



Public Facilities Committee Agenda

City of Newton

In City Council

Wednesday, June 2, 2021

8:30 p.m. -Please note late start time

The Public Facilities Committee will hold this meeting as a virtual meeting on Wednesday, June 2, 2021 at 8:30 pm. To view this meeting using Zoom use this link: <https://us02web.zoom.us/j/84553169316> or call 1-646-558-8656 and use the following Meeting ID: 845 5316 9316

Item Scheduled for Discussion:

Please Note: Budget materials can be found on the City's website at the following link:

<https://www.newtonma.gov/government/comptroller/budget>

BUDGET & CIP DISCUSSIONS: Public Buildings Department

- #1-21 Submittal of the FY 2022 to FY 2026 Capital Improvement Plan**
HER HONOR THE MAYOR submitting the Fiscal Years 2022 to 2026 Capital Improvement Plan pursuant to section 5-3 of the Newton City Charter.
- #1-21(2) Submittal of the FY 2022 – FY 2026 Supplemental Capital Improvement Plan**
HER HONOR THE MAYOR submitting the FY 2022 – FY 2026 Supplemental Capital Improvement Plan.
- #1-21(3) Submittal of the FY 2022 Municipal/School Operating Budget**
HER HONOR THE MAYOR submitting in accordance with Section 5-1 of the City of Newton Charter the FY22 Municipal/School Operating Budget, passage of which shall be concurrent with the FY22-FY26 Capital Improvement Program.
EFFECTIVE DATE OF SUBMISSION 05/12/21; LAST DATE TO PASS THE BUDGET 06/25/2021

Respectfully submitted,

Alison M. Leary, Chair

The location of this meeting is accessible and reasonable accommodations will be provided to persons with disabilities who require assistance. If you need a reasonable accommodation, please contact the city of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or (617) 796-1253. The city's TTY/TDD direct line is: 617-796-1089. For the Telecommunications Relay Service (TRS), please dial 711.

Building	Asset Type	Asset Name	Recommendation	Cost				Completed
B010-Police Annex	Accessibility Item	Exterior	Since there is only one accessible parking space, restripe and provide signage for a "van accessible" parking space; Install code-compliant handrail extensions at the bottom of the entry stairs.	\$ 500				
B005-Crafts St DPW Operating Ctr (Stable)	Flooring	Flooring group 3 (wood)	Re-nail flooring as required, install safety railing around 5x5 opening in floor (1ea).	\$ 550				
B005-Crafts St DPW Operating Ctr (Stable)	Accessibility Item	Parking	Provide a "van accessible" parking space including signage; Restripe accessible space to include a 5ft. access aisle.	\$ 550		\$ 1,100		
B034-Auburndale Cove Fieldhouse	Flooring	Carpet	Remove and replace carpet(100sf).	\$ 677		\$ 677		partially done
B008-Newton Police Headquarters	Accessibility Item	Locker Rooms	Provide 5 percent or at least one locker that has accessible hardware installed within reach range;	\$ 810				
Forte Park	Mechanical		Install manual damper in ventilation fans to prevent transfer of cold air and moisture into building.	\$ 895				
B001-City Hall	Accessibility Item	Corridors	Reposition clock on 1st floor or install a cane-detectable barrier around it because it projects >4" into the circulation route and is therefore a protruding object; Reposition signs in 2nd floor corridor because they reduce headroom to <80" AFF.	\$ 1,000				
B033-Albermarle Fieldhouse	Lintels group	Lintels Summary	Clean and repaint steel lintels.	\$ 1,033		\$ 2,033		
B036-Nahanton Park Fieldhouse	Window group	Window Group 1 - Glass Block	Repair glass blocks in glass block exterior windows that are cracked (2ls).	\$ 1,088		\$ 1,088		
B018-Waban Library	Painting group	Painting group 1	Scrape, prepare surface and paint woodwork at gable ends(150sf).	\$ 1,228				
B035-Cabot Park Fieldhouse	Int. Wall group	Interior Walls	Repair and patch scattered areas of interior wall damage (10%=200sf).	\$ 1,243				
B033-Albermarle Fieldhouse	Column Group Summary	Column Group Summary 1	Clean base of the two exterior steel columns of all corrosion and prepare the exposed surfaces of the steel columns and coat with a high quality paint system. (2 cols. - 32 sq ft).	\$ 1,243				
B033-Albermarle Fieldhouse	Ext receptacles group	Ext receptacles group 1	Add Exterior GFI electrical power receptacles at front and rear entrance (2ea).	\$ 1,243				
B034-Auburndale Cove Fieldhouse	Ext receptacles group	Ext receptacles group 1	Add (2) all-weather GFI electrical power receptacles adjacent to building entrances.	\$ 1,243				

B036-Nahanton Park Fieldhouse	Flooring	Flooring 2 - Concrete	Scrape, prepare surface and recoat bathroom floors with a non-slip epoxy floor finish (200sf).	\$ 1,243				
B036-Nahanton Park Fieldhouse	Int receptacles group	Int receptacles group 1	Replace 10% worn power receptacles and add GFI receptacles to the Men's and Women's toilets (2ea).	\$ 1,243				
B035-Cabot Park Fieldhouse	Int receptacles group	Int receptacles group 1	Add GFI electrical power receptacles to the men's and women's toilet rooms.	\$ 1,243				
B035-Cabot Park Fieldhouse	Ext receptacles group	Ext receptacles group 1	Add (2) all-weather GFI receptacles on the outside perimeter of the building.	\$ 1,243		\$ 11,172		
B040-Forte Park (Allison)	Element group	Element group 1	Repair ornamental portion of columns, prepare surfaces, and repaint (2 EA).	\$ 1,270				
B042-Upper Falls Fieldhouse	Door group	Door group 1	Replace single hung door and add security door grill (1 EA).	\$ 1,270		\$ 2,540		
B040-Forte Park (Allison)	Other element group	Ramp	Repair exterior concrete ramp apron (100sf).	\$ 1,316				
B015 - Elliot St. Operations Center	Canopy group	Canopy group 1	Scrape, prepare surface and repaint wood trim (30sf).	\$ 1,409		\$ 1,409		
B031-Emmerson Community Center	Fan group	Fan group 1	Clean ventilation fan blades and lubricate fan bearings.	\$ 1,422				
B042-Upper Falls Fieldhouse	Wall group	Wall group 1	Repair damaged areas of exterior concrete wall as required (10%=100sf).	\$ 1,433				
B040-Forte Park (Allison)	Roofing group	Roofing group 1	Install new drip edge along rear edge of roof (20lf) and repair asphalt shingles in the area which are damaged.	\$ 1,470				
DPW Utilites			CO2/NOX ventilation	\$ 1,500				
B036-Nahanton Park Fieldhouse	Painting group	Painting group 1	Scrape, caulk, prepare surface and repaint exterior soffit and trim (250lf).	\$ 1,693				
B022-Pelligrini Park Field House	Accessibility Item	Signage	Install tactile and Braille room and exit signage mounted adjacent to latch side door.	\$ 1,700				
B011 - Newton Corner Library	Fan group	Ceiling Fans	Install exhaust fan in 2nd floor bathroom at 75 CFM per fixture.	\$ 1,708				
B041-Newton Ctr. Metal Storage Building	Door group	Door group 1	Repair and repaint overhead door (1ea).	\$ 1,733				
B006-Fire Station #1, Newton Corner	Heating pumps group	Heating pumps group 5 - Domestic pump 1	Replace domestic heat pump.	\$ 1,785		\$ 8,619		

B042-Upper Falls Fieldhouse	Int. Wall group	Int. Wall group 1	Repair areas of minor damage in exterior concrete and interior CMU walls as required and repaint(10%=140sf).	\$ 1,832				
B034-Auburndale Cove Fieldhouse	Int. Wall group	Int. Wall group 1	Clean, point, and paint interior CMU walls (20%=300sf).	\$ 1,836		\$ 3,668		
B021-Crystal Lake Bathhouse	Water heater (direct) group	Water heater (direct) group 1	Install drip pan under unit and discharge to safe waste per code requirements.	\$ 1,965				
B024-Jeanette Curtis West Rec Ctr (The Hut)	Element group	Exterior Chimney Base	Repoint cracks in stone masonry base of exterior chimney (100sf).	\$ 1,990				
B001-City Hall	Fuel Compressor group	Compressor group 1	Remove non-functioning pneumatic compressor unit.	\$ 2,000				
B036-Nahanton Park Fieldhouse	Water heater (direct) group	Water heater (direct) 2 - Heater 2	Provide enclosure under the women's room sink to protect water heater from tampering and from a child accidentally hitting the pressure relief valve and getting scalded. Also provide a drip pan and drain under the water heater.	\$ 2,104		\$ 2,104		
B036-Nahanton Park Fieldhouse	Ceiling group	Ceiling group 1	Replace damaged or stained acoustical ceiling tile (20%=200sf).	\$ 2,175		\$ 2,175		
B035-Cabot Park Fieldhouse	Flooring	Concrete Flooring	Clean and perform minor repairs on concrete flooring (260sf).	\$ 2,224				
B015 - Elliot St. Operations Center	Water heater (direct) group	Water heater (direct) group 1 - kitchen hw htr	Provide drain pan under unit with discharge piping to safe waste per code requirements.	\$ 2,233				
B015 - Elliot St. Operations Center	Door group	Doors	Replace weather stripping at pairs of loft doors (2ea).	\$ 2,233				
B022-Pelligrini Park Field House	Fan group	Fan group 2 - kitchen fan	Replace kitchen exhaust fan with a new fan unit.	\$ 2,430				
B022-Pelligrini Park Field House	Fan group	Fan group 3 - TV room fan	Replace TV room exhaust fan with a new fan unit.	\$ 2,430				
B019 - Nonantum Library	Fan group	Fan group 2 - basement womens room	Provide new exhaust fan, 75 CFM in basement womens room. Interlock controls with light.	\$ 2,430				
B030-Elliot Street Yard Garage	Fan group	Fan Group 2 - Garage Office Fan	Replace garage office fan with a code-compliant fan with protected blades.	\$ 2,430		\$ 16,410		
B018-Waban Library	Egress Lighting	Egress Lighting 1	Add egress lighting fixtures (2) units to toilets.	\$ 2,465				
B001-City Hall	Column Group Summary	Column Group Summary 1	Clean and repaint corroded areas at bases of two steel comumns in lower basement (boiler room) that are heavily corroded. After cleaning, inspect for loss of section and repair if necessary.	\$ 2,481				

B027-Public Buildings Department	Ext receptacles group	Ext receptacles group 1	Install (4) all-weather GFI receptacles along the perimeter of the structure.	\$ 2,487				
B017-Newton Free Library	Ext receptacles group	Exterior Receptacles	Install (~4) all-weather GFI receptacles at or near exterior doorways.	\$ 2,487		\$ 9,920		
B024-Jeanette Curtis West Rec Ctr (The Hut)	Ext receptacles group	Ext receptacles group 1	Add (4) Exterior GFI Receptacle front and rear entrance.	\$ 2,487				
B026-Burr Park Field House	Ext receptacles group	Ext receptacles group 1	Add (4) Exterior GFI Receptacles at the front and rear entrances.	\$ 2,487				
B036-Nahanton Park Fieldhouse	CW service/meter group	CW service/meter group 1	Provide combustion air dampers at openings, or provide heat trace on cold water service piping. Note there is a wall switch for heat trace, but no heat trace line present.	\$ 2,505				
B024-Jeanette Curtis West Rec Ctr (The Hut)	Bearing wall group	Bearing wall group 1	Pack 5 SF of gaps in brick with non-shrink grout.	\$ 2,527				
B036-Nahanton Park Fieldhouse	Other element group	Entry Pad	Repair crack in concrete entry pad at door threshold (30sf).	\$ 2,566		\$ 12,572		
B041-Newton Ctr. Metal Storage Building	Wall group	Wall group 2	Repair damaged areas of concrete foundation wall (400sf).	\$ 2,586		\$ 2,586		
Forte Park	Electrical		Add egress lighting to Men's and Women's toilets.	\$ 2,638		\$ 5,224		
B022-Pelligrini Park Field House	Sink group	Sink Group 2 - Janitor's Sink	Replace janitor's sink.	\$ 2,638				
B009-Police Headquarters Garage	Specialties group	Bathroom Accessories	Install new bath accessories in bathrooms (2ea).	\$ 2,640				
B035-Cabot Park Fieldhouse	Sanitary sump pump group	Sanitary sump pump group 1	Replace sump pump because it is at the end of its useful life (1ea).	\$ 2,663				
B020-Auburndale Library	Fan group	Fan group 1 - 1st floor janitor closet	Install 75 CFM fan to exhaust air per code requirements.	\$ 2,663				
B035-Cabot Park Fieldhouse	Ceiling group	Concrete Ceiling	Repair damaged areas of concrete ceiling (40%=100sf).	\$ 2,733				
B021-Crystal Lake Bathhouse	Roof deck group	Roof deck group 1	Repair 25 SF of concrete slab in room where the slab has deteriorated.	\$ 2,750		\$ 5,483		
B035-Cabot Park Fieldhouse	Lintels group	Lintels group 1	Repair deteriorated lintels at exterior brick masonry walls as required (50lf).	\$ 2,849				
B042-Upper Falls Fieldhouse	Ceiling group	Ceiling group 1	Scrape, repair, prepare surface and repaint concrete ceiling (500sf)	\$ 2,892				

B029-Crafts Street Garage	Radiation/terminal unit group	Radiation/terminal 2 - office electric baseboard	Replace electric baseboard sections in office area with new baseboard units.	\$ 2,895				
B029-Crafts Street Garage	Sanitary sump pump group	Sanitary sump pump group 1	Replace sump pump.	\$ 2,930				
B033-Albermarle Fieldhouse	Egress Lighting	Egress Lighting	Replace battery back-up packs in egress lights (2 ea) which failed when tested.	\$ 3,103				
B042-Upper Falls Fieldhouse	Ext. lighting group	Ext. lighting group 1	Replace existing exterior lighting fixtures with 2 new outdoor LED fixtures on the entrance patio to improve lighting levels, reduce maintenance and improve energy efficiency.	\$ 3,103				
B003-Newton Senior Center	Ext receptacles group	Ext receptacles group 1	Install all-weather GFI receptacles at or near exterior doorways (5 ea).	\$ 3,109				
B010-Police Annex	Ext receptacles group	Ext receptacles group 1	Add 5 all-weather GFI receptacles along the perimeter of the structure.	\$ 3,109				
B011 - Newton Corner Library	Ext receptacles group	Ext receptacles group 1	Add 5 all-weather GFI receptacles along the perimeter of the structure.	\$ 3,109				
B005-Crafts St DPW Operating Ctr (Stable)	Ext receptacles group	Ext receptacles group 1	Install 5 all-weather GFI receptacles along the perimeter of the structure.	\$ 3,109				
B022-Pelligrini Park Field House	Ext receptacles group	Exterior Receptacles	Install exterior GFI sockets at exterior doors (Est. 5).	\$ 3,109				
B028 - Jackson Homestead Museum	Ext receptacles group	Ext receptacles group 1	Add 5 all-weather GFI receptacles along the perimeter of the structure.	\$ 3,109				
B032-Lower Falls Community Center	Ext receptacles group	Ext receptacles group 1	Add 5 all-weather GFI receptacles along the perimeter of the structure.	\$ 3,109				
B026-Burr Park Field House	Stair	Stair 1	Install new code-compliant hand railings to basement (35lf).	\$ 3,130				
B018-Waban Library	Fan group	Fan group 2 - Basement bathroom 1	Provide 75 CFM exhaust fan and ductwork for basement bathroom and vent to outside. Interlock fan with light switch.	\$ 3,163				
B018-Waban Library	Fan group	Fan group 4 - 1st floor bathroom	Provide 75 CFM exhaust fan and ductwork and vent to outside for first floor bathroom.	\$ 3,163				
B018-Waban Library	Fan group	Fan group 5 - Janitors closet	Provide 75 CFM exhaust fan and ductwork and vent to outside.	\$ 3,163				
B042-Upper Falls Fieldhouse	Int. Door group	Int. Door group 1	Repair minor damage on interior hollow metal doors and repaint (3ea).	\$ 3,263				

B027-Public Buildings Department	Int. Door group	Int. Door group 1	Replace door from office to garage with fire rated door and frame (1ea).	\$ 3,360		\$ 6,623		
B012-Gath Pool	Accessibility Item	Signage	Install tactile and Braille room and exit signage adjacent to latch side of doors.	\$ 3,400		\$ 3,400		
B033-Albermarle Fieldhouse	Foundation wall group	Foundation wall group 1	Fix large crack on the outside of the perimeter foundation wall at the NW corner of building.	\$ 3,417				
B036-Nahanton Park Fieldhouse	Element group	Cupola	Repair minor damage on cupola and refinish (1ea).	\$ 3,465		\$ 6,882		
B006-Fire Station #1, Newton Corner	Ext. lighting group	Ext. lighting group 1	Replace all exterior lighting (6 wall pack units) to improve safety & security and provide a lighting controller system.	\$ 3,730				
B026-Burr Park Field House	Egress Lighting	Egress Lighting	Add (6) egress lighting and lit EXIT signs at exits.	\$ 3,730		\$ 7,460		
B029-Crafts Street Garage	Int. Door group	Int. door group 2 (double hung typical)	Repair, prepare surfaces and paint /seal double hollow metal and wood interior doors (4ea).	\$ 3,912				
B036-Nahanton Park Fieldhouse	Ext. lighting group	Ext. lighting group 1	Replace all exterior lighting to improve safety and security and include a lighting controller system to improve energy efficiency.	\$ 3,958				
B035-Cabot Park Fieldhouse	Ext. lighting group	Ext. lighting group 1	Replace all exterior lighting to improve safety and security and include a lighting controller system to improve energy efficiency.	\$ 3,958		\$ 11,828		
B019 - Nonantum Library	Door group	Double Hung Exterior Doors	Repair, refinish pair of wood doors as required (1ea).	\$ 4,163		\$ 4,163		
B003-Newton Senior Center	Painting group	Painting group 1	Scrape, prepare surface of wood work for painting (50%=1000sf).	\$ 4,276				
B019 - Nonantum Library	Accessibility Item	Signage	Install tactile and Braille room and exit signage adjacent to latch side of door at all permanent rooms and space; Provide directional signage to the accessible entrance at the main entrance; Provide directional signage to the accessible toilet room.	\$ 4,300		\$ 8,576		
B020-Auburndale Library	Lintels group	Lintels group 1	Scrape, prepare surface and repaint exposed areas of steel lintels(50lf).	\$ 4,349		\$ 4,349		
B013 - Kennard Estate	Ext receptacles group	Ext receptacles group 1	Install all-weather GFI receptacles along the perimeter of the structure (7ea).	\$ 4,352		\$ 4,352		
B031-Emmerson Community Center	Door group	Door group 1	Refurbish single hollow metal doors (3ea minor) and pairs of hollow metal doors (3ea minor) as required.	\$ 4,428				
B035-Cabot Park Fieldhouse	Heating piping/insulation group	Heating piping/insulation 1 - hot water piping	Insulate all exposed heating piping that is not insulated.	\$ 4,509				

B035-Cabot Park Fieldhouse	Dom. water piping/insulation group	Dom. water piping/insulation group 1	Install insulation on all exposed hot water piping.	\$ 4,509				
B033-Albermarle Fieldhouse	Slab on grade group	Slab on grade group 1	Remove all existing exterior concrete slab coatings, seal cracks in slab, and reseal with a concrete sealer.	\$ 4,509				
B024-Jeanette Curtis West Rec Ctr (The Hut)	Ceiling group	Plaster and Lathe	Patch, repair, paint plaster ceiling in basement (500sf).	\$ 4,581				
B011 - Newton Corner Library	Accessibility Item	Signage	Install tactile and Braille signage adjacent to latch side of door at all permanent rooms and space and at exits; Provide signage to accessible bathroom; relocate kitchen to accessible level unless an elevator is installed to second floor.	\$ 4,600		\$ 27,136		
B027-Public Buildings Department	Flooring	VCT Flooring	Remove and replace VCT flooring (500sf).	\$ 4,857				
B019 - Nonantum Library	Egress Lighting	Egress Lighting 1	Add egress lighting fixtures (2) units to toilets.	\$ 4,860		\$ 9,717		
B016-Crafts Street Sand Salt Shed	Ext receptacles group	Ext receptacles group 1	Install two all-weather GFI exterior power receptacles at each hut (4 total).	\$ 4,930				
B018-Waban Library	Ext receptacles group	Ext receptacles group 1	Add (4) exterior all-weather GFI receptacles around the perimeter of the building.	\$ 4,930				
B020-Auburndale Library	Ext receptacles group	Ext receptacles group 1	Add (4) exterior all-weather electrical GFI receptacles.	\$ 4,930				
B027-Public Buildings Department	Wall group	CMU Exterior Walls	Clean and repaint exterior CMU wall (40%=800sf).	\$ 4,974				
B029-Crafts Street Garage	Window group	Window group 2 (store front)	Install and/or repair storefront rubber glazing seals(140sf).	\$ 5,010				
B033-Albermarle Fieldhouse	Sink group	Sink group 1 - Janitor's Sink	Replace/fix janitor's sink.	\$ 5,044				
B026-Burr Park Field House	Fan group	Fan group 1	Provide exhaust fans at 75 CFM per toilet/urinal. Interlock fans with light switches to bathrooms.	\$ 5,277				
B030-Elliot Street Yard Garage	Ext. lighting group	Ext. lighting group 1	Add (4) exterior lighting units with a lighting controller system to corners of building to improve security.	\$ 5,277				
B020-Auburndale Library	Egress Lighting	Egress Lighting 1	Add egress lighting fixtures (2) units to toilets and replace battery back-ups in all Egress lighting.	\$ 5,325				
B036-Nahanton Park Fieldhouse	Sink group	Water Fountain at Entry	Replace missing water fountain near entry.	\$ 5,428		\$ 21,307		

B018-Waban Library	Fire/Smoke Alarm System	Fire/Smoke Alarm System 1	Install audible alarms in toilets for fire alarm system to meet ADA requirements (4ea).	\$ 5,860		\$ 5,860		
B027-Public Buildings Department	Stair	Stair 1	Remove carpet at wood stairs between office and garage and replace with rubber treads (3r).	\$ 6,056		\$ 6,056		
B033-Albermarle Fieldhouse	Ext. lighting group	Ext. lighting group 1	Install additional exterior lighting (4 wall pack units) to improve safety & security with a lighting controller system to improve energy efficiency.	\$ 6,207		\$ 6,207		
B013 - Kennard Estate	Int receptacles group	Int receptacles group 1	Add additional electrical duplex receptacles (~10 locations).	\$ 6,217				
B029-Crafts Street Garage	Ext receptacles group	Ext receptacles group 1	Install (10) all-weather GFI receptacles at or near exterior doorways.	\$ 6,217				
B030-Elliot Street Yard Garage	Ext receptacles group	Ext receptacles group 1	Add 1 duplex receptacle per exterior door. (est. 10 receptacles)	\$ 6,217				
B031-Emmerson Community Center	Int. Wall group	Brick Masonry Walls	Repair damaged areas of interior brick masonry wall as required (5%=900sf).	\$ 6,344		\$ 24,995		
B022-Pelligrini Park Field House	Lintels group	Lintels	Clean and repaint lintels at exterior doors(4ea).	\$ 6,465		\$ 6,465		
B022-Pelligrini Park Field House	Ceiling group	Plaster and Lathe	Repair plaster and lath ceiling in boiler room (300sf).	\$ 6,698		\$ 6,698		
B024-Jeanette Curtis West Rec Ctr (The Hut)	Fire/Smoke Alarm System	Fire/Smoke ALarm	Upgrade Fire/Smoke detectors with audible alarms and strobes to meet ADA requirements	\$ 6,789		\$ 6,789		
B019 - Nonantum Library	Ext receptacles group	Ext receptacles group 1	Install (4) all-weather GFI receptacles around the exterior of the building.	\$ 6,930		\$ 6,930		
B001-City Hall	Stair group (structure)	Stairs	Clean and paint steel egress stairs from Boiler Room to exterior and secure loose grating steps. After steel clean, inspect steel framing for loss of section and repair if necessary.	\$ 7,117				
B018-Waban Library	Element group	Window Grates	Remove areaway grates, clean out areaways, paint grates and reinstall grates (100sf).	\$ 7,163				
B029-Crafts Street Garage	Stair	Stair group 2	Add handrail to interior metal stair on the wall side(50lf)	\$ 7,182				
B019 - Nonantum Library	Door group	Single Hung Exterior Doors	Repair single hung wood doors as required and replace thresholds, door hardware(2ea).	\$ 7,185				
B007-Fire Station #2, West Newton	Accessibility Item	Parking	Restripe designated parking space to have an 8 ft. access aisle; Install a new parking sign with the words "Van Accessible"; Install a curb ramp to provide accessible path from designated accessible space to entrance.	\$ 7,250				

B017- Newton Free Library	Other element group	Exterior ramp	Repoint open joints in brick pavers of ramp (100 sf). Remove and reset heaving bricks at railing posts (50 sf). Touch-up paint metal railings.	\$ 7,290				
B010-Police Annex	Door group	Single Hung Doors	Repair (minor) single hung doors and hardware (3ea).	\$ 7,299				
B035-Cabot Park Fieldhouse	Painting group	Painting group 1	Paint Exterior masonry wall (1500sf). Scrape, prepare surface and paint exterior wood trim work (200sf).	\$ 7,339		\$ 57,825		
B029-Crafts Street Garage	Roof beam group	Roof beam group 3	Repaint steel in wash bay	\$ 7,390				
B001 - City Hall	Flooring	1st Floor Ladies Room	Re-finish flooring	\$ 7,500				
B017 - Main Library	Doors	Loading Dock	Replace exterior doors	\$ 7,500				
B024-Jeanette Curtis West Rec Ctr (The Hut)	Other element group	Side Entry Steps	Rebuild wood stairs at left and install new handrails(30lf). Repair /replace plywood stair enclosure (200sf).	\$ 7,764		\$ 7,764		
B027-Public Buildings Department	Egress Lighting	Egress Lighting 1	Add (6) egress and EXIT signs per code to office and garage bay.	\$ 7,915		\$ 7,915		
Newton Corner Library			Remove abandoned oil tanks and piping through wall and seal penetrations.	\$ 8,148		\$ 23,827		
B031-Emmerson Community Center	Lintels group	Lintels group 1	Repair/reset lintels in areas with bulging brick as required (20%=60lf).	\$ 8,170				
B029-Crafts Street Garage	Water heater (direct) group	Water heater (direct) group 1	Replace garage sink hot water heater with new electric hot water heater. Install drip pan under office hot water unit and discharge piping to safe waste per code requirements.	\$ 8,171		\$ 16,341		
B020-Auburndale Library	Fire/Smoke Alarm System	Fire/Smoke Alarm System 1	Install audible alarms in toilets for the fire alarm system to meet ADA requirements.	\$ 8,330		\$ 8,330		
B013 - Kennard Estate	Roof beam group	Roof beam group 1	Install collar ties at roof rafters- low attic under.(150sf)	\$ 8,546				
B019 - Nonantum Library	Ext. lighting group	Ext. lighting group 1	Replace all exterior lighting (6 wall pack units) to improve safety & security and include lighting controller system.	\$ 8,580				
B007-Fire Station #2, West Newton	Door group	Single Hung Doors	Replace exterior single hung doors with panic hardware (3ea).	\$ 8,613				
B015 - Elliot St. Operations Center	Ext. lighting group	Ext. lighting group 1	Add four more wall pack lights to exterior of building to improve lighting conditions at night.	\$ 8,650				

B015 - Elliot St. Operations Center	Accessibility Item	General Interior	Provide an accessible bench, locker and table in the central locker area; Replace faucets in the kitchenette to be ADA-compliant; Reposition or remove television in kitchenette; Replace door knobs with hardware that is operable without tight grasping, pinching or twisting (lever type).	\$ 8,700		\$ 43,089		
B031-Emmerson Community Center	Int receptacles group	Int receptacles group 1	Add additional GFI receptacles to classroom space.	\$ 8,980				
B031-Emmerson Community Center	Ext receptacles group	Ext receptacles group 1	Add GFI receptacles to exterior of building near each entrance.	\$ 8,980		\$ 17,960		
B034-Auburndale Cove Fieldhouse	Ext. lighting group	Ext. lighting group 1	Replace all exterior lighting lighting units to improve safety, security and energy efficiency. Install a lighting control system to improve energy efficiency.	\$ 9,310				
B024-Jeanette Curtis West Rec Ctr (The Hut)	Ext. lighting group	Ext. lighting group 1	Add exterior lighting wall pack units (10ea) to improve safety & security.	\$ 9,825		\$ 19,135		
B017- Newton Free Library	Other element group	Exterior loading dock	Install two new rubber bumpers at loading dock. Patch spalled concrete at loading dock knee wall and clean & coat exposed rebar (150 sf).	\$ 9,902				
B034-Auburndale Cove Fieldhouse	Door group	Exterior Doors	Replace exterior FRP doors that have corroded metal frames with new (3ea).	\$ 10,080		\$ 19,982		
Elliot street Sand and Salt Shed			Remove salt stock pile. Repair, clean and seal concrete floor (7500sf) to increase the useable life of the floor.	\$ 10,197		\$ 10,197		
B034-Auburndale Cove Fieldhouse	Sink group	Drinking Fountains	Replace missing indoor drinking fountain and non-functioning outdoor drinking fountain with new ADA-compliant fountains.	\$ 10,856				
B034-Auburndale Cove Fieldhouse	Int. Door group	Int. Door group 1	Remove and replace doors and hardware(5ea).	\$ 10,867		\$ 21,723		
B041-Newton Ctr. Metal Storage Building	Wall group	Wall Group 1	Repair and clean entire exterior metal siding and get ready for painting 3200sf).	\$ 11,460		\$ 11,460		
B031-Emmerson Community Center	Flooring	Resilient VCT Flooring	Repair/replace areas of VCT flooring that are damaged and worn (20%=1200sf).	\$ 11,658				

B011 - Newton Corner Library	Accessibility Item	General Interior	Remove existing drinking fountain and provide a hi-lo drinking fountain in an area that does not interfere with clear maneuvering space or path of travel; Provide door hardware that is operable without tight grasping, pinching or twisting (lever type); Relocate the fire extinguisher so that it does not protrude into the path of travel; Extend the sloped corridor floor so that it does not exceed 5 percent.	\$ 12,800				
B005-Crafts St DPW Operating Ctr (Stable)	Int. Wall group	Int wall group 1 (brick masonry)	Repair & repoint exposed brick wall (5%=300sf).	\$ 12,828		\$ 25,628		
B024-Jeanette Curtis West Rec Ctr (The Hut)	Ceiling group	Linear Wood Ceiling	Repair (5%=150sf) and paint(3100sf) exposed framing of the gym ceiling.	\$ 13,256		\$ 13,256		
B031-Emmerson Community Center	Stair	Stair 1	Scrape, prepare surface and repaint stair treads with non skid epoxy paint (32r).	\$ 13,684				
B041-Newton Ctr. Metal Storage Building	Painting group	Painting group 1	Repaint exterior metal wall with a rust inhibiting paint (3200sf).	\$ 13,684				
B028 - Jackson Homestead Museum	Dom. water piping/insulation group	Dom. water piping/insulation group 1	Provide pipe insulation on all hot water piping in water heater closet.	\$ 13,775		\$ 41,143		
Nahanton Park Field House	Electrical		Add (2) exterior all-weather GFI receptacles around the perimeter of the building. •Add egress lighting fixtures (2) units to men's and women's bathrooms and replace battery back-up units (4) in all other Egress lighting fixtures. •Install audible fire alarm horns and beacons in toilets to meet ADA requirements (2ea). •Upgrade interior lighting to Super T-8 flourescent fixtures to improve energy efficiency.	\$ 13,879				
B042-Upper Falls Fieldhouse	Painting group	Painting group 1	Repaint exterior concrete wall (1400sf) and underside of concrete overhang (500sf) after all repairs are complete.	\$ 14,111	\$ 14,111			
B022-Pelligrini Park Field House	Flooring	Resilient VCT	Remove and replace vct floor in office/restroom areas(1400sf)	\$ 14,153				
B026-Burr Park Field House	Fire/Smoke Alarm System	Fire/Smike Alarm	Upgrade Fire/Smoke detectors with audible alarms and strobes to meet ADA requirements	\$ 14,927		\$ 43,191		

B020 - Auburndale Library	UST	Underground Storage Tank	Remove abandoned oil tank	\$ 15,000.00				
B017 - Main Library	Walkway	Main Entrance Brickwork	Remove existing brickwork and replace with concrete	\$ 15,000.00				
B019 - Nonantum Library	Fire/Smoke Alarm System	Fire/Smoke Alarm System 1	Install audible alarms in toilets for fire alarm system to meet ADA requirements (4ea).	\$ 15,366				
B013 - Kennard Estate	Dom. water piping/insulation group	Dom. water piping/insulation group 1	Provide insulation on all domestic water piping.	\$ 15,405				
B022-Pelligrini Park Field House	Int. Wall group	Walls	Scrape and paint peeling areas of gym walls (10% =800sf). Clean, repair boiler room walls(600sf).	\$ 15,488		\$ 46,259		
B021-Crystal Lake Bathhouse	Ext. lighting group	Ext. lighting group 1	Add exterior lighting (10 wall pack units) to improve safety & security.	\$ 15,517				
B019 - Nonantum Library	Int. Door group	Int. Door group 1	Repair, refinish interior doors (50% =9ea).	\$ 15,593		\$ 31,110		
B020-Auburndale Library	Ext. lighting group	Ext. lighting group 1	Replace all exterior lighting (6 wall pack units) to improve safety & security. Include a lighting control system to improve energy efficiency.	\$ 15,660	\$ 15,660			
B027-Public Buildings Department	Fire/Smoke Alarm System	Fire/Smoke Alarm System 1	Update smoke alarm and strobes to ADA-compliant units.	\$ 16,063				
B035-Cabot Park Fieldhouse	Accessibility Item	Exterior	Rebuild the curb cut at the ramp to be stable, firm, and slip resistant condition; Extend landing at pullside of door to 18"; Provide accessible path to swings and playground that is ADA compliant.	\$ 16,100		\$ 47,823		
B031-Emmerson Community Center	Ceiling group	Acoustical Tile Ceilings	Repair acoustical ceilings (20%=2400sf)	\$ 16,316		\$ 16,316		
B005-Crafts St DPW Operating Ctr (Stable)	Egress Lighting	Egress Lighting 1	Replace battery packs in all Egress lighting units.	\$ 16,677				
B022-Pelligrini Park Field House	Fire/Smoke Alarm System	Fire Alarm System	Upgrade audible fire alarm and strobe to ADA compliance.	\$ 16,727				
B007-Fire Station #2, West Newton	Stair	Stair 1	Install new treads on stairs from 1rst floor to attic (35r).	\$ 17,219		\$ 50,623		
B010-Police Annex	Dom. water piping/insulation group	Dom. water piping/insulation group 1	Provide piping insulation on all heating piping in boiler room.	\$ 17,659		\$ 17,659		

B026-Burr Park Field House	Oil tank group	Oil tank group 1	Remove and properly dispose of two abandoned oil tanks.	\$ 18,000				
B015 - Elliot St. Operations Center	Fire/Smoke Alarm System	Fire/Smoke Alarm System	Upgrade fire alarm and horn strobes to be ADA-compliant (30 Units).	\$ 18,651				
B015 - Elliot St. Operations Center	Fan group	Bathroom Exhaust Fans	Provide fan at 75 CFM per toilet/urinal.	\$ 20,160				
B031-Emmerson Community Center	Wiring group	Wiring group 1	Support communications cables by cable tray system and properly secured per code.	\$ 20,663		\$ 77,474		
Pelligrini pk fieldhouse	finishes		Renovate kitchen cabinets and plumbing, venting, etc. (300sf, 30lf cabinets)•Install grab bars at toilet (1ea).	\$ 21,071				
B012-Gath Pool	Beam and joist group	Beam and Joist Summary	Remove loose spray-on material on underside of first floor slab beams in basement.	\$ 21,112	\$ 21,112			partially done
B001-City Hall	Heating piping/insulation group	Heating piping/insulation group 1	Replace damaged insulation on all heating pipes and install insulation on uninsulated heating pipes.	\$ 21,625				
B030-Elliot Street Yard Garage	Sprinkler group	Sprinkler group 1	Reconnect disconnected sprinkler pipe serving office space.	\$ 21,672		\$ 43,297		
Fire Station #1	Stairs		Make minor repairs to stairs (45r).	\$ 22,139		\$ 22,139		
Public Buildings	Building Envelope		Repair damaged metal siding and repaint. •Remove and replace entry pad at front overhead door and add bollards to protect door jambs.	\$ 22,405	\$ 22,405			
B011 - Newton Corner Library	Dom. water piping/insulation group	Dom. water piping/insulation group 1	Reroute cold water piping with proper supports and and insulate hot and cold water piping.	\$ 22,919		\$ 22,919		
B007-Fire Station #2, West Newton	Other element group	Rear Door Entry Ramp	Install 3x3 entry pads at rear doors(3ea).	\$ 23,291				
B029-Crafts Street Garage	Wiring group	Wiring group 1	Coordinate a cable tray design with IT Department to support main trunk of cabling for TER to TR closets.	\$ 23,918		\$ 47,209		
B021-Crystal Lake Bathhouse	Dom. water piping/insulation group	Dom. water piping/insulation group 1	Provide pipe insulation for hot and cold water piping.	\$ 24,046		\$ 24,046		
B019 - Nonantum Library	Dom. water piping/insulation group	Dom. water piping/insulation group 1	Provide insulation for all domestic hot and cold water piping.	\$ 26,788				
B013 - Kennard Estate	Conduit group	Conduit group 1	Tie back flexible conduit to meet electrical codes and replace rigid conduit.	\$ 27,576				

B001 - City Hall	Flooring	Boiler Room Floor	Clean out debris from boiler room and stop water infiltration from below	\$ 30,000				
B031-Emmerson Community Center	Int. Door group	Int. Door group 1	Repair as required and add panic hardware to single hung doors (50%=10ea) and pairs of doors (50%=4ea).	\$ 31,661				
B022-Pelligrini Park Field House	Dom. water piping/insulation group	Dom. water piping/insulation group 1	Install insulation on hot and cold water piping.	\$ 31,936		\$ 63,597		
Newton Free Library		Building Envelope	Clean and stain cedar roof soffit at 2nd floor level (6,000 sf) to match existing stain color.Replace (1) single door w/ frame at loading dock. •Replace (1) double hung door w/ frame at loading dock.	\$ 34,485		\$ 98,082		
Elliot Street Salt Shed	Structural	Walls	Repair/replace rotted and broken structural wall and roof supports	\$ 35,000				
B027 - Public Buildings Department	Exterior Walls	Exterior of building	Repair and paint exterior wood trim, block walls, windows and frames	\$ 35,000				
Police Headquarters		electrical upgrades	Coordinate a cable tray design with IT Department to support main trunk of cabling for TER to TR closets. •Install (~10) all-weather GFI receptacles at or near exterior doorways. •Convert exterior lighting to LED to reduce frequency of maintenance and improve efficiencies.	\$ 40,809		\$ 40,809		
Burr Park Field house	interior finishes		Clean up and dispose of all old junk in the basement (1600sf). Repair cracks in foundation wall (1800sf). Remove terra cotta basement walls(1000sf). •Replace damage acoustical ceiling tiles on first floor (10%=200sf). •Remove balance of basement ceiling and replace with new fire rated drywall(1600sf) •Clean, patch concrete floors (1600sf). Install fire rated door to basement(1ea). Repair remaining doors and replace door hardware with ADA-compliant hardware (5 ea).	\$ 42,218				
B024 - Jeanette Curtis West Rec Ctr (Hut)	Exterior Walls	Exterior of building	Repair, replace and paint exterior cedar shingles, trim/fill in gap between wood siding and fieldstone foundation	\$ 50,000				
B030 - Elliot Street Garage	Roof	Roof	Install new roofing system over existing like at Police Garage	\$ 72,000				
				\$ 1,799,813				

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Grand Total				\$	1,799,813		
Completed							
Outstanding				\$	1,799,813	\$	1,799,813

Project Lessons Learned Update

Energy	Maintenance	Construction	Design	Process
Complex energy management systems are not needed, and have little value on public safety buildings that operate 24/7	Lighting ballasts can not be integral to the fixture.	Trade inspections need to be thorough, often, and scheduled at appropriate times. As part of the final inspection protocols the architect should be required to provide information needed to obtain utility rebates as specified in the utility minimum requirements document (MRD)..	Integrated design meetings are essential for a successful project. These should include all sub consultants. It would be helpful to include the utilities in this process for the purposes of streamlining the rebate process and taking advantage of their resources. We should also be including EV charging stations and solar readiness in all designs. We may also want to add a sustainability consultant to the design team. The sustainability consultant would have lead responsibility for including passive house design principals and electrification in the design process and also obtaining Alternative Energy Credits for heat pump equipment.	Never spend money you don't have. In order to ensure this does not happen, replenish the Mayor's contingency as frequently as possible.
Extreme care must be given to the sizing of MEP equipment. This equipment is typically oversized well above what is actually needed.	Walk-out roof access should be provided when possible. If this is not possible, ships ladders are next best, last option is fixed ladders. If you do not provide access to a roof, it, and the equipment on it, will not be maintained.	P-traps have to be verified to have been installed prior to installation of pan-type drains. Trap primers should be specified as much as possible.	Project expectations need to be clearly set, stated, and documented before design begins.	Working groups should involve elected officials when appropriate. This helps keep the CC updated and makes the process smoother.

Energy	Maintenance	Construction	Design	Process
When MEP equipment sizing is reduced, ensure that all other impacted areas are adjusted as well. Structural for example. As we build all electric buildings we should be thinking about emergency generator requirements and sizing.	Avoid gutters and downspouts whenever possible. Interior roof drains are best. Gutters and downspouts get clogged, freeze up, and create water and ice issues wherever they drain to. Can not stress this point enough. Great care and detail need to go into how water comes off of roofs. It would be good practice to visually inspect roofs of existing buildings twice per year to make sure drains are clear and there is no pondng of water.	The site should be secured as soon as the contractor takes control of the property. There should be no delay in this. Site specific safety and logistics plan should be setup and approved and adhered to,	Establish an energy performance target before a designer is brought on board, and then make sure they know what it is, and how we want to achieve it.	For larger projects, and projects that have significant impacts on the community, establish routine community meetings to receive feedback and to provide updates. Make yourself present when working in a neighborhood as you develop a comfort level for Neighbors.
Perimeter radiation is rarely needed with the efficient envelope and window systems we specify.	Avoid low small roofs. These typically do not have easy access which means that they don't get quality maintenance.	The CMP needs to be reviewed with Police, Fire, and Traffic during draft stage.	Utilize the integrated design meetings to meet the energy target.	In cases where night work, or work that severely impacts the neighborhood, over communicate and use every means of communication possible.
Glazing systems are inherently less efficient and therefore no glazing should be specified that is not requested or needed.	Be very careful with trees next to buildings. Roots damage the foundation, the trees can provide climbing access to the roof if tall enough, and trees with leaves that grow above the roof can clog roof drains.	Temperature controls prior to, during, and after concrete pours is crucial. When the building is wrapped, access points should only be open when absolutely needed, and should be closed asap.	Understand that every design change has a ripple effect. These can either drive costs up, or down in other areas. For example, if the rooftop equipment is reduced in size, the structural steel should reflect this change.	For projects requiring site plan approval, there should be at least one meeting with both Public Facilities and the Design Review Committee prior to trying to get site plan approval. This allows for questions, comments, and concerns that can then be responded to prior to trying to get approval.

Energy	Maintenance	Construction	Design	Process
<p>Do not overthink control systems. There is a fine line between smart energy management, and inoperable systems. .I'm not sure there is much value to adding centralized lighting control systems to any building other than for outdoor lighting. I think occupancy sensors for interior spaces serve the same purpose. Occupancy sensors should be set up as vacancy sensors (this mode requires lights to be turned on manually) in classrooms, offices, conference rooms and gathering spaces like auditoriums and cafeterias.</p>	<p>Plantings at the perimeter of the building need to be well thought out. No plantings that attract animals, provide a habitat for animals, or cause a threat to the building or people should be used. Additionally, the plantings need to be able to survive limited watering, snow removal, etc. Think about maintenance, lines of site for foot traffic and automobiles also. don't make landscape design to crazy \$\$\$\$\$</p>	<p>Roof inspection and walkthroughs are critical prior to membrane installation.</p>	<p>Never consider value engineering until the cost estimates are reconciled, and a full scope clarification is performed. Taking something out that we want, before we know if there are things in the design adding to the cost that we don't want, is not appropriate.</p>	<p>Joint meetings, when possible, are very useful and minimize design teams time, and thus costs. They also more effectively utilize everyone's time. The use of remote meetings, when allowed, can actually increase community participation, create more efficient meetings, and increase overall efficiency and productivity by reducing hours of commuting and travel time.</p>
<p>All energy investments should be evaluated using life cycle cost analysis. That said, remember that the insulation in your walls will be there for the life of the building.</p>	<p>Before a final site plan is determined, snow removal and snow storage plans must be in place. Things like benches, bollards, raised planters, curbs, islands, etc. must all be looked at with an eye for snow. If you don't make it easy, either standards are reduced, or items get damaged.</p>	<p>Mockups should be used on every project, and should involve the commissioning agent, design team, and all impacted trades. The construction team should be clear on air sealing expectations. And Application and installation.</p>	<p>Review all narratives in great detail before they go to the cost estimators.</p>	<p>Consider meeting with abutters on location. It tends to much more productive when you meet with residents in an informal setting. This has proven very useful on many occasions. Relationships with retail & residential Neighbors important.</p>

Energy	Maintenance	Construction	Design	Process
Energy modeling should be done throughout the project, but it is extremely important to set energy performance expectations early, and model from the beginning. Important objectives such as air sealing/air changes used in the modelling should be clearly understood by designers and the construction team so that they can be properly executed.	Before a final site plan is determined, landscaping and grass cutting plans must be established. If you don't make it easy, either standards are reduced, or items get damaged. The sidewalks should be eight feet wide where possible so that the plows don't tear up the landscaping on either side.	The HVAC system flush should be done with the construction filters in, and it should be confirmed that normal pleated filters are installed prior to turnover.	Be very sensitive to words like custom, automated, and operable. Often times there are more creative ways to achieve the same end product with a different approach.	Provide routine updates to the CC on the status of change orders and contingencies. This will make funding transfer requests much easier, as they already know what's coming.
Energy modeling needs to be done based on the normal school day, and the actual hours of operation. The normal school day allows for comparison to benchmarks, and the actual operation allows for budgeting and tracking. It is important to monitor post-occupancy energy use and envelope testing in order to evaluate original model and assumptions made. Often modelers do not get building data feedback,	Designers team and their consultants must put themselves in the shoes of the people who maintain the building and grounds. Make sure there's room to turn a wrench on a trap. Make sure there is clearance to open filter access doors. Make sure there are slop sinks in appropriate locations. Make sure there are outlets in hallways for cleaning equipment. Just use common sense, and if you're not sure please ask.	Extreme care should be taken to temperature and humidity controls and monitoring during wood floor acclimation. Follow designers and Manufacturers spec recommendations ,,,,,	Storefront is very expensive. Consider wall systems with punched windows to achieve a similar design at a fraction of the cost. However delivery schedules of manufactured window units may be longer than delivery of components for on-site built storefront. These factors need to be evaluated as well.	The most important part of a public forum is to provide them the opportunity to speak and ask questions. The presentation should be short enough to ensure we provide this opportunity.
Solar orientation is very important early in the design, as this has serious impacts on lighting, heating/cooling loads, and potential for solar pv.	In areas where caustic or acidic chemicals are used, ensure all exposed materials can stand up to the environment. Along with surrounding structures and finishes	Glazed stone products should be inspected carefully upon receipt. They tend to be damaged during delivery.	Glass in the envelope is expensive, and less efficient than the wall system. Do not use more than is needed, and there must be value added in every case.	When reviewing exterior building materials, samples should be provided for display. Size of sample also.

Energy	Maintenance	Construction	Design	Process
Deconfliction of the roof plan is important for solar pv. The electrical plan should include conduit runs from the roof to the electrical room for solar readiness.	Make sure rooftop equipment is not set too high on the curb. If the workers can't reach the access handles, they are less likely to maintain the equipment, and are more likely to get hurt while doing so.	We need to follow our noise ordinance, but we also need to make sure that trucks and other equipment is not idling outside the site waiting for the gates to open. They can stage at truck stops if needed.	Be sensitive to windows in gyms. They are often covered up once the building is operational. If glass is desired, translucent panels are a good alternative when trying to break up the massing.	Street views with and without trees are the most valuable slide in a presentation. What people will really see from their perspective is very important.
The lights in the building need to be able to be turned off when not in use. This can be easily accomplished with the use of occupancy sensors and vacancy sensors rather than a central control system. And keep it simple Ceiling mounted,	Do not paint hand rails. These get scratched and look really bad. All exterior hand rails should be hot dipped galvanized and no painted.	Major deliveries should be coordinated with Police and should be communicated out to the public. The neighborhood should receive news letters via e-mail and also in there mail box. Deliveries should be part of site safety and logistics plan	Limit the number of different exterior building materials. Each transition adds a complexity as well as cost. The rain screen should be comforting to the surrounding structures as well as the eye, simple application and less deviations help \$\$\$\$	Review the General Conditions and General Requirements carefully. The CM can bury a ton of money in this. Every position being carried needs to be value added, has to have realistic timelines, and their % time on the project needs to be on point. Make sure that the CM knows you will be watching to make sure we get every hour from every person we're paying for.
Occupancy sensors should shut the lights off when the space is not in use, but the lights should have to be manually turned on. Often times the lights turn on when they really aren't needed. (I think that this should apply to offices, classrooms and assembly areas but not to hallways and restrooms.)	Use manual equipment when possible and appropriate. It is more reliable and less expensive to maintain.	You can never communicate too much to the public. People will put up with major inconveniences if they know about them in advance, and no when it will end.	Be very careful when specifying proprietary components. This will add cost to the project.	The designer is required by contract to design to our budget. They need to expend their time and resources to redesign as needed to meet the mark.
Variable speed drives need to be tied into the refrigerant and hot water control valves. If an AHU is driven down, the valves, and then boilers/chillers should follow suit.	Epoxy floors in bathrooms, quarry tile in kitchens, and no wax floor products like linoleum in hallways and classrooms. Good value low maintenance surfaces can be a key in long term maintenance \$\$\$\$	When you tell the public you will, or will not, do something. Follow through. It only takes one time to break their trust.	Never trust the manufacturer's rep when they quote costs. They will tell you a much lower cost to get you to specify their product, only to find out that the market dictates exponentially higher costs.	During cost estimating, it is important to push back on the estimators that tell you what something should cost, versus what the market bears.

Energy	Maintenance	Construction	Design	Process
<p>Equipment start times should be staggered greater than 15 minutes prior to turning over a building. I think that where we use VRF and heat pump systems there will be less opportunity for set backs and shut downs because of the slow recovery time for heating and cooling.</p>	<p>Specify ceiling systems like act for ease of maintenance. There are other ceiling systems that are pretty, but make access very difficult. The size off the ATC panels should not exceed 2' x 4'.</p>	<p>Ensure that off-hour phones numbers are posted for residents to call in case of emergency or concerns. Make sure that the number that is posted actually works.</p>	<p>Make sure you specify products that have "or equals" There may be three contractors who can install the same product, but this does not mean your getting competitive pricing. If we use equipment and lighting products that comply with the utilities' energy efficiency program standards as a minimum then we will be assured of getting high quality equipment that is efficient and will be eligible for rebates.</p>	<p>Create a project environment where creative problem solving is encouraged. Never discourage anyone from speaking up. Many crazy ideas have turned out to be brilliant solutions. No such thing as stupid question or solution!</p>
<p>Solar PV systems impact the heating and cooling loads of buildings. This should be factored in when sizing mechanical systems.</p>	<p>Glass should never be carried to floor height to prevent damage.</p>	<p>Dust control is extremely important. A plan must be in place ahead of time, and sufficient water must be available, and delivered. Again part of site safety & logistics plan!</p>	<p>Be very careful when specifying Trane or Mcquay HVAC equipment. They will tell you that it is compatible with BMS software, but it rarely is, and it rarely works correctly.</p>	<p>Establish a personal connection with the neighborhood. Treat the job site like your home, and the abutters like your own neighbors. Walk the job site perimeter and the neighborhood daily. Provide community updates at regular intervals. Advise on upcoming activities, adjustments in work hours or days, etc. Most people just want to know what to expect in advance. Let Abutters see you, it develops a comfort level even though you may not speak frequently.</p>

Energy	Maintenance	Construction	Design	Process
Kitchen hood exhaust fans should be variable speed. These not only use a ton of electricity, they also remove vast quantities of treated air. We should look into getting exhaust hoods with heat exchangers if they are available.	Crushed stone should never be placed at the perimeter of buildings. This leads to broken windows during landscaping	A city employee should be on site every day to provide adequate oversight for all major projects.	Engineers will always overdesign their systems. Push back on the sizing of generators, boilers, hot water tanks, electrical services, chillers, ahu's, etc. Make them justify these components. Not only will smaller equipment cost less, but they are less expensive to operate, and will simplify design and save money in other areas.	Time is often wasted trying to solve a design or construction issue inside the construction trailer. Get out of the trailer, and go look at the problem. Most people are better problem solvers when they are looking at it in real life, than on paper.
If a space is unoccupied, there should be no exhaust or fresh air supply running. This is where the use of EMS is beneficial. Schedules included in the EMS should be carefully reviewed with the correct personnel at commissioning.	North facing overhangs can be problematic for mildew and mold growth.	Any time there are unit prices, such as soils, the city employee needs to watch very carefully the amount of material being removed or provided. These costs can add up fast.	Challenge structural engineers to think outside the box. Their solutions are often not only overdesigned, but they tend to be more complicated than necessary.	Encourage and mentor the youth on the job site. They are the future of the industry.
Flow restrictions in both duct and pipe should be minimized as much as possible. Avoid 90 degree bends when possible.	Porcelain tile stands up better than wood veneer. This should be at least 4 feet high in the hallways.	Trench boxes are not a suggestion. When required, they are not optional.	Market conditions and material costs need to be monitored when considering the escalation to bid number that you carry.	Don't ever be afraid to hit the brakes. It is far better to pause and determine the correct path, than to drive the wrong way for a week.
Pump sizing should be reduced as much as possible as they use a great deal of electricity.	The broadcast of epoxy floors needs to be rough enough to prevent slipping, but not so rough that it can't be cleaned.	Utility companies take forever to do anything. Plan accordingly. City should keep an updated contact list of all utility companies contacts for emergencies, construction and maintenance.	Establish early who is authorized to make design decisions and changes. For example, a teacher can make a request, but the decision to include something in the design needs to come from the project team.	The CM contingency is a misnomer. It may be under the control of the CM, but we have to authorize the use of these funds, and contrary to their belief, the money belongs to the taxpayers. ALL contingencies belong to tax payers and use of these contingencies are made well aware of by CM / GC. They want it!

Energy	Maintenance	Construction	Design	Process
<p>There should be no lights without lighting controls. And a simple lighting control system that satisfies energy code.</p>	<p>Chilled water fountains are not necessary, waste electricity, and are more expensive to maintain. Filters are not necessary either.</p>	<p>Vibration monitoring and existing condition surveys are important depending on the project and proximity to other structures. Historically vibration motoring has saved the city in potential claims.</p>	<p>When reviewing the design with public safety, make sure Police, Fire, and the user group are all in the same room. There can be opposing agendas, and this step is necessary to prevent redesign. Meeting minutes should be taken and issued. When construction actually happens one or two years later, these can then be referred to remind everyone what was agreed upon.</p>	<p>All parties should agree to a submittal turnaround timeframe at the beginning of a project. If this starts to slip, correct it quickly or you can be hit with delays from subcontractors.</p>
<p>You can design the best wall system, but if it's not installed properly, all of your work will be for nothing. Great care needs to be taken before the walls and ceilings are closed up to make sure there are no breaks in your thermal envelope.</p>	<p>Solar panel footprints should be marked so that snow removal can occur as needed without damaging the panels. We would not remove snow from panels. Maybe you are referring to lightening roofs due to a heavy snow occurrence?</p>	<p>If behind in schedule, a plan must be developed and implemented immediately to get back on track. Do not wait until the end of the job to try and make up the time.</p>	<p>Ensure the Design Review Committee is involved early and often. It also proves useful to invite them to working group meetings.</p>	<p>During the creation of the IFB, the OPM should be more involved in the overall process. Both the Designer and the OPM should be reviewing the City front end of the IFB. This appears to be an issue with first time designers and OPM's. The City prepares what it feels is the proper template for the particular Project but it the responsibility of both the Designer and OPM to ensure that the template sent to them, for example has the correct Bid dates, Filed Sub Bidders, the correct number of Alternates, if any are listed, Unit Prices shown, if required, as well as ensure the proper documents along with the technical specification are made a part of the IFB.</p>

Energy	Maintenance	Construction	Design	Process
It would be helpful to know when electric and gas accounts are cancelled and when new accounts are assigned to the City during the construction process. This is to maintain our database and for our electric and gas supply contracts.	Pavers should not be used where plowing occurs.	Pay close attention to the number of tradespeople on the job. This can be a precursor to falling behind on specific trades. Find out early on what software CM / GC uses to monitor Onsite staff as well as all documents.	Involve the community early in the design process. Not only is community feedback important, it's critical to squash rumors before they get out of hand.	Construction Drawings and Specifications should be reviewed by multiple members of the Design Team including not limited to the Architect, OPM, various City Departments/Agencies and most importantly the Public Buildings Department to ensure their accuracy and completeness prior to being sent for review by the DRC and more importantly before placing them in the IFB for the Project.
Have PB Project Managers take a lead role in setting up and conducting inspections by utilities for project rebates for new construction.	Stone dust should be used in lieu of concrete where snow removal does not occur.	Trades that do not work M-F, are not entitled to change orders for overtime to catch up.	If the project requires review by the Conservation Commission, and the commission is asking for mitigation, make sure there were actual adverse impacts to mitigate.	The IFB must clearly state the milestone date(s) that the Contractor is required to make and identify the consequences of missed milestones. Construction is fluid and things happen, but the Baseline Schedule milestones must be clear as the basis of bidding and award.
While other types of energy efficient equipment should always be explored, the initial cost of installation plus cost of annual maintenance of such equipment should be taken into consideration when deciding on new technology. Funding and the proper expertise for this maintenance is not always available to the City.	Exposed steel beams need to be designed in a way to prevent bird nesting.	Analyzing change order credits is just as important as change order adds. Guarantee that contractors will ask for more than they deserve, and offer back less than what we deserve.	Make sure you are coordinating building projects with DPW and Parks and Rec. For example, DPW should not pave a street before a large project starts. We will likely need to tear it up for utility work.	Should there be a sudden need to put an active project on hold for an extended period of time, it is critical that documents to date be printed and archived electronically. This will aid in understanding what obligations have been completed, where the project left off and should pick up from, and if there are issues or items that need to be revisited. Inevitably there will be an overwhelming desire to re-start quickly.

Project Lessons Learned Update

Energy	Maintenance	Construction	Design	Process
	Asphalt curbing should be avoided at all costs. It saves some money up front, but it will not last and will cost more in the long run.	Do not accept an inferior finished product. If it does not meet the design intent, or quality standards. Make the contractor make it right on their dime.	It's never too early to do the site survey. This info can completely reshape a project.	
	Fencing should not be too close to sidewalks, roadways, or parking lots. Snow gets pushed against the fence causing damage.	Do not wait to perform the punch list until the end of the job. Punch lists should be made, and items addressed, as they arise. Schedule, Punchlists, Commissioning etc. start in the beginning of project.	Perform condition surveys of adjacent properties prior to large projects. If this is not done ahead of time, there is no way to prove that the project did not cause the damage in question.	
	Small narrow strips of grass should be avoided. These can not be done with mowers, and therefore do not get adequate landscaping.	Do not install ceilings until all punchlist items above the ceilings are complete. Engineers should be aware of access for filter changing.	Avoid unit prices and allowances when possible. If needed, ensure the specs are crystal clear. This is an area where large change orders are likely, and allowances tend to get eaten up.	
	Pedestrians will take the path of least resistance. If walkways are not direct routes, people will not use them.	Make sure the construction management plan addresses site distribution and traffic issues during the project. This plan needs to be reviewed with public safety, so that they can weigh in and plan their resources accordingly .	When possible, complete hazmat work like oil tank removal ahead of time. The markup in these areas is massive, and the city can, and has, saved hundreds of thousands of dollars by doing it ourselves.	
	Fixed trash barrels get emptied by trucks that drive right up to the barrels. Either put the barrels close to a paved surface, or be prepared for damage to site amenities.	Never spend money you don't have. In order to ensure this does not happen, replenish the Mayor's contingency as frequently as possible.	The parameters for traffic studies are critical. The study needs to be broad enough, and data collection needs to be taken at appropriate times.	

Project Lessons Learned Update

Energy	Maintenance	Construction	Design	Process
	Slab on grade is always preferred. Any structure below grade is not only more expensive on the front end, but it is more likely to have environmental issues and costs.	If site excavation requires undermining of utilities like a duct bank, they must be fully supported to prevent collapse.	Even though the traffic work is separate from the project, it is viewed by the general public as one and the same. Therefore, this work must be tracked just as closely to ensure it meets the project schedule.	
	Crank windows are not preferred. They do not stand up over time.	Contractors will typically seek change orders for winter conditions. This needs to be analyzed carefully. If they are responsible for being behind schedule, and then create the winter condition problem, then we don't owe them anything. Additionally, snow removal is not unexpected for a job that occurs during the winter. They will often ask for money for this, but it should not be awarded unless extreme conditions occur. If it is known that the project is going to happen in the winter, winter conditions should be mentioned in the specs to avoid unexpected change orders.	Site distribution is one of the highest priorities on any project. The goal should be to allow student access to play areas without crossing roads or parking lots when possible.	
	Garbage disposals need to have guards to prevent injury and damage.	Monitor the sewer piping installation below grade very carefully. If pipe transitions are not smooth and seamless, the building will experience sewer backups and costly repairs down the road.	Walkability and bikeability are important, so both the traffic work and the site design should take these into consideration.	

Project Lessons Learned Update

Energy	Maintenance	Construction	Design	Process
	Water fountains should be attached to the building when possible. Free standing fountains are more susceptible to damage from freezing if not properly winterized.	Fall protection is not optional.	Concrete walkways should be 8ft wide. 4ft panels yield large ruts on either side from snow removal, and 6ft panels snap from the weight of the trucks.	
	Always run an extra conduit or increase in size for future expansion.	Soil management is extremely important. Care needs to be taken to ensure stockpiles are covered, protected, and not mixed with unsuitable materials. There is a potential for six figure change orders if this is mismanaged.	Roofs need to be designed to be solar ready. This does not require additional steel, but the roof should be designed as clean as possible, and the roof system warranty needs to be compatible with a ballasted pv system.	
	Plumbing cleanouts are required every 50 feet. However, where they are placed is very important, and if needed more should be provided. Think of the plumber trying to clear a clogged pipe.	The quality control inspector on any job, should have no other responsibilities. They need to be focused on QC and making sure we are always looking ahead to make sure what we are doing now, will set us up for success down the road.	Stained concrete is more sustainable than painted concrete.	
	It is good to have P.B. involved in any ADA retrofit projects and work with the City's office of Disability.	Closely monitor allowances. Contractors like to assume that's their money.	There should be no gates on perimeter emergency access roads. and on dumpster enclosures.	
	Project design of materials and equipment should reflect anticipated maintenance in years following warranty period to properly service the equipment. Proper shutoffs for equipment should be installed to allow for easier maintenance as is required.	Tree protection needs to be very carefully thought out, and executed. Roots need to be kept buried, wet, and protected. Be realistic with what can be done. If the opportunity to save more trees presents itself during construction, take it. Plans can change if it benefits the project.	Consider reducing the number of cameras inside the building, even if it means increasing the resolution. You can achieve the same level of coverage for a much smaller cost.	
		If possible, use design-build approach for small fast track projects.	A single main entry is preferred. This improves security and operations.	

Project Lessons Learned Update

Energy	Maintenance	Construction	Design	Process
		Roofing Manufacturer contractor installation oversight appears to be lacking for our membrane roofing system installations as numerous leaks are occurring that are related to poor installation	Exterior lighting can comply with the light ordinance, but still be a nuisance to abutters. Shrouding the lights when possible is preferred.	
	Make sure if the specifications call for attic stock that it is actually provided and signed for.	A construction schedule should be submitted and approved by the architect and OPM at the onset of the project. Updates should be submitted monthly. Resumes for the On Site Superintendent and other contractor personnel should be reviewed prior to that person being assigned to work on our project.	Asphalt curbing should not be specified. It yields a savings up front, but it will not hold up, and will cost more down the road.	
	Make sure that the water quality control structures are maintained by DPW.	Windows should and need to be tested for air infiltration and water leaks.	Buffering should always be planned for where cars are facing abutters. Headlights are a nuisance.	
		Site contractors will try to get away with backfilling in two foot lifts if we let them. We need to watch them and remind them what the specifications call for.	When possible, buses and parents should not mix. The bus loop should be separate from the parent drop off.	
		All materials that arrive on the project should be check against the approved submittal.	Do not specify flooring and ceiling systems where they aren't needed. Storage closets, utility rooms, etc. do not need these finishes.	
			When possible, use the building contours to control acoustics from rooftop equipment. This will reduce the need for acoustic screens which are expensive.	

Project Lessons Learned Update

Energy	Maintenance	Construction	Design	Process
			Line of site at the main entry is important to efficient operations. Make sure that the administrative staff can easily see the main entrance.	
			Make sure that athletic outdoor areas are designed in a way that prevents negative impacts to abutters via foul balls or other flying objects.	
			Make sure that the full scope of work has been identified before starting design. Scope creep can bust a budget very quickly.	
			Slab moisture mitigation should not be included in the base bid. If needed, it should be priced out and paid for out of contingency.	
			Do not specify water based wood floor finish. It does not bond as well. Low voc oil based finish should be specified whenever possible.	
			3 story buildings are appx 10% more energy efficient, less costly to build, and better utilize urban sites, than single or 2 story buildings.	
			For small buildings, consider prefab structures. They are much less expensive and their quality has improved significantly over the years.	

Project Lessons Learned Update

Energy	Maintenance	Construction	Design	Process
			City water flow tests should be performed early in the design phase. This will determine what fire equipment is needed. Cameraing sewage lines and Fire protection lines also.	
			AED devices should be hard wired into the building fire alarm panel. This will ensure that dispatch is notified when an AED is used.	
			Equipment must be specified and installed in new buildings to ensure police and fire radios work.	
			Whenever traffic improvements are made around a project, we must be sensitive to the ripple effect it has on the broader community.	
			Do not assume other departments who review the plans, understand what they're looking at. If they don't fully understand the plans, they will likely require something different during construction, thereby leading to a change order.	
			Do everything you can to verify all existing conditions. If there are items that are either unknown, or if plans do not match actual conditions, expect significant change orders.	

Project Lessons Learned Update

Energy	Maintenance	Construction	Design	Process
			CMU is much more durable than drywall, but it does not need to be carried up to the ceiling. Use durable wall products where wear is expected. Above that, drywall is perfectly acceptable.	
			Be very sensitive to acoustics in the cafeteria and gym. If not designed correctly, these spaces become very problematic.	
			When specifying floor tile, thin mudset is perfectly acceptable. Thick just costs more with little to no added value for our applications.	
			If the project calls for irrigation, consider both rain water harvesting, as well as irrigation wells, to help reduce long term costs.	
			Exterior emergency generators should be sited in locations that minimize the impact to abutters. They are loud when operating.	
			Skylights should be avoided. They leak over time, and are a hazard when navigating roofs in the winter.	
			The landscaping design should be carefully analyzed. There are often ways to achieve a similar outcome for a fraction of the cost.	
			Security cameras are great, but if there is no light in the area they are covering, they are useless.	

Project Lessons Learned Update

Energy	Maintenance	Construction	Design	Process
			Renovation that is performed to the same standard as new construction is significantly more expensive.	
			Make sure the correct scope of work is assigned to the correct trade. Many trades can perform a variety of work elements, but their costs can vary	
			Make sure all as built building plans, roof and equipment warranties, and operation and maintenance manuals are put in the Public Buildings file at the end of the project. It seems that this should be done by our Project Managers.	
			Make sure that the designers are applying AAB and ADA codes for accessibility whichever is stricter.	
			Do more in-house design for small projects which can save on architects fees.	
			Project design of materials and equipment should reflect anticipated maintenance in years following warranty period to allow the proper service to the equipment.	

Project Lessons Learned Update

Energy	Maintenance	Construction	Design	Process
			<p>roofing system, as manufactured by Sika, that has been used on the past 5 Major Projects has not held up well as we have experienced over 35 leaks at the various Projects since the original installations. As stated in an earlier Lessons Learned note, installation oversight is not a strong suit of this company. Working with Sika on inspections prior to Solar Panel Installations and on Post Installation has been a challenge. They no longer do Pre-Solar Installation Inspections which can be problematic after these installations are completed. An alternative system should be designed to determine if the City can switch to a roofing system that is not as problematic as the</p>	
			<p>Roofing Systems should be designed to withstand the type of foot traffic / potential additional equipment installations. Membrane roofing while much less expensive than built up systems, do not stand up well to heavy foot traffic and Solar Panel installation. Additional walkway pads should be mandatory. Stronger verbiage should be in the specifications outlining the apparent lack of oversight by both the GC/CM site superintendents as well as manufacturer during the roof installation.</p>	

Project Lessons Learned Update

Energy	Maintenance	Construction	Design	Process
			<p>Any roof design should incorporate the collection of all water to an onsite water treatment system from the roof, whether an interior or exterior roof drainage system is being used. The idea is to keep the water flowing and not standing. Avoiding direct tie in to an existing storm water street system should be discouraged due to the potential over charging of the existing storm system.</p>	
			<p>Construction Drawings and Specifications should be reviewed by multiple members of the Design Team including not limited to the Architect, OPM, various City Departments/Agencies and most importantly the Public Buildings Department to ensure their accuracy and completeness prior to being sent for review by the DRC and more importantly before placing them in the IFB for the Project.</p>	

Project Lessons Learned Update

Energy	Maintenance	Construction	Design	Process
			<p>A minimum of a Two year contractor warranty on all workmanship and materials/equipment should be made mandatory in the project specification. Extended warranties/service on equipment such as HVAC and Elevators with the time line stated in the specifications, such service to be routine monthly maintenance and in the case of an elevator, the first State Re-inspection, a year after the initial State Inspection.</p>	