

## CAPITAL IMPROVEMENT PROGRAM

98	WATER FUND	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
99	Town Water System Improvements	503,660	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
101	Town/UNH Shared Water System Improvements	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000
102	Madbury Road Complete Streets Project - Water Line Replacement	1,775,000	1,650,000	222,000							
105	Rubber Tired Excavator Replacement (Cost Share with General Fund 75%/25%)								77,500		
	WATER FUND TOTALS	2,348,660	1,795,000	367,000	145,000	145,000	145,000	145,000	222,500	145,000	145,000

# CAPITAL IMPROVEMENT PROGRAM

<b>PROJECT YEAR</b>	2023	<b>PROJECT COST</b>	\$503,660
<b>DESCRIPTION</b>	Town Water System Improvements	<b>DEPARTMENT</b>	Public Works - Water
<b>IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)</b>			
Department Initiative			
<b>DESCRIPTION (TO INCLUDE JUSTIFICATION)</b>			
<p>The Town's water distribution infrastructure includes 29 miles of water main along with valves, hydrants and appurtenances. Recognizing that a new ductile iron water main has an approximate useful life of 80 years, a water main replacement program targeting this timeframe is a prudent investment to ensure proper system operation. Given the lineal footage and age of the Durham's system, a replacement of approximately 1,900 lineal feet of water main each year at a cost of \$380,000 would be warranted. It is important to plan for these water main replacement programs proactively before failures occur. The goal of the Department's water system improvement program is to budget a minimum of \$75,000 annually and accumulate several years of funding, while identifying sections of the oldest water mains and replace them in conjunction with the Town's Road and Drainage Program,. This is also done in coordination with other underground utilities. In FY 23, proposed water main construction includes Emerson Road, from Madbury to the Westerly entrance of Littlehale Road. This contract was bid and awarded to Pichette Brothers of Manchester, NH in May of 2022 in the amount of \$794,960, inclusive of construction period engineering services. However, due to long lead times associated with ductile iron water main and materials (<i>over 36 weeks for delivery from date of order</i>), construction has been delayed until the spring of 2023. Funding for these projects has been included in the American Rescue Plan funding matrix for Year 2022 and 2023, in the amount of \$500,000 in FY22 and \$294,660 within the FY23 capital budget. In addition, \$134,000 has been included within the FY23 capital request representing construction contingency and miscellaneous water system needs. In FY23 and FY24, an additional \$75,000 annually, consistent with the recommended program, is being requested for Dennison Road water main construction planned to take place in 2024. This will be followed by roadway, sewer and drainage improvements of Dennison Road between Bagdad Road to Woodman Road in 2024 and 2025.</p>			
<b>ESTIMATED COSTS:</b>			
	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$	-
	FINAL DESIGN AND ENGINEERING	\$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	\$	-
	CONSTRUCTION COSTS	\$	503,660
	CONTINGENCY	\$	-
	<b>TOTAL PROJECT COST</b>	<b>\$</b>	<b>503,660</b>
<b>FINANCING</b>			
	OPERATING BUDGET	\$	75,000
	UNH - CASH	\$	-
	BOND - TOWN PORTION	\$	-
	FEDERAL/STATE GRANT	\$	428,660
	CAPITAL RESERVE ACCOUNT	\$	-
	<b>TOTAL FINANCING COSTS</b>	<b>\$</b>	<b>503,660</b>
<b>IF BONDED:</b>			
	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	\$	-
	TOTAL INTEREST	\$	-
	<b>TOTAL ESTIMATED COST</b>	<b>\$</b>	<b>-</b>



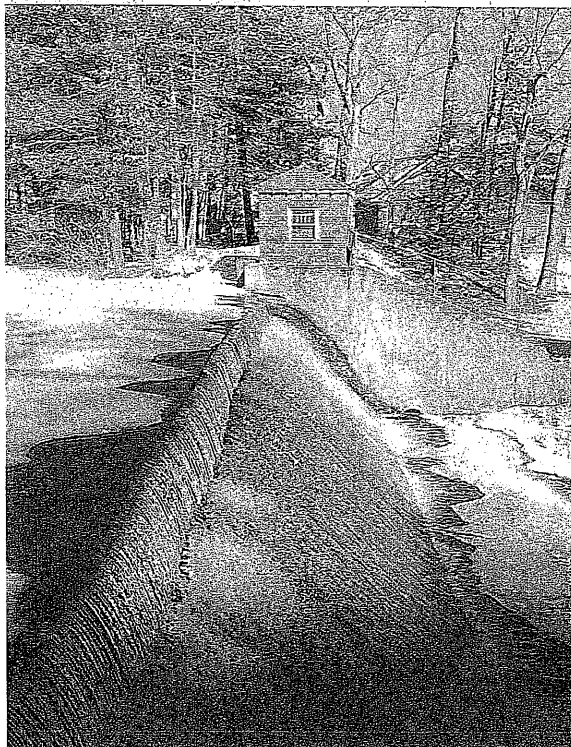
# CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR		2024-2032	PROJECT COST		\$75,000
DESCRIPTION		Town Water System Improvements	DEPARTMENT		Public Works - Water
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)					
Department Initiative					
DESCRIPTION (TO INCLUDE JUSTIFICATION)					
<p>The Town's water distribution infrastructure includes 29 miles of water main along with valves, hydrants and appurtenances. Recognizing that a new ductile iron water main has an approximate useful life of 80 years, a water main replacement program targeting this timeframe is a prudent investment to ensure proper system operation. Given the lineal footage and age of the Durham's system, a replacement of approximately 1,900 lineal feet of water main each year at a cost of \$380,000 would be warranted. It is important to plan for these water main replacement programs proactively before failures occur. The goal of the Department's water system improvement program is to budget a minimum of \$75,000 annually and accumulate several years of funding, while identifying sections of the oldest water mains and replace them in conjunction with the Town's Road and Drainage Program,. This is also done in coordination with other underground utilities. In FY 23, proposed water main construction includes Emerson Road, from Madbury to the Westerly entrance of Littlehale Road. This contract was bid and awarded to Pichette Brothers of Manchester, NH in May of 2022 in the amount of \$794,960, inclusive of construction period engineering services. However, due to long lead times associated with ductile iron water main and materials (<i>over 36 weeks for delivery from date of order</i>) , construction has been delayed until the spring of 2023. Funding for these projects has been included in the American Rescue Plan funding matrix for Year 2022 and 2023, in the amount of \$500,000 in FY22 and \$294,660 within the FY23 capital budget. In addition, \$134,000 has been included within the FY23 capital request representing construction contingency and miscellaneous water system needs. In FY23 and FY24 , an additional \$75,000 annually, consistent with the recommended program, is being requested for Dennison Road water main construction planned to take place in 2024. This will be followed by roadway, sewer and drainage improvements of Dennison Road between Bagdad Road to Woodman Road in 2024 and 2025.</p>					
ESTIMATED COSTS:					
		PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$	-	
		FINAL DESIGN AND ENGINEERING	\$	-	
		CONSTRUCTION ENGINEERING OVERSIGHT	\$	-	
		CONSTRUCTION COSTS	\$	75,000	
		CONTINGENCY	\$	-	
		TOTAL PROJECT COST	\$	75,000	
FINANCING					
		OPERATING BUDGET	\$	75,000	
		UNH - CASH	\$	-	
		BOND - TOWN PORTION	\$	-	
		FEDERAL/STATE GRANT	\$	-	
		CAPITAL RESERVE ACCOUNT	\$	-	
		TOTAL FINANCING COSTS	\$	75,000	
IF BONDED:					
		NUMBER OF YEARS	N/A		
		TOTAL PRINCIPAL	\$	-	
		TOTAL INTEREST	\$	-	
		TOTAL ESTIMATED COST	\$	-	



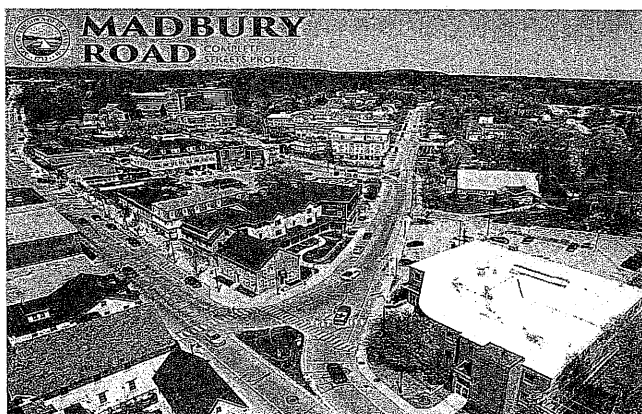
# CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	2023- 2032	PROJECT COST	\$70,000
DESCRIPTION	Town/UNH Shared Water System Improvements	DEPARTMENT	Public Works - Water
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)			
Department Initiative			
DESCRIPTION (TO INCLUDE JUSTIFICATION)			
This capital project is for design and construction of jointly shared Town/UNH water distribution, storage and treatment assets. This proposed capital request represents the Town's contribution toward these improvements which is equal to 1/3 of the total project cost estimated at \$210,000 per year.			
*Estimated costs are Town's Share of 1/3 of the total cost estimated at \$210,000 per year			
ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$	-
	FINAL DESIGN AND ENGINEERING	\$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	\$	-
	CONSTRUCTION COSTS	\$	70,000
	CONTINGENCY	\$	-
	TOTAL PROJECT COST	\$	-
FINANCING	OPERATING BUDGET	\$	70,000
	UNH - CASH	\$	-
	BOND - TOWN PORTION	\$	-
	FEDERAL/STATE GRANT	\$	-
	CAPITAL RESERVE ACCOUNT	\$	-
	TOTAL FINANCING COSTS	\$	70,000
IF BONDED:	NUMBER OF YEARS	N/A	
	TOTAL PRINCIPAL	\$	-
	TOTAL INTEREST	\$	-
	TOTAL ESTIMATED COST	\$	-



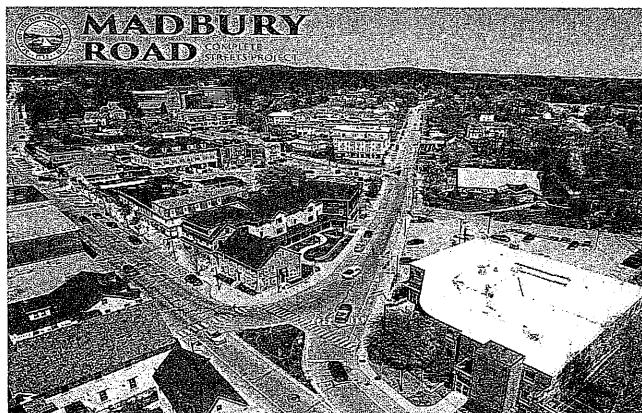
# CAPITAL IMPROVEMENT PROGRAM

<b>PROJECT YEAR</b>	2023	<b>PROJECT COST</b>	\$1,775,000
<b>DESCRIPTION</b>	Madbury Road Water Distribution Complete Streets Project - Construction	<b>DEPARTMENT</b>	Public Works - Water
<b>IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)</b>			
Department Initiative			
<b>DESCRIPTION (TO INCLUDE JUSTIFICATION)</b>			
<p>Madbury Road is approximately 6,500 feet in length and serves as a major arterial roadway in Durham with Average Daily Traffic exceeding 4,500 vehicles. The roadway was transferred to Town ownership from the State of New Hampshire when Route 4 was upgraded many years ago. The roadway was last paved in 2009 at which time it received an overlay treatment. Currently the roadway is in poor condition with significant pavement raveling, delamination, longitudinal and alligator cracking, rutting, settlement, and base failure. The sidewalks and curb ramps are ADA non-compliant and curb reveal is minimal or non-existent in some areas. The drainage system is undersized with drainage structures and drainage pipeline in a deteriorated condition. On September 13<sup>th</sup>, 2021, the Town Council approved a contract award in the amount of \$1,142,898.00 to VHB Engineering to provide design engineering services for the reconstruction of Madbury Road. The Madbury Road design project team has taken a "Complete Streets" approach, which includes evaluating and constructing multi-modal transportation improvements where possible, including traffic calming and pedestrian and bicycle accommodations. The design will also include a sustainable environmental approach to construction of public infrastructure, incorporating low impact development stormwater features, and environmentally conscious construction techniques and materials. A robust public involvement component has been developed to ensure all stakeholder's perspectives are considered within the design and incorporated where possible. The project team has developed a GIS "Story Map" using interactive maps to solicit feedback and has hosted a public information meeting on June 15<sup>th</sup>, 2022 and is planning a project open house in a September/October timeframe to share design concepts with project stakeholders. The project construction timeline includes four separate phases beginning in 2023 and continuing through 2026. Project components include Culvert rehabilitation and replacement, stormwater and drainage system reconstruction, water distribution system and sewer collection system rehabilitation and replacement and roadway, sidewalk, streetscape reconstruction. The project has been divided into 3 separate segments. The Public Work Department continues to aggressively pursue grant and principal forgiveness opportunities and has been successful in receiving \$800,000 in American Rescue Plan Act (ARPA) Funding and principal forgiveness thus far through the State Revolving Loan Fund Program. The proposed funding requests over Fiscal Year 2023 through Fiscal Year 2026 provides the necessary funding to construct the Madbury Road Complete Streets Improvements.</p>			
<b>ESTIMATED COSTS:</b>	<b>PRELIMINARY STUDY, DESIGN AND ENGINEERING</b>	\$	-
	<b>FINAL DESIGN AND ENGINEERING</b>	\$	-
	<b>CONSTRUCTION ENGINEERING OVERSIGHT</b>	\$	-
	<b>CONSTRUCTION COSTS</b>	\$	1,775,000
	<b>CONTINGENCY</b>	\$	-
	<b>TOTAL PROJECT COST</b>	\$	1,775,000
<b>FINANCING</b>	<b>OPERATING BUDGET</b>	\$	-
	<b>UNH - CASH</b>	\$	-
	<b>BOND - TOWN PORTION</b>	\$	1,775,000
	<b>UNH PORTION</b>	\$	-
	<b>FEDERAL/STATE GRANT</b>	\$	-
	<b>CAPITAL RESERVE ACCOUNT</b>	\$	-
	<b>TOTAL FINANCING COSTS</b>	\$	1,775,000
<b>IF BONDED:</b>	<b>NUMBER OF YEARS</b>		20
	<b>TOTAL PRINCIPAL</b>	\$	1,775,000
	<b>TOTAL INTEREST</b>	\$	935,000
	<b>TOTAL ESTIMATED COST</b>	\$	2,710,000



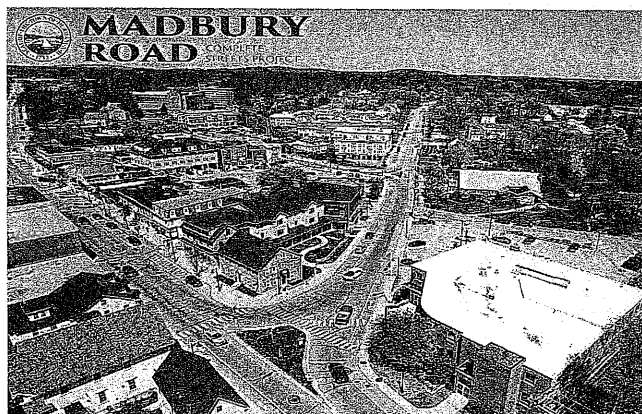
# CAPITAL IMPROVEMENTS PROGRAM

<b>PROJECT YEAR</b> 2024		<b>PROJECT COST</b> \$1,650,000																					
<b>DESCRIPTION</b> Madbury Road Water Distribution Complete Streets Project - Construction		<b>DEPARTMENT</b> Public Works - Water																					
<b>IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)</b> Department Initiative																							
<b>DESCRIPTION (TO INCLUDE JUSTIFICATION)</b>  <p>Madbury Road is approximately 6,500 feet in length and serves as a major arterial roadway in Durham with Average Daily Traffic exceeding 4,500 vehicles. The roadway was transferred to Town ownership from the State of New Hampshire when Route 4 was upgraded many years ago. The roadway was last paved in 2009 at which time it received an overlay treatment. Currently the roadway is in poor condition with significant pavement raveling, delamination, longitudinal and alligator cracking, rutting, settlement, and base failure. The sidewalks and curb ramps are ADA non-compliant and curb reveal is minimal or non-existent in some areas. The drainage system is undersized with drainage structures and drainage pipeline in a deteriorated condition. On September 13<sup>th</sup>, 2021, the Town Council approved a contract award in the amount of \$1,142,898.00 to VHB Engineering to provide design engineering services for the reconstruction of Madbury Road. The Madbury Road design project team has taken a "Complete Streets" approach, which includes evaluating and constructing multi-modal transportation improvements where possible, including traffic calming and pedestrian and bicycle accommodations. The design will also include a sustainable environmental approach to construction of public infrastructure, incorporating low impact development stormwater features, and environmentally conscious construction techniques and materials. A robust public involvement component has been developed to ensure all stakeholder's perspectives are considered within the design and incorporated where possible. The project team has developed a GIS "Story Map" using interactive maps to solicit feedback and has hosted a public information meeting on June 15<sup>th</sup>, 2022 and is planning a project open house in a September/October timeframe to share design concepts with project stakeholders. The project construction timeline includes four separate phases beginning in 2023 and continuing through 2026. Project components include Culvert rehabilitation and replacement, stormwater and drainage system reconstruction, water distribution system and sewer collection system rehabilitation and replacement and roadway, sidewalk, streetscape reconstruction. The project has been divided into 3 separate segments. The Public Work Department continues to aggressively pursue grant and principal forgiveness opportunities and has been successful in receiving \$800,000 in American Rescue Plan Act (ARPA) Funding and principal forgiveness thus far through the State Revolving Loan Fund Program. The proposed funding requests over Fiscal Year 2023 through Fiscal Year 2026 provides the necessary funding to construct the Madbury Road Complete Streets Improvements.</p>																							
<b>ESTIMATED COSTS:</b> <table> <tr> <td>PRELIMINARY STUDY, DESIGN AND ENGINEERING</td><td>\$</td><td>-</td></tr> <tr> <td>FINAL DESIGN AND ENGINEERING</td><td>\$</td><td>-</td></tr> <tr> <td>CONSTRUCTION ENGINEERING OVERSIGHT</td><td>\$</td><td>-</td></tr> <tr> <td>CONSTRUCTION COSTS</td><td>\$</td><td>1,650,000</td></tr> <tr> <td>CONTINGENCY</td><td>\$</td><td>-</td></tr> <tr> <td><b>TOTAL PROJECT COST</b></td><td><b>\$</b></td><td><b>1,650,000</b></td></tr> </table>			PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$	-	FINAL DESIGN AND ENGINEERING	\$	-	CONSTRUCTION ENGINEERING OVERSIGHT	\$	-	CONSTRUCTION COSTS	\$	1,650,000	CONTINGENCY	\$	-	<b>TOTAL PROJECT COST</b>	<b>\$</b>	<b>1,650,000</b>			
PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$	-																					
FINAL DESIGN AND ENGINEERING	\$	-																					
CONSTRUCTION ENGINEERING OVERSIGHT	\$	-																					
CONSTRUCTION COSTS	\$	1,650,000																					
CONTINGENCY	\$	-																					
<b>TOTAL PROJECT COST</b>	<b>\$</b>	<b>1,650,000</b>																					
<b>FINANCING</b> <table> <tr> <td>OPERATING BUDGET</td><td>\$</td><td>-</td></tr> <tr> <td>UNH - CASH</td><td>\$</td><td>-</td></tr> <tr> <td>BOND - TOWN PORTION</td><td>\$</td><td>1,650,000</td></tr> <tr> <td>UNH PORTION</td><td>\$</td><td>-</td></tr> <tr> <td>FEDERAL/STATE GRANT</td><td>\$</td><td>-</td></tr> <tr> <td>CAPITAL RESERVE ACCOUNT</td><td>\$</td><td>-</td></tr> <tr> <td><b>TOTAL FINANCING COSTS</b></td><td><b>\$</b></td><td><b>1,650,000</b></td></tr> </table>			OPERATING BUDGET	\$	-	UNH - CASH	\$	-	BOND - TOWN PORTION	\$	1,650,000	UNH PORTION	\$	-	FEDERAL/STATE GRANT	\$	-	CAPITAL RESERVE ACCOUNT	\$	-	<b>TOTAL FINANCING COSTS</b>	<b>\$</b>	<b>1,650,000</b>
OPERATING BUDGET	\$	-																					
UNH - CASH	\$	-																					
BOND - TOWN PORTION	\$	1,650,000																					
UNH PORTION	\$	-																					
FEDERAL/STATE GRANT	\$	-																					
CAPITAL RESERVE ACCOUNT	\$	-																					
<b>TOTAL FINANCING COSTS</b>	<b>\$</b>	<b>1,650,000</b>																					
<b>IF BONDED:</b> <table> <tr> <td>NUMBER OF YEARS</td><td></td><td>20</td></tr> <tr> <td>TOTAL PRINCIPAL</td><td>\$</td><td>1,650,000</td></tr> <tr> <td>TOTAL INTEREST</td><td>\$</td><td>935,000</td></tr> <tr> <td><b>TOTAL ESTIMATED COST</b></td><td><b>\$</b></td><td><b>2,585,000</b></td></tr> </table>			NUMBER OF YEARS		20	TOTAL PRINCIPAL	\$	1,650,000	TOTAL INTEREST	\$	935,000	<b>TOTAL ESTIMATED COST</b>	<b>\$</b>	<b>2,585,000</b>									
NUMBER OF YEARS		20																					
TOTAL PRINCIPAL	\$	1,650,000																					
TOTAL INTEREST	\$	935,000																					
<b>TOTAL ESTIMATED COST</b>	<b>\$</b>	<b>2,585,000</b>																					



# CAPITAL IMPROVEMENTS PROGRAM

PROJECT YEAR	2025	PROJECT COST	\$222,000	
DESCRIPTION	Madbury Road Water Distribution Complete Streets Project - Construction		DEPARTMENT	Public Works - Water
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)				
Department Initiative				
DESCRIPTION (TO INCLUDE JUSTIFICATION)				
<p>Madbury Road is approximately 6,500 feet in length and serves as a major arterial roadway in Durham with Average Daily Traffic exceeding 4,500 vehicles. The roadway was transferred to Town ownership from the State of New Hampshire when Route 4 was upgraded many years ago. The roadway was last paved in 2009 at which time it received an overlay treatment. Currently the roadway is in poor condition with significant pavement raveling, delamination, longitudinal and alligator cracking, rutting, settlement, and base failure. The sidewalks and curb ramps are ADA non-compliant and curb reveal is minimal or non-existent in some areas. The drainage system is undersized with drainage structures and drainage pipeline in a deteriorated condition. On September 13<sup>th</sup>, 2021, the Town Council approved a contract award in the amount of \$1,142,898.00 to VHB Engineering to provide design engineering services for the reconstruction of Madbury Road. The Madbury Road design project team has taken a "Complete Streets" approach, which includes evaluating and constructing multi-modal transportation improvements where possible, including traffic calming and pedestrian and bicycle accommodations. The design will also include a sustainable environmental approach to construction of public infrastructure, incorporating low impact development stormwater features, and environmentally conscious construction techniques and materials. A robust public involvement component has been developed to ensure all stakeholder's perspectives are considered within the design and incorporated where possible. The project team has developed a GIS "Story Map" using interactive maps to solicit feedback and has hosted a public information meeting on June 15<sup>th</sup>, 2022 and is planning a project open house in a September/October timeframe to share design concepts with project stakeholders. The project construction timeline includes four separate phases beginning in 2023 and continuing through 2026. Project components include Culvert rehabilitation and replacement, stormwater and drainage system reconstruction, water distribution system and sewer collection system rehabilitation and replacement and roadway, sidewalk, streetscape reconstruction. The project has been divided into 3 separate segments. The Public Work Department continues to aggressively pursue grant and principal forgiveness opportunities and has been successful in receiving \$800,000 in American Rescue Plan Act (ARPA) Funding and principal forgiveness thus far through the State Revolving Loan Fund Program. The proposed funding requests over Fiscal Year 2023 through Fiscal Year 2026 provides the necessary funding to construct the Madbury Road Complete Streets Improvements.</p>				
ESTIMATED COSTS:		PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$	-
		FINAL DESIGN AND ENGINEERING	\$	-
		CONSTRUCTION ENGINEERING OVERSIGHT	\$	-
		CONSTRUCTION COSTS	\$	222,000
		CONTINGENCY	\$	-
		TOTAL PROJECT COST	\$	222,000
FINANCING		OPERATING BUDGET	\$	-
		UNH - CASH	\$	-
		BOND - TOWN PORTION	\$	222,000
		UNH PORTION	\$	-
		FEDERAL/STATE GRANT	\$	-
		CAPITAL RESERVE ACCOUNT	\$	-
		TOTAL FINANCING COSTS	\$	222,000
IF BONDED:		NUMBER OF YEARS		10
		TOTAL PRINCIPAL	\$	222,000
		TOTAL INTEREST	\$	58,600
		TOTAL ESTIMATED COST	\$	280,600



# CAPITAL IMPROVEMENT PROGRAM

<b>PROJECT YEAR</b>	2030	<b>EQUIPMENT COST</b>	\$77,500
<b>DESCRIPTION</b>	Replacement of Rubber Tired Excavator	<b>DEPARTMENT</b>	Public Works Operations/ Water
<b>DESCRIPTION (TO INCLUDE JUSTIFICATION):</b>			
<p>Public Works will be replacing the 2013 Volvo rubber tired excavator in 2030. This is the most important piece of front line equipment. The excavator is utilized in many facets such as water breaks, road side mowing, excavation work, both large and small drainage work, culverts and road side ditching as well as many other miscellaneous projects.</p> <p>The total cost for this piece of equipment is \$310,000. The cost is being shared 75% Operations and 25% Water Fund.</p> <p>Vehicle to be Replaced: 2013 Volvo Rubber tired Excavator</p>			
<b>ESTIMATED COST</b>	<b>PURCHASE PRICE</b> <b>ACCESSORIES*</b> <b>LESS TRADE-IN**</b> <b>NET PURCHASE PRICE</b>	\$ 77,500 \$ - \$ - \$ 77,500	
*Accessories include lighting, radios, striping, misc. equipment.			
<b>FINANCING</b>	<b>OPERATING BUDGET</b> <b>UNH - CASH</b> <b>BOND - TOWN PORTION</b> <b>FEDERAL/STATE GRANT</b> <b>CAPITAL RESERVE ACCOUNT</b> <b>TOTAL FINANCING COSTS</b>	\$ - \$ - \$ 77,500 \$ - \$ - \$ 77,500	
<b>IF BONDED</b>	<b>NUMBER OF YEARS</b> <b>TOTAL PRINCIPAL</b> <b>TOTAL INTEREST (EST'D)</b> <b>TOTAL PROJECT COST</b>	5 \$ 77,500 \$ 11,625 \$ 89,125	

