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## PROGRAM IMPROVEMENT REQUEST FY2022

As a result of decades of deferred maintenance and under investment in capital improvements, Somerville's municipal buildings, roads, sidewalks, water distribution, sewer collection, and stormwater management systems are all approaching the end of their intended lifespans; moreover, many of those systems fail to meet current code, regulatory, environmental and general level of service requirements for a modern city. To proactively address those deficiencies and reduce the risk of service interruptions, the Department of Infrastructure and Asset Management was established at the start of Fiscal Year 2020 by combining Capital Projects and Engineering as well as consolidating some related functions from other Departments. IAM endeavors to develop and implement a comprehensive plan to effectively maintain, modernize and replace Somerville's full range of horizontal and vertical infrastructure assets.

Building and expanding upon work completed previously completed by Capital Projects for buildings and Engineering for utilities, and in close collaboration with DPW, OSPCD, Water & Sewer, and other Departments, IAM has begun to establish the scope and scale of the comprehensive plan to define and prioritize capital improvements as well as support better asset management by the operational divisions (i.e. DPW, Water & Sewer). Based on that evaluation, it is clear that additional staff and capital outlay will be required to achieve the Department's goals and support myriad Citywide initiatives, all of which are dependent upon functioning utility and building systems. This memorandum provides the details of and justification for IAM's necessary Program Improvement Requests (PIRs).

### Background – Current State of Infrastructure

To understand IAM's strategic approach to its mission that underlies the FY2022 PIRs, it is helpful to appreciate the current state of the City's infrastructure. Evaluation of those infrastructure systems considers both *condition* and *configuration*. *Condition* relates to the physical integrity of existing system components. Items in good condition may remain in service not requiring significant investment outside of routine maintenance. Items in poor condition are at risk of failure, requiring either investments in deferred maintenance or full replacement to achieve their basic purpose (e.g. deliver drinking water, provide sewer service, heat a room, or keep the weather out of an office). *Configuration* relates to the ability of systems to achieve current & projected requirements. The City's neighborhoods, municipal services, environmental regulations, and even the climate have changed since most of our utilities and buildings were put into service. In some cases, the configuration of those systems is still adequate to





achieve current demands. In others, the inherent functioning of those systems is incompatible with modern goals and regulations. Development of a long-term asset management plan, that guides the operations divisions and informs both capital outlay spending and the Capital Investment Plan requires a thorough understanding both condition and configuration constraints.

### Municipal & School Buildings

In 2017, the City inventoried and assessed all of its building systems (e.g. heating, cooling, plumbing, doors, physical structure, etc.) for condition and code compliance. In general, the physical *condition* of the City's buildings and internal systems is fair to poor. The data suggest a total maintenance and improvement backlog of approximately \$300M, a third of which is categorized as "Emergency" or "High Priority", to achieve building code compliance, provide Americans with Disabilities Act (ADA) accessibility, prevent mechanical system failures necessitating suspending occupancy, and maintain functional spaces. In addition to those needs, and despite modest efforts to increase lighting efficiency and discontinue oil-fired heating, the energy use and carbon footprint of our buildings creates a substantial gulf between the City's environmental impact and the City's climate forward goals.

In response to the Covid-19 pandemic and to safely return students to in-person learning while controlling the transmission of the virus, in FY2021 an IAM project improved air handling in the City's schools, including increased filtration, addition of humidification and UV disinfection, and a full retro-commissioning of all building mechanical systems related to ventilation. The highly skilled trades people contracted to complete that work uncovered significant issues with those building systems that the City's on-call operations contractor, Honeywell, had failed to identify or had exacerbated through inadequate maintenance. This discovery further underscores the poor condition of our building systems, some of which may not be obvious without further expert investigation, and the need for the project in the first place highlights that our older buildings do not achieve modern configuration needs.

From August 2017 through January 2019, a Building Master Plan Working Group evaluated departmental office space needs and developed a general department relocation strategy to improve departmental operations and constituent experience. That effort determined that the general *configuration* of the City's buildings inhibits most departments' functioning, with no department scoring a functionality rating of 5 out of 5, only 6-percent scoring 4, and 60-percent scoring 2.5 or lower on the 5 scale. Specific deficiencies include: spaces 10- to 20-percent too small; inefficient layout & substandard office design; non-adjacent companion departments; insufficient conference room space for large meetings, and lack of small meeting space for private discussions. The effort concluded that major renovations are required for City Hall, the 1895 Building, the Edgerly School, and possibly other buildings.

Since the time of the Working Group's efforts, several departments have increased staff to improve programs and implement important initiatives focused on housing affordability, mobility, constituent wellbeing, and other issues necessary to sustain or improve quality of life. The space requirements of those programs and staff exhausted the last of the City's building space, most of which is extremely substandard resulting in some staff utilizing folding tables as desks in spots that are rightfully travel isles. Spots like those were used by staff to maintain operational continuity when the City Hall Annex building was vacated for emergency repairs in 2018. Consequently, as an organization we are at extreme operational risk should we encounter a similar emergency. This is currently the predicament for the





Somerville Media Center and the Massachusetts Alliance of Portuguese Speakers (MAPS), both of whom are seeking lease space due to the building envelope failure of 92 Union Square (aka the SCAT Building). Several recent attempts by the City to obtain lease space for different departments have been unsuccessful. All of this underscores the importance to increase maintenance of and capital improvements to our City's buildings. In 2021, the Capital Projects Division initiated the Building Master Plan projects, which will inform changes to the CIP and strategies for ongoing maintenance by the end of the year.

### Pavement & Sidewalks

Since 2015, the City has utilized a data-driven pavement management program to support objective decisions. In 2020, the complexity of the program was increased to independently prioritize full-width, sidewalk and travel lane reconstruction, but the guiding principles remain the same. Prioritization is based on both the volume of vehicle, bicycle and pedestrian traffic, and the condition of the asphalt and concrete, which is resurveyed every year. In general, the *condition* of the City's roads and sidewalks is poor with more than half of our roads requiring full reconstruction, and an additional 30-percent requiring extensive maintenance to prevent them from degrading to that same status. The data suggest a current backlog of \$220M in capital improvements to achieve an acceptable condition.

The current *configuration* of the City's transportation infrastructure generally prioritizes moving and parked motor vehicles over other modes of transportation and other uses of the City-controlled space within the Right-of-Way. Increasingly, the City is seeking to reprioritize that space for public transportation, bicycles, pedestrian safety, urban forest, green stormwater infrastructure, ADA accessibility, and other public amenities. Consequently, for many streets, the current streetscape *configuration* is not aligned with the City's goals. Somerville's cycling community underscored that fact by mounting an extensive grassroots campaign to add protected bicycle lanes to Highland Avenue following presentations for the Spring Hill Sewer Separation Project that retained on-street parking. The Engineering Division, Mobility, Public Space and Urban Forestry, and the Parking Department, in collaboration with SomerStat and other departments, are currently managing several planning projects to determine the space need of those different uses. Conclusions of those studies and planning efforts are anticipated over the next few years, and will inform improved streetscape designs. Accordingly, as the City progresses with its pavement & sidewalk management program, the nature of the construction projects will become increasingly complex as we seek to modify the streetscape rather than simply replace what is there. While there is widespread support for expanding the capabilities of the Mobility Division, it is very important to note that the Engineering Division manages the construction projects that bring those plans into reality.

### Combined Sanitary Sewer & Stormwater Drainage System

While some aspects of manholes and catch basins can be observed directly, inspection of the combined sewers requires utilization of specialized equipment including closed circuit television cameras, and given that a significant amount of sediment and debris has built up in our sewers over time, those inspections typically require extensive pre-cleaning. To date, approximately 12-percent of the system has been inspected; however, those inspections concluded that the system is in extremely poor *condition* with approximately a third of pipes requiring full trenchless rehabilitation, and many pipes requiring dig-and-replace spot repairs. In fact, the inspections in CY2020 identified six spots that required immediate,





emergency action by the City's on-call contractor at considerable expense. It is difficult to extrapolate from such a small sample size, but the data suggest that our backlog of sewer repairs exceeds \$100M for immediate needs to avoid emergency responses to collapse in the near-term.

Perhaps more significantly than *condition*, it is the current *configuration* of the combined sewer system that presents a challenge. Legacy flooding problems throughout Somerville are well known, indicating that the system does not achieve the minimum level of service required by the City. Furthermore, the way that the system comingles sanitary sewage and stormwater creates hazardous backups into buildings and generates Combined Sewer Overflows (CSOs) that are wholly averse to modern environmental and health regulations. Regulatory drivers for correcting those configuration issues are becoming increasingly serious. The City is currently under an Administrative Order to improve water quality, and the agencies and courts that oversee the Massachusetts Water Resources Authority (MWRA) CSO program are indicating that additional sewer separation in Somerville will be required. Moreover, the regulators and MWRA require Somerville to provide Infiltration / Inflow (I/I) off-sets in the form of stormwater removal from the combined system before allowing any new sewer connections for the transformative developments vital to achieving the city's housing and economic development goals. From 2018 through 2020, the Engineering Division through its consultant expanded and calibrated the Union Square hydraulic model, a critical tool for those evaluations, for the other geographies of Somerville. In 2021, the Engineering Division initiated a comprehensive, long-term, citywide plan that will identify, evaluate and prioritize options to reduce flooding, mitigate CSOs, and improve water quality. The planning project will include not only technical analysis, but also extensive community outreach to assure that the problems are correctly identified and to obtain input for evaluating and prioritizing solutions that will include both "grey" and "green" infrastructure. While this citywide planning effort will cover a much larger geography than the prior planning for Union Square, the Engineering Division is much better equipped to perform this work than it was previously, and our current schedule anticipates delivering a final plan by the end of 2021. The planning effort will result in recommendations for major infrastructure upgrades to achieve the flood reduction and CSO mitigation goals of the City.

### Water Distribution System

Unlike the other infrastructure assets described above, the water system *condition* cannot be directly observed as the system is pressurized and cannot be taken off line for inspection owing to a lack of redundancy (and a need for water by every building in the City). However, flow testing, pressure measurements, water quality sampling, and other system data can be used to estimate the *condition* of the system and evaluate the adequacy of the system's *configuration* to achieve current needs. The Engineering Division completed that assessment in 2020, and is using the resulting model to prioritize system improvements that will include trenchless rehabilitation of pipes adequately sized, replacement of pipes requiring different sizing, and replacement of valves, which are generally the system components most susceptible to failure over time. In general, our current backlog can be thought to be approximately \$500M over the next 50 years.

### Integrated Planning & Asset Management

With the mounting needs being identified for each asset class, combining improvements into larger, more efficient, more complicated, integrated contracts will become increasingly important, particularly for the





horizontal infrastructure. Given that the City does not have unlimited financial resources for either annual expenditures or debt accumulation, prioritizing and scheduling those projects along with capital investments for vehicles, parks and open space acquisition, will then inform the prioritization of maintenance programs.

IAM strives to ensure that transparent data-driven decision making underlies the prioritization of capital expenditures and maintenance activities. To support that goal, IAM is developing computer-based systems for asset management and capital planning. This is an ambitious endeavor that includes a wide range of activities, including: digitizing record information, standardizing asset data, completing condition assessments, integrating the City’s customer engagement 311 system, developing a work order management system that both provides field crews with asset data and captures the repairs completed into the asset database, deploying mobile devices to the operational division crews, establishing criteria that relate asset functioning to City program goals, and developing a computer-based interface for prioritizing and forecasting capital improvements. In FY21, IAM negotiated a scope and budget with our selected consultant to begin that work, and successfully obtained a grant from the Department of Environmental Protection to partially fund the work.

Simultaneously with the development of that system, IAM is curating and collecting data on the assets. The following table summarized the current data quality for both existing condition, and needed configuration changes:

<b>Asset Management Data Quality</b>		
<b>Streetscape</b>		
Condition	Excellent	Assessment 100% Complete, 1/3 of streets resurveyed annually
Configuration	In Progress	Must complete studies with Parking, Mobility and regional transit
<b>Water</b>		
Condition	Excellent	Model updated in 2020
Configuration	Excellent	Model updated in 2020
<b>Sewer</b>		
Condition	Poor	Less than 12% of system survey completed
Configuration	In Progress	Master plan expected early 2022
<b>Buildings</b>		
Condition	Good	Survey completed in 2018; however, Covid-19 work identified additional data needs
Configuration	In Progress	Master plan expected early 2022

Moving into FY2022, it will be important for IAM to continue to advance both the Building Master Plan and the Drainage & Water Quality Master Plan. Similarly, the collective efforts of several departments must advance efforts to reprioritize streetscape space. Partially due to Covid-19 complications, but largely due outside consultants’ ability to advance the sewer system condition survey, IAM will need to focus attention on completing more internal sewer inspections. Similarly, the work to improve air quality in the school buildings identified system deficiencies that could only be revealed through in-depth

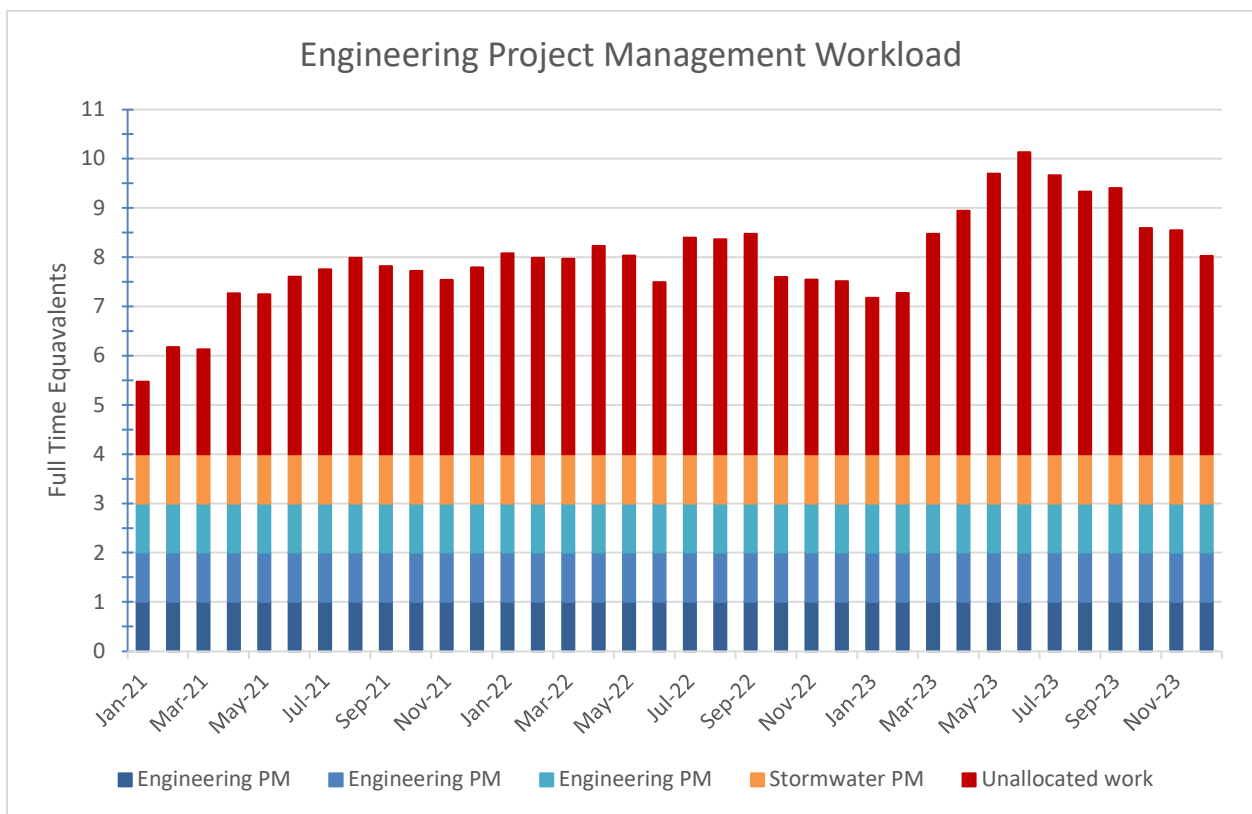




recommissioning; therefore, IAM will need to conduct further audits of the existing building systems and partner with DPW to improve their maintenance contracts.

### Program Improvement Requests

Considering the infrastructure and asset management needs identified above and in careful consideration of our current capacities, IAM respectfully submits the following Program Improvement Requests (PIR) for the FY2022 budget. For new project managers, the request is based on a workload and backlog scheduling analysis informed by in-flight projects for the short-term, projects on the CIP for the near-term, and future projects identified by the planning efforts outlined above for the long-term. The IAM project portfolio schedule is attached as Appendix A, and the raw workload projections are attached as Appendix B. In general, the number of project managers in the Capital Projects Division is adequate for now; however, that will require reevaluation following additional building investigations. The number of project managers in Engineering will need to increase by four (4) to accommodate the CY2021 and CY2022 construction seasons, and may need to increase by six (6) by CY2023 as illustrated below:



It should be noted that IAM’s FY2021 PIR drew many of the same conclusions, but with exceptions for the Stormwater Program Manager and the Green Building Manager, both of which were time-sensitive, no additional positions were considered for FY2021 due to uncertainty surrounding the Covid-19 pandemic. The Covid-19 pandemic also postponed several projects including: ArtFarm, Flint Street





Sewer Rerouting, Willow to Grove Sewer Rerouting, FY2020 Paving Program (Holland/College/Elm), 90 Union Square (a.k.a. SCAT Building), Lead Water Service Replacement, Hall Street Water & Sewer Improvements, and the Stormwater Rate Study. The Covid-19 pandemic also slowed progress on several other projects including: Sewer System Evaluation Study, Sewer Pipeline Rehabilitation (Projects 2 and 3), and FY2019 Paving Program (Medford Street). The IAM staff were fully loaded and very productive working remotely on the large number of projects that continued throughout the past year. With the projects delayed by Covid-19 restarting, the CY2021 construction season returning to normal productivity levels, two major projects transitioning from design to construction (which demands more time of project managers), and additional, critical projects beginning, it is vitally important that the City add positions to IAM. Given that construction season starts in April, some of the below positions are being requested as a mid-year FY2021 addition, but are included here for completeness.

Create new Engineering position: Senior Project Manager (Streetscapes Program)

Cost: \$93,636 (estimated NU06 Step 3, 100% General Fund)

[*Note: Included in mid-year request.*] Historically, the City’s annual roadway paving and sidewalk improvements projects have been executed as “book jobs” that require minimal preparation for bidding and rely on engineering consultants for verification of quantities to pay our construction contractors. With increased construction citywide, and as IAM and Mobility have increased the expectations for execution of construction projects, that model has shown flaws. Moreover, given the backlog of streetscape repairs and the goals of reprioritizing public space within the City’s rights-of-way for public transportation, bicycles, pedestrian safety, urban forest, green stormwater infrastructure, ADA accessibility, and other public uses, the complexity of the City’s annual contracts has increased substantially. Additionally, improvements planned by Mobility, as well as the identification of streetscape-focused projects such as Highland Avenue, New Washington Street, and Power House Boulevard / Clarendon Hill highlight the need for a project manager with more streetscape experience than our current wet utility PM focus. The Engineering Division’s current staffing level and workload do not afford us the opportunity to fulfill these obvious needs. Consequently, we are proposing a new Senior Project Manager be added to the staff with a focus on the streetscapes, including the execution of the City’s contracts, and the coordination with private contractors and utilities to address issues identified by the Trench Inspector. The long-term workload forecast indicates that Engineering will need a total of 4 Full Time Equivalents (FTEs) project managers, and given the balance of the Division’s current expertise, we need to focus on candidates with streetscape expertise. In CY2020, Brian Postlewaite and Haleemah Qureshi handled this workload, which will not be tenable in CY2021. It should be noted that this request is consistent with and correlates to the Administration’s and the City Council’s actions to add positions to Mobility. This position in Engineering is critical to forging Mobility’s plans in concrete and actually constructing the improvements needed to calm traffic and improve pedestrian safety.

Create new Engineering position: Senior Program Manager (Water / Sewer / Streetscapes)

Cost: \$104,040 (estimated NU05 Step 3, includes supervision equal to an Assistant Director, split between Water Enterprise, Sewer Enterprise and General Fund)





[*Note: Included in mid-year request.*] The Spring Hill Sewer Separation and the Poplar Street Pump Station projects, while driven by sewer needs, are both highly complex projects that will incorporate water system upgrades, gas main replacements, streetscape improvements, private property inflow removal, and new building construction all requiring multi-discipline coordination across several City departments and with private companies. The combined results of the asset condition assessments and the hydraulic modeling to generate the citywide comprehensive drainage and water quality improvements plan as discussed in the 2021 PIR memo, will undoubtedly result in similarly complex projects. The current workload of the Engineering Division overwhelms the current staff's capabilities to achieve regulatory deadlines, particularly those associated with the federally-issued stormwater and combined sewer permits. To avoid further enforcement action and to better achieve the City's own flood reduction and streetscape improvement goals, additional staff is required. Given the complexity of the anticipated projects, and to provide promotional opportunities for existing staff thereby improving staff retention, IAM seeks to create a new Senior Project Manager (SPM) position with expanded requirements and an expectation to mentor or supervise the more junior PM's. The long-term workload forecast indicates the need for 4 additional project managers with expertise in water, sewer and general civil engineering. Given the increasing portfolio in Engineering, and the resignation of Jess Fosbrook who provided project management mentoring, we propose the new position be a Senior Project Manager to both manage increasingly the complex projects expected to result from the Sewer System Master Plan and to provide mentoring/supervision of the other PMs.

#### Create new IAM position: Senior Project Manager (Asset Management Program)

Cost: \$93,636 (estimated NU06 Step 3, 100% General Fund)

As discussed extensively in the FY2022 PIR, and indeed in IAM's mission statement, it is our goal to partner with the operational departments (DPW, Water & Sewer, etc.) to adopt a data-driven asset management approach that incorporates both work order tracking and capital planning components. For FY2021, our approach relied heavily on consultants to establish the groundwork for that program as part of ongoing condition assessment projects. Unfortunately, it became apparent that model did not work, and that the program must be driven by dedicated, focused City staff. Moreover, due to staffing limitations, we have fallen behind on the sewer system evaluation and rehabilitation program. The good news is that, largely through the efforts of Haleemah Qureshi and Jonathan Smith, we have been awarded a grant from DEP to fund consultant fees needed to build the asset management program. In light of the challenges and opportunities, we are proposing a new Senior Project Manager be added to the staff with a focus on the asset management program. While the grant focuses on the water and sewer systems, the asset management program and the associated software systems should be common to building assets; therefore, we propose the new position sit in IAM to support both Engineering and Capital Projects. The projection indicates a full-time need for approximately the next two years to design the system and customize the software. After that time, this position would manage the database, workorder system, and the teams executing the capital improvement projects defined by the system.

#### Create new Engineering position: Project Manager (Water / Sewer / Streetscapes)

Cost: \$88,434 (estimated NU07 Step 3, split betwixt Water Enterprise, Sewer Enterprise and General Fund)







As discussed in the overall FY2022 PIR and in the specific requests for the three Senior Project Managers, the Engineering workload projection identifies the need for 4 additional project managers. This request is for fourth manager at the same level as the current PMs. The candidate should possess general civil engineering management with experience in water, sewer and streetscape design and construction.

Create new Capital Projects position: Assistant Director of Capital Projects

Cost: \$104,040 (estimated NU05 Step 3, 100% General Fund)

[*Note: Included in mid-year request.*] As discussed in the full PIR memo, deferred maintenance and underinvestment in the City's building infrastructure has created a substantial backlog of work to provide basic code compliance, ADA accessibility, and general functionality of the City's buildings; moreover, the current floor plans and distribution of buildings throughout the City substantially impacts the functioning of many departments and creates unfavorable constituent experiences. The Capital Projects Division faces the considerable challenge of managing the new construction and major renovations to solve the latter problem whilst prioritizing and administering smaller contracts and DPW work orders to address the former. The Covid-19 improvements to the school ventilation systems revealed serious operational and maintenance deficiencies under the Honeywell contract that illustrated those risks are real and consequential.

It is an unfortunate reality that the Building Improvement & Preventative Maintenance Manager (BIPM) position has remained vacant for over two years, through multiple rounds of advertisement and interviews, because at the current salary level we have been unable to land a candidate with both the technical knowledge of building systems and the strategic vision to address both the administration and prioritization of the deferred maintenance program. Given the needed skillsets and the overall workload projected for the coming decades, we are requesting an Assistant Director of Capital Projects. The Assistant Director would provide the strategic project prioritization, coordination with DPW, and the management oversight of the BIPM, Green Building Manager, and other staff for the deferred maintenance program, allowing the Director of Capital Projects and the other Project Managers to focus on the larger construction projects, and allowing the department to set more realistic expectations for the BIMP position.

Create new IAM Administrative Assistant position (and relinquish DPW budget)

When Engineering was severed from DPW, the Head Clerk position that supports Engineering continued to be funded by the DPW budget. DPW currently has a clerical staffing shortfall. To address that issue, a net new position needs to be created. Moreover, to balance the workload in Capital Projects and help deliver on deferred maintenance projects, many departmental administrative functions must be shifted from the Capital Projects Project Assistant to the Engineering Head Clerk. Duties include processing requisitions, paying invoices, submitting batch payments and processing payroll for IAM and its two Divisions. Those transferred duties, some of which require handling confidential information, are in addition to those previously adopted by the Engineering Head Clerk including depositing payments, providing reception duties, distributing DigSafe requests, and fulfilling plan requests. Given the volume and nature of the transferred duties, IAM is requesting a reclassification of the position and the concomitant increase in compensation. To solve the need for both IAM and DPW, we propose creating a





new IAM Administrative Assistant position, and relinquish Engineering workload demand on the DPW budget allowing DPW to create their own Head Clerk position within their existing budget.

### Fund Engineering 588002 Street Repairs

Cost: \$500,000 (100% General Fund)

As discussed in the PIR memo above, the current condition of the City's streets and sidewalks is poor, with an estimated backlog of \$220M in capital improvements. Moreover, anticipated utility work and reassessment of the City's priorities for public transportation, bicycles, pedestrian safety, urban forest, green stormwater infrastructure, ADA accessibility, and other public uses in the City's limited rights-of-way indicate that more substantial streetscape capital improvements are highly likely in the future. Given those needs as well as those for buildings and parks, reserving bonding and debt service capacity for larger projects is fiscally advisable. Starting in calendar year 2020, the City will be following examples set by Cambridge and Boston by implementing "partial paving" of the travel ways to improve safety and the travel experience. Considering both the goal of implementing extensive streetscape changes as long-term capital improvements, and the goal of providing short-term improvements to the streets, it is the recommendation of IAM that the partial paving program be considered a maintenance effort and be funded through capital outlay rather than long-term bonding. Consequently, we are requesting that the Street Repairs line be funded on an annual basis.

### Increase Capital Projects 582002 Building Reconstruction and 582003 Building Improvements Lines

Cost: \$1,500,000 Estimated (100% General Fund)

To address the municipal and school administration office space deficiencies identified by the Building Master Plan Working Group, the City is initiating planning that will result in sequencing a series of full-scale renovations of several buildings. The extent of and timeline for those major projects will be highly dependent upon the City's bonding and debt service capacity. As those improvements are phased over several years, and given the City's lack of available space, it is imperative that the City's existing buildings remain in operation. At present, leaking roofs at the Cummings, Winter Hill School, Engine 7, and SCAT building, fire escape structural deficiencies at City Hall, and water intrusion at Founders Rink all threaten occupancy. The 2017 inventory of building system has also identified \$100M in "Emergency" or "High Priority" items required to achieve code compliance, ADA accessibility or general functionality of buildings. Moreover, the deeper evaluation of the school HVAC systems completed under the Covid-19 work identified significant deficiencies, which implies that other systems require additional scrutiny and likely remediation. Particularly for buildings being considered for full renovation under the Building Master Plan, those repairs are intended to be temporary in nature, lasting less than the debt service associated with a bond. Therefore, IAM is recommending substantial increased to Capital Outlay to maintain the occupancy of the existing building stock while the larger renovation plans are implemented.





## Change funding source for Capital Projects Senior Project Manager position

Cost: \$95,508.72 (estimated NU06 Step 4, 100% General Fund)

The appropriation and bond language for both the 90 Washington Public Safety Building project and the Building Renovation and Department Relocation Master Plan Preliminary Design project allow for the funding of a Senior Project Manager, a position Capital Projects is currently seeking to fill. Given the potential magnitude of additions to the Capital Investment Plan, an advisable strategy would be to reserve the City's bonding and debt service capacity for consultant and construction contracts. To that end, Capital Projects recommends shifting the funding mechanism for this critical position from debt to personal services.

### **Conclusion**

Municipalities like the City of Somerville do not invest in infrastructure for the sake of building infrastructure. Municipal utilities and facilities fulfill basic human needs and support the delivery of civil services. Unfortunately, Somerville's historical practice of deferring maintenance has pushed the condition of nearly all its assets to failure. Moreover, given the age of those assets, the configuration of many systems fails to achieve modern needs or regulatory requirements. While IAM's PIRs do not directly enhance existing or create new constituent-focused programs, they are vital for the continued delivery of existing and proposed services. IAM thanks the Administration for its consideration of these PIRs, which provide the underlying foundation *sine qua non* for all other functions of the City.





## APPENDIX A

### IAM PORTFOLIO SCHEDULE CY2021 – CY2023





IAM Portfolio Schedule 2021

ID	Task Name	Start	Finish	Resource Names	2021					2022					2023								
					Jan	Mar	May	Jul	Sep	Nov	Jan	Mar	May	Jul	Sep	Nov	Jan	Mar	May	Jul	Sep	Nov	
50	East	Fri 1/1/21	Thu 4/8/21	RC[20%]	RC[20%]																		
51	Mods	Fri 1/1/21	Thu 3/11/21	EN[20%]	EN[20%]																		
52	JFK	Mon 2/15/21	Fri 5/7/21	EN[20%]	EN[20%]																		
53	Healey	Mon 3/1/21	Fri 5/21/21	RC[20%]	RC[20%]																		
54	Winter Hill School	Mon 3/1/21	Fri 5/21/21	RC[20%]	RC[20%]																		
55	<b>Winter Hill HVAC Updates</b>	<b>Mon 3/8/21</b>	<b>Fri 10/28/22</b>		[Summary bar]																		
56	Design	Mon 3/8/21	Fri 9/3/21	RC[20%]	RC[20%]																		
57	<i>Funding request</i>	Mon 8/9/21	Mon 8/9/21																				
58	Bid	Mon 9/6/21	Fri 10/29/21	RC[20%]																			
59	Construction	Mon 11/1/21	Fri 10/28/22	RC[60%]																			
60	<b>Founders Ice Rink</b>	<b>Mon 1/6/20</b>	<b>Tue 12/21/21</b>		[Summary bar]																		
61	Design	Mon 1/6/20	Tue 6/30/20																				
62	COVID Impact	Wed 7/1/20	Tue 4/6/21		[Orange bar]																		
63	Design	Wed 4/7/21	Tue 5/4/21	DM[20%]																			
64	<i>Funding request</i>	Wed 4/7/21	Wed 4/7/21																				
65	Bid	Wed 5/5/21	Tue 6/29/21	DM[20%]																			
66	Construction	Wed 6/30/21	Tue 12/21/21	DM[20%]																			
67	<b>Engine 7</b>	<b>Mon 1/6/20</b>	<b>Tue 12/21/21</b>		[Summary bar]																		
68	Design	Mon 1/6/20	Tue 6/30/20																				
69	COVID Impact	Wed 7/1/20	Tue 4/6/21		[Orange bar]																		
70	Design	Wed 4/7/21	Tue 5/4/21	DM[20%]																			
71	<i>Funding request</i>	Wed 4/7/21	Wed 4/7/21																				
72	Bid	Wed 5/5/21	Tue 6/29/21	DM[20%]																			
73	Construction	Wed 6/30/21	Tue 12/21/21	DM[20%]																			
74	<b>Winter Hill School Penthouse/Water</b>	<b>Mon 1/6/20</b>	<b>Tue 12/21/21</b>		[Summary bar]																		
75	Design	Mon 1/6/20	Tue 6/30/20																				
76	COVID Impact	Wed 7/1/20	Tue 4/6/21		[Orange bar]																		
77	Design	Wed 4/7/21	Tue 5/4/21	DM[20%]																			
78	<i>Funding request</i>	Wed 4/7/21	Wed 4/7/21																				
79	Bid	Wed 5/5/21	Tue 6/29/21	DM[20%]																			
80	Construction	Wed 6/30/21	Tue 12/21/21	DM[20%]																			
81	<b>Cummings School</b>	<b>Mon 1/6/20</b>	<b>Tue 9/27/22</b>		[Summary bar]																		
82	Design	Mon 1/6/20	Tue 6/30/20																				
83	COVID Impact	Wed 7/1/20	Tue 1/11/22		[Orange bar]																		
84	Design	Wed 1/12/22	Tue 2/8/22	DM[20%]																			
85	<i>Funding request</i>	Wed 1/12/22	Wed 1/12/22																				
86	Bid	Wed 2/9/22	Tue 4/5/22	DM[20%]																			
87	Construction	Wed 4/6/22	Tue 9/27/22	DM[20%]																			
88	<b>CY2022 Projects TBD</b>	<b>Fri 1/1/21</b>	<b>Fri 6/2/23</b>		[Summary bar]																		
89	COVID Impact	Fri 1/1/21	Fri 8/13/21		[Orange bar]																		
90	Design	Mon 8/16/21	Fri 2/11/22	DM[40%]																			
91	Bid	Mon 2/14/22	Fri 6/3/22	DM[20%]																			
92	Construction	Mon 6/6/22	Fri 6/2/23	DM[70%]																			
93	<b>CY2023 Projects TBD</b>	<b>Mon 2/7/22</b>	<b>Fri 3/29/24</b>		[Summary bar]																		
94	Design	Mon 2/7/22	Fri 2/3/23	DM[30%]																			







IAM Portfolio Schedule 2021

ID	Task Name	Start	Finish	Resource Names	2021					2022					2023								
					Jan	Mar	May	Jul	Sep	Nov	Jan	Mar	May	Jul	Sep	Nov	Jan	Mar	May	Jul	Sep	Nov	
186	COVID Impact	Mon 3/23/20	Fri 12/31/21																				
187	RFQ	Mon 1/3/22	Fri 2/18/22	JS[10%]																			
188	Design	Mon 2/21/22	Fri 2/3/23	JS[20%]																			
189	Bid	Mon 2/6/23	Fri 3/31/23	JS[20%]																			
190	Construction	Mon 4/3/23	Fri 3/15/24	JS[40%]																			
191	Punch list / contract closeout	Mon 3/18/24	Fri 9/6/24	JS[10%]																			
192	<b>Willow to Grove Rerouting</b>	<b>Mon 3/23/20</b>	<b>Fri 9/6/24</b>																				
193	COVID Impact	Mon 3/23/20	Fri 12/31/21																				
194	RFQ	Mon 1/3/22	Fri 2/18/22	JS[10%]																			
195	Design	Mon 2/21/22	Fri 2/3/23	JS[20%]																			
196	Bid	Mon 2/6/23	Fri 3/31/23	JS[20%]																			
197	Construction	Mon 4/3/23	Fri 3/15/24	JS[40%]																			
198	Punch list / contract closeout	Mon 3/18/24	Fri 9/6/24	JS[10%]																			
199	<b>Stormwater Enterprise/Rate Development</b>	<b>Fri 3/20/20</b>	<b>Thu 9/30/21</b>																				
200	COVID Impact	Fri 3/20/20	Thu 12/31/20																				
201	Planning	Fri 1/1/21	Thu 9/30/21	LH[40%]																			
202	<b>Roadway &amp; Sidewalk System</b>	<b>Mon 1/6/20</b>	<b>Mon 8/12/24</b>																				
203	<b>CY2015/2016 Lowell / PHB / Day / Dane</b>	<b>Fri 3/20/20</b>	<b>Fri 5/28/21</b>																				
204	COVID Impact	Fri 3/20/20	Fri 5/29/20																				
205	Punch list / contract closeout	Mon 6/15/20	Fri 5/28/21	BP[10%]																			
206	<b>CY2017 Cedar / PHB / Sycamore</b>	<b>Fri 3/20/20</b>	<b>Fri 5/28/21</b>																				
207	COVID Impact	Fri 3/20/20	Fri 5/29/20																				
208	Punch list / contract closeout	Mon 6/15/20	Fri 5/28/21	BP[10%]																			
209	<b>FY2019 Medford</b>	<b>Mon 1/6/20</b>	<b>Fri 5/21/21</b>																				
210	Construction	Mon 1/6/20	Fri 3/20/20																				
211	COVID Impact	Mon 3/23/20	Fri 5/15/20																				
212	Construction	Mon 5/18/20	Fri 11/27/20																				
213	Punch list / contract closeout	Mon 11/30/20	Fri 5/21/21	BP[10%]																			
214	<b>FY2020 Holland/College</b>	<b>Mon 1/6/20</b>	<b>Fri 9/2/22</b>																				
215	COVID Impact	Fri 3/20/20	Fri 1/29/21																				
216	<i>Mobility - Bus priority lane</i>	Mon 1/6/20	Fri 1/29/21	BP[10%]																			
217	Bid	Mon 2/1/21	Fri 3/26/21	BP[20%]																			
218	Construction	Mon 3/29/21	Fri 3/11/22	BP[40%]																			
219	Punch list / contract closeout	Mon 3/14/22	Fri 9/2/22	BP[10%]																			
220	<b>FY2020/21 Priority Sidewalk / Partial Pave</b>	<b>Fri 3/20/20</b>	<b>Fri 5/6/22</b>																				
221	COVID Impact	Fri 3/20/20	Fri 1/29/21																				
222	Design	Mon 2/1/21	Fri 3/26/21	BP[40%]																			
223	Bid	Mon 3/29/21	Fri 5/21/21	BP[20%]																			
224	Construction	Mon 5/24/21	Fri 11/12/21	BP[40%]																			
225	Punch list / contract closeout	Mon 11/15/21	Fri 5/6/22	BP[10%]																			
226	<b>FY2022 Pearl</b>	<b>Fri 3/20/20</b>	<b>Thu 6/8/23</b>																				
227	COVID Impact	Fri 3/20/20	Thu 1/21/21																				
228	RFQ	Fri 1/22/21	Thu 3/18/21	BP[10%]																			
229	Design	Fri 3/19/21	Thu 9/9/21	BP[20%]																			
230	<i>Mobility - Bike, bus &amp; pedestrian priority changes</i>	Fri 3/19/21	Thu 9/9/21																				



IAM Portfolio Schedule 2021

ID	Task Name	Start	Finish	Resource Names	2021					2022					2023									
					Jan	Mar	May	Jul	Sep	Nov	Jan	Mar	May	Jul	Sep	Nov	Jan	Mar	May	Jul	Sep	Nov		
276	Water & Sewer preliminary design	Mon 1/11/21	Fri 12/24/21	DA[20%]	[Bar]					DA[20%]														
277	<i>Funding request</i>	Mon 11/29/2	Mon 11/29/2							◆ 11/29														
278	Final design	Mon 12/27/2	Fri 12/9/22	BP[40%]						[Bar]					BP[40%]									
279	Bid	Mon 12/12/2	Fri 2/3/23	BP[20%]											[Bar] BP[20%]									
280	Construction	Mon 2/6/23	Fri 1/19/24	BP[80%]											[Bar]									
281	<b>Boynton Yards Infrastructure Program</b>	<b>Mon 1/6/20</b>	<b>Fri 3/21/25</b>		[Horizontal separator line]																			
282	<i>P&amp;Z - Developer coordination</i>	Mon 1/6/20	Fri 12/18/20		[Bar]																			
283	Preliminary design	Mon 6/7/21	Fri 12/3/21	DA[20%]						[Bar] DA[20%]														
284	<i>Funding request</i>	Mon 11/8/21	Mon 11/8/21							◆ 11/8														
285	RFQ	Mon 12/6/21	Fri 2/25/22	DA[20%]						[Bar] DA[20%]														
286	Design	Mon 2/28/22	Fri 2/24/23	DA[40%]						[Bar]					DA[40%]									
287	<i>Mobility - Streetscape design</i>	Mon 2/28/22	Fri 2/10/23							[Red Bar]														
288	Bid	Mon 2/27/23	Fri 4/21/23	DA[40%]											[Bar] DA[40%]									
289	Construction	Mon 4/24/23	Fri 9/27/24	DA[80%]											[Bar]									
290	Punch list / contract closeout	Mon 9/30/24	Fri 3/21/25	DA[40%]											[Bar]									
291	<b>Gilman Square Reconfiguration</b>	<b>Mon 1/6/20</b>	<b>Fri 8/30/24</b>		[Horizontal separator line]																			
292	<i>Mobility - Conceptual design</i>	Mon 1/6/20	Fri 5/14/21		[Red Bar]																			
293	<i>OSPCD ED - Utility design</i>	Mon 1/6/20	Fri 5/14/21		[Red Bar]																			
294	Preliminary design streetscape	Mon 1/6/20	Fri 3/12/21		[Bar]																			
295	Preliminary design utilities	Mon 4/5/21	Fri 5/28/21		[Bar]																			
296	<i>Funding request</i>	Mon 5/3/21	Mon 5/3/21							◆ 5/3														
297	RFQ	Mon 5/31/21	Fri 8/20/21							[Bar]														
298	Design	Mon 8/23/21	Fri 8/5/22							[Bar]														
299	<i>Mobility - Streetscape design</i>	Mon 8/23/21	Fri 8/5/22							[Red Bar]														
300	Bid	Mon 8/8/22	Fri 9/30/22							[Bar]														
301	Construction	Mon 10/3/22	Fri 3/8/24							[Bar]														
302	Punch list / contract closeout	Mon 3/11/24	Fri 8/30/24							[Bar]														
303	<b>Clarendon Hill / Powder House Blvd Reconfiguration</b>	<b>Mon 1/6/20</b>	<b>Fri 3/17/23</b>		[Horizontal separator line]																			
304	<i>Mobility - Conceptual design</i>	Mon 1/6/20	Fri 7/31/20		[Bar]																			
305	Preliminary design	Mon 1/6/20	Fri 7/31/20		[Bar]																			
306	Design	Mon 8/3/20	Fri 7/30/21	BP[40%]	[Bar] BP[40%]																			
307	<i>Mobility - Streetscape design</i>	Mon 8/3/20	Fri 3/26/21		[Red Bar]																			
308	Bid	Mon 8/2/21	Fri 10/8/21	BP[10%]						[Bar] BP[10%]														
309	Construction	Mon 10/11/2	Fri 9/23/22	BP[40%]						[Bar]					BP[40%]									
310	Punch list / contract closeout	Mon 9/26/22	Fri 3/17/23	BP[10%]											[Bar] BP[10%]									
311	<b>Spring Hill Sewer Separation Phase II</b>	<b>Mon 1/6/20</b>	<b>Fri 8/29/25</b>		[Horizontal separator line]																			
312	Preliminary design	Mon 1/6/20	Fri 1/1/21		[Bar]																			
313	<i>Lag between phases</i>	Mon 1/4/21	Fri 2/25/22		[Orange Bar]																			
314	<i>Funding request</i>	Mon 1/31/22	Mon 1/31/22							◆ 1/31														
315	Design	Mon 2/28/22	Fri 2/10/23							[Bar]														
316	<i>Mobility - Streetscape design</i>	Mon 2/28/22	Fri 2/10/23							[Red Bar]														
317	Bid	Mon 2/13/23	Fri 4/7/23							[Bar]														
318	Construction	Mon 4/10/23	Fri 3/7/25							[Bar]														
319	Punch list / contract closeout	Mon 3/10/25	Fri 8/29/25							[Bar]														
320	<b>Planning</b>	<b>Mon 1/6/20</b>	<b>Fri 8/11/28</b>		[Horizontal separator line]																			









## APPENDIX B

### IAM RESOURCE WORKLOAD



