

2008 – 2012 Capital Improvement Plan Executive Summary

What is Capital Planning?

A core responsibility of local government officials is the preservation, maintenance, and improvement of the community's stock of buildings, roads, parks, water and sewer facilities, and equipment. The Capital Improvement Plan (CIP) is primarily a planning document. As such, it is updated annually and is subject to change as the needs of the community become more defined. Used effectively, the capital improvement planning process can provide for advance project identification, evaluation, scope definition, design, public discussion, cost estimating, and financial planning. Capital planning helps ensure that the community is positioned to:

- preserve and improve its basic infrastructure through construction, rehabilitation and maintenance;
- maximize the useful life of capital investments by scheduling major renovation, rehabilitation, or replacement at the appropriate time in the life-cycle of the facility or equipment;
- identify and examine current and future infrastructure needs and establish priorities among projects so that available resources are used to the community's best advantage; and
- improve financial planning by balancing needs and resources and identifying potential fiscal implications.

While much of the Town's budget and financial planning efforts are by necessity focused on one or at most two year intervals, capital planning helps to focus attention on the Town's long-term objectives and financial capacity, and the balance between operating and capital needs. The Town is often faced with the option of reducing its capital plan in order to balance the operating budget. Having a formal and accepted plan helps to maintain a consistent level of spending for capital needs, barring extraordinary circumstances. Individual projects are evaluated against long-term objectives and in relationship to each other. By strategically programming capital projects, the Town can maintain a tolerable level of debt service, and prevent sudden changes in debt service payments.

Needham's capital planning initiatives have contributed to the successful achievement and maintenance of its AAA bond rating from Standard and Poors. This bond rating places Needham in the top tier of communities (there are only a handful in Massachusetts) and allows the Town to borrow at a lower interest rate. In its October 19, 2006 Public Finance Summary, Standard and Poors notes: "Needham's experienced management, with a focus on long-range planning, has yielded consistently favorable results...The stable outlook reflects Needham's strong management and sufficient reserves."

Challenges and Opportunities

The Town faces a number of fiscal challenges in the years ahead. Double-digit annual growth in employee health insurance and energy costs, uncertain state aid, and limited ability to raise revenue on the local level all threaten the ability of the Town to sustain its operating and capital budgets. While striving to adequately fund municipal operations, the Town must be mindful of its reliance on reserves, particularly free cash, to fund operations and balance the budget.

The Town has embarked on a number of planning efforts that will significantly impact the capital plan in coming years as projects compete for limited resources.

- Facility Master Plan – The 2005 Annual Town Meeting authorized funding for the development of a Town-wide facility master plan. Overseen and coordinated by the Facility Working Group and the Permanent Public Building Committee, DiNisco Design Partnership (DDP) completed its analysis of the Town’s capital facility needs over the next decade, and released its Facility Master Plan report in November 2006. The first project to be proposed for funding from the plan is the conversion and upgrade of the High Rock School to serve as a Sixth Grade Center. The design of this project, as well as companion portable/modular classrooms to be located at Pollard Middle School in the interim, was funded at the November 1, 2006 Special Town Meeting. The Construction phase of the High Rock Project is included in this plan, along with the next project, the conversion of the Morse-Bradley House at Ridge Hill to be used as a Senior Center. Funding for the next project, interim renovations at the Department of Public Works complex on Dedham Avenue, is proposed for FY09. Finally, while the renovation of the Town Hall is proposed for FY10, an application for additional architectural study has been made to the Community Preservation Committee for funding in FY08. The purpose of this request is to seek guidance in framing the final proposal for Town Hall renovation at the 2009 Annual Town Meeting.
- Field Study – The Field Study Committee, created by the Board of Selectmen and consisting of Park and Recreation staff and Commissioners, Memorial Park Trustees, and representatives of sports groups and other parties interested in field use, oversaw the development of a master plan for DeFazio Complex and Memorial Park, considering the orientation of multi-purpose fields and ball diamonds, installation of lights, and use of synthetic turf. The project was funded by Town Meeting appropriation and contributions from Needham sports clubs. At this time, the Field Study Committee is working with a private, non-profit organization which is raising funds to both complete the design and begin construction. It is anticipated that the first phase of the project will be completed with private donations, and the following phases are proposed for funding in this plan.
- Conservation-Recreation Open Space Master Plan – As the first project funded by the Community Preservation Committee, an update of the Town’s Open Space Plan will help prioritize needs and projects. Community requests for land acquisition and recreation area renovations far exceed what the Town of Needham can fund. Development of an open space plan with broad community input will provide town officials with a blueprint for achieving effective stewardship and expansion of these resources. The document will allow residents to better understand the goals of the community, and how those goals may affect their own personal property. Once the Town’s plan is updated and submitted to the Commonwealth for approval, the Town will be eligible for state and federal grants.
- Downtown Design – The downtown design study has been funded through a combination of Town appropriation, a smart growth grant from the Commonwealth of Massachusetts, and contributions from local business and property owners. The Town has engaged a consultant and created a Downtown Study Committee to oversee the development of a plan for the area. An initial community workshop was held in December, 2006. The process will include multiple opportunities to engage the Town, including municipal officials, citizens, business interests, property owners, and, where appropriate, federal and state transportation agencies, in a focused and prioritized planning effort to improve the

downtown area. The potential for Needham Center is great, but has been limited by the lack of an updated cohesive vision for the future and the coordinated decision-making that would follow from that vision. To assure that Needham Center continues to serve its important social and economic role, a plan to guide its growth going forward is needed. The comprehensive planning process will achieve two primary objectives: 1) develop a cohesive comprehensive plan for the future of Needham Center, which addresses land use, infrastructure, parking and traffic issues; and 2) educate and involve the community during plan development to assure a planning effort supported by a broad range of community representatives. It is anticipated that a regulatory framework to allow for implementation of the design will be presented to the Special Town Meeting in November, 2007.

- Public Works Operational Study – Through funding appropriated at the 2006 Annual Town Meeting, the Town has engaged the Mercer Group to evaluate the structure of the Department of Public Works to determine if personnel and resources are being utilized in the most efficient manner based on the mission of the Department, and to evaluate the Department’s capacity to handle an increasing volume of large and complex capital projects. This evaluation will include benchmarking the Town’s operations against those of comparable communities and to best practices in the industry. Moreover, the Board of Selectmen is exploring a proposal to fund road, bridge, sidewalk and intersection improvements through a dedicated funding source in the operating budget. The outcome of on-going discussions on this topic will impact Public Works General Fund Capital requests going forward, as bonding would only be required for major reconstruction projects or extraordinary situations.

The Recommended Capital Plan – A One -Year Budget, a Five-Year Plan

The Town Charter requires that the Town Manager, after consultation with the Board of Selectmen, submit in writing to the Board of Selectmen a careful, detailed estimate of the recommended capital expenditures showing specifically the amount necessary to be provided for each office, department and activity and a statement of the amounts required to meet the debt service requirements or other indebtedness of the town. This plan includes the proposed FY08 Capital Budget, which is recommended to the Finance Committee and ultimately Town Meeting for consideration. The projects presented for FY09-FY12 reflect an assessment by municipal departments and the School Committee of future capital needs and are primarily shown for planning purposes. While many of these projects will ultimately be recommended for funding, the plan is a fluid one, and projects may be added and deleted from the list as circumstances change.

Capital project requests submitted to the Town Manager for the FY08-FY12 Capital Improvement Plan totaled \$140,636,349. Requests for funding in fiscal year 2008 totaled \$34,129,730, of which \$28,611,805 is recommended for funding. Each recommended request is classified by funding source, as follows:

- projects to be funded through general fund debt: \$5,140,000
- projects to be funded through enterprise fund debt: \$5,036,800
- projects to be funded through excluded debt: \$15,232,000
- projects to be funded through general fund revenue/reserves: \$1,840,414
- projects to be funded through enterprise fund revenue/reserves: \$1,267,591
- projects to be funded through other sources \$95,000.

Budget Priorities

Projects recommended for funding in this plan have been reviewed in light of the core budget priorities adopted by the Board of Selectmen for fiscal year 2008, including:

- Invest in maintenance and/or renovation of capital assets including buildings, fields, and recreation facilities.
- Ensure continued investment in the Town's infrastructure.
- Support the acquisition and maintenance of rolling stock and equipment to maintain efficient operations in the Police, Fire, Public Works and Public Facilities Departments.
- Support new or expanded initiatives that directly improve the Town's ability to address and respond to emergency situations and hazards.
- Achieve an adequate investment in services provided at the newly renovated Public Library.

Capital Improvement Policies

The Town's Capital Improvement Policies provide guidance for assessing the capital needs of the Town. These policies, included in Tab 10 as Appendix A, define capital projects as those items requiring the expenditure of at least \$25,000 and having a useful life of more than five years. Recommended capital project requests are prioritized using the following criteria:

- the project is required to comply with State and/or Federal handicapped accessibility standards;
- the project is necessary to protect the health and safety of residents or Town employees; and
- the project is necessary to maintain an existing capital facility, or operation of equipment used in providing town services.

In addition to the criteria listed above, the Town has a long practice of funding the systematic replacement of obsolete or worn-out equipment, and those items requested for the improvement of operating efficiency and the equitable provision of services.

In 2004, the Annual Town Meeting created a General Fund Cash Capital Equipment and Facility Improvement Fund (CIF). The purpose of the CIF is to allow the Town to reserve funds to use for general fund cash capital. The CIF may be used in future years to fund the acquisition of new equipment; the replacement of existing equipment; and building and facility improvements which cost less than \$250,000; for which the Town may borrow for a period of five years or more. Projects must be included in the CIP in order to be eligible for funding through the CIF. The current balance in the fund is \$148,220.

Financing Methods

The number of capital projects to be funded must be considered in the context of total operating budget, capital budget needs, and revenue growth. Capital improvement projects are funded through current receipts, reserves, and/or other funds such as grants.

Current Receipts – Current receipts include property tax revenue, local receipts (such as fees and charges), and state aid. This plan includes no projects to be funded from current receipts.

Reserves (Undesignated Fund Balance or “Free Cash”) – Free Cash is a function of actual revenue collections in excess of estimates and expenditures less than appropriations. Because Free Cash cannot be relied upon as a recurring revenue source, it should not be relied upon as an operating revenue source. In this plan, we have continued the effort to minimize the Town’s reliance on free cash to support on-going operations by limiting such use to no more than \$2,000,000 annually, and using the balance to improve reserves, invest in capital assets, and support one-time or short-duration programs. As such, the Plan includes \$1,840,414 to be funded from General Fund revenue, to be offset by a transfer from Free Cash. This plan includes no projects to be funded from the Stabilization Fund or Capital Improvement Fund.

Retained Earnings – Three of the Town’s operations – water, sewer, and solid waste – are accounted for as enterprise funds. The revenues and expenditures of these operations are not commingled with those generated by general fund operations. Generally, each enterprise will generate surplus funds on an annual basis. The Board of Selectmen’s retained earnings policies are included in Tab 10 as Appendix C and D. The policies contain reserve targets to ensure liquidity and stability of operations. Surplus funds above the target are considered available for appropriation. This plan includes a recommendation for funding from Sewer Enterprise Fund retained earnings in the amount of \$333,391, Water Enterprise Fund retained earnings in the amount of \$804,200, and Solid Waste Enterprise Fund retained earnings in the amount of \$130,000.

Debt – The Board of Selectmen’s debt management policies (Tab 10, Appendix B) provide guidance in translating capital expenditures into annual debt service. Tab 9 of this plan contains a graphic presentation of the Town’s current debt service and a calculation of the Town’s debt burden (annual debt service as a percent of total town revenues). The figures used in calculating the debt burden are derived from the Town’s long-term debt service schedule that is also included in Tab 9. This plan includes a recommendation for \$10,176,800 in projects to be funded through debt. This plan also includes projects that would require Proposition 2 ½ debt exclusion, in the amount of \$15,757,000 (of which \$525,000 was already appropriated at the November 1, 2006 Special Town Meeting).

Community Preservation Fund – The Community Preservation Act (CPA) allows cities and towns to raise monies through a surcharge on the tax levy. These funds may then be used to acquire, create and preserve open space; acquire and preserve historic resources; create, preserve and support community housing; and acquire, create and preserve land for recreational use. The CPA also provides a significant State matching fund. The CPA was approved by Needham Town Meeting at the May, 2004 Annual Town Meeting and by voters at the November 2, 2004 election. The CPA mandates that each fiscal year Needham must spend, or set aside for later spending, at least 10% of the annual revenues in the Town of Needham Community Preservation Fund for each of three CPA target areas: open space (but not including land for recreational use), historic resources, and community housing. The remaining 70% may be appropriated at the Town’s discretion as long as it is used for the three target areas or recreation. The statute also permits the Town to appropriate up to 5% of the Fund for the administrative expenses of the Community Preservation Committee (CPC). Projects submitted for inclusion in the CIP that qualify for CPA funding are forwarded to the CPC for its consideration. This plan includes projects proposed for funding through the Community Preservation Fund.

Project Summaries

Community Services

SENIOR CENTER AT RIDGE HILL (\$4,040,000)

While the existing Senior Center is an excellent location close to services and downtown amenities, the building is inappropriate for use as a Senior Center. During the master planning process, options such as new construction on the existing site and/or alternative locations, combining the Senior Center with a community center, community services departments and/or senior housing, and a potential public / private partnership with the YMCA were considered. Construction at the Pickering Street site was eliminated because it cannot accommodate the Center's parking requirements. Use of the Pump Station on Dedham Avenue is inextricably connected with the location/relocation of the DPW from that site, and the combined use for a Senior Center and DPW is not desirable. Accordingly, the availability of the Pump Station is indefinite and problematic. Therefore, the current preference for location of the Senior Center is the Ridge Hill site, and the renovation and addition of the existing Morse-Bradley house in two phases. The first phase provides immediate, improved space comparable to what exists at Stephen Palmer. The second phase would be a further enlargement dependent upon actual use and affordability. The Council on Aging has authorized use of trust funds for conceptual design and cost estimation of the renovation of the Morse-Bradley House, which will be available by the 2007 Annual Town Meeting. *(Submitted by: Town Manager/Board of Selectmen)*

PRESERVATION OF PARK STRUCTURES (\$32,000)

This project would fund the replacement of ten water bubblers at nine parks. The bubblers are over 20 years old, constantly leak, and are costly to repair. Replacements will be handicap accessible, more "vandal" resistant, and require minimal maintenance. Those adjacent to diamonds will have a hose hook-up so that the park soil may be watered down, providing a safer surface for the baseball/softball players. When the bubblers are replaced, the land surrounding the bubblers will suffer less damage, and less Town water will be wasted. As a preservation and protection of natural resources, this project is eligible for consideration for CPA funding, and a funding application has been submitted. The project would also fund the replacement of nine park signs. The current signs were donated ten years ago, but were not weather or vandal resistant. Aluminum clad signs will have a much longer lifespan, and will remain as attractive welcomes to each park. Funds are available from the Park and Recreation Trust Fund. *(Submitted by Park and Recreation Department)*

PARK AND FIELD FENCING (\$52,500)

The replacement of perimeter fencing at parks and playgrounds provides protection to park users as well as the parkland. The aesthetic value of the park is also enhanced, which is a value to the adjacent homeowners. Perimeter fencing is put in place for safety. When perimeter fencing is not adequate, most parks experience occasional problems with unauthorized vehicles entering the open areas creating damage that can be costly to repair, and at times, take athletic fields out of use until the patched area is strong enough to withstand heavy use. Parking vehicles or snow removal vehicles often cause damage to perimeter fences.

At Greene's Field, the split-rail fencing was put in place more than 10 years ago. In addition to being a safety measure, keeping young children from quickly reaching the busy Pickering Street, it also serves as a visual notice that unauthorized vehicles are not permitted on the site. Unexpectedly, park visitors have chosen to use it as a seating area by sitting on the rails.

Constant repairs are needed, as well as replacement sections. This fence will be replaced with a wood guardrail fence, similar to the one located in the Memorial Park parking lot. This fence style provides the needed safety features, is more durable, and can withstand use as a seating location. At Mills Field, the 4 foot high chain link fencing along Hampton Avenue has been in existence for more than 40 years. It is rusty with jagged edges. This funding would replace the existing fence fabric with a more weather resistant fabric, and re-set the poles, replacing only those bent beyond repair, and painting all poles to match the fabric.

Finally, this project includes the replacement of post and rail fence with new wood guardrail fence, and replacement of chain link fence fabric with 9 gauge steel and vinyl coated fence at Cricket Field, and new 9 gauge black vinyl, four foot fencing around the playground perimeter at Perry Park. *(Submitted by Park and Recreation Department)*

SUPPLEMENTAL MATERIALS ALLOCATION (\$100,000)

The Library's materials budget is inadequate for the current level of business. As a result of increased circulation patterns, a high level of demand is placed on the library's collection of various materials. The increased demand wears the items out at a faster rate than they would normally be the case. The current materials budget is not sufficient to encompass any large-scale purchase of replacement materials. Since the new library opened in March of 2006, circulation has increased significantly: total circulation for April-June 2006 (120,970) increased by 35% over April-June 2005 (89,859), and increased by 20% over the average of the previous six year's circulation. The increase in the Children's Room is the highest – 46% higher than in 2005 and 26% higher than the average of the previous six years. Children's materials wear out faster than adult materials. One-half of the requested funding will be used for children's materials. *(Submitted by Needham Public Library)*

General Government and Land Use

None

Public Facilities - Undesignated

PUBLIC BUILDING MAINTENANCE PROGRAM (\$217,000)

The Public Building Maintenance Program funds various repairs to municipal buildings that cannot be addressed in the operating budget. The program primarily includes, but is not limited to, exterior painting, interior painting, and flooring replacement. Exterior painting is routinely performed in order to protect building envelope components such as siding, soffits, window frames, fascia boards, doors, and miscellaneous trim. FY08 exterior painting is intended for the Department of Public Works, which was last painted in 1997. Interior painting has been and continues to be, one of the most frequently requested maintenance items from building principals and managers. In FY08, interior painting is intended for Fire Station #2, Newman Elementary School, Pollard Middle School, and Mitchell School. The flooring program allows for the replacement of worn, damaged, unsafe, and unsightly floor tile and carpeting. In most cases the worn flooring is asbestos containing floor tile or carpeting glued directly to asbestos-containing floor tile. In most cases, the asbestos floor tile is a minimum of 40 years old and would be due for replacement, even if it did not contain asbestos. The FY08 plan is to continue to replace flooring at the Newman Elementary School in classrooms and offices. *(Submitted by: Public Facilities Department)*

HVAC VAN (\$28,500)

This request will fund the replacement of a 1997 Ford E250 cargo van, equipped with a tradesman interior package, for primary use by one of the Department's two HVAC technicians. The current vehicle has an odometer reading in excess of 135,000 miles and is one of the Department's two vehicles authorized for 24 hour use due to the high number of off-hour service requests and emergencies responded to by the HVAC Technicians. *(Submitted by: Public Facilities Department)*

Public Safety

BAPERN/BOSTON AREA POLICE EMERGENCY RADIO NETWORK (\$25,000)

BAPERN is a police emergency radio network that extends throughout most of the Greater Boston area, and is in constant use for routine and emergency radio transmissions 24 hours per day, seven days per week. In September and October 2005, this equipment experienced malfunctions that resulted in a loss of the Department's ability to communicate with other police agencies on the BAPERN system. Due to the age of the equipment, many parts (electronic components) are no longer available, making it less likely that future repairs will be adequate to maintain the existing equipment, thus compromising the Department's capability to communicate with other agencies on the system. *(Submitted by: Police Department)*

FIREFIGHTING PROTECTIVE GEAR AND WASHER (\$58,700)

Structural firefighting gear (or "turnout gear") is the heavy coat and pant ensemble that is worn by firefighters for personal protection at fires and other dangerous or hazardous incidents. This gear has a recommended life expectancy of approximately 10 years, depending on exposure and wear. This proposal would replace the turnout gear for thirty (30) personnel who will be using gear that is 11 years old at the time of replacement (\$51,000.) This request also includes \$7,700 to purchase a Washer/Extractor (Continental 30 lb. capacity), that is capable of cleaning two sets of gear at a time. Critical to maintaining the integrity of the gear, the proper cleaning of turnout gear is also important for firefighter safety (and the safety of those residents who may come in contact with the gear) as cleaning removes biological matter and chemicals to which firefighters are exposed. The Department was able to purchase a dryer for the turnout gear (\$6,165) through a State grant. Purchase of the washer/extractor will bring the Town into voluntary compliance with NFPA Standard 1851 regarding the care and maintenance of personal protective gear. To date, the Department has sporadically cleaned the turnout gear through local dry cleaners, which is not a recommended solution. In FY06, the Department received a grant of \$24,000 that was used to replace the protective gear for all officers and inspectors. Firefighters with fewer than 10 years of service at the time of replacement will not need new turnout gear. *(Submitted by: Fire Department)*

OPERATIONS DEPUTY CHIEF VEHICLE/C-3 (\$32,000)

This request is to replace a 1999 Ford passenger vehicle that is used daily by the Deputy Chief of Operations. At the time of replacement the vehicle will have approximately 150,000 miles of service, and will be nine years old (three years beyond scheduled replacement). Because of the age, type of use, and high mileage of this vehicle, maintenance costs have been increasing. This vehicle is also used by other divisions when needed, and responds to certain emergency incidents. When the new vehicle is purchased it will be placed into service as C-1, and the current C-1 will be passed down to replace C-3. *(Submitted by: Fire Department)*

COMPUTERIZED EMS REPORTING SYSTEM (\$50,000)

The proposed Emergency Medical Services (EMS) Incident Management System will include a base system to be located at Headquarters, as well as wireless mobile units (laptops) in each ambulance. This will allow for an improved level of patient care (through access to patient and incident history and treatment protocol documentation), improved documentation (which also allows Emergency Medical Technicians (EMTs) to return to service more quickly), standardized reporting, and reduced exposure and liability. There are also financial benefits, as all billing requirements would be performed electronically, reducing time to billing, improving collections saving time, and likely lowering the percentage of revenue paid to the Town's third party billing company. *(Submitted by: Fire Department)*

Public Schools

RENOVATION AND EXPANSTION OF THE HIGH ROCK SCHOOL (\$13,875,000)

This request would fund final design and construction of a planned project to renovate and expand the High Rock Elementary School. Design funds in the amount of \$525,000 were authorized at the November 1, 2006 Special Town Meeting. The first project to be proposed as part of the 2006 Facility Master Plan, this project is part of the School Committee's immediate plan to provide sufficient middle school seats, as well as a long-term plan to permanently ease the elementary and middle school overcrowding problem, based on current enrollment projections. The facility will be constructed as a Sixth Grade Center that can be converted to an elementary school as needed in the future upon the construction of a second middle school. It is anticipated that a renovated High Rock school will be ready to accept students in September, 2009.

The 2006/2007 enrollment at the Pollard Middle School (1092) exceeds the building's capacity of 1056 (with modular classrooms.) Enrollment is projected to increase to 1,370 by 2012/13, and remain in excess of 1,300 through 2017/18. The current K-5 enrollment is 2,481 (versus a capacity of 2,160). Elementary enrollment is projected to rise to a peak of 2,600 students in 2009, and then to level off to around 2,500 students for the foreseeable future. These enrollment projections may be conservative, as the Town currently is engaged in efforts to increase its affordable housing stock. At these enrollments, many middle school classrooms are undersized and/or inappropriate for current uses, there are insufficient spaces for special education needs and the corridors are congested between classes. Core facilities, including the cafeteria and media center, are stressed. At the elementary level, all five schools are faced with a lack of music and art spaces as those are converted to classrooms. Art and music education have been moved to carts or to the cafeteria, depending on the classroom situation in each school. There is shortage of spaces available for special education. Full-day Kindergarten, while a voted School Committee priority, cannot be implemented within the current space shortage. The extended (additional half-day) Kindergarten fee-based program (KASE), which is currently in place, will be relocated to non-school facilities by September 2007. *(Submitted by: Needham Public Schools)*

MODULAR CLASSROOMS AT POLLARD MIDDLE SCHOOL (\$570,000)

The installation of two modular classrooms is intended to address enrollment overcrowding at the Middle School in September 2008 while the High Rock School is under renovation. This project is part of the School Committee's plan to provide sufficient Middle School seats, and may still be needed, even after a renovated and expanded High Rock school opens, to ensure appropriate classroom space. Without the addition of modular classrooms, the media center will

be carved into classroom space. Design funds in the amount of \$30,000 were appropriated for this project at the November 1, 2006 Special Town Meeting. (*Submitted by: Needham Public Schools*)

POLLARD SCHOOL TECHNOLOGY AND ELECTRICAL UPGRADE (\$787,000) Town Meeting approved preliminary design funds (\$40,000 in FY06 and \$41,000 in FY07) to study the scope of work required to upgrade the Pollard School data network. The Pollard data network, which is ten years old, was designed and installed with limited resources as a part of the Pollard renovation project (1993-1995). It was under-built for future network requirements, speed and capacity. The study, completed by Edvance Technology Design, revealed extensive accompanying electrical needs and incorporated long-standing teacher requests for data/video projection. The study called for expansion in the number of electrical and data outlets and wireless access points in the building, expansion of the building's internal electrical capacity to support the computer hardware, and installation of data/video projectors. (*Submitted by: Needham Public Schools*)

SCHOOL DOCUMENT IMAGING SYSTEM (\$36,000)

This request is for a document imaging and electronic filing system that will be used by School Administration, primarily the Personnel and Special Education Departments. Currently, the School Department faces a critical lack of storage space for personnel information, student records and other documents. Federal laws mandate that Needham Public Schools maintain student record files for all special education students for seven years after graduation or until the student turns 22 years of age. Each student record contains all IEP service plans, evaluations and correspondence with families for all of the years the student is enrolled with Needham Public Schools. Occasionally, just one student record will fill up an entire file cabinet drawer. Each year, six to eight file cabinets are purchased to house these student records. In addition to the file cabinet expense, the School District has run out of space to put these file cabinets within the Emery Grover Building. Absent electronically archiving new records, the District will need to secure offsite storage space, which may present an access issue and budgetary expense. Timely access to these records must be ensured. The proposal includes funding for a high density storage solution (\$26,000), network server (\$3,900), scan station (\$2,400) and printer (\$3,700). (*Submitted by: Needham Public Schools*)

SCHOOL PHOTOCOPIER REPLACEMENT (\$43,035)

In May 2003, Town Meeting authorized \$60,000 in first-year funding to establish a replacement cycle for school photocopiers. School photocopiers are located in all of the schools and the administration building, and are used both by administrative and teaching staff. Teachers use the machines to reproduce classroom materials, including homework sheets, exams, teaching packets, etc. Currently, the School Department owns 45 copiers and six RISO machines. In FY04, nine photocopiers were replaced; in FY05, five copiers and one RISO were replaced; in FY06, eight copiers were replaced, in FY07, four copiers were replaced. In FY08, 26% (nine) of photocopiers will be five to nine years old. The older machines are not efficient copy makers and generally cost more to service than they are worth. The lifecycle of these machines is about seven years, both due to their embedded digital technology (they are capable of functioning as printers and scanners), and heavy use. This level of funding would replace two five-year old copiers, two six-year old copiers, and one seven-year old RISO machine. The five and six year old copiers are being replaced in advance of four other machines which are seven to nine years old, due to their record of frequent break downs and service calls. These four older machines are scheduled for replacement in 2009. (*Submitted by: Needham Public Schools*)

SCHOOL DISTRICT TECHNOLOGY UPGRADE AND REPLACEMENT (\$256,729)

The School District Technology Upgrade and Replacement program includes instructional computers, administrative computers, operating system upgrades, printers, network servers, and staging the implementation of a curriculum management system. The Eliot, Broadmeadow and High School renovation projects, which installed new technology at those schools, represent a funding challenge for technology replacement in FY08-12. These renovation projects have created spikes in the replacement cycle: Broadmeadow (FY10), Eliot (FY11), High School (FY14.) In an effort to smooth these spikes, the District has spread the cost of replacement over the next eight years. In FY08, the 156 instructional computer replacements are scheduled for Newman, Hillside, Mitchell and Pollard. Thirty computers will be recycled from the High School. The request breaks down as follows: 126 replacement instructional computers (\$129,654); 12 replacement administrative computers (\$12,000); 375 OS/Memory upgrades (48,375); 30 replacement printers (\$15,000); 6 network hardware servers (\$39,700); and a curriculum management tool (\$12,000). (*Submitted by: Needham Public Schools*)

SCHOOL FURNITURE AND MUSICAL EQUIPMENT REPLACEMENT (\$52,050)

In FY05, Town Meeting approved first-year funding of \$20,500 to replace furniture in school facilities not scheduled to undergo capital renovation/ addition projects in the near future. In these schools, furniture is 10-20+ years old and in a state of disrepair after decades of heavy use. The request was funded from operational savings in FY06, due to capital budget constraints. In FY07, Town Meeting allocated \$44,550 for this purpose. (The FY07 request also replaced band chairs at Hillside and Pollard.). In FY08, funding of \$37,050 is requested to replace five classrooms per year at Pollard (\$18,750), to add whiteboards in five Pollard classrooms per year (\$2,700), and to replace three elementary classrooms per year at Hillside, Mitchell or Newman (\$15,600).

Also in FY05, Town Meeting allocated \$15,000 in first-year funding of a ten year replacement cycle for school musical instruments. Currently, the School Fine and Performing Arts Department has pianos and other musical instruments which are 30-40 years old and are in need of replacement. The School Department owns numerous instruments, including pianos, string, brass, woodwind, and percussion instruments that, after many years of use, are no longer usable or repairable. Students do purchase more common, less expensive instruments such as soprano clarinet, trumpet and flute, but a quality band and/or orchestra program needs to supply large, more expensive instruments to ensure balanced instrumentation. In 2007 (Year 3), the Fine and Performing Arts Department replaced two tubas, two string basses, a euphonium, a tenor saxophone and a bass clarinet. In previous years, the High School Steinway grand piano, Hillside school piano, some percussion instruments and a baritone saxophone were replaced. For FY08, the District intends to replace two euphoniums, two piccolos, an oboe and a variety of percussion equipment. (*Submitted by: Needham Public Schools*)

HILLSIDE SCHOOL COOKING AND SERVING EQUIPMENT (\$33,000)

The existing refrigerator and freezer units at Hillside Elementary School are inadequate in size, and inconveniently located to store the amount of food needed for the daily lunch service. Currently, four units are located in the kitchen, and three are located in the dining room. As a result, perishable foods must be stored in other school kitchens, or ordered in limited quantities. Staff must move food in and out of freezers when deliveries arrive, which takes extra time. The transportation of perishable food between schools is not a healthy practice. Additionally, the existing small "ice cream style" refrigerator behind the cold serving line is too small to store

refrigerated items for service on the line. It is approximately 20 years old, doesn't lock, and is not meant to store the types of items for which it is being used. (For instance, items on top must be moved around to access items on the bottom).

A walk-in freezer (\$25,000) is needed, and will be used to store cases of frozen food which are delivered once per week and commodity frozen items which are delivered once per month. Two existing reach-in freezers will also be replaced with reach in refrigerators (\$6,000), for adequate storage of refrigerated items and food which is pre-prepared for the next day. Finally, a single tall reach-in refrigerator with normal shelving is needed to replace the "ice cream style" freezer (\$2,000). *(Submitted by: Needham Public Schools)*

MITCHELL SCHOOL COOKING AND SERVING EQUIPMENT (\$30,000)

The Mitchell kitchen staff prepare more than 250 lunches per day, under significant time constraints. There is a need for more efficient, sanitary cooking equipment. The existing range (\$4,000) is estimated to be 30-40 years old. It is inefficient for current cooking needs – the cook top does not heat well (no individual burners), takes an inordinate amount of time to boil water for cooking, the paint is peeling and parts are rusting, and the oven underneath hasn't worked in years. The existing oven (\$8,000) is approximately 15-20 years old. It is a single oven, which does not have enough capacity for the number of meals that are prepared currently. The oven doors do not shut properly, so cooking is inefficient. The ventilation hood (\$3,000) over the range and oven does not work to remove hot air and steam from the cooking area. This must be repaired or replaced. Refrigeration units (\$6,000) range from five to twenty years old and have required frequent trouble-calls. There are six or seven double refrigerators and freezers. Within the next five years, it is estimated that two of them will need to be replaced. The existing slicer (\$3,000) is difficult to operate and inefficient. Additionally, there is a need for a new, cold serving line unit with sneeze guard, and an additional serving table/counter with sneeze guard. Currently, staff serve the cold components of the lunch using a collection of wooden/laminate tables, covered daily with tablecloths. This set up does not have cooling capacity, nor sneeze guards for food handling and safety. The cost of two new serving line components with sneeze guard and tray glides is \$6,000. *(Submitted by: Needham Public Schools)*

Public Works

ROADS, BRIDGES, SIDEWALKS & INTERSECTION IMPROVEMENTS (\$1,100,000)

The roadway system throughout the community developed over the last century. Many miles of roadway, mainly residential, were developed after World War II. A combination of the aging of the earliest roads, the tremendous expansion of the road system, and the inability to provide adequate, ongoing maintenance and repair over the past 25 years has resulted in a significant decline in the overall condition of Needham's roads, bridges, sidewalks, and intersections. This program is essential to improve the structural and surface integrity of the Town's network of accepted streets. The primary strategy in this program is asphalt paving and incidental work directly associated with paving. Incidental work includes corner reconstruction, handicap ramps, leveling, structural overlays, utility adjustments, minor drainage improvements, some drain extension work, street sign replacement, asphalt curbing with grass shoulders and pavement markings. Many streets have insufficient pavement thickness, are poorly shaped, lack curbing and require some drain improvements. Applying this repair strategy in a timely manner will help defer costly and disruptive street reconstruction on all but the most highly traveled roadways. Paving roadways in a timely manner will extend the useful life of the roadway system in the most cost effective manner. This program also provides funding for reconstruction and repair of sidewalks. There are over 160 miles of sidewalks in Needham, of which, 52 miles are

designated as school walking routes. Finally, this program funds traffic signal improvements for existing traffic signals and provide funding for new traffic signal where none currently exist. *(Submitted by: Department of Public Works)*

PUBLIC WORKS VEHICLE AND EQUIPMENT REPAIR (\$247,200)

In conjunction with the development of a core fleet replacement program, the Department of Public Works has proposed a one-time investment in maintenance and repair of existing rolling stock that will not be replaced for many years. This program is intended to include, but not be limited to, replacing utility bodies on three trucks (\$22,200); replacing dump bodies on four trucks (\$34,000); replacing bucket quick couplers and tires, as well as cleaning and painting of three front end loaders (\$37,500); replacing dump bodies on two large dump trucks, sandblasting, cleaning and painting six large dump trucks (\$39,000); cleaning, painting, replacing tires, repair sheet metal and other miscellaneous repairs on backhoes (\$12,000); repairing drive system, broom system, sheet metal, and cleaning and painting street sweepers (\$20,000); repairing small motorized equipment such as sidewalk tractors, brush chippers, air compressors, etc. (\$40,000); performing repairs to snow and ice equipment (plows, spreaders and blowers), replacing hydraulic hoses, valves, and conveyor chains (\$30,000); and providing transportation of heavy equipment to and from vendors (\$12,500). *(Submitted by: Department of Public Works)*

PUBLIC WORKS CORE FLEET REPLACEMENT (\$183,000)

The Core fleet consists of passenger vehicles such as sedans and wagons, vans, pick-up trucks, small dump trucks and utility trucks. A ten year core fleet replacement schedule is included in this Plan as Appendix E. Unless circumstances require otherwise, the vehicles scheduled to be replaced in FY08 include:

| Unit | Division | Year | Description | Miles | Cost |
|------|----------|------|--------------------------------|--------|----------|
| #50 | Parks | 1997 | Pickup Truck | 73,680 | \$27,842 |
| #65 | Parks | 2002 | 4WD Pickup Truck | 70,466 | \$43,470 |
| #75 | Parks | 2001 | One Ton Dump Truck | 39,050 | \$55,890 |
| #48 | Highway | 1990 | Utility Body (replaces aerial) | 75,292 | \$55,798 |

(Submitted by: Department of Public Works)

LARGE PLAN COPIER (\$24,000)

The existing Xerox 2515 plan copier in the Engineering Division is a 12 year-old machine, which has had a number of operating problems. The machine has limited capabilities (no network or multiple copying abilities), and the service warranty to the machine has ended. The machine is no longer supported by the manufacturer and maintenance provider. The Engineering Division copies thousands of plans each year for residents as well as other municipal departments. The proposed copier will produce plans faster and will have the capability to produce multiple copies of plans from computer programs. *(Submitted by: Department of Public Works)*

PUBLIC WORKS SPECIALTY EQUIPMENT (\$92,200)

All equipment proposed for funding through the Public Works Specialty Equipment Program in FY08 are Parks and Forestry items, including a zero-turn style mower that has a sharper turning radius than mowers presently being used by the division and which will provide improved mowing capabilities. This feature reduces the mowing time and reduces area of follow up

trimming and edging. The trailer is needed to transport the machine between locations. A purchase of this mower and trailer will help the Department meet its goal of reducing mowing time to free up staff to work on other projects, and will help to shorten the time it takes to complete a mowing cycle of all the locations around town. This mower would replace the oldest mower of the ones presently used (Unit # 333). The trailer will replace Unit #150A – a 1965 trailer. Other equipment to be replaced under this program are two brush chippers (Units #254 and 256) (\$38,100), an athletic field turf aerator (\$10,000) and a leaf Collector (Unit #183) (\$15,000). New equipment proposed includes a landscape trailer (\$1,700) and a 48 inch walk behind mower (\$6,000). This equipment is critical for the efficient operation of the Parks and Forestry Division's maintenance program. *(Submitted by: Department of Public Works)*

REPAIR AND MAINTENANCE OF BROOKS AND CULVERTS (\$50,000)

Severe storms, such as those in early 2006, result in numerous complaints and subsequent investigations of the Town's brooks, streams and culverts. The DPW has developed a repair and maintenance program which is a combination of contracted work and use of town forces to address the issue of flooded and poor draining brooks, streams, waterways and culverts throughout the Town. Lack of routine maintenance has caused the failure of retaining walls, loss of soils behind the walls, and brooks have become silted allowing the overgrowth of vegetation that impacts the water flow levels. This has resulted in the loss of useable abutting property and flooded basements. This project will require a detailed investigation, a plan of recommended improvements, a design drawing and specifications, environmental permitting and bidding of construction services. This will return the waterways to a condition that will allow the Town to maintain the brooks using its own forces. FY06 funding for this program included cleaning of Hurd Brook and culverts, from Central Avenue to the Wellesley Line, and a portion of Alder Brook. FY08 funding would complete Alder Brook. *(Submitted by: Department of Public Works)*

Solid Waste & Recycling Enterprise Fund

CONSTRUCTION EQUIPMENT: FRONT END LOADER/UNIT #104 (\$230,000)

Unit # 104, a John Deere 644GH, is a front line loader at the RTS. This piece of equipment was purchased in 1994 and had an engine replacement in 1998 (under warranty). Even with the engine replacement, this piece of equipment has 15,669 hours of service (as of 8/06). Annually, this piece of equipment logs approximately 1,330 hours. By FY08, this piece of equipment will have approximately 17,000 service hours – equivalent to almost 340,000 miles. The replacement loader will have an increased bucket capacity from 3.75 cubic yards to 4.7 cubic yards, and a light-weight material bucket for compost at 9.2 cubic yards. The increase is necessary to more efficiently maintain the ongoing processing operations at the RTS in the Yard Waste area and the DPW Materials Processing area. *(Submitted by: Department of Public Works)*

RTS DROP-OFF AREA REPAIRS (\$130,000)

In FY00, funding was appropriated for the reconstruction of the drop-off areas at the RTS. However, due to the limited funding, no other maintenance was performed within the facility, which has been in operation since 1980. The pavement surface has deteriorated to the point where patching is frequently required. This project will fund repaving and related repairs. *(Submitted by: Department of Public Works)*

Sewer Enterprise Fund

SEWER PUMP STATION IMPROVEMENT/RESERVOIR B (\$2,400,000)

As part of the Wastewater System Master Plan, several of the wastewater pumping stations were evaluated to determine their current physical condition, capacity vs. current & future flow projections and compliance with current codes and standards of operation. The Master Plan indicates that at least seven of the ten stations require work. These include major improvements and replacement of the Reservoir St. "B" Station (this is the 2nd oldest station in the system). Its standby generator has failed and pumps need constant maintenance. The Town was recently notified that the Reservoir B project is eligible for funding through the Clean Water State Revolving Fund (SRF)/Massachusetts Water Pollution Abatement Trust (MWPAT) if initial project approval is achieved by June 30, 2006. Participation in the SRF/MWPAT program provides low interest loans and possibly grants that will significantly lower the cost of this project to sewer rate payers in Needham. The estimated cost of design and construction of this project is \$2,400,000. *(Submitted by: Department of Public Works)*

SEWER SYSTEM I/I REMOVAL PROGRAM (\$1,806,800)

The Town of Needham, along with numerous other communities, is under Administrative Order from the State to identify and remove Infiltration and Inflow (I/I) in existing sewer systems. Infiltration is defined as groundwater or storm water runoff that enters the system through deteriorated pipe or manhole structures. Inflow is defined as clean, non-septic water, which is introduced to the system. This water is generally produced by residential sump pumps that drain basements. I/I studies have been undertaken to determine the location and volumes of I/I entering the sanitary sewer system. The I/I analysis (1985 & 1989) and the Sewer System Evaluation Survey (SSES) (1991) have identified, by flow measurement, the areas of the collection system which are contributing high volumes of I/I to the system. On the basis of volumes of flow and knowledge of local sewer overflows or basement flooding, an order of priority has been established to determine the scheduling of the engineering, design and remediation work. The highest priorities relate to locations of known surcharging with sewage overflow or release or basement flooding. The remediation proceeds in stages starting with the preliminary engineering, followed by the rehabilitation design and concluding with the rehabilitation construction. Much of this work includes extending or expanding the storm drain system to accept groundwater from household sump pumps. Needham's most significant problem is believed to be from these private sources. The program also includes an education and information campaign to inform and prepare the homeowners as to the nature of the problem, the cost impacts to the community, legal implications, likely solutions and the responsibilities of the homeowner. FY08 infiltration funding is tentatively targeted to areas 2, 24 and 21(L), preliminary engineering for Area 22, and possibly Area 16. Inflow funding is intended for Area 19-1. The majority of this project will be financed through the MWRA I/I Local Financial Assistance Program which provides grants (45%) and interest-free loans (55%). As a result, the cost to the sewer rate payers will be significantly reduced. *(Submitted by: Department of Public Works)*

LARGE SPECIALITY EQUIPMENT: FLUSHING TRUCK/UNIT #29 (\$180,000)

Unit #29 is a 1991 International truck with a highly specialized body including a hydraulic, high pressure jet utilized to clean and flush the sewer and drain pipeline systems. This piece of equipment is essential to prevent blockages and/or failures that may interrupt normal operations. This front line piece of equipment has a significant history of maintenance repairs, including the replacement of the high velocity and high pressure pump, and a retro-fit of new 1,500 gallon

polyvinyl tanks to replace existing metal tanks that are rusted beyond repair. The cab and chassis have also begun to show significant wear. *(Submitted by: Department of Public Works)*

INTERNAL HARDWARE AND SOFTWARE FOR CCTV VEHICLE/UNIT #16 (\$85,000)

This request is for the replacement and upgrades of all internal hardware and software for the Closed Circuit Television (CCTV) vehicle (Unit #16). This project includes all out-dated software along with aged and faulty hardware. The CCTV vehicle was purchased in 1997 and is currently three generation's old in closed circuit television technology. The internal equipment is frequently out of service for repairs to the hardware, software and mechanical features. The tractor and camera have been determined to be beyond repair. Circuit boards have burnt out and are no longer available. The CCTV truck is a front line piece of equipment that has become a major part of the maintenance of the sewer and storm water systems. The Department has been able to more efficiently respond to Federal and state requirements with its own forces through use of this equipment. *(Submitted by: Department of Public Works)*

SEWER CORE FLEET REPLACEMENT (\$23,391)

The Core fleet consists of passenger vehicles such as sedans and wagons, vans, pick-up trucks, and small dump and utility trucks. A ten year core fleet replacement schedule is included in this Plan as Appendix E. The vehicle to be replaced in FY08 is Unit #15, a 1998 sedan with over 110,000 miles. *(Submitted by: Department of Public Works)*

SPECIALITY EQUIPMENT: MOBILE GENERATOR REPLACEMENT (\$45,000)

The Water and Sewer Division remains on stand-by status 24 hours per day to respond to emergencies. The Division has inventoried its emergency response capabilities and has determined that the existing, 1960 vintage mobile generator is not equal to the task of running the modern high demand motors and controls at sewer pump stations. The existing mobile generator was acquired as surplus equipment from the Civil Defense Department in the 1960's. It is a hand-crank unit welded to an old military utility trailer that is also in poor condition, the maintenance costs are high, replacement parts are no longer available, and the engine dependability is questionable. Replacement of this generator is required in order to ensure that the Town's sewer pump stations remain on line in emergency situations. *(Submitted by: Department of Public Works)*

Water Enterprise Fund

CONSTRUCTION EQUIPMENT: TRACK EXCAVATOR/UNIT #115 (\$130,000)

Unit #115, the Water and Sewer Division Backhoe is a 1988 John Deere model combination backhoe/front loader. This piece of machinery is no longer reliably able to undertake the necessary job functions in a reasonable manner and reasonable amount of time without breakdowns. In lieu of the typical replacement with a similar type, the replacement for this machine would be a track style excavator. This excavator will be a slightly larger machine with more power and a greater bucket capacity. Being a track style, this machine will require a trailer to transport to and from the work site. The equipment will allow for better maneuverability on-site, safer working conditions, and greater productivity. *(Submitted by: Department of Public Works)*

WATER SYSTEM REHABILITATION (\$250,000)

The annual Water System Rehabilitation Program draws from the recommendations of the Water System Master Plan. This master plan recommends that pipes 85 years or older be considered

for replacement or relining. This list of older pipes is evaluated and prioritized, and then cross-referenced with work proposed for other utilities, road repairs, or reconstruction. FY08 funding represents the first year of a multi-year program to replace and/or rehabilitate the 14" transmission water main from the Treatment Plant to School Street that was installed in 1936 - 1939. Certain sections of the current main are steel, and other sections of the pipe are cast iron and lined with a type of bitumastic (coal tar) coating. Failure of the steel pipe will cause interrupting flow and the ability to provide adequate fire protection. Water quality issues are a concern with the break-down of the bitumastic lining. The total length of the 14" main is approximately 19,000 lf (3.6 miles), extending from Charles River Street, to Pine Street, to Central Avenue, to Marked Tree Road, to Oak Street, to Chestnut Street, to School Street. Design funds for this project (\$50,000) were appropriated in FY05. *(Submitted by: Department of Public Works)*

FIRE HYDRANT REPLACEMENT PROGRAM (\$100,000)

The goal of this program is to remove and replace approximately 50 older and out-dated fire hydrants with new and more reliable fire hydrants within the community. There are approximately 300 unreliable fire hydrants. During the annual fall hydrant inspection (dry testing), older fire hydrants have been targeted as potential freezing hazards due to their lack of ability to either properly drain or efficiently shut down. Using prior year funding, the Town installed approximately 60% more hydrants than anticipated by using its own forces instead of contracting the work out. *(Submitted by: Department of Public Works)*

WATER SERVICE CONNECTION INSTALLATION AND REPLACEMENT (\$200,000)

The primary purpose of this program is to remove lead from the system by replacing older water service connections containing lead. The Town's water treatment process reduces the corrosivity of Needham's water to minimize the leaching of lead from the water pipes and house plumbing. However, only the removal of the lead sources will completely assure total compliance. The lead found in water service connections can be eliminated over time by replacing these connections. The DPW integrates this program with road repair and replacement initiatives – service connections are being replaced on streets that have been identified for road improvements. *(Submitted by: Department of Public Works)*

CLEAN AND PAINT WATER STORAGE TANK (\$600,000)

Funding for the design of this project was approved at the 2004 Annual Town Meeting. State regulations controlling the operation and maintenance of water supply and distribution systems require routine draining and inspection of water storage tanks. Periodically, inspection indicates that the surface coating is worn or damaged and is in need of cleaning and repainting. The Dunster Road Water Tank was completely cleaned and painted inside and out in 1993 and prior to that in 1978. The previous inspection indicated no problems inside or out. Last year's inspection revealed similar results inside; however, the outside has sustained more than normal wear. It has been especially burdened by vandalism beyond normal graffiti. It is recommended that the outside be cleaned and painted. The Birds Hill Water Tank is now 30 years old. It still has the original coating inside and out. The last few inspections have found no serious problems but the report recognized the age of the coating and its impending deterioration. Cleaning and painting is recommended as soon as practical. *(Submitted by: Department of Public Works)*

WATER CORE FLEET REPLACEMENT (\$124,200)

The Core fleet consists of passenger vehicles such as sedans and wagons, vans, pick-up trucks, small dump trucks and utility trucks. A ten year core fleet replacement schedule is included in

this Plan as Appendix E. Unless circumstances require otherwise, the vehicle scheduled to be replaced in FY08 is Unit #14, a 1998 six wheel dump truck with 46,440 miles to be replaced with a ten wheel dump truck. (*Submitted by: Department of Public Works*)

Prepared by: Office of the Town Manager, January 2, 2007