



Congresswoman Carolyn Maloney Fourth Second Avenue Subway Report Card

Since the Metropolitan Transportation Authority (MTA) broke ground for the Second Avenue Subway in April 2007, it has made marked progress toward completing construction of the first phase of the Second Avenue Subway. Phase I will include the construction of 2.3 miles of track, three new accessible subway entrances at 96th Street, 86th Street and 72nd Street, new connections to the existing 63rd Street Station, 11 station entrances, 6 ancillary buildings, a ventilation shaft and a cooling tower structure. When construction began, it was common to scoff at the idea that the Second Avenue Subway would ever be built, today few people doubt that this first phase will be completed. As a result, many of the grades on the report card have gone up and the areas of concern have dwindled to two.

There is plenty of good news to report. Construction is moving forward with measurable progress. The MTA was able to finish boring the tunnels to 63rd Street in just over 16 months (5 months earlier than projected). On June 13, 2013, it awarded the final contract for the subway. Earlier this month (July 2013), the MTA announced that it had completed more than half of the construction for Phase I of the subway, including all of the tunneling for the subway tracks and nearly all of the requisite blasting. Muck houses are being dismantled at 72nd Street, 69th Street and 83rd Street. Blasting is expected to conclude this summer at 86th Street. The MTA is beginning construction of stations, station entrances and ancillary buildings.

Despite continued progress, the community continues to experience significant negative impacts from the construction; however some of the most disruptive aspects of the project are starting to wind down as blasting and soil removal are reaching completion which should offer some relief to residents and businesses on Second Avenue.

The MTA has been admirably open in its outreach to the community. The MTA has demonstrated that it is aware that it needs to do more than merely solve engineering problems; it needs to work pro-actively to reduce impacts on residents and businesses. More frequent meetings with community members and building representatives have enhanced dialogue and allowed the MTA to take action quickly to resolve problems. Unfortunately, too often it has waited until residents are angry and frustrated before it takes action. On at least one occasion, the MTA's efforts to resolve engineering problems affecting one part of the community have taken residents on other blocks by surprise. Solutions that were rejected as impossible one year have been adopted in subsequent years as a last best resort. While it is heartening to see the MTA resolve problems, better communication would make these changes appear less arbitrary.

First considered a transportation project, the Second Avenue Subway is also an important jobs creator. The project is employing thousands of workers at a time when the construction industry is experiencing a sharp downturn. As a result of its importance as a stimulus project, the Second Avenue Subway qualified for funding under the American Recovery and Reinvestment Act of 2009 and received \$78,870,000. As the economy continues to experience difficulties, Second Avenue Subway has been a boon to the beleaguered construction industry. Furthermore, the economic downturn has enabled the MTA to secure contracts on better terms than it would have when the economy was stronger.

While 2007 estimates of the time and cost of building the first phase of Second Avenue Subway have proved to be unrealistic, since 2009 the MTA has consistently maintained that its target completion date of December 2016 is achievable. Furthermore, the MTA advises that all of the state funds have been allocated as part of the MTA's 2010-2014 capital plan and the federal government has already contributed nearly all of the \$1.3 billion commitment (only \$16,805,934 has not yet been appropriated and \$14,640,000 is contained in the President's budget request for the Second Avenue Subway for this year).

While great progress has been made in building the subway, the construction of Second Avenue Subway has created significant problems for local residents and businesses. Residents have complained about rats, dust, noise and other environmental concerns. As blasting and soil removal are beginning to wind down, there is reason to hope that many of the most intrusive problems will be reduced; however, there are many construction zones on the surface and certain negative impacts will continue. Nonetheless, more than six years into construction, completion of the first phase of the subway is beginning to look inevitable. The next report card will also consider what the MTA is (or is not) doing to prepare for Phase II.

WHAT'S BEEN WORKING

Project Merit – A+

(2011: A+, 2010: A+, 2009: A+)

All the reasons that led the FTA to consider this project one of the best in the nation remain strong factors. The subway will relieve overcrowding on the Lexington Avenue line, which continues to be the most overcrowded subway in the nation. Indeed, the MTA estimates that once the first phase of the Second Avenue Subway is completed 23,500 daily riders, or 13% of the Second Avenue Subway's ridership, will move from the Lexington Avenue line to the new subway. When the Second Avenue Subway is completed, it is expected to carry more than 200,000 passengers a day, more than any other 'New Start' project in the nation. New Yorkers continue to rely on mass transit to commute to work, more than any other Americans, and as ridership continues to grow, the Second Avenue Subway will provide much needed capacity in a system that has not grown in more than half a century.

Economic Benefits – A+

(2011: A+, 2010: A+, 2009: A+)

When this project was first proposed, it was viewed as an economic development project, crucial

for New York City's ability to continue to attract new businesses and keep existing ones. Today, we also recognize its significance as an effective and efficient jobs program. All told, the Second Avenue Subway is creating 16,000 jobs, most of which are well-paid union jobs. At a time when the construction industry is in crisis, infrastructure construction such as the Second Avenue Subway provides vital jobs for thousands of construction workers. These workers spend their hard-earned dollars in local businesses, and pay taxes locally. Economists like Mark Zandi posit that every dollar spent on public infrastructure increases Gross Domestic Product (GDP) by an estimated \$1.59. Using that formula, the Second Avenue Subway will generate nearly \$7 billion in GDP.

Communication with the Public – A- (2011: B+, 2010: B+, 2009: B+)

In general, the MTA has been extremely accessible to local residents and elected officials, and willing to make data available. The MTA leads periodic tours so that members of the public can actually go down and see the construction. This gives people a real sense of the monumental nature of the project and also reassures them that real progress is being made.

The MTA has significantly expanded its public outreach, convening meetings with residents near each construction zone, taking groups on tours of the subway excavation, providing periodic updates through Community Board 8's Second Avenue Subway Task Force, through special Ask The Experts sessions, through its website and through email updates. On Friday, July 26, 2013 the MTA opened its new Community Information Center (CIC) at 1628 Second Avenue (between 84th and 85th Streets) where visitors can view exhibits about its long history or express their concerns about the project. The CIC will be open Monday, Tuesday and Thursdays from 10 a.m. to 5 p.m., Wednesdays from 1 p.m. to 8 p.m. and Fridays from 8 a.m. to 3 p.m. The MTA maintains a hotline where people who have concerns about the project can call to express those concerns or ask for assistance.

As a result of concerns relating to air quality, the MTA began an air quality monitoring program and posts the result on its website weekly. The charts show average daily results for PM₁₀ collected at 12 monitoring stations along the route.

The MTA has a comprehensive website that makes most of the pertinent documents publicly available, but it is currently difficult to locate the Second Avenue Subway section unless you know where to go. Further, while the documents are current, some of the commentary on the website is out of date. For example, it currently says 'Tunneling for the Second Avenue Subway is close to completion,' although tunneling was actually completed more than two years ago. The MTA says its website is in the process of being updated, and that the updated version will be available shortly.

The biggest problem with the MTA's communication is that it has failed to adequately prepare the community for significant changes. For example, the community was told that the MTA could not do a sidewalk entrance on a street bump out, but when engineering issues at 301 E. 69th Street became too difficult, the MTA reversed itself abruptly and agreed to do a sidewalk

entrance. While many in the community, particularly residents of the building, greeted this news with joy, others are unhappy about possible traffic impacts. The community could have been better prepared for this resolution if the MTA had been less categorical in rejecting the possibility earlier on.

Despite minor criticisms, the MTA has been remarkably responsive to the community, with frequent meetings, a significant number of staff members assigned to responding to concerns and ample documentation, earning it a grade of A-.

Completion of Tunnel Construction – A+ (2011: A+, 2010: N/A, 2009: N/A)

Finished several months ahead of schedule, the tunnel boring has been a significant success. Over two miles of subway tunnels were bored at a depth of 70 feet below street level. The Manhattan schist rock from 92nd Street to 63rd Street proved to be the perfect substance for a TBM. The 485-ton, 450-foot-long TBM used a 22-foot diameter cutterhead to mine 7,789 linear feet averaging approximately 60 linear feet a day. Although there were some difficulties reported in the first few months, the tunnel boring was completed with few complications. The tunneling contract was fully completed in March 2012.

Construction Management – B+ (2011: B, 2010: B-, 2009: B)

The MTA has definitely improved its construction management. A few years ago, there were problems with air quality, an accident that sent rocks into the street and frequent delays. Today, many of those problems have been resolved. By finishing the subway tunnels in just over 16 months, five months earlier than projected, the MTA has proved that it is capable of meeting its timetable. The MTA has taken other positive steps as well: In 2009, the MTA got the permission of the MTA board to allocate federal funding so that contracts could be bid more quickly. It has subdivided contracts into smaller chunks to allow for more competitive bidding to bring costs down. It has created a schedule of contracts so that the public can follow its progress to make sure that contracts are being bid on time. The MTA has tried to make up for time lost as a result of structural issues with buildings adjacent to the Second Avenue Subway construction and unexpected problems in locating utilities in the roadbed. Two of the ten construction contracts have been completed: the 86th Street Station Utilities Relocation contract was completed in November 2011 and the TBM Tunneling Contract was completed in March 2012. In addition, they expect that the first 96th Street Station Site Work and Heavy Civil contract will be completed by September this year.

On the other hand, there have been two very public accidents: a construction worker was trapped in mud for four hours on March 19, 2013 and a poorly placed explosive device sent rocks into the air near the construction zone at 72nd Street on August 21, 2012. There have been other workers injured on the job, although the MTA has told the media that accidents have fallen since a crackdown on contractors in 2012. None of the accidents appear to have cause serious injury. In each case, the MTA adopted new safety measures to prevent a recurrence.

In addition, the project had a variety of problems, including delays in utility relocation, problems with air quality and falling masonry from poorly maintained buildings along the path of the subway.

A grade of B+ signifies good progress in getting the job done, with room for improvement in hope that there will be no more accidents.

Planning – B (2011: B-, 2010: B-, 2009 B-)

The MTA deserves credit for managing to keep both the budget and completion date steady over the last four years. The Second Avenue Subway is a complex project, and it requires a lot of coordination to bring all of the elements together. The MTA appears to have performed reasonably well at those aspects of the project involving actual construction, but less well at anticipating problems that were foreseeable.

At the beginning of the project a great deal of time was lost because of problems locating and moving the utilities. Anyone with experience with New York City's utility grid knows that there are few roadmaps for where utilities and water pipes have been laid, and that there will be surprises. Delays of this type should have been expected and built into the schedule. Since 2009, however, the MTA seems to have managed to remain on course for the December 2016 completion date. In order to accomplish this, the MTA has had some lucky breaks, including a faster than expected completion time for tunnel boring. It has also declined to address certain community concerns, such as a proposed solution that would eliminate mid-block entrances at 86th street, in order to remain on time and on budget. Those who oppose the mid-block entrances argue that the MTA is missing an opportunity to fix a problem that will impact the community for generations, and that the relatively limited delay would be worthwhile. Others say that the proposed solution came far too late in the process to be useful and that if the MTA falls behind schedule now it will be much harder to gain funding and support to build the other segments of the subway.

In recent years, the MTA has held many meetings with residents to discuss engineering problems uncovered by engineers hired by the residents. One building is concerned that its utilities could shut down as a result of station entrance construction. They believe that the issue could do serious damage to their building and be extremely costly. The MTA's engineers disagree. This issue needs to be resolved as quickly as possible to everyone's satisfaction or it could cause serious delays. The MTA should have met with the building leaders and engineers earlier in the process to ascertain whether this would be a problem. As it is, the MTA's decisions sometimes look arbitrary. For example, the MTA was able to resolve complaints about mid-block entrances at 72nd street but has declined to satisfy community complaints about mid-block entrances for the 86th Street station despite broad condemnation by local residents.

After initial stumbles, the MTA seems to have done a reasonably good job of making sure the project is staying on time and on budget. Because the MTA has awarded its final contract for the

Phase I, completed tunneling and most of the excavation work, its grade for planning has risen once again.

On Time Record - B (2011: B-, 2010: C+, 2009: C)

While the completion date slipped significantly during the first two and a half years of construction, the MTA now reports that for the last four years the project is meeting its expected timeline.

The fact that the completion date has remained unchanged for four years is an extremely welcome change from early days. When this project went into Final Design, the MTA was projecting a completion date of 2012. By the time the project broke ground in 2007, the MTA projected a completion date of 2014. In 2009, the MTA began projecting a December 2016 completion date and MTA Capital Corporation President Michael Horodniceanu has made repeated commitments to deliver the project by that date, and so far, he has managed to stick to the timetable. Nonetheless, on June 18, 2010, the FTA sent a letter to Congress expressing the view that the project would not be completed until February 2018 and, apparently, the FTA has not yet revised that position.

By all appearances, the MTA has a good shot at meeting its deadline. All of the contractors are now in place to complete all of the remaining work, but there remains a lot of work to be done, including all of the station platforms, entrances and ancillary buildings. In the next few years we will see whether or not the MTA's timetable is reasonable or whether unforeseen difficulties will impact construction.

Because the MTA has succeeded in maintaining December 2016 as its projected completion date for four straight years, its grade for its on time record has risen yet again.

Staying on Budget - B (2011: C+, 2010: C, 2009: C)

The MTA maintains that it now has all of the state funding and all but a de minimis portion (\$16.8 million of \$1.3 billion) of the federal funding to complete Phase I. When the full funding grant agreement was signed, this project was supposed to cost \$3.8 billion. In 2009, the MTA began to project that the project would cost \$4.45 billion. Four years later, that prediction still holds.

The MTA has succeeded in taking advantage of the economic downturn and has gotten better than expected prices from its vendors. It also scrapped plans for a three track system to reduce costs further. Now that the MTA has awarded its final contract, it is becoming more reasonable to think that it can stay on budget. Nonetheless, for many contracts Additional Work Orders (AWOs) have eaten into the budgeted contingency amounts; however, the MTA asserts that it has sufficient unallocated contingency to cover any areas where contingency costs may be high. With respect to any individual contract, once the MTA has consumed 80% of the AWO

contingency for that contract, the MTA estimates how much added contingency is needed and requests a budget transfer to allocate the additional amount needed.

The MTA says that all costs should now be known since all of the contracts have now been awarded and there is more than adequate contingency available in the budget. Accordingly, it is being awarded a cautious B.

Progress Toward Completion - B+ (2011: B-, 2010: C+, 2009: C+)

The MTA has made significant progress towards completion. It has awarded 100% of the ten contracts for the project, completed two of the contracts and expects two more to be completed this fall. The muck house at 72nd Street has been completely removed as of this month and they expect to remove the 69th Street muck house by October this year. Additionally, the MTA has started to remove part of the 83rd Street muck enclosure since excavation at the south end of the cavern is completed. The MTA expects both muck houses to be removed at 86th Street by Fall 2014. There remains a lot of work to be done, but the MTA is making steady progress toward completion and has earned a B+ with room to improve as the project moves forward.

WHAT NEEDS IMPROVEMENT

Mitigation of Construction Impact – C- (2011: C-, 2010: C-, 2009 Grade: C-)

Construction impact continues to be the most negative aspect of the project. Residents continue to complain about noise and dust from blasting, although those complaints will diminish as the blasting ends this summer. Nonetheless, much of the construction of station entrances and ancillary buildings will take place above ground and that will undoubtedly result in a new round of complaints. The August 21, 2012 accident marked a low point as a blast sent rocks eight stories high into the air at 72nd Street. Fortunately, no one was injured and there was only minor damage to property. In 2011, environmental concerns became paramount and on November 23, 2011, the MTA halted construction temporarily in order to address community concerns about air quality. In 2012 it put into place an air quality monitoring program to give residents up-to-date information about air quality.

Complaints about sanitation problems continue. There are frequent concerns about the number of rats in the community because of construction, and a joint letter from elected officials was sent recently in an effort to bring the Department of Sanitation, the Department of Health and the MTA together to come up with a plan to reduce the number of rats in the 90s.

Residents and businesses continue to express concerns about inadequate signage about street crossings or closings, poor visibility of traffic lights and other problems.

Businesses have been significantly affected by the construction, losing sidewalk cafes, pedestrian traffic, and signage, experiencing narrowed sidewalks, constant construction noise, barricades

and poor visibility. Virtually every business has reported a significant loss in income. The MTA created a Shop Second Avenue campaign to try to drive customers to affected businesses, and has extended it to all areas where construction is impacting businesses. Unfortunately, dozens of businesses have closed along the subway's construction zone despite these efforts.

Nonetheless, the Second Avenue Subway is a massive construction zone and it is extremely difficult to minimize the impact on local residents and businesses. The MTA failed to anticipate many of the impacts, including the weakness of masonry along the route, the release of dust from blasting and the need to do a better job of giving businesses access and visibility. The MTA has invested relatively little in making the construction site look attractive or making sure crossings and signage are clear. After more than six years of construction, residents and businesses are looking forward to completion of Phase I. For its failure to do more to mitigate construction impact, the MTA has earned a weak C-.

Progress on Station Entrances and Ancillary Facilities – C

(2011: C-, 2010: N/A, 2009: N/A)

Station entrances and ancillary facilities will be the focus of attention during the final years of subway construction. Up until this point virtually no work has been done here. All of the contracts to build the entrances and ancillary facilities have been awarded. All of the ancillary building sites have been completely excavated; however, none of the ancillary structures are currently underway except for base slabs in some cases. With respect to station entrances, only the excavation work and some structural work is underway. The only station contract where the contractor currently has site access is at 96th Street Station. The 72nd Street Station contractor will get initial access this September (2013). The 86th Street Station contractor will not get initial access until Spring 2014. Station platforms will be constructed by the station contractors, but none of those platforms have been started. The 96th Street Station platform should be completed first, but that will not happen until Summer 2014 for the structure and Fall 2015 for the finishes. Now that the focus of attention is starting to move to the station entrances and ancillary facilities, the MTA earns a gentleman's C for this category.

FINAL GRADE

Overall Grade – B+

(2011: B, 2010: B, 2009: B-)

The Second Avenue Subway's economic contributions to the city cannot be understated. The Second Avenue Subway is an important job generator at a time when the construction industry has been hit hard. It is extremely important to the economic future of New York, and it needs to be built. The MTA has made real progress since the last report card, completing tunneling, awarding all ten of its construction contracts, beginning construction of station platforms, relocating residents and businesses to allow construction of station entrances and ancillary facilities and preparing sites for construction of entrances and ancillary facilities. The MTA has remained on time and on budget for four straight years and there is good reason to believe that it will be able to meet its commitments.

The MTA has an ambitious construction schedule, and it needs to make sure that this project continues to move forward with all deliberate speed. There is a lot more work to be done, but there is also a growing sense that a Second Avenue Subway is fast becoming a reality.