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Lower Manhattan Reconstruction: Lessons Learned from Large Transportation Projects

**Statement of
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Mr. Chairman, Ranking Member, and Members of the Subcommittee:

We appreciate this opportunity to testify today on the importance of vigorous oversight of major transportation projects like those underway in the reconstruction of Lower Manhattan. The terrorist attacks of September 11, 2001 caused unprecedented damage to New York City's transportation infrastructure, including the Port Authority Trans-Hudson (PATH) terminal and the Route 9A (West Street) highway near the World Trade Center site. The destruction caused by these attacks is a tragic reminder of the importance of transportation systems in our everyday lives and why these systems remain prime targets to terrorists.

Our testimony today will address important lessons learned from our work on federally funded transportation projects across the country that should be applied, and in some cases are already being applied, to the reconstruction of Lower Manhattan. Primarily, our audit work at the Office of Inspector General (OIG) has focused on mega-projects, that is, those infrastructure projects costing more than \$1 billion, while our criminal and civil fraud investigations have focused on highway, transit, and airport projects where there are indications of fraud regardless of the size of the project.

Based on this body of work, we believe that certain sound investigative, management, and oversight practices should be considered wherever major transportation construction may be undertaken. This seems especially important in the reconstruction of Lower Manhattan. With the loss of life and with such significant parts of the transportation system destroyed at the hands of terrorists, we should do all we can to ensure that the residents of New York and the American taxpayers get the most from the Federal funding being invested and that these projects are free of fraud.

Accordingly, we have informed the Department and would like you, Mr. Chairman, and the Subcommittee to know that we have established an *OIG Lower Manhattan Transportation Oversight Team* to support oversight of Lower Manhattan projects. Although we are a relatively small OIG with limited resources, compared to the approximately \$55 billion that the U.S. Department of Transportation (DOT) spends annually, we are now able to redeploy resources and expertise from our work on Boston's \$14.6 billion Central Artery/Tunnel Project, which is nearly complete.

In response to the extensive devastation caused by the September 11 attacks, the Federal Government dedicated \$4.55 billion for projects to reconstruct and enhance Lower Manhattan's transportation infrastructure. These high-priority projects will require vigilant oversight by DOT, state and local governments, and transit agencies. The projects are massive in scale and will require oversight of

numerous contractors and subcontractors, tracking costs and schedules, and preventing fraud, among other things.

Over the last few years, our management challenges reports to the Secretary and Congress have pointed to the need for the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) to strengthen stewardship over investments in highway and transit projects.¹ As we reported to the Secretary in November 2005, a 1-percent improvement in the efficiency with which states managed the \$700 billion investment in highway projects over the last 6 years would have yielded an additional \$7 billion for other infrastructure improvements. Thus, improving efficiency in even a small percentage of the funds invested in the reconstruction of Lower Manhattan could result in millions of dollars in savings. FHWA and FTA have been working to strengthen their oversight practices.

Other infrastructure projects in the New York Metropolitan area will add to the challenges DOT faces. Significant amounts of Federal funding are also being dedicated to other ongoing transportation projects in the area, most notably the large-scale East Side Access and the Second Avenue Subway projects. Although these projects are not being funded with the \$4.55 billion, they are still large and complex and will need proactive DOT oversight. Adding to the challenge, these transportation projects will have to compete with many other projects in New York City for contractors, workers, and materials—making it even more important to focus on sound project and financial management. Overall, within the next 5 years, more than \$20 billion in construction work will likely be underway in all of Lower Manhattan.

OIG's role in Lower Manhattan will be to provide an *independent* perspective on these projects and the oversight activities of the agencies involved. When our audit work identifies issues, we will alert Federal, state, and local officials—as we have done on many other large transportation projects. When we receive allegations of fraud, we will investigate them and refer cases to the U.S. Attorney. In this regard, our testimony today will focus on the following oversight issues to consider as the reconstruction of Lower Manhattan continues, and key lessons learned that could be applied to other major transportation projects.

- **DOT must ensure active oversight of Lower Manhattan projects until they are completed.** Effective day-to-day oversight of the large, complex transportation projects in Lower Manhattan and across the country is critical to ensuring that projects are completed on time, within budget, safely, and free from waste, fraud, or abuse. FTA has the lead oversight role for DOT on Lower Manhattan reconstruction and will be challenged by providing sufficient

¹ Report PT-2006-007, *DOT's 2006 Top Management Challenges*, November, 18 2005. The report can be accessed on our website at <http://www.oig.dot.gov/item.jsp?id=1701>.

oversight of the projects involved. Accordingly, as part of the Federal commitment, FTA has received nearly \$90 million of dedicated funding to do so.

To carry out its oversight responsibilities in Lower Manhattan, FTA has created a special oversight office, the Lower Manhattan Recovery Office. The Lower Manhattan Recovery Office is separate from FTA's New York field office and its sole purpose is to oversee these high priority projects in Lower Manhattan. The Lower Manhattan Recovery Office should employ all of the oversight mechanisms and expertise at its disposal to closely monitor these projects and, most importantly, quickly mitigate problems as they arise. Doing so will help ensure that the projects are delivered in a timely manner and within the federally funded amount.

In over view, it is critical in any future disaster that the Federal agency or agencies in charge of reconstruction receive, as part of the emergency funding, *a sufficient and dedicated amount of funding* to provide oversight.

- **Key lessons learned by our investigators are that Federal, state, and local law enforcement agencies must build coalitions to combat fraud in large transportation projects and take aggressive action against those who defraud the government.** History has shown that substantial infusions of funding into an area for relief and/or reconstruction efforts, such as those related to the September 11, 2001 attacks, increase the risk of fraud. Our special agents have investigated criminal schemes nationwide on large transportation projects like those in New York City, including false claims for materials and labor, product substitution, collusive bidding, money laundering, tax fraud, bribes, schemes involving disadvantaged business enterprises, and, in some instances, payoffs to organized crime.

Since 1999, our New York Office has conducted approximately 31 investigations related to highway and transit construction/infrastructure projects in the New York City Metropolitan area. Since 1999, these cases have produced 42 indictments, 26 convictions, and actual or pending financial recoveries of over \$33 million. Our work has also resulted in Federal debarments or suspensions of numerous companies. For example, the owners of three family-owned construction firms in the New York Metropolitan area were debarred in 2002 for 3 years by FHWA. Also, following their 2001 guilty pleas they were ordered to forfeit \$5 million for their part in a large scam involving payoffs to organized crime.

Our investigative work in New York and across the country offers important lessons learned to help combat schemes like these.

First, build coalitions with other Federal, state, and local law enforcement agencies—as well as program officials—to prevent and detect fraud. Building these coalitions allows law enforcement and investigative agencies, as well as program officials, to leverage resources, share information and expertise, and undertake joint initiatives. This is already underway in Lower Manhattan with the Lower Manhattan Construction Integrity Team (LMCIT), which was an idea suggested by the Lower Manhattan Development Corporation. We were a founding member of this group, which was formally started in 2004 to prevent fraud in Lower Manhattan publicly-funded projects. Members now include a comprehensive range of Federal, state, and local agencies. This group has developed an array of measures for the prevention of fraud, including recommended practices for the process of vetting potential contractors, information sharing, fraud awareness training for contractors' supervisors and managers, employee screening and access control to the World Trade Center site, and use of integrity monitors.

Second, take aggressive action to combat fraudulent activity and have strong policies in place to send a message that defrauding the U.S. Government will not be tolerated. There are many ways to take aggressive action to prevent fraud and protect tax payer dollars. For one, Federal, state, and local program staff should always be alert to possible instances of fraud and use existing mechanisms, such as fraud hotlines, to report suspected fraud early on. Timely reporting of possible fraud is critical so allegations may be promptly investigated. For example, we maintain a hotline that can be accessed at <http://www.oig.dot.gov/Hotline>. Tips specifically related to Lower Manhattan projects can be submitted at <http://www.lowermanhattan.info/>.

It is important that when investigators identify fraud and collect sufficient evidence related to criminal schemes or civil fraud that the U.S. Attorney's Office act upon it. In some instances, they should accept cases for prosecution that may not otherwise meet their prosecutorial threshold (e.g., the dollar amount of the fraudulent activity) as a deterrent to others who might attempt to defraud the government.

Finally, in 2005, Secretary Mineta signed a DOT-wide order strengthening the Department's suspension and debarment policies. Such policies prevent individuals or contractors who have been indicted or convicted of fraud from receiving Federal contracts for a period of time. We believe that such policies are critical to protecting tax payer dollars from irresponsible contractors.

- **A key lesson learned from our auditors is that a set of sound management and oversight tools should be used by Federal, state, and local agencies to ensure that large transportation projects are completed effectively and efficiently.** These tools are fundamental and universally applicable to all federally funded transportation projects. It will be important to rigorously employ them in the reconstruction of Lower Manhattan.

They include ensuring that sound project and financial management practices are in place, preparing reliable cost estimates, carefully managing project schedules to minimize costly delays, implementing more cost-effective engineering alternatives, and recovering overpayments from contractors and promptly resolving construction claims. Because the total Federal funding allocated to the various Lower Manhattan projects is currently fixed, it will be even more critical for Federal, state, and local officials to have reliable cost estimates and track them closely.

The Lower Manhattan Recovery Office has adopted a risk management approach to keep costs within estimates. This risk analysis process was applied early in project development to focus on identifying and mitigating project risks and keeping costs within the Federal funding allocated for each project. If higher costs are estimated along the way, FTA requires the grantee to develop a recovery plan to find ways to keep costs within the funding allocations. This is a smart move. Such a cost containment action already occurred on the Fulton Street project, requiring a project-wide cost recovery plan to address such budget issues as remaining real estate acquisition and tenant relocations, a possible re-design of the Transit Center, and environmental requirements for building deconstruction. Unless costs are aggressively controlled, the costs could easily exceed the \$4.55 billion currently allocated by the Federal Government, and it is not clear what funding sources would cover those increased costs.

DOT Must Ensure Active Oversight of Lower Manhattan Projects Until They Are Completed

The Federal Government dedicated \$4.55 billion to fund large-scale projects to reconstruct and enhance Lower Manhattan's transportation infrastructure. Of this amount, \$2.75 billion came from the Federal Emergency Management Agency (FEMA) and \$1.8 billion came from FTA. Through an agreement with FEMA, FTA was given lead responsibility for distributing and overseeing the use of the \$4.55 billion.

The ongoing projects are the Permanent World Trade Center PATH Terminal, Fulton Street Transit Center, South Ferry Terminal Station, the World Trade Center Vehicle Security Center, and the Route 9A/West Street/Promenade

highway project (FHWA also dedicated some funding to this highway project in addition to the portion being funded out of the \$4.55 billion and FHWA has oversight responsibilities as well). More information on these projects is provided in the exhibit at the end of my statement.

Of the \$4.55 billion, nearly \$90 million has been dedicated to FTA's oversight activities. We support this move and believe a dedicated funding stream for Federal agency oversight should be replicated in any funding decisions for future disasters and emergencies.

DOT agencies—whether it is FTA or FHWA—should serve as a key line of defense in protecting tax payer dollars. In 2002, FTA created the Lower Manhattan Recovery Office separate from its New York regional office, which is unique within FTA. The Lower Manhattan Recovery Office is responsible for coordinating DOT resources and working with state and local partners to provide project oversight and technical assistance. We supported the creation of this office at the time and it may be a model to consider should future disasters necessitate massive transportation-related reconstruction.

FTA's Lower Manhattan Recovery Office has hired several contractors to assist in its oversight responsibilities. For example, it hired a financial management oversight contractor (FMOC), which was used at the beginning of the projects to review the financial statements, accounting systems, and internal financial management of grantees. Currently, the FMOC is used on an as-needed basis. It also hired project management oversight contractors (PMOC) who are charged with regularly monitoring major transportation projects and providing feedback to Federal officials should any problems arise. This is an institutionalized approach at FTA. The Lower Manhattan Recovery Office's strategy has been to provide one PMOC to each grantee. For example, there is a PMOC for the New York State Metropolitan Transportation Authority's (MTA) Fulton Street Transit Center and South Ferry Station projects. The PMOC for each project is charged with conducting risk assessments for projects, reviewing cost and schedules, and assessing each grantee's plans for the project. Lower Manhattan Recovery Office staff told us the PMOCs attend grantee meetings and report back to them, conduct on-site reviews several times a week to look at construction materials, and review quality assurance on the project. A key point is that the Office must ensure that it fully analyzes the results of the contractors' reports, take action where appropriate, and exercise its own oversight role in addition to the contractors' work.

A PMOC may also contract with other experts, as needed, to assist in performing certain important duties. For example, the Lower Manhattan Recovery Office determined that its PMOC on the Fulton Street Transit Center did not have expertise to ensure that MTA met the requirements of the Federal Relocation

Assistance Act. Accordingly, the Lower Manhattan Recovery Office directed the PMOC to hire an outside consultant to evaluate MTA's relocation program for businesses and residents who are being displaced by construction of the Fulton Street Transit Center.

Key Lessons Learned by Our Investigators are That Federal, State, and Local Law Enforcement Agencies Must Build Coalitions to Combat Fraud in Large Transportation Projects and Take Aggressive Action Against Those Who Defraud the Government

History has shown that substantial infusions of funding into an area for relief and/or reconstruction efforts, such as those related to the September 11, 2001 attacks, increase the risk of fraud. Our special agents have investigated criminal schemes associated with transportation projects across the country, including false claims for materials and labor, product substitution, collusive bidding, money laundering, tax fraud, bribes, schemes involving disadvantaged business enterprises, and, in some instances, payoffs to organized crime.

Since October 2002, our nationwide investigations related to surface transportation projects have resulted in 150 indictments, 91 convictions, \$57.64 million in fines, restitutions, and recoveries, and 94 suspensions or debarments. It is important to consider that investigating and collecting sufficient evidence to support prosecution of white collar crimes like these is a labor intensive process that, in some cases, can take years.

The following examples illustrate the types of schemes we have detected on major transportation projects across the country, which investigators, program officials, and even the public should watch for in future projects.

- **Payoffs.** The owners of three family-owned construction firms in the New York Metropolitan area were debarred in 2002 for 3 years by FHWA. Also, following their 2001 guilty pleas they were ordered to forfeit \$5 million for their part in a large scam involving payoffs to organized crime. They issued corporate checks to subcontractors as payment for fraudulent invoices. These payments were then returned to them as cash.
- **Product substitution.** Our investigators worked with the Federal Bureau of Investigation (FBI), as well as state and FHWA officials, on a case involving a Connecticut concrete manufacturer that was fined and forced to pay restitution for falsely certifying that concrete catch basins used on a major highway project met contract specifications. The manufacturer pled guilty in 2005 and was fined and forced to pay restitution totaling half a million dollars.

- **Bid-rigging.** Four executives of two Wisconsin contractors, both of their companies, and an employee of a third company were sentenced in 2005 to a combined total of over \$3 million in fines and restitution and imprisoned, for a bid-rigging scheme. Competitors unlawfully decided who was to receive which roadway or airport job. They submitted complementary bids to create the false appearance of competition on approximately \$100 million in publicly-funded projects.
- **Bribery.** In one of our joint cases in New York City, the co-owner of a prime contractor pled guilty in 2006 to conspiring to bribe an inspector to facilitate approximately \$1 million of over-billing on a roadway milling contract. As part of the plea agreement, the defendant and his company agreed not to bid on any Federal, state or city-funded project for a period of 5 years.
- **False Statements.** Several Ohio transportation inspectors were convicted during 2003-2005 for making false statements regarding the quantity and/or quality of bridge-painting work performed by contractors on Federal-aid projects. The inspectors received illegal payments to overlook improprieties, such as the use of inferior paint and failure to properly sandblast or contain lead and hazardous paint waste.
- **Prevailing Wage Fraud.** The largest highway landscaping company in Minnesota, which was the prime contractor on over \$4 million in federally funded highway construction projects as well as a subcontractor on numerous others, and its president, were sentenced in 2006 for conspiring to defraud the government by creating and certifying false records that concealed its failure to pay workers at the prevailing wage rate.
- **Disadvantaged Business Enterprise (DBE) Fraud.** A certified DBE firm in New York was found to have been used as a “false front” on about 3 dozen sub-contracts valued at approximately \$21 million and submitted false certified payrolls. In 2001, the principal of the company pled guilty to conspiracy charges in the case.

Our investigative work in New York and across the country offers important lessons learned to help combat schemes like these.

First, build coalitions with other Federal, state, and local law enforcement agencies—as well as program officials—to prevent and detect fraud. Building broad, interagency coalitions allows law enforcement and investigative agencies, as well as program officials, to share information, leverage expertise and resources, and undertake important joint initiatives. States and localities are the first line of defense against fraud and the Federal law enforcement community should work closely with them. Also, law enforcement should work closely with program officials at all levels of government, who can be the first to detect early indications of fraudulent activity. We are involved in a number of collaborative partnerships across the country and two in the New York City Metropolitan area

are worth mentioning as key success stories that could be replicated elsewhere. Accordingly, we have tried to spread the word about these initiatives to other parts of the country.

- For example, we are founding partners in an interagency working group, the Lower Manhattan Construction Integrity Team (LMCIT). It was established in 2004 at the suggestion of the Lower Manhattan Development Corporation to prevent fraud in Lower Manhattan publicly-funded projects. The group has grown and now includes a comprehensive range of oversight agencies. In addition to us, it includes the Lower Manhattan Construction Command Center, the Lower Manhattan Development Corporation, the New York City Department of Investigation, the New York City Business Integrity Commission, the New York State OIG, the New York State Metropolitan Transportation Authority's OIG and Chief Compliance Officer, the OIG of the Port Authority of New York and New Jersey, and the OIGs of the U.S. Departments of Labor and Housing and Urban Development (HUD).

LMCIT has developed a range of measures for the prevention of fraud, including best practices for the process of vetting potential contractors, information sharing, fraud awareness training for contractors' supervisors and managers, employee screening and access control to the World Trade Center site, and the use of integrity monitors (also referred to as IPSIGs, or Independent Private Sector Inspectors General) to supplement existing oversight resources. LMCIT members also share a joint fraud complaint hotline, which can be accessed at <http://www.lowermanhattan.info/>.

- Further, since 1999, we have been a founding member of the Long Island Federal Construction Fraud Task Force, established by the U.S. Attorney for the Eastern District of New York. This Task Force was organized to coordinate investigations into fraud and public corruption in the construction industry on Long Island. The Task Force presently consists of prosecutors and agents from our Office of Investigations, the Internal Revenue Service Criminal Investigation Division, Department of Labor OIG, FBI, the Postal Inspection Service, the New York City Department of Investigation, and the OIG of the Port Authority of New York and New Jersey. Of the approximately 22 pending New York City Metropolitan-area construction investigations in our New York Office, more than half are being conducted under the auspices of this Task Force.

The impact of the work of the Long Island task force extends beyond the New York City Metropolitan area. The unprecedented success of the Task Force has led to repeated requests that its members participate in speaking engagements, presenting insights, investigative strategies, and techniques to

other law enforcement and oversight organizations. To date, members of the Task Force have participated in 14 conferences in 10 states.

- The importance of building coalitions among Federal, state, and local law enforcement agencies can also be seen in the areas affected by Hurricane Katrina. For example, we and other Federal OIGs are fully integrated into the Hurricane Katrina Fraud Task Force, which was created by the Attorney General of the United States to detect and deter fraud against the U.S. Government in efforts to rebuild the Gulf Coast and provide emergency relief for the residents there. The Task Force has mobilized to bring prosecutions as quickly as possible to send a strong message of deterrence. We are also an active member of a special task force headed by the U.S. Department of Homeland Security OIG that coordinates the Hurricane Katrina-related auditing and investigative activities of the other Federal OIGs.

We believe it is important that our investigative activities in the areas devastated by Hurricane Katrina are coordinated, information is shared, and that we maximize our limited resources. Our agents have conducted approximately 50 fraud awareness briefings for various oversight providers, FHWA, state transportation department staff, and trade association officials as part of our hurricane-related fraud prevention activities.

Second, take aggressive action to combat fraudulent activity and have strong policies in place to send a message that defrauding the U.S. Government will not be tolerated. Recognizing the fraud risks inherent in large-scale construction projects, it is critical that investigative agencies at all levels of government take aggressive action to combat fraud and abuse of government funds.

- In 2005, Secretary Mineta signed a DOT-wide order strengthening the Department's suspension and debarment policies. Such policies prevent individuals or contractors who have been indicted or convicted of fraud from receiving Federal contracts for a period of time. We believe that such policies are critical to protecting tax payer dollars from irresponsible contractors. Secretary Mineta deserves great credit for pushing for these improvements and for focusing on reducing fraud, waste, and abuse in DOT programs. It is important for all Federal agencies to evaluate their suspension and debarment policies and assess what steps can be taken to strengthen them.
- There are other ways to take aggressive action to prevent fraud and protect tax payer dollars. For one, Federal, state, and local program staff should always be alert to possible instances of fraud and utilize existing mechanisms to report suspected fraud early on. Timely reporting of possible fraud is critical so allegations may be investigated by law enforcement officials and, if warranted, they may take prompt action. Such fraud reporting mechanisms include

internal agency procedures or fraud hotlines. We believe that program staff and investigators should always maintain an open flow of information. For example, we maintain a waste, fraud, and abuse hotline that can be accessed at <http://www.oig.dot.gov/Hotline>.

- Finally, it is important that when investigators identify fraud and collect sufficient evidence related to criminal schemes or civil fraud that the U.S. Attorney's Office act upon it. For example, in 2003, the United States Attorney in Manhattan announced the arrests of two individuals for devising schemes to fraudulently obtain HUD September 11-related grant funds of \$5,316 and \$3,750. Even though the amount of money involved in the fraud was relatively small, actions like these send a message to those considering similar schemes.

In another example, at the direction of the Attorney General, U.S. Attorneys have been aggressively prosecuting individuals who engage in Hurricane Katrina-related fraud, for example, through debit cards issued to hurricane victims to pay for recovery costs, even though the individual dollar amounts involved are relatively low. In some cases, it is important for the U.S. Attorney's Office to accept cases for prosecution that may not otherwise meet their prosecutorial threshold (e.g., the dollar amount of the fraudulent activity) as a deterrent to those who might attempt to defraud the government.

A Key Lesson Learned from Our Auditors is That a Set of Sound Management and Oversight Tools Should Be Used by Federal, State, and Local Agencies to Ensure That Large Transportation Projects are Completed Effectively and Efficiently

Based on our years of work auditing major transportation projects across the country, we believe a set of sound management and oversight tools should be considered wherever major construction occurs. These tools are fundamental and universally applicable to all federally funded transportation projects. It will be important to rigorously employ them in the reconstruction of Lower Manhattan.

Prepare reliable cost estimates. In some cases, project approvals may be secured on the strength of cost estimates prepared before the design package is substantially complete and which contain figures that are far too preliminary. In the past, we have found that cost estimates for major projects did not include such routine items as construction management, design, allowances for inflation, or contingency reserves. Great care must be taken to assure that these preliminary cost estimates are understood for what they are, and that they do not serve as the predicate for project approval unless they are thoroughly examined and found to be reliable and complete.

Over the years, we have reported on dramatic increases in the costs of highway and transit projects—in some cases after construction had begun and they had already received significant Federal funding. A recent example of unreliable cost estimating on the highway side is the San Francisco-Oakland Bay Bridge (East Span) project, where costs nearly doubled from \$2.6 billion to \$5.1 billion. Also, the finance plans for the Project had not been thoroughly reviewed as envisioned by FHWA guidance. On the transit side, we reported in 2001 that the cost estimates for the Seattle Central Light Rail Link Project went from \$2.5 billion to \$4.1 billion in just 7 months.

Because the Federal funding allocated to the various Lower Manhattan projects is currently fixed, it will be even more critical for Federal, state, and local officials to have reliable cost estimates and track them closely. In addition, these high-priority projects are on a very fast track and in some cases designs have been altered along the way. Thus, it is important to maintain reliable cost estimates and update them as events change. FTA officials told us they are aggressively using a risk management approach to keep costs within estimates and that risk analysis was applied early in project development. If higher costs are estimated along the way, FTA requires the grantee to develop a recovery plan to find ways to keep costs within the funding allocations. Such a cost containment action already occurred on the Fulton Street project, requiring a project-wide cost recovery plan to address such budget issues as remaining real estate acquisition and tenant relocations, a possible re-design of the Transit Center, and environmental requirements for building deconstruction. Unless costs are aggressively controlled, the costs could easily exceed the \$4.55 billion currently allocated by the Federal Government, and it is not clear what funding sources would cover those increased costs.

Focus on Project Management and Financial Oversight of Transportation Projects. Early and continuous oversight by Federal agencies of states' project and financial management practices are key to controlling project costs, preventing delays, and reducing the potential for safety and environmental problems. FTA and FHWA have different approaches to overseeing large transportation projects.

- **Transit Projects.** FTA has institutionalized the use of project management oversight contractors (PMOCs) and financial management oversight contractors (FMOCs) to oversee large transit projects and to report to its in-house staff on findings and needed corrective actions. They are third-party contractors who look at FTA-funded projects in accordance with FTA guidance. FMOCs are used to evaluate a grantee's financial condition and its financial capability to construct, operate, and maintain a project. A PMOC is retained by FTA to evaluate a grantee's technical capacity to build, operate,

and maintain a project, and to monitor the grantee's implementation of a project. This is essentially a sound approach that can provide early warnings of cost, schedule, and quality problems.

In addition, FTA requires that grantees submit a project management plan. The plan, submitted in support of an application for a full funding grant agreement, demonstrates a grantee's technical capacity to build, operate, and maintain the project, together with the grantee's existing transit system. A project management plan is an evolving document, first prepared during preliminary engineering, which follows a project through final design, construction, and revenue operations.

We have seen both the strengths and the weaknesses of the PMOC program in our work on Puerto Rico's Tren Urbano project in 2000 and 2002. Our May 2000 review of Tren Urbano found that the PMOC had discovered and raised important schedule and construction quality issues. However, during our March 2002 audit we found that Tren Urbano officials consistently reported that the estimated cost of the project was \$1.9 billion. We discovered that the estimated costs had actually increased by 10 percent, but the PMOC had accepted Tren Urbano's prior representations without checking them. All of the Lower Manhattan transit projects have a PMOC assigned to them and an FMOC is retained on as-needed basis, which is critically important. FTA should ensure that the PMOCs are aggressively monitoring the projects and that recommendations made by the PMOCs are fully analyzed by the Lower Manhattan Recovery Office and expeditiously addressed.

- **Highway Projects.** Historically, FHWA focused on detailed engineering activities and not on project management and financial oversight. FHWA performed contract-level administration and engineering activities, such as approving contract change orders. Over the past several years, FHWA has taken important steps to change its focus.

As we noted in our DOT 2006 Top Management Challenges report (issued in November 2005), we have seen positive signs that FHWA is committed to improving its oversight of transportation dollars and is implementing new oversight programs. For example, FHWA has established a new Financial Integrity Review and Evaluation program. This program calls for FHWA division offices in each state to perform oversight of state management practices, including assessing management risks, reviewing financial management processes, and spot checking a sample of payments on highway projects to ensure that Federal funds are properly managed. Sustained and effective implementation of this should be a priority for FHWA.

Moreover, Congress also made several important changes in the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) that are intended to strengthen FHWA oversight. For example, finance plans are required for projects exceeding \$100 million in total cost. Another change is that the \$1 billion threshold defining major projects was lowered to \$500 million. Such major projects are now required to have project management plans *in addition* to the previously required finance plans. We strongly support these actions.

The purpose of the new project management plan program is to serve as a “roadmap” to help the project delivery team maintain a constant focus toward delivering the major project in an efficient and effective manner by clearly defining the roles, responsibilities, processes, and activities. The project management plan is supposed to be a living document in which revisions will be issued as the project progresses in order to add, modify, or delete provisions that will result in the most effectively managed project. These revisions and updates to the project management plan will occur prior to issuing the environmental decision, prior to authorization of Federal-aid funds for right of way acquisition, and prior to authorization of Federal-aid funds for construction.

Prepare Finance Plans to Identify Cost, Schedule, Funding and Risks to a Project. A finance plan is a management tool that is vital in providing project managers and the public with information on how much a project is expected to cost, when it will be completed, whether adequate funding is committed to the project, and whether there are risks to completing the project on time and within budget. Regularly updated finance plans provide current information about project costs, financing, schedule, and technical issues to enable Congress, the Department, states, project managers, and the public to continually evaluate the progress of a project. Recognizing how significant and critical this basic oversight tool is, in SAFETEA-LU Congress changed FHWA’s policy regarding finance plans. Previously, only Major Projects (those over \$1 billion at the time) were required to have finance plans. Now, all projects over \$100 million will be required to have finance plans. This was a positive move.

While the transit projects under the Lower Manhattan Recovery Office’s supervision are not required to have finance plans, the office has implemented construction agreements. According to FTA, these agreements were implemented to help expedite these projects and are analogous to a finance plan. Construction agreements delineate key terms of the projects, including development and recovery plans. The construction agreement for each project is reviewed frequently and must have: (1) a recovery plan, (2) risk assessment process, and (3) a project reserve.

One of the five projects in Lower Manhattan (Route 9A) is mostly a highway project that is being managed by FHWA—even though it is being partially funded with FTA dollars. FTA and FHWA have entered into two memoranda of agreement laying out the types of oversight that FHWA will be expected to provide, which are different from FHWA’s regular oversight mechanisms and more similar to the forms of oversight that would typically be found on an FTA project, including a PMOC on the Route 9A Project, which it normally would not do. FTA’s agreement with FHWA stipulates that this project must have a finance plan.

Implement More Cost-Effective Engineering Alternatives. Since 1970, many industries and Government agencies have successfully employed value engineering programs to control costs on major projects. The purpose of these programs is to objectively review all reasonable alternatives during the design phase to find more cost-effective alternatives. For example, FHWA’s value engineering program, established in 1997, requires that a study be performed on all Federal-aid National Highway System projects with an estimated cost of \$25 million or more and on other projects where using value engineering has a high potential for cost savings.

Some states have been using value engineering effectively. However, our ongoing work on value engineering indicates states could be saving tens of millions of dollars if they would use value engineering studies on more projects and more frequently adopt the recommendations made during studies that are conducted.

FTA also requires value engineering. To its credit, some of the Lower Manhattan Recovery Office-supervised projects have already had such studies performed and the staff told us that recommendations have been implemented. For example, according to Lower Manhattan Recovery Office officials, savings based on accepted value engineering recommendations related to the Fulton Street Transit Center are estimated to be nearly \$67 million.

Manage Project Schedules to Minimize Costly Delays. Transportation projects have become larger and more technically complex in the last decade and require coordination of the activities of multiple contractors working in a confined construction area. Accordingly, managing project schedules is a critical function in efforts to minimize cost growth. The key is to maintain a master schedule that ties together the work of all the contractors and identifies and tracks the costs of labor, material, and equipment resources required to complete each task. Master schedules are referred to as integrated, resource-loaded schedules. These schedules can identify and prevent schedule conflicts before they occur and can track

progress on individual tasks, allowing early action to prevent or mitigate delays, thereby reducing or preventing cost increases.

Failure to maintain integrated resource-loaded schedules has led to unanticipated project delays and increased costs. For example, in the past we reported that the failure to maintain integrated, resource-loaded schedules led to unanticipated delays and increased costs on the Springfield Interchange Project in Virginia, including \$49 million that were added to project costs.

Effectively managing project schedules will be especially important in Lower Manhattan due to the pressing need to get these high-priority projects up and running as quickly as possible and ensure that costs stay within existing Federal allocations. The significance of managing schedules in the case of Lower Manhattan cannot be overstated, as each of these projects is large, complex, has expedited time frames, and will likely require the coordination of numerous contractors and subcontractors all at once. For example, we were informed by FTA that the Permanent World Trade Center PATH Terminal involves four contracts—three relatively small ones and the major construction management/general contractor (CMGC) contract. The CMGC currently has 4 prime contractor firms and at least 10 subcontractors. FTA staff told us they expect the number of subcontractors to grow over time.

Recover Overpayments from Contractors and Promptly Resolve Construction Claims to Control Project Costs. Change orders to contracts are initiated by the project or contractors in response to changes in the project's scope or differing site conditions. However, some change orders are a result of design errors or omissions caused by consultant engineers. Recovery of funds paid on these change orders offers an opportunity to reduce project costs. Maintaining tight control over change orders and promptly resolving outstanding construction claims are key to controlling project costs. Past projects, such as Boston's Central Artery/Tunnel Project, might have been able to significantly reduce costs by aggressively pursuing opportunities to recover costs of design errors or omissions caused by engineering consultants. For example, in 2004 we reported that the Project had 4,805 outstanding claims with a total value of approximately \$194 million, of which 11 percent were over 4 years old.

Timely resolution of change orders is important because the longer the issues remain unresolved, the more difficult it becomes for project managers to determine whether the change orders were caused by design errors or omissions. Maintaining supporting documentation is also critical. In the case of Lower Manhattan, project managers should make sure they have a process in place for aggressively pursuing opportunities for cost recovery in a *timely* fashion to maximize savings. We were informed that the Lower Manhattan Recovery Office

has already performed a change order review on the Fulton Street project and plans to pursue cost recovery in the future, where appropriate.

In conclusion, DOT has a critical role in the reconstruction of Lower Manhattan. Over the past several years, the Department has significantly strengthened its oversight of major transportation projects. Now it is critical that all of us at DOT vigorously employ the oversight tools and resources we have at our disposal and apply the lessons we have learned from past projects to get the most for the taxpayer dollars that have been invested in the reconstruction of Lower Manhattan.

This concludes our prepared remarks. We would be happy to answer any questions you may have.

Exhibit: High Priority Projects Funded with the \$4.55 Billion the Federal Government Dedicated to Lower Manhattan Reconstruction

Project and Description	Project Sponsor & Federal Oversight Responsibility	Baseline Cost Estimate & Funding Sources	Baseline Schedule for Completion
<p>Permanent World Trade Center PATH Terminal. This project will serve the PATH subway system, and includes pedestrian connections to the Fulton Street Transit Center to the east and to the World Financial Center and the World Financial Center Ferry Terminal under Route 9A (West Street) to the west. Additional scope of this project includes the retaining walls at the World Trade Center site, and the security hardening of the transportation facilities.</p>	<p>Port Authority of New York & New Jersey</p> <p>FTA oversees it through the Lower Manhattan Recovery Office</p>	<p>Cost: \$2.2 billion (\$1.92 billion in Federal funding and \$300 million in PANYNJ insurance money)</p>	<p>2011</p>
<p>Fulton Street Transit Center. This project is a multi-level complex of stations to serve 12 different subway lines and over 275,000 daily commuter trips. The existing maze of narrow ramps, stairs and platforms will be transformed, allowing for easier transfers, better access from street level, and will have a direct link to the new PATH Terminal and the World Trade Center site.</p>	<p>New York State Metropolitan Transportation Authority.</p> <p>FTA oversees it through the Lower Manhattan Recovery Office</p>	<p>\$847 million (All Federal funding)</p>	<p>2010</p>
<p>South Ferry Terminal Station. This project will replace the functionally obsolete station under Battery Park that serves Staten Island Ferry riders. The project will convert the single track, 5-car loop station into a 2-track, 10-car, stub end two-platform terminal with new access for disabled riders and better connections to the renovated Staten Island ferry terminal and the R and W subway lines.</p>	<p>New York State Metropolitan Transportation Authority.</p> <p>FTA oversees it through the Lower Manhattan Recovery Office</p>	<p>\$420 million (All Federal Funding)</p>	<p>2008</p>
<p>Route 9A Promenade South/ West Side. This project will rebuild the major north-south arterial roadway in Lower Manhattan between Chambers Street and Battery Place, with the southern end of the project known as Promenade South. The eastern sidewalk will be widened where feasible to improve accessibility, provide street trees, and add aesthetic enhancements. On the west side, along the new Promenade and adjacent to Battery Park City, a series of unique urban spaces are envisioned and are being developed for varied uses.</p>	<p>New York State Department of Transportation.</p> <p>FTA's Lower Manhattan Recovery Office and FHWA share oversight responsibilities through memoranda of agreement</p>	<p>\$352 million (All Federal Funding)</p>	<p>2009</p> <p>[Note: a small section of this project has been substantially completed.]</p>
<p>World Trade Center Vehicle Security Center. This project is a vehicle security-screening center for the World Trade Center site. The security center will screen all vehicles for security threats and will be a vital component to the World Trade Center Master Plan.</p>	<p>New York State Metropolitan Transportation Authority.</p> <p>FTA oversees it through the Lower Manhattan Recovery Office</p>	<p>\$478 million (All Federal funding)</p>	<p>2010</p>