    - HYDRANTS: CLOW EDDY F-2640.
    - GATE VALVES: AFC 2500 RESILIENT SEAT OR MUELLER A2360.
    - CORPORATION: MUELLER B-25008EB OR FORD 1000-3-Q-NL.
    - CURB STOP (WATER SERVICE): MUELLER B-25200ED OR FORD B44-333-Q-NL.
    - CURB STOP (MANUAL AIR RELEASE): MUELLER B25209 OR FORD B44-333-SENQ. CURB STOPS FOR MANUAL AIR RELEASES SHALL BE NON-DRAINING IN AREAS OF HIGH GROUNDWATER OR WHEN INSTALLED WITHIN 3.0 HORIZONTAL METERS FROM A SANITARY SEWER OR 1.5 HORIZONTAL METERS FROM A STORM DRAIN.

    ANY PRODUCT SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE PROVEN AS "EQUAL" AND BE PRE-APPROVED IN WRITING BY THE TOWN, STATE OF VT AOT AND DUFRESNE GROUP.
23. ALL PRODUCTS USED THAT ARE TO COME IN CONTACT WITH POTABLE WATER SHALL COMPLY WITH ALL STATE AND FEDERAL LEAD LAWS AND REQUIREMENTS.

LOCAL VALVE OPERATION

1. EXISTING AND PROPOSED MAIN LINE GATE VALVES SHALL OPEN LEFT OR COUNTER CLOCKWISE. OPERATION OF GATE VALVES WILL BE PERFORMED BY THE OWNER'S STAFF ONLY.
2. ALL INTERCONNECTIONS TO THE EXISTING SYSTEM CAN ONLY BE MADE WITH THE WRITTEN PERMISSION OF THE TOWN OF READSBORO.

ABBREVIATIONS

CI	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
CU	COPPER PIPE
DI	DUCTILE IRON PIPE
EL	ELEVATION
ER	EROSION
HYD	FIRE HYDRANT
INV	INVERT
IP	IRON PIPE
MJ	MECHANICAL JOINT
P	ELECTRICAL POWER
ROW	RIGHT OF WAY
STA	STATION
TBM	TEMPORARY BENCH MARK
TYP	TYPICAL
W	WATER MAIN
WSO	WATER SHUT OFF
WV	WATER VALVE

LEGEND

EXISTING:	
	EDGE OF RIVER
	EDGE OF PAVEMENT
	EDGE OF GRAVEL
	BUILDING
W	WATER MAIN
S	SEWER MAIN
AERIAL	TEMP OVERHEAD WIRE
	TREE LINE
	STONE WALL
	FENCE
	SWALE
	UTILITY POLE
	GUY WIRE
	CATCH BASIN
	MAIL BOX
	SEWER MANHOLE
	FIRE HYDRANT
IP	IRON PIN FOUND
	BENCH MARK
	ROAD SIGN
	DECIDUOUS TREE
	EVERGREEN TREE
PROPOSED:	
W	WATER MAIN
S	SEWER MAIN
	UTILITY SLEEVE
	GATE VALVE
	END CAP
	MANUAL AIR RELEASE
	SOLID SLEEVE
	CURB STOP
	SEWER MANHOLE
12	UTILITY ITEM NUMBER

FOR CONSTRUCTION

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NO. 50793
CIV
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PROFESSIONAL ENGINEER

REVISIONS

DATE	COMMENTS	BY

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TH 2, FAS 105
BRIDGE #32

WATER AND SEWER MAIN LEGEND, ABBREVIATIONS, GENERAL NOTES, AND PLAN

READSBORO, VERMONT

READSBORO BRF 0105(3)
WATER AND SEWER MAIN
LEGEND, ABBREVIATIONS,
GENERAL NOTES AND PLAN
SHEET __ OF __

Project #	416006
Project Mgr.	NRJ
Design by	TPK
Drawn by	TPK
Reviewed by	NRJ
Approved by	NRJ
Date	MAY 2011
Scale	AS SHOWN

C1

SHEET 1 OF 4

FILE: P:\2400 Files\Readsboro VT\Bridge 32\416006-C1.dwg Dec 14, 2011 - 9:29pm