



Town of Winchester

James Johnson, Chairman, Capital Planning Committee

71 Mt. Vernon Street
Winchester, MA 01990
Phone: 781-721-7133
Fax: 781-756-0505

October 13, 2020

To: Town Meeting

From: James Johnson, Chair, and Members of the Capital Planning Committee

cc: Select Board
Finance Committee
Peter Haley, Town Moderator
Lisa Wong, Town Manager

We are pleased to submit our annual Fiscal Year 2022 (FY 22) report of the Capital Planning Committee (CPC). The CPC has completed its evaluation of all capital project requests for the next five Fiscal Years.

We are now into the second Capital Planning cycle since the Town of Winchester voted on an increase in funding for capital projects (a \$1.2m net increase following the loss of Retiring Debt). While the positive effects of that increase are being felt, the capital needs of the Town continue to significantly outpace the capacity of the Stabilization Funds.

This year the Town, acting on historically low interest rates, refinanced ("refunded" is the technical term in the Municipal financial world) the obligations of significant portions of both funds and locked in low interest rates for the Lake Street Bridge, Waterfield Street Bridge and Swanton Street Bridge projects. Even with this beneficial financial maneuver (debt service for the Building Stabilization Fund (BSF) declined by over \$100K) the BSF continues to be hamstrung with debt and 61% of its funds go to debt service. The Capital Stabilization Fund is in better shape with 21% of its funds encumbered with debt service - a net increase over the prior year due to new bonding for the Lake and Waterfield Street Bridges.

Even though vital construction projects and capital equipment are being recommended for funding at this Town Meeting, it is the engineering projects that will lead to future construction projects that are the center pieces of this capital planning cycle.

Chief among those engineering projects are completion of 100% design plans for Project 10 of the Town flood mitigation program, also referred to as the Muraco Culvert. Project 10 is the final project of the program, which began over 20 years ago. A FEMA flood zone remapping will follow the completion of Project 10, bringing many Winchester properties out of the 100-year floodplain and will also increase site options available for the eventual replacement of the Muraco Elementary School. Completion of the design and engineering work will provide a solid cost estimate so we can go to bid on the Muraco Culvert Project.

The Massachusetts School Building Authority (MSBA) selection of Lynch Elementary School for replacement consideration means we must realistically expect and plan for keeping Muraco viable for at least another 8-10 years. To that end, Spring Town Meeting voted funding for an overall review of the systems of the school. The results of that review provided a prioritized list of projects to extend the useful life of the school and the Capital Committee is recommending funding the engineering work for the first two highest priority projects:

roof repair/replacement and electrical system repair/replacement (Muraco Life Extension Program). Tackling those projects now will maximize the value of those projects to the town by reducing maintenance and will minimize the chances of having to make major investments/repairs to those systems just as the School approaches replacement.

The construction portion of these two projects (Project 10 and the Muraco Life Extension Program) is beyond the capacity of the Stabilization Funds to fund on their own. Capital has been working closely with the Select Board as the Select Board explores ways forward with alternate sources of funding.

Beyond those two projects, Capital is recommending engineering work that will define and lead to significant construction projects in the Town Transfer Station, the Department of Public Works (DPW) complex, Town Hall, the historic façade of the McCall Middle School, and for traffic improvements along Highland Ave.

As a general rule, Capital does not recommend funding for project engineering work when it cannot identify funding for construction in the following Capital Planning cycle. Given the constraints of the 2 funds, some of the projects above will have to be approached from a phased construction plan over the course of several Capital Planning cycles.

The Select Board has requested, and the Capital Planning Committee is recommending, funding to prepare a Downtown Winchester Improvement Action Plan, focusing on Main Street, Mount Vernon Street, Thompson Street, Converse Place, Waterfield Road, and Church Street. The study will tie in various projects occurring near Downtown, while enhancing safe connections for people walking and biking and traveling in the area. In addition, there will be landscape improvement opportunities around the riverfront.

As detailed later in the report, Capital is also recommending funding in FY 22 for a significant number of immediate projects including: continuing to fully fund DPW's request for Roads and Sidewalks for the second year in a row; a package of building infrastructure and security improvements for the Fire Department buildings; a project to mitigate moisture and replace flooring in the Town Hall basement; replacement of various town vehicles that have exceeded their useful life; repairs to the Main Street Bridge railings; the replacement of the fire alarm systems in both the Town Hall and DPW complex (both a safety and ADA concern). There is also funding for ongoing programs such as ADA and upgrades to the Town Public Safety radio system.

Finally, it must be noted that the largest Capital item in this fiscal year is the restoration of the North Reservoir Dam and its associated Low-Level Outlet. This High Hazard Dam was rated in Poor condition at its last inspection. As the dam is vital to the Town water system and has a higher risk to breach we are obligated to make repairs. The extent of repairs required has expanded as engineering of the project progressed with construction estimates now exceeding \$6M. This project will require bonding which will be serviced by the Water and Sewer Enterprise Fund.

This year the CPC is recommending use of the following funds for the FY22 Capital Projects:

Capital Stabilization Fund	\$2,270,000
Building Stabilization Fund	\$1,738,750
Borrowing (Water & Sewer)	\$6,998,148
W&S Retained Earnings	\$ 200,000
Cemetery Trust Fund	<u>\$ 70,000</u>
Total	\$11,276,898

Capital Planning Process

The process for evaluating capital project requests is detailed and thorough. It begins in June of every year and culminates at Fall Town Meeting. Requests for potential capital planning projects for the next five years are distributed to all elected and appointed Boards and Committees and municipal and school departments in order to create a comprehensive five-year needs assessment for the Town. This year participation includes School Committee, Select Board, Town Manager, Energy Management Committee, Disabilities Access Commission, and department heads. These requests are prepared by Town staff and submitted to the CPC for review and prioritization.

The CPC consists of the following members per the Town's charter. Two members appointed by the Finance Committee, one member appointed by the Planning Board, one member appointed by the School Committee and three members appointed by the Select Board. The makeup of the CPC was designed to be inclusive of all Town agencies and relies on each member representing an appointed Board or Committee to report back to said Committee and also bring forward concerns and/or issues back to the CPC.

The CPC in evaluating each project relies on each Town entity submitting a proposal to take into consideration their immediate and long-term capital needs. A major tool that is used by the Town in developing our long-term immediate building repairs is the VFA/Accruent Building Envelope Program. This program helps to develop the expected life cycle and cost estimates for building system maintenance upgrade and replacement. This program allows for long term capital planning which helps the Town prioritize its five-year plan.

Additionally, the Department of Public Works and the Engineering Department have developed a comprehensive program for sewer, water, drainage, roads, traffic, sidewalks and flood mitigation projects. The Field Management Committee together with the DPW and School Department have developed a five-year field capital improvements plan. All of these tools utilized by the various Town agencies contribute to the development of a comprehensive plan for maintaining and improving the Town infrastructure and assets.

Project Evaluation Criteria

The backbone to the Capital Planning process was the establishment of a ranking process that allows the CPC to evaluate each individual project in a consistent manner. The ranking is based on the following criteria:

- Public Health and Safety
- Mandates by State or Federal Government
- Necessary for Maintenance of Town Assets
- Demonstrated Increased Efficiency and /or Cost Savings

Each project request is required to address the following items when submitting to the CPC.

- 1) Expected lifetime of the item/project.
- 2) Expected operating costs of and manpower available to complete or use the item or project.
- 3) Comparison of purchasing versus leasing or outside contracting of the service and, where relevant, the cost of multi-town sharing of resources or equipment.
- 4) Need for the item/project and its effect on the operating budget-what it might save in maintenance and repair.
- 5) Departmental priorities for the current year's projects/items.
- 6) Estimated cost estimates of the item/project, supported by bids or quotes whenever possible.

- 7) A plan detailing item/projects awarded during the past three (3) years and those to be requested over the next three (3) years.
- 8) A schedule of implementation for approved items and projects, including a time line within the proposed FY.

One of the critical steps in completing the CPC's evaluation of each project is meeting with the individual responsible for requesting the project. At this meeting we discuss with the individual where the request fits into the overall goals for their long-range capital plans. During this time, we make sure that alternative strategies for meeting their needs have been evaluated. We also require that each party submitting a request has looked at utilizing alternative funding sources as well.

Long Term Capital Requests Capital 5-Year Request Summary Table			
Departments	FY 22 Requests	FY 23-26 Requests	Total Five Year Requests
ADA	350,000	1,400,000	1,750,000
DPW Buildings	1,255,000	3,565,000	4,820,000
DPW Cemetery	110,000	460,000	570,000
DPW Roads and Sidewalks	500,000	2,000,000	2,500,000
DPW Vehicles FY22 & FY23 Only	205,000	407,250	612,250
DPW Water/Sewer I&I 10 Year Plan	6,840,000	3,110,000	9,950,000
Engineering Stormwater & Drainage / MS4 FY22 & FY23 Only	348,148	4,500,000	4,848,148
Engineering Traffic /Bridges	200,000	250,000	450,000
Fire Department	395,000	TBD	395,000
Town Manager Flood (FY23 Estimated)	10,922,000	1,002,000	11,924,000
Town Manager Other	410,000	9,000,000	9,410,000
MIS	325,000	TBD	325,000
Police Department	TBD	TBD	TBD
Recreation Department	65,000	TBD	65,000
Wright Locke Farm	174,000	TBD	174,000
School Department	15,000	185,000	200,000
School Department	338,750	10,606,250	10,945,000
Total FY 22 Requests	22,452,898		
Total FY 23-FY26 Requests		36,485,500	
Total Five Year Requests			58,938,398

This year alone there were in excess of \$20 million in Capital Stabilization Fund, Building Stabilization Fund and Water Sewer requests. The Building Stabilization Fund (BSF) is used for building maintenance, repairs and new construction. The Capital Stabilization Fund (CSF) is used for fields and playgrounds, roads and

sidewalks, equipment, flood mitigation and bridge repair. Even though there was additional funding for the FY 22 capital budget there still remains several critical unfunded projects which include in no particular order:

- Replacement of the West Side Fire Station;
- DPW Complex Renovations;
- Digitizing Records and Investing in a Town Digital Record Management system;
- Numerous roadway/intersection improvement projects;
- Additional Parkhurst School Improvements;
- Sanborn Carriage House Improvements;
- Construction for the Flood Mitigation “project 10” the Muraco Culvert construction;
- Turf replacement at Manchester Field;
- Renovation of Lynch and Muraco Elementary Schools;
- Ongoing elements of the Muraco Life Extension Program;
- Recreation Building (Mystic School) Improvements;
- Replacement of Fire Engine 2;
- Renovation/Replacement of several Tennis Courts, Baseball/Softball Dugouts and Playground Areas;
- Numerous athletic field projects;
- Replacement of Town Hall windows;
- Repairs and Reconstruction of the facade of McCall Middle School;
- Roof repair at Ambrose Elementary School;
- Drainage and hardscape replacement/improvements at Lincoln Elementary School;
- McCall Middle School roof replacement;
- Water Main Lead Neck replacement;
- Sewer System I&I Projects;
- Routine replacement of town vehicles;

FY 22 CPC Recommended Projects

Fall Town Meeting Building Stabilization Fund

Muraco School Life Extension Program – Phase I	\$ 143,750
Fire Buildings Projects (Main Station/Westside) Immediate Repairs/Security	\$ 390,000
McCall Masonry Design/Restoration Schematic	\$ 60,000
Town Hall HVAC - Engineering	\$ 75,000
Town Hall Flooring Replacement	\$ 270,000
Department of Public Works - Stable Replacement Engineering	<u>\$ 50,000</u>
Total	\$ 988,750

Fall Town Meeting Capital Stabilization Fund

Flood Mitigation “Project 10” Final Design – Muraco Culvert	\$ 410,000
DPW Buildings – 4 Wheel Drive Truck with plow	\$ 65,000
Downtown Business District Engineering & Improvements	\$ 75,000
DPW Maintenance– 4 Wheel Drive Truck with plow / liftgate	\$ 70,000
Highland Avenue Traffic Improvements - Engineering	\$ 65,000
DPW Buildings – Transfer Station Upgrades - Engineering	<u>\$ 100,000</u>
Total	\$ 785,000

Fall Town Meeting Water & Sewer Enterprise Fund – Borrowing Authorization

North Reservoir Dam - Construction	<u>\$ 6,050,000</u>
Total	\$ 6,050,000

Spring Town Meeting Building Stabilization Fund

Town Hall/DPW Fire Alarm – Engineering & Construction	<u>\$ 750,000</u>
Total	\$ 750,000

Spring Town Meeting Capital Stabilization Fund

ADA Projects	\$ 125,000
Public Safety Radios – Police & Fire Year 4 of 4	\$ 125,000
DPW Roads and Sidewalks	\$ 500,000
DPW Buildings Generator Replacement – Engineering	\$ 20,000
Main Street Bridge Railing Restoration	\$ 250,000
Police – Chief’s replacement vehicle	<u>\$ 65,000</u>
Total	\$ 1,085,000

Spring Town Meeting Water & Sewer Enterprise Fund

MS4 Year 3*	\$ 200,000
Lead Neck Removal & Replacement (MWRA interest free Loan)	\$ 600,000
Sewer I&I MWRA (Loan)	<u>\$ 348,148</u>
Total	\$ 1,148,148

Spring Town Meeting Cemetery Trust Fund

Cemetery Capital Improvements – Roads & Grounds	<u>\$ 70,000</u>
Total	\$ 70,000

*3rd Year of the Small Municipal Separate Storm Sewer System Permit Requirements

FY 21 Project Descriptions – Fall Funding

Building Stabilization Fund

Muraco Elementary School Life Extension Program

Phase I - Roof and Electrical System Testing/Investigation and Schematic Design

The results of the Architectural/Engineering review of the Muraco Elementary School (Article 10 - 2020 Spring Town Meeting) were reported to the School Committee and Capital Planning Committee in August. The A/E team identified two major areas of concern: The existing roofing system and the existing (original) electrical distribution system. These two building systems/components are broken down into two priorities: 1) testing and schematic design (for Fall Town Meeting consideration) and 2) final construction documents and construction (next fiscal year).

Phase I - Article 18 (to be completed by summer 2021):

Infrared Roof Scan: This test will help identify the areas of the roof that have or are trapping moisture. The test indicates areas where the roof should be removed for further investigation to see if the metal roof deck has been compromised by corrosion. This information will be helpful in developing the roof replacement scope for next fiscal year.

Electrical Systems Testing: The primary electrical switchgear is 55 years old. In an effort to identify scope of replacement, load testing will monitor each of the systems components such as switches, distribution panels, and branch wiring, and provide feedback on their capabilities to last another ten years. An electrical engineer will further be engaged to develop a schematic design spec for system replacement based on testing results.

Phase II - funding next fiscal year (to be completed by summer 2022):

After the completion of roof and electrical system testing and schematic package development, the Muraco Capital Plan calls for the completion of construction documents and bidding/construction for replacement of these systems by the end of summer 2022. Preliminary cost estimates for roof replacement are between \$2.2M and \$2.5M and the electrical is estimated at between \$865K to \$900K. Only after testing and schematic design will more firm cost figures be available.

Fire Buildings Projects (Main Station/Westside) Immediate Repairs/Security

This request is for immediate repairs to both the West Side Fire Station and the Main Street Station.

Improvements at the West Side Station will include updates to the kitchen area (original to 1974), which serves as the station communal area, including but not limited to: new cabinets, plumbing and waste water fixtures, paint, flooring, and new appliances. The improvements will also include repairs and replacement of the buildings AC and air handling units.

Immediate repairs at the Main Station will include repair and replacement to the buildings HVAC system. Currently the system is problematic and has been a constant source of maintenance issues for years. The station is not adequately cooled or heated, leading to unacceptable living conditions. The request will also allow for the installation of a new key card access system and security cameras, both of which were recommended in the Town's Risk Assessment Study prepared in 2019.

McCall Masonry Design/Restoration Schematic

The original Winchester High School built in 1932 is today the central building of the McCall Middle School and serves as the Main Street entrance. The classical historic facade's precast columns and ornamental cornice are original and in very poor condition. Copper flashing (water proofing) and mortar joints are failing after 88 years of service which is leading to water infiltration, efflorescence and failure of plaster in classrooms. Furthermore, the precast safety balustrades at the areaways adjacent to the main entrance are failing which poses an urgent safety issue without prompt repair or replacement. The Capital Planning Committee supports \$60,000 in funding for an architectural evaluation and schematic design/specification for repair or replacement of McCall Middle School's masonry elements which will include a conceptual cost estimate for the work.

Town Hall HVAC Engineering

This request is for engineering services to identify deficiencies in the current Town Hall HVAC system related to but not limited to equipment age, moisture/humidity problems, fresh air exchange, efficiency etc. This project will lead to design for repairs/replacements and a new systems to address these issues.

The Town Hall has specialty cooling equipment that is located in the bell tower that serves the Vaults, and computer room. These condensers are subject to extreme heat during the summer months due to their own discharge heat and the high temperature related to the space they occupy. This makes them extremely inefficient and shortens their life. This is compounded by the fact that the areas they serve are three stories below. The Head End room and the comptroller's office are above the stage. They have similar heat discharge issues along with the fact these are larger pieces of air handling equipment that are over 30 years old and are at end of useful life.

The Lower level of Town Hall has moisture issues that need to be addressed with some sort of dehumidification system. There is a minimal air exchange system that is ineffective.

The Town Hall currently relies on operable windows for fresh air exchange. During high and low temperatures this conflicts with trying to heat and cool the spaces.

Town Hall Flooring Replacement

Winchester Town Hall Lower Level has had long standing health and safety concerns related air quality. The project will remove the existing carpet in the lower level that consistently has high moisture readings during the summer months even with significant dehumidifying equipment and AC running at extended hours in that area. There is residual asbestos containing glue (mastic) on the slab that requires the removal of the carpet as an abatement process and the floor must be shot blasted and prepped to receive new flooring. The project will require temporary office relocation, removal of the existing carpet, asbestos remediation by shot blasting of the slab, and slab sealing for moisture mitigation measures.

Department of Public Works - Stable Replacement Engineering

In 2004 a feasibility study was presented to Town Meeting outlining many needed improvements at the DPW Facility. Over the past years many improvements have been made, most recently the demolition of the old stable building and brick wall and replacement with a new fencing. When the stable buildings were demolished there was always a plan to replace those buildings with a new structure, as they were used to store DPW equipment. That equipment now sits out in the elements with no protection. This request is to fund the engineering for a new storage structures that would be code compliant and could be temperature controlled.

Capital Stabilization Fund

Flood Mitigation “Project 10” Final Design – Muraco Culvert

‘Project 10 is a flood improvement project at the MBTA railroad crossing on the Aberjona River behind the Muraco Elementary School. Currently the railroad crossing consists of two 4-ft x 7-ft box culverts. Project 10 consists of the installation of two additional 8-ft diameter culverts to supplement the existing box culverts and provide more flow capacity under the crossing. The project will reduce 100-year flood levels in the vicinity of the Muraco School from the effective elevation of 28.5 Ft-NAVD88 to 25 ft-NAVD88, thereby reducing flood depths by 3.5 feet and floodplain area remaining around the Muraco School. Based on the Winchester’s town-wide topographic survey the school will be removed from the 100-year floodplain. During construction some temporary laydown space will be required in the rear of the property adjacent to the Aberjona River. Currently the project is 25% designed, this appropriating will take the project through 100% design and permitting.

DPW Buildings – 4 Wheel Drive Truck with plow

Replaces a 2003 Chevy 2500 Utility Truck with 93,000 miles with a new Ford F-350 Utility Truck, 4-wheel drive with 8-foot plow utility.

Downtown Business District Engineering & Improvements

Prepare a Downtown Improvement Action Plan, focusing on Main Street, Mount Vernon Street, Thompson Street, Converse Place, Waterfield Road, and Church Street. In addition, the study will incorporate landscape opportunities for the riverfront park land along the Aberjona River, proximate to Converse Place and Mystic Valley Parkway, directly north of Main Street. The study and associated recommendations goal is to tie in various complete streets projects occurring near Downtown, while enhancing safe connections for people walking and biking and traveling in the area.

Potential improvements using national and statewide best practices as examples. Improvements recommended may include, but are not limited to:

- a. Curb extensions to improve sightlines for crosswalks;
- b. Traffic calming measures, such as raised crosswalks, to slow vehicle operations;
- c. Wayfinding signage plan to guide people walking and biking to and through Downtown;
- d. Permanent outdoor dining provisions;
- e. Various sidewalk repairs or enhancements;
- f. Areas for bicycle parking opportunities;
- g. Shared streets or pedestrian plazas;
- h. Landscape design and lighting; and
- i. Alternative parking dimension and layout solutions.

DPW Maintenance – 4 Wheel Drive Truck with plow/liftgate

Replaces a 2009 Ford Ranger with a new Ford F-350 Utility Truck, 4-wheel drive with 8-foot plow utility and lift gate. Trade in a 2003 Trail Blazer with 115,000 miles.

Highland Avenue Traffic Improvements Engineering

In 2018, Town Meeting funded \$55,000 towards the completion of corridor studies on Highland Avenue (between Forest Street and Mystic Valley Parkway) and Cross Street. The studies were completed in fall 2019,

with a variety of recommendations to improve safety for pedestrians, vehicles, and bicyclists, as well as to reduce vehicular speeds.

One of the recommendations in the Highland Avenue corridor study was the construction of median islands at 13 locations along the corridor (approximately every 400-feet). The goal of the medians is to narrow and shift the travel lanes along Highland Avenue to reduce vehicle speeds. The medians will also double as pedestrian refuge islands where installed at crosswalks. Since the islands will be installed along the centerline of the roadway, drainage will generally not be impacted, and are safer for bicyclists than curb bump-outs.

The Capital Planning Committee is recommending the funding of \$65,000 at Fall Town Meeting to pay for the project design. The Town Engineer is requesting funding for construction at the spring 2021 Town Meeting to allow for summer / fall construction.

DPW Buildings – Transfer Station Upgrades Engineering

The town is planning for the future of solid waste & recycling operations. The current transfer station has been preliminarily evaluated and has been found to have operational inefficiencies, equipment deficiencies and layout issues leading to safety concerns. The report concluded that “critical” capital improvements are needed for the continued operation of the transfer station. This request is to take that preliminary study and move it forward and develop a set of plans for the replacement of the critical components of the station found to be deficient. Some of these components are the tipping building and the conveyor belt, upgrades to the electrical systems, the incinerator building, employee offices/restrooms and site layout and improvements.

Water & Sewer Enterprise Fund

North Reservoir Dam and Low Level Outlet Construction

North Reservoir Dam is an earthen embankment dam that was constructed in the 1870’s. In accordance with the Code of Massachusetts Regulations (CMR) dam safety rules stated in 302 CMR 10.00 as amended by Chapter 330 of the Acts of 2002, North Reservoir Dam is classified as an INTERMEDIATE size, HIGH hazard potential structure. The dam was rated in POOR Condition in the most recent Phase I Inspection report dated July 24th, 2019.

The main deficiencies of the dam, as reported in the 2019 Phase I Inspection report uncontrolled active seepage in the downstream area, erosion/over-steepening of the upstream slope and portions of the downstream slopes, overgrown trees and brush in the downstream slope, the absence of an operational low-level outlet (LLO), and an inadequate factor of safety for slope stability on the upstream and downstream slopes per design requirements specified in 302 CMR 10.14 (9)(c).

The Town plans to rehabilitate the dam in accordance with the recommendations provided in the Phase I Inspection report and as fully engineered by Weston & Sampson utilizing previously appropriated funds by Town Meeting. Rehabilitating the dam will allow the Town to continue to use North Reservoir as a drinking water supply and retain the adjacent walking trails as a recreational asset. Recommended dam improvements include re-grading the upstream and downstream slopes, installing a mineral filter and toe drain on the downstream slope to improve seepage management through the embankment, and installing a LLO as a means to lower reservoir levels if necessary.

We would like to thank the Department Heads, Select Board, and especially Mark Twogood, Assistant Town Manager and Margaret White, Special Projects Manager for all your hard work in preparing the FY 22 Capital Plan.

James A. Johnson III, *Chairman*

Roger McPeck, *Vice Chairman*

Helen S. Philiou, *Member*

Chris Nixon, *Member*

Arun Balasubramaniam, *Member*

Alison Swallow, *Member*

Heather R. von Mering, *Member*