

Building a Better NYC

CAPITAL BUDGET

A 2016 POLICY REPORT

of the New York Building Congress and New York Building Foundation

Commitment to Infrastructure

The City of New York has invested heavily in the City's physical infrastructure — its roads and bridges, schools and libraries, water and sewer facilities, parks and cultural institutions.

The de Blasio Administration, capitalizing on the record investments of the previous administration, has offered capital budgets comparable to those years. Meanwhile, the City's latest significant, ten-year strategy is the largest in history. The City is to be commended for this significant commitment to infrastructure.

At the same time, New York City is expanding at an unheralded rate: population growth has reached 8.5 million and could top 9 million in the next decade. A building boom is underway, increasing density not just in the City center, but in emerging business districts and residential neighborhoods in all five boroughs.

This growth and private investment puts remarkable strain on public facilities, visible in ways large and small: crowded schools; wear and tear on streets,

bridges, and environmental facilities; dense residential neighborhoods with limited open space; and public housing and healthcare facilities with substantial capital backlogs. Today, there is an unprecedented demand for new capital investment.

The City needs to do more to address these challenges, an effort that will require increased funding and a rethinking of the ways the City plans and executes its capital program.

As part of its Capital Budget Campaign, the New York Building Congress is proposing a suite of specific improvements to the City's capital planning, procurement, and project management practices that, together, can improve the City's capacity to maintain its assets, while controlling the high cost of construction and bringing more projects online more rapidly.

These proposals are not exhaustive, but represent the first essential steps to bringing construction costs under control and expanding the City's capital program.

The City's investment in new transit infrastructure resulted in billions of dollars of new private investment on Manhattan's West Side.



1. IMPROVE THE CAPITAL BUDGET PLANNING PROCESS

The New York City capital budget is antiquated and does not offer a comprehensive picture of the condition of the City's assets. Data are not organized in ways to help managers prioritize projects and set goals based on spending constraints. These information gaps increase the cost of maintaining assets in the future. Budget documents should have more useful information, and this information should be applied in a more systematic planning process.

The City should organize a revised citywide capital planning process to better define long-term priorities and guide capital investment decisions.

As a key new element, the City should develop a **twenty-year capital needs assessment**, produced every four years, that looks at the full range of demographic, economic, environmental, and general infrastructure needs and aligns the City's overall capital program with them. The assessment should be a financially unconstrained statement of needs and vision. Each agency with a significant capital budget should take part in this exercise. This assessment could become a part of the existing OneNYC planning effort the City undertakes pursuant to Local Law 84.

The City should translate the assessment into a fiscally sustainable **ten-year capital strategy** — required under the City Charter — based on the goals of the long-term assessment and the condition of the City's capital assets. The ten-year strategy should categorize needs as State of Good Repair (SOGR), Replacement, or Expansion, and routinely measure and report progress toward meeting goals in each category.

From there, the City should adopt and fund a **fixed, four-year capital program** explicitly aligned with the ten-year strategy, containing measurable goals to be carried out through the four-year program. This should be distinguished from the current “rolling” plan, which lacks measurable targets and can change substantially from one year to the next.

In order to make this exercise worthwhile, the City must also require agencies to produce accurate surveys of their assets, improving on the data included in the current Asset Information Management System (AIMS) report, and then include the data in a meaningful way in its budget presentation. Without these improved surveys, the City simply cannot quantify and understand SOGR needs, greatly diminishing the accuracy and usefulness of the capital planning process.

The City should make capital budget documents clearer, with better information about each capital project.

The City should do a better job at presenting projects coherently and transparently in the capital budget. Major projects are often lost in the details of larger budget lines, or spread across multiple budget lines and projects. An easy-to-read, less fragmented presentation would offer managers a clearer picture of capital projects' progress and costs, helping to avoid major cost overruns like CityTime and the Croton Filtration Project, and facilitate a more informed discussion of costs and priorities.

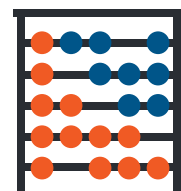
The inclusion of better metrics would enable managers to track progress on projects. For example, beginning with the ten-year capital strategy, an SOGR metric might establish the proposed percentage of roads to be repaved; the annual budget would then report on incremental progress toward that goal.



Since 1981, the City has invested more than a quarter trillion dollars in physical infrastructure.



Population growth is exceeding estimates and could top 9 million in the next decade.



Residential and non-residential construction spending will approach \$80 billion between 2015-2017.

Another metric might propose replacement of 100 miles of sewerage in the ten-year strategy, and each subsequent annual budget would present progress toward that goal.

There are several valuable metrics the City should also include in its annual capital budget, to allow side-by-side tracking of a) when projects were committed and money appropriated; b) the original forecast cost; c) the original expected completion date; d) the current expected completion date; and e) the current total forecast cost, including change orders.

The Building Congress is developing examples of model budget documents.

2. STREAMLINE PROCUREMENT AND PROJECT DELIVERY

Improving the City's procurement and project management practices is an equally important element in making the City's capital budget more effective. Without meaningful changes to the methods the City

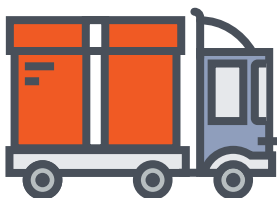
uses to plan, procure, build, and maintain its infrastructure, the City will simply not have the capacity to deliver an expanded capital program. Improvements that should be implemented include:

Pass State legislation permitting project delivery methods like design-build, Construction Manager-at-Risk, and public-private partnerships. The City relies almost exclusively on design-bid-build procurement, in which each step of the design and construction process happens sequentially. Alternative approaches that allow teams to design and build projects more collaboratively, along parallel tracks, can shorten project duration. Public-private partnerships offer a variety of additional opportunities to control risk and costs through creative financial and management arrangements.

Expand use of integrated project delivery (IPD) and LEAN construction practices. IPD and LEAN emphasize collaboration and extensive design and process review throughout the construction process. On their face, these approaches appear common-sense: asking all participants on a project — owner, architect, engineer, general contractor, and key subcontractors — to review



The City used integrated project delivery to build a new hospital wing for NYC Health + Hospitals in under two years.



Population growth and private investment increases strain on public facilities.



City commitments to future capital work are up, but actual spending has declined since 2010.



Improved project management will help control construction costs.

project documents together, early on, and throughout the project, to identify potential planning, design, or materials conflicts and reach consensus solutions. Yet this level of collaboration is inhibited by common practice and the competitive business relationships of the various parties involved in the project. IPD and LEAN offer proven methods for the entire project team to address constructability issues collaboratively, speeding delivery and reducing project costs.

Increase project management capacity on large projects within City agencies. Agencies generally assign only one or two project managers to large capital projects, leaving most management and oversight to consultants and construction managers. Agencies should establish in-house Project Controls Divisions, adding cost-estimators, schedulers, and quality assessment staff to monitor projects and prevent cost overruns and delays.

Permit more advanced planning and design and produce more accurate cost estimates for projects prior to requiring full capital funding. The de Blasio Administration has initiated a Capital Project Scope Development fund to facilitate expanded early project scoping. This practice has proven successful and should be expanded.

Improve the change-order process. Any changes to the original scope of a project entail new costs and added administration. Change orders are an all-too-frequent occurrence, but their impact can be mitigated by the collaborative approaches already discussed and by streamlining administrative procedures, including adding a 10 percent contingency for most projects in

the original budget allocation, a standard practice on private projects. A more comprehensive presentation of proposed improvements will be described in a separate policy paper.

Reform the dispute resolution process. Today, the City follows archaic practices for dispute resolution that almost guarantee higher initial bids and added costs at the end of a project. There are various Alternative Dispute Resolution models that are the current industry standard and have proven extremely cost effective for governments throughout the rest of the country.

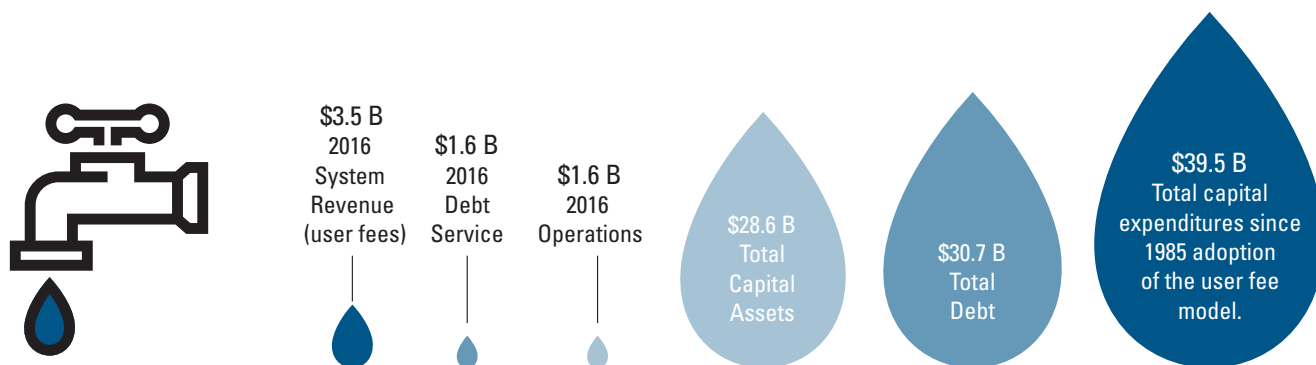
Improve contract provisions in the City's standard contract to more equitably balance risk, reduce costs, and speed delivery. A variety of contract terms in the City's standard contract add tremendous inefficiency to City capital projects. The Building Congress has compiled contract terms that should be considered for alteration or elimination in a separate paper.

3. DEDICATE NEW REVENUE TO INFRASTRUCTURE

Meeting the City's vast capital needs is also limited by available funding. Financial support for capital projects competes with other priorities and is further restricted to a specific percentage of tax revenue, unlike other budget items. A reliable, protected revenue stream dedicated solely to funding infrastructure would address both of these constraints.

The Building Congress urges the creation of new, dedicated revenue streams for infrastructure.

Dedicated user fees underwrite water and sewer debt service and operations costs. This program supports an enormously valuable system on a sustainable basis.



Sources: Official NYC Water Board and Comptroller's reports. *The Department of Environmental Protection's total asset value estimate is almost certainly far below the actual replacement value of the entire water and sewer system.*

DEDICATED REVENUES - ILLUSTRATIONS

- Increase the gasoline excise tax or lift the cap on the sales tax on gas.
- Charge a fee on vehicles entering the Manhattan central business district, as part of a uniform toll policy.
- Implement dedicated parking fees, including a neighborhood parking permit and dynamically priced parking meters.
- Implement a new sales tax surcharge in the City.
- Implement a Save-As-You-Throw garbage fee for the City's residential buildings. A user fee for refuse collection encourages conservation and will help control the City's sanitation costs, which have quadrupled in the last 20 years. Revenue can be dedicated to the City's environmental infrastructure.
- Use a Tax Increment Financing model to direct a portion of increasing property values to an infrastructure fund.

CONCLUSION: A BETTER CAPITAL BUDGET IS WITHIN REACH

New York City's success over the past two decades can be credited in part to wise City and State investment in public works, which in turn has facilitated an explosion of private investment. This cycle of success has had the consequence of creating even greater demand for transportation access, better schools, and more reliable services from government.

Given the sizeable outlay the City already makes on infrastructure each year, the proposals outlined here will improve the City's capital planning and management capacity and make project delivery more cost effective.

However, efficiency is only part of the equation. In truth, more resources also have to be directed to capital investment. This means finding new revenue streams that can be dedicated exclusively to infrastructure spending. The Building Congress has offered several illustrations here; others of equal merit exist as well.

To help effect these changes, the Mayor should create an **Office of Infrastructure** to continually review capital planning and propose ways to improve capital project delivery. The City Council should create a **Committee on Infrastructure**, with a similar mission. We urge the City to take quick action on these proposals where possible, and to work with leaders in Albany to advance initiatives needing State authorization.



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For information on membership, publications, and events contact:

NEW YORK BUILDING CONGRESS
buildingcongress.com
@bdgcongress

44 West 28 Street, 12th Floor

New York, NY 10001

Tel: 212.481.9230 • Fax: 212.481.9290



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