THROUGH THESE DOORS WALK ONLY THE FINEST PEOPLE – THE CITIZENS OF ESCAMBIA COUNTY. DECISIONS ARE MADE IN THIS ROOMAFFECTING THE DAILY LIVES OF OUR PEOPLE. DIGNIFIED CONDUCT IS APPRECIATED.

CHAMBER RULES

1. IF YOU WISH TO SPEAK, YOU WILL BE HEARD.
2. YOU MUST SIGN UP TO SPEAK. SIGN-UP SHEETS ARE AVAILABLE AT THE BACK OF THE ROOM.
3. YOU ARE REQUESTED TO KEEP YOUR REMARKS BRIEF AND FACTUAL.
4. BOTH SIDES ON AN ISSUE WILL BE GRANTED UNIFORM/MAXIMUM TIME TO SPEAK.
5. DURING QUASI-JUDICIAL HEARINGS (I.E., REZONINGS), CONDUCT IS VERY FORMAL AND REGULATED BY SUPREME COURT DECISIONS.
6. SEE ORDERLY CONDUCT OF MEETINGS. POLICY.

PLEASE NOTE THAT ALL BCC MEETINGS ARE RECORDED AND TELEVISED

AGENDA
Board of County Commissioners
Special Meeting –February 17, 2015– 9:00 a.m.
Ernie Lee Magaha Government Building – First Floor

1. Call to Order.

   (PLEASE TURN YOUR CELL PHONE TO THE VIBRATE, SILENCE, OR OFF SETTING)

2. Pledge of Allegiance to the Flag.

3. Was the Meeting Properly Advertised?

4. Are there any items to be added to the agenda?

   Recommendation: That the Board adopt the agenda as prepared **(or duly amended).**

5. Discussion Concerning Escambia County Area Transit Issues - Joy D. Blackmon, P.E., Public Works Department Director

That the Board consider the following Escambia County Area Transit Agenda Items for discussion. At the request of the Board, staff has put together the following Agenda Items:

A. Incentivizing Contract

- Options (See provided Contract excerpts and on-line documents)

B. Amenities Program

- Background
- Current Contract
- Moving Forward
    - Existing Purchases
    - Contract Expiration
    - Future Plans

C. Paratransit (CTC)

- Background
- Current Service
- Medicaid

6. Adjourn.

BOARD OF COUNTY COMMISSIONERS
Escambia County, Florida

Special BCC Meeting **5.**
Meeting Date: 02/17/2015
Issue: Escambia County Area Transit
From: Joy D. Blackmon, P.E., Department Director
Organization: Public Works
CAO Approval:

Information

RECOMMENDATION:

Discussion Concerning Escambia County Area Transit Issues - Joy D. Blackmon, P.E., Public Works Department Director

That the Board consider the following Escambia County Area Transit Agenda Items for discussion. At the request of the Board, staff has put together the following Agenda Items:

A. Incentivizing Contract

- Options (See provided Contract excerpts and on-line documents)

B. Amenities Program

- Background
- Current Contract
- Moving Forward
  - Existing Purchases
  - Contract Expiration
  - Future Plans

C. Paratransit (CTC)

- Background
- Current Service
- Medicaid

BACKGROUND:

The Board of County Commissioners scheduled a special meeting to review issues concerning the Escambia County Area Transit.

Escambia County staff has put together the following proposed Agenda for discussion items:

A. Incentivizing Contract

- Options (See Attached Contract Excerpts and On-line Documents)

B. Amenities Program

- Background
- Current Contract
- Moving Forward
    - Existing Purchases
    - Contract Expiration
    - Future Plans

C. Paratransit (CTC)

- Background
- Current Service
- Medicaid

BUDGETARY IMPACT:

N/A

LEGAL CONSIDERATIONS/SIGN-OFF:

N/A

PERSONNEL:

N/A

POLICY/REQUIREMENT FOR BOARD ACTION:

N/A

IMPLEMENTATION/COORDINATION:

N/A

Attachments

Proposed Agenda
Sample 1 - Perf Incentives
Sample 2 - Perf Incentives
Sample 3 - Perf Incentives
High Level Transit Perf

Contractor Perf Incentive Report

Escambia County Board of County Commissioners
Special BCC Meeting – 02/17/14
Proposed Agenda

A. Incentivizing Contract

- Options (See Attached Contract Excerpts and On-line Documents)

B. Amenities Program

- Background
- Current Contract
- Moving Forward
    - Existing Purchases
    - Contract Expiration
    - Future Plans

C. Paratransit (CTC)

- Background
- Current Service
- Medicaid

III. Standards

A. On-Time Performance:

CONTRACTOR will provide 95% of the scheduled trips on-time. A pick-up is considered on-time if the vehicle arrives at the point of origin within the scheduled pick- up window. Trips scheduled for same-day service are excluded from on-time performance standards.

B. Passengers per Revenue Hour (PPH):

Within the first six months of this Contract, JTA intends to implement Curb-to-Curb service and reservations trip time negotiations as allowed by the Americans with Disabilities Act (ADA), and to modify software parameters based on service demand and potential efficiencies

1. Until these service improvements have been implemented, the performance standard for passengers per Revenue Hour (PPH) will be reviewed and revised by the JTA every three months.
2. For the first three months of this Contract, November 1, 2007 through January 31, 2008, the CONTRACTOR will maintain an overall month Passengers per Revenue Hour (PPH) average of 1.75 PPH.
3. For the second three months of this Contract, February 1 through April 30, 2008, the CONTRACTOR will maintain an average of 1.90 PPH.

C. In-Vehicle Passenger Time

95% of scheduled trips shall be completed in accordance with the following standards:

1. If a passenger's straight line, point to point trip distance is ten miles or less, maximum in-vehicle time will not exceed 60 minutes.
2. For trips 10-20 miles, the maximum in-vehicle time will not exceed 90 minutes.
3. For trips over 20 miles, the maximum in-vehicle time will not exceed 120 minutes.
4. Drive time may exceed these standards for cross-country or out of county trips,

D. Complaints

The JTA will provide written notice of complaints against the operations or the employees of the CONTRACTOR. If the CONTRACTOR does not submit a response and investigation of the complaint to JTA within a 72 hour period (excluding weekends and holidays) the CONTRACTOR will be assessed a fine of $50.00 per occurrence, unless the CONTRACTOR has asked JTA and JTA has granted a time extension in writing before the 72 hour response period has expired.

1. For each month that valid complaints against the CONTRACTOR is below 0.15% of passenger trips performed by the CONTRACTOR, the CONTRATOR shall receive an incentive of $500.00.
2. For each month that valid complaints against the CONTRACTOR exceed 0.25% of total passenger trips, liquidated damages of $500.00 will be applied.

E. Driver Manifests

If, through no fault of the JTA or software connectivity provided by the JTA, the CONTRACTOR does not complete and return the driver's day's manifest within 72 hours, the Carrier will be assessed $20.00 fine per day manifest until manifests are received by JTA.

F. Mechanical Breakdowns

If the carrier is not able to recover a route within 60 minutes of a mechanical breakdown, the CONTRACTOR will be assessed a $100.00 fine. If the breakdown occurs more than 20 miles from the CONTRACTOR'S facility, the fine will not be assessed provided the CONTRACTOR responds within 90 minutes from the occurrence.

G. Accidents

If within 60 minutes of notification of the accident by the dispatcher the CONTRACTOR cannot recover the route, a fine of $100.00 will be assessed per occurrence. If the accident occurs more than 20 miles away from the CONTRACTOR'S maintenance facility, the fine will not be assessed provided the CONTRACTOR responds within 90 minutes from occurrence.

H. Failure to Report Accidents and Serious Incidents

CONTRACTOR shall be assessed a charge of $1,000 per incident (maximum of $2,000 per month) for failure to contact JTA'S dispatcher immediately upon knowledge of a serious service disruption or incident or failure to have a Road Supervisor or qualified designee available to respond to an accident, injury, or customer service incident. A Serious Incident is defined as an incident in which media responded (no matter how large or small of an incident) when such media response was known to CONTRACTOR; an accident resulting in death or serious injuries to any party (serious injury meaning the party was transported away from the scene in an ambulance); a passenger illness or incident where 911 rescue is required, or stranding a passenger. CONTRACTOR shall also notify JTA's office in writing of the incident within 60 minutes.

I. Radio Communication

If the driver has the ability, but does not communicate with dispatch within 20 minutes without approval of the JTA's Dispatcher, the CONTRACTOR will be assessed a fine of $50 per occurrence.

J. Productivity Rate and Productivity Based Incentive

Monetary award amount during performance is added to the contract to provide motivation for excellence in such areas as service quality, timeliness, technical ingenuity, and cost-effective management. The amount of the award to be paid is determined by the JTA. The CONTRACTOR shall establish an incentive award sharing program that shares equally the incentive awards paid by the JTA to the CONTRACTOR for excellence with the employees of said CONTRACTOR. The CONTRACTOR shall submit a plan that shows how their incentive award sharing program will be carried out over the term of the contract.

1. Each year the JTA will establish a ride productivity goal for the year
2. For each incremental increase in the system productivity rate ($ per Revenue Hour) of one hundredth of a percent (.01%), the pool of CONTRACTORS shall be paid a flat bonus of $1,000
3. The productivity standard shall be calculated based upon the prior three months of service (including the month being invoiced). No productivity award bonus will be paid unless the JTA's annual productivity goal has been exceeded for the (3) month average. N productivity award bonus will be paid if average system on-time performance for the three month period falls below 90%.
4. This amount shall be allocated to each contractor in proportion to the percentage of total revenue service hours provided for the month being invoiced. Once a bonus payment has been paid, it establishes a new productivity standard. No further productivity award bonus payments will be made until productivity increases again.

K. Accidents

Each month a CONTRACTOR's drivers have no preventable accidents it shall be awarded $500.

L. Pull Outs

Each month a CONTRACTORE meets all the scheduled pull-out times it shall be awarded $500.

M. Missed Trips

Fifty dollars ($50) shall be charged to the CONTRACTOR for each instance of missed ride. A "missed trip" is defined as any trip that is one (1) hour or more late.

N. Routes Turned Back

Any route that is turned back by a CONTRACTOR to the JTA where less than 48 hours is given, the CONTRACTOR shall be charged 1.5 times the RSH cost for service to be provided by an alternate CONTRACTOR or overflow operator.

O. Climate Control

If a revenue vehicle does not have a properly working air-conditioning or heating unit as provided for in the scope of work, the CONTRACTOR shall notify JTA immediately. If CONTRACTOR fails to notify JTA, CONTRACTOR will be assessed a $50 fine for the first occurrence in a 30 day period, and $100 for each additional occurrence for the same vehicle within a 30 day period. A fine will not be assessed in the event the air conditioning or heating fails when the vehicle is in service and is reported immediately to JTA. The standards listed in this Scope of Work shall be used to determine if a violation has occurred.

P. Vehicle Preventative Maintenance

The CONTRACTOR will deliver any revenue vehicle to the JTA Connexion vehicle maintenance facility as required for Preventative Maintenance Inspections to be completed at intervals of no more than 3,000 miles. If any revenue vehicle is delivered to the JTA Connexion vehicle maintenance facility at an interval greater than 3,500 miles, the CONTRACTOR will be assessed $25 for the first occurrence in a three-month period. Thereafter, the fine will be $100 per occurrence.

Q. Vehicle Signage

The JTA may require a vehicle to carry a certain type of vehicle signage. If this occurs JTA will be responsible for the cost of the additional signage. If a revenue service vehicle does not display that signage and it has been made available for the vehicle, the CONTRACTOR will be assessed a $50 fine per occurrence.

R. Vehicle Cleaning Requirements

The CONTRACTOR is required to maintain vehicle cleanliness to the level that dirt or grime is not visible by a person standing 10 feet away from the vehicle during normal daylight hours. If the CONTRACTOR does not follow the cleaning requirements in the Scope of Work, the CONTRACTOR will be assessed a fine of $25 per vehicle per occurrence.

1. CONTRACTOR shall submit to JTA a log indicating compliance with the vehicle cleaning requirements by the fifth working day of the next month. JTA will provide a copy of the log to be used.

S. Minimum Training Standards

If the CONTRACTOR does not follow the minimum refresher training requirements detailed in the

Scope of Work, the CONTRACTOR will be assessed a $100 fine per occurrence.

T. Vehicle Operator Uniform and ID Badge Requirements

If any driver is found not to be in an approved uniform or is found not wearing their name badge while on duty, the CONTRACTOR will be assessed a $50 fine per occurrence, provided JTA has not been informed that a replacement badge is needed.

U. Drug and Alcohol Testing

If the CONTRACTOR is out of compliance with FTA-mandated Drug and Alcohol requirements, the CONTRACTOR shall be assessed a $100 per day per occurrence until such time as the CONTRACTOR is in compliance.

V. Driver Background Checks

If the CONTRACTOR is out of compliance with the background check requirements of the System Safety Program Plan (SSPP) and fails to remedy it's non-compliance within 30 days of notification by the JTA, CONTRACTOR will be assessed a $100 fine per day, per occurrence until such time as the CONTRACTOR is in compliance.

W. Missed Hours

CONTACTOR must be able to meet manifest requirements (defined as departure of a qualified vehicle and driver to perform a JTA assigned manifest within 5 minutes of scheduled time, provided the manifest was scheduled the evening before service. In the event CONTRACTOR cannot operate any manifest assigned to it by JTA, for any reason, then JTA will assess a fine against CONTRACTOR of $50 plus $5 per trip for all trips on original manifest that was assigned to CONTRACTOR, regardless of which CONTRACTOR ends up transporting the client.

X. Mobility Assistance Device Tie Down Failure

If the CONTRACTOR's driver does not secure a wheelchair properly the driver will be required to complete a wheelchair tie down refresher course at the CONTRACTOR's expense. If the CONTRACTOR's driver is found out of compliance for a second time, the carrier will be assessed a $100 fine for each occurrence thereafter. Wheelchair tie down failure will be confirmed either through observation by a qualified JTA staff member or based on the results of the Accident Investigation Report for preventable accidents that were caused by wheelchair tie down failure.

Y. Environmental Hazards (Incidents)

If a driver/employee of CONTRACTOR causes an environmental hazard the following will occur: the driver will be required to complete a "How to Avoid Environmental Hazards" refresher course at the CONTRACTOR's expense: the CONTRACTOR will be assessed a $1,000 fine for each occurrence, exclusive of the cost of Clean Up. The imposition of the above assessment by JTA will not relieve or limit the CONTRACTOR's liability for the actions of its employee or its obligation of indemnity to JTA.

Z. Incentive awards are a judgment evaluation of the Contractor's performance in terms of the criteria listed. The JTA reserves the right not to award bonus payments predicated upon budget conditions, allowances, or other budgetary factors to be determined at the discretion of the JTA.

CONTRACTOR may be eligible for additional incentives through development of route scheduling and increase in productivity. Incentives shall be determined by JTA. None of the above incentives will apply if the on-time performance falls below 92% for that month.

All penalties as stated above may be appealed by the CONTRACTOR to the JTA's Chief of Staff. Such appeal shall be in writing and shall include the explanation why productivity declined. Explanations relating to reasons outside the control of the CONTRACTOR shall result in a waiver of penalties. Examples of such explanations shall include adverse weather conditions, traffic accidents, or other unusual traffic. These examples are not intended to be all inclusive. The determination of the JTA Chief of Staff shall be final.

8.3 Liquidated Damage Assessments

The following list of liquidated damages will be a condition of the contract

Unauthorized use of Authority owned or leased vehicles

The contractor shall not use an Authority owned vehicle for any other purpose except for transit related business.

Liquidated Damage per Incident
$ 2,500.00

Missed trips

The contractor shall be assessed liquidated damages for each missed trip reported. Missed trips defined as a missed, passed, or combined or deviated route without contingency

Liquidated Damage per Incident
$ 2,500.00

Early over three (3) minutes

The contractor shall be assessed liquidated damages for each early incident along a route as defined by GPS tracking software of more than 3 minutes

Liquidated Damage per Incident
$ 2,500.00

Accidents not reported within 24 hours

The contractor shall be assessed liquidated damages for each incident of not reporting accidents in writing to Authority staff within twenty-four (24) hours of the incident

Liquidated Damage per Incident
$ 5,000.00

Speeding Infractions more than 10 miles per hour over posted limit

The contractor shall be assessed liquidated damages for each incident of speeding more than 10 miles over the posted speed limit based on GPS triangulation reporting or traffic citations

Liquidated Damage per Incident
$ 5,000.00

Cleanliness of Vehicles

The contractor shall be assessed liquidated damages if vehicles do not meet the cleanliness guidelines set by the Authority

Liquidated Damage per Incident
$ 500.00

Maintenance of Vehicles
The contractor shall be assessed liquidated damages if for each vehicle which scheduled preventive maintenance exceeds 5% of the scheduled time or mileage

Liquidated Damage per Incident
$ 2,500.00

8.4 Benchmarking
Should the following benchmarks be met during any fiscal year of the contract (July 01- June 30), the contractor will be eligible for incentive funding over and above the management fee:

Preventable accident reduction
Should the contractor reduce the number of preventable accidents (as determined by the authority safety and training manager) for a calendar year the following incentives will be offered. Calculations for the incentive will begin on January 01, 2012 and end on December 31, 2012 and will run each subsequent calendar year. Calendar year 2010 will serve as the baseline in determining accident reductions. Following the initial baseline year, the previous year will serve as the baseline for determining the incentive.

Incentive	Preventable accident reduction
$ 1,500.00	5% - 10%
$ 2,500.00	10%- 20%
$ 3,500.00	20%- 50%
$ 5,000.00	over 50%

Fixed route operator overtime
Should the contractor reduce non-scheduled fixed route overtime during any fiscal year of the contract, the contractor will be eligible for the incentive. To be eligible for the incentive, staffing levels for fixed route operators will not be allowed to exceed the authority's authorization. Fiscal year 2011 will serve as the baseline in determining overtime percentage. Following the initial baseline year, the previous year will serve as the baseline for determining the incentive.

Incentive	Non-scheduled overtime
$ 5,000.00	Less than 4.0%
$ 10,000.00	Less than 3.0%
$ 20,000.00	Less than 2.0%
$ 30,000.00	Less than 1.0%

3.19 Liquidated Damages

a) Contractor shall indicate their understanding and acceptance of all liquidated damages that may be assessed in the specified circumstances.

b) The parties acknowledge that failure by the Contractor to perform certain of its obligations under this contract would cause damages to Emory In its daily operations, which would be difficult to quantify. Therefore, it is agreed that liquidated damages may be assessed by Emory as described below.

c) Liquidated damages shall be deducted from the payment due to the Contractor the month following the date of the liquidated damages assessed.

d) The provisions of this section shall not preclude recovery by Emory of damages or Emory's obtaining equitable relief, for other breaches of the Contractor.

e) On-time Performance

- **i)** The Contractor shall maintain on-time performance within zero (0) minutes early and five (5) minutes late of scheduled times.
- **ii)** Reasonable accommodations will be made for non-recurring events such as accidents, emergency construction, and University or County events.
- **iii)** University will monitor performance via AVL/GPS -generated reports.
- **iv)** The University shall conduct random Independent inspections to validate AVL/GPS data.
- **v)** 95 percent of checked monthly route service shall be within on-time performance requirements for both peak and off pea k service.
- **vi)** Liquidated damages equal to one (1) percent of the month's invoice amount will be assessed for any month in which less than 95 percent of checked trips were on-time.
- **vii)** Liquidated damages equal to five (5) percent of the month's invoice amount will be assessed for any month in which less than 90 percent of checked trips were on time.

f) Scheduled Hours to Actual Hours

- **i)** The Contractor shall complete all scheduled hours on a daily basis.
- **ii)** All scheduled hours will be at least 97 percent complete on a monthly basis.
- **iii)** Liquidated damages equal to one (1) percent of the month's invoice amount will be assessed for any month in which less than 97 percent of scheduled hours are actually operated.
- **iv)** Liquidated damages equal to five (5) percent of the month's invoice amount will be assessed for any month in which less than 90 percent of scheduled hours are actually operated.

g) Missing or Unavailable Personnel

- **i)** Contractor shall provide an adequate number of properly trained, licensed, and uniformed d rivers for all operations.
- **ii)** The liquidated damages for failure to provide a properly trained, uniformed, and licensed operator will be $ 300 per bus service hour.

h) Repeated and Validated Customer Complaints-Quality of Service

- ***i)*** A customer complaint will be defined when a customer communicates in writing or verbally to customer transportation management officials regarding a customer service or vehicle related issue.
- **ii)** The liquidated damages for each repeated and validated customer com plaint/quality of service will be $ 250 per incident.
- **iii)** The Contractor will be allowed two 'free' customer complaints during each semester, so long as the issue does not represent a major breach of safety or service delivery standards, is immediately corrected, and does not repeat.

i) Vehicle or Component Failure

- **i)** A vehicle failure will be defined as a vehicle going out of service while on a route, whether passengers are on the vehicle or not. If the vehicle is out of service for more than ten (10) minutes, it will be deemed a vehicle failure.
- **ii)** Component failure shall be defined as inoperable heating, ventilation, or air conditioning

systems. If the component is out of service for more than ten (10) minutes, it will be deemed a component failure.

iii) The Contractor will be allowed one "free" vehicle failure during each semester.

iv) The Contractor will be allowed one "free" component failure during each semester.

v) The liquidated damage for each vehicle or component failure will be $ 250 for the first incident, and will increase by $ 250 for each subsequent incident during any given semester, with a maximum amount of $ 1,000 per incident.

j) Safety

i) The following safety violations will be assessed liquidated damages of up to $ 500 per incident, at the sole discretion of the University. There will not be any "free" safety incidents.

ii) Service vehicle removed from revenue service by an authorized governmental authority (law enforcement or DOT regulatory official) due to safety violation.

iii) Failure to pass facility safety inspection or noncompliance with environmental ordinances.

iv) Failure to maintain operating wheelchair lifts and kneeling features.

v) Two (2) verifiable passenger complaints and\or observations by a University employee or agent within a 30 day period that a service vehicle operator drove in an unsafe manner.

vi) The University retains the right to request the removal of any operator from service depending on the severity of a single event and or the reoccurrence of infractions.

vii) Failure to report accidents/vehicle crashes and unusual occurrences and failure to complete follow up written reports as prescribed.

3.20 Charters/Special Event Services Requirements

a) Contractor shall provide requested charters and special event transportation services for Emory and approved affiliated organizations in all cases unless primary operations would be negatively impacted by delivering charter or special event services.

b) Emory will approve all charter requests prior to contractor acceptance and scheduling.

c) Charter services are to be available under the following general conditions:

i) Distance from campus.

ii) No overnight charters.

iii) Hours and days of charter service.

d) Emory estimates approximately 2,000 hours of charter hours per year (not counting Commencement day service).

i) All confirmations, scheduling, and service arrangements for charters/special service will be handled by contractor's personnel. Costs for this function shall be included in a separate line item.

i) Contractor will provide a detailed invoice identifying responsible party, organization and department name, dates and hours of service, and total billed amount.

ii) Invoice will be delivered to Emory Transportation and Parking Services format.

3.21 Special Event Service Pricing

a) Transportation for charters will be billed at 95 percent or less of the applicable hourly rate by vehicle type.

i) Contractor shall provide their charter rate in their cost proposal. Consideration will be given to those contractors who propose a lower rate for charter service.

b) Minimum charter is three (3) hours.

i) Approximately 10 percent of charters may be less than three (3) hours. These charters are scheduled for specific university officials, visitors and dignitaries and are deemed essential.

June 2013

TRANSIT COOPERATIVE RESEARCH PROGRAM
Sponsored by the Federal Transit Administration

Responsible Senior Program Officer: Gwen Chisholm Smith

Legal Research Digest 43

CONTRACTUAL MEANS OF ACHIEVING HIGH-LEVEL PERFORMANCE IN TRANSIT CONTRACTS

This report was prepared under TCRP Project J-5, "Legal Aspects of Transit and Intermodal Transportation Programs," for which the Transportation Research Board is the agency coordinating the research. The report was prepared by Larry W. Thomas, The Thomas Law Firm, Washington, DC. James B. McDaniel, TRB Counsel for Legal Research Projects, was the principal investigator and content editor.

The Problem and Its Solution

The nation's 6,000 plus transit agencies need to have access to a program that can provide authoritatively researched, specific, limited-scope studies of legal issues and problems having national significance and application to their business. Some transit programs involve legal problems and issues that are not shared with other modes; as, for example, compliance with transit-equipment and operations guidelines, FTA financing initiatives, private-sector programs, and labor or environmental standards relating to transit operations. Also, much of the information that is needed by transit attorneys to address legal concerns is scattered and fragmented. Consequently, it would be helpful to the transit lawyer to have well-resourced and well-documented reports on specific legal topics available to the transit legal community.

The *Legal Research Digests* (LRDs) are developed to assist transit attorneys in dealing with the myriad of initiatives and problems associated with transit start-up and operations, as well as with day-to-day legal work. The LRDs address such issues as eminent domain, civil rights, constitutional rights, contracting, environmental concerns, labor, procurement, risk management, security, tort liability, and zoning. The transit legal research, when conducted through the TRB's legal studies process, either collects primary data that generally are not available elsewhere or performs analysis of existing literature.

Applications

Financial pressures within the transit industry require that contract performance be on time and within the allocated budget. There are a variety of contractual means that transit agencies have used with varying degrees of success to achieve on-time contract performance. All types of contracts can involve payment for performance, including construction, service, materials, supplies, and rolling stock, as well as payment for maintenance and repair. Contracts can also include incentive payments for on-time or early contract performance.

Essential to an effective contract are well-defined performance standards. Standards must include all important criteria and definitive and objective means for monitoring performance. Of equal importance is a schedule for performance with consequences for failure to meet that schedule. These contracts often include liquidated damages and sometimes include provisions authorizing incentive payments for early or enhanced performance.

A nationwide survey of transit agencies of all sizes was undertaken for this project to obtain information regarding transit agencies' success or failure in using performance-based provisions in their contracts; to identify any legal or other restrictions on their use of incentives or liquidated damages in their contracts; to obtain information on how the agencies determine the amounts of incentives and liquidated damages to specify in their contracts; to ascertain whether there are any risks or adverse consequences associated with the use of such clauses, such as litigation, claims, delays, limiting of competition, problems in enforcement, or increased costs; to evaluate the contractual provisions that have been successful; and to identify practices that respondents believed to be effective to achieve early or on-time performance. The responses to this survey are discussed throughout this digest.

This digest should be useful to attorneys, transit administrators, contracting officers, engineers, construction contractors, and transportation planners.

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

CONTENTS

CONTRACTUAL MEANS OF ACHIEVING HIGH-LEVEL PERFORMANCE IN TRANSIT CONTRACTS

By Larry W. Thomas, The Thomas Law Firm, Washington, DC

I. INTRODUCTION

Because of financial pressures and conditions within the transit industry, it is now more important than ever to require that transit contracts be performed on time and within an agency's budget. Performance contracting may be used for all types of contracts—construction, services, procurement, or maintenance and repair—to obtain timely or early completion of contracts. Thus, performance-based contracting may include incentives for early or enhanced performance and liquidated damages for delay.

In addition, transit agencies may employ performance standards in determining and awarding incentive payments for early or on-time completion or when assessing liquidated damages for delay. A study for the North Carolina Department of Transportation (DOT) found that the use of performance measures is now quite common in general and in public transportation in particular.[1] Although the study concluded that there were appropriate performance measures for transit agencies to use, the focus of the study was the state DOT's use of performance measures when allocating funding to transit systems.[2]

A nationwide survey of transit agencies of all sizes was undertaken for this digest to obtain information regarding transit agencies' success or failure in using performance-based provisions in their contracts;[3] to identify any legal or other restrictions on their use of incentives or liquidated damages in their contracts;[4] to obtain information on how the agencies determine the amounts of incentives and liquidated damages to specify in their contracts;[5] to ascertain whether there are any risks or adverse consequences associated with the use of such clauses, such as litigation, claims, delays, limiting of competition, problems in enforcement, or increased costs;[6] to evaluate the contractual provisions that have been successful;[7] and to identify the best practices for their use to achieve early or on-time performance.[8]

Forty-four transit agencies responded to the survey (see Table 1). Twenty-seven agencies reported that they are using performance-based contracting (e.g., incentive-payment or liquidated-damages clauses) in construction contracts, maintenance and repair contracts, service contracts, and procurement contracts, such as for materials, supplies, or rolling stock. Seventeen respondents stated that they were not using performance-based contracting. Some agencies are using liquidated-damages clauses but are not paying incentives; for example, Omnitrans in California stated that its current procurement policy does not provide for the payment of any incentive awards or bonuses to a contractor for early or on-time completion.[9]

Table 1. Transit Agencies' Use of Performance-Based Contracting.

Agencies using performance-based contracting	27 (61%)
Agencies not using performance-based contracting	17 (39%)

Section II of the digest discusses the use of incentive clauses and liquidated-damages clauses in contracts with Federal Transit Administration (FTA) funding, including FTA's New Starts program. In particular, Section II discusses incentive payments that may be made for value engineering (VE).

Section III of the digest discusses the statutory and other authority for the use of incentive-payment and liquidated-damages clauses in transit agency contracts, whether any agencies are precluded in some states from using the clauses in certain types of contracts, and whether bonding or insurance requirements impose any limitations on the use of the clauses.

Section IV of the digest discusses the use of performance standards in defining a high-performance

[1] THOMAS J. COOK & JUDSON J. LAWRIE, USE OF PERFORMANCE STANDARDS AND MEASURES FOR PUBLIC TRANSPORTATION SYSTEMS 1, 2 (NCDOT Research Project 2004-10, Final Report, FHWA/NC/2004-10, in cooperation with North Carolina Department of Transportation and Public Transportation Group, Institute for Transportation Research and Education, North Carolina State University, Sept. 2004), available at http://www.ncdot.gov/doh/preconstruct/tpb/research/download/2004-10FinalReport.pdf.

[2] *Id.* at 17, 59.

[3] *See* § III.C.2 and § VI.A.

[4] *See* §§ III.A and B.

[5] *See* §§ IV.A, C, and D and §§ V.A, C, and F.

[6] *See* §§ VI.B, C, and D.1.

[7] *See* § III.C.2 and §§ VI.A and B.

[8] *See* §§ V.A and D.

[9] Survey response of Omnitrans.

contract, the criteria to consider when writing performance standards, and the surveillance methods used by transit agencies to assure compliance with the standards and delivery deadlines in contracts.

Section V of the digest discusses the transit agencies' best practices when using incentive-payment and liquidated-damages clauses in their contracts, the extent to which agencies responding to the survey are paying incentives or collecting liquidated damages, and examples of incentive-payment and liquidated-damages clauses that transit agencies are using.

Section VI of the digest discusses the transit agencies' evaluation of performance-based contracting; the effect of the incentive-payment and liquidated-damages clauses on claims against transit agencies; and the potential for claims by contractors for a contractor's additional costs if a contractor accelerates performance of a contract to meet an incentive-payment or avoid a liquidated-damages deadline under the contract; and other issues such as the need for carefully drafted contractual provisions to reduce the risk of claims.

Finally, it may be noted that the transit agencies' responses to the survey are discussed throughout the digest. Appendix C contains examples of incentive-payment and liquidated-damages clauses and performance standards now being used by transit agencies in their various contracts, such as for construction projects or for the procurement of capital equipment or services.

II. THE USE OF INCENTIVE AND LIQUIDATED-DAMAGES CLAUSES IN CONTRACTS WITH FTA FUNDING

A. Introduction

Liquidated-damages and incentive clauses may be used by a grantee for any project receiving financial assistance from the FTA, including funding for fixed guideways and for equipment and other capital acquisitions. The payment of VE incentives also is authorized.

B. FTA New Starts Program

An important part of FTA's funding of transit agencies is the New Starts program, which applies to a new fixed guideway system or to an extension of an existing fixed guideway system.[10] A "fixed guideway" is a public transportation facility using and occupying a separate right-of-way or rail for the exclusive use of public transportation and other high-occupancy vehicles or "using a fixed catenary system and a right-of-way usable by other forms of transportation."[11] A fixed guideway system includes a rapid rail, light rail, commuter rail, or automated guideway transit system; people movers; ferry boat service; and fixed guideway facilities for buses (such as for bus rapid transit) and other high-occupancy vehicles.[12] Part 611(a) of Title 49 of the Code of Federal Regulations (C.F.R.) governs the process that applicants must follow for capital investment grants and loans for new fixed guideway systems or extensions of existing systems. However, Part 611 does not apply "if the total amount of funding from 49 United States Code (U.S.C.) 5309 will be less than $25 million, or if such projects are otherwise exempt from evaluation by statute."[13]

It may be noted that there are incentives for grantees under the New Starts/Small Starts Program authorized by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).[14] As explained in the FTA Contractor Performance Incentive Report (CPIR), "[f]or grantees, SAFETEA-LU authorizes the Secretary to allow for additional scope to be added to a Full Funding Grant Agreement (FFGA) project if the final cost comes in below the original FFGA project cost, 49 U.S.C. 5309(h)(2)."[15] Furthermore, a grantee may receive a higher share of federal funding when the Secretary determines that "the net project cost of the project is not more than 10 percent higher than the net project cost estimated at the time the project was approved for advancement into preliminary engineering" and that "the ridership estimated for the project is not less than 90 percent of the ridership estimated for the project at the time the project was approved for advancement into preliminary engineering…."[16]

C. Funding of Capital Projects

In August 2008, FTA submitted a Report to Congress on Incentives in Federal Transit Formula Grant Programs.[17] As the report notes, pursuant to 49 U.S.C. § 5307 and 49 U.S.C. § 5311, respectively, there are two incentives, one for urbanized areas (§ 5307) and one for rural and small urban areas (§ 5311). An urbanized area is one with a population of not less than 50,000 people.[18]

D. Use of Value Engineering

A Transportation Research Board Synthesis states that a VE incentive clause may be used in connection with a construction project.[19] At the time of the Synthe-

[10] 49 C.F.R. § 611.5.

[11] 49 U.S.C. § 5302(a)(4)(A) and (B).

[12] 49 C.F.R. § 611.5.

[13] *Id.* § 611.3(b).

[14] 49 U.S.C. § 5309(d).

[15] FED. TRANS. ADM., OFFICE OF BUDGET AND POLICY, CONTRACTOR PERFORMANCE INCENTIVE REPORT 2 (Nov. 20, 2006) (hereinafter "CPIR"), available at http://www.fta.dot.gov/documents/ContractorPerformanceIncentiveReport102006.pdf.

[16] *Id.* (citations omitted).

[17] SEC'Y OF TRANSP., REPORT TO THE UNITED STATES CONGRESS PURSUANT TO 49 U.S.C. § 5336(c) (Aug. 2008), available at http://www.fta.dot.gov/documents/Incentives_Report_-_Final_As_Approved_8-14-08.pdf.

[18] 49 U.S.C. § 5302(a)(17).

[19] JOEL T. CALLAHAN, MANAGING TRANSIT CONSTRUCTION CONTRACT CLAIMS 18 (Transit Cooperative Research Program Synthesis 28, 1998), available at http://onlinepubs.trb.org/

sis, 90 percent of the reporting agencies used VE during the design phase. According to the Construction Project Management Handbook (CPMH), a

> project manager should encourage contractors to raise VE ideas and the Agency to include incentives in construction contracts for contractors to propose VE changes to the work called for in the drawings and specifications. If the proposed changes are acceptable to the Agency the cost savings could be shared between the Agency and the contractor.[20]

VE "reflects an effort by the government to reward the contractor for its initiative by permitting it to share in this reduced cost of the work."[21] The Federal Acquisition Regulations (FAR), which provide guidance on the use of VE for various types of contracts, includes specific VE clauses to be used.[22] FAR Section 48.202 requires the insertion of a VE clause in construction solicitations and contracts exceeding a certain amount.[23] According to FTA's most recent circular on the subject, first, the Common Grant Rule for governmental recipients encourages them to use VE clauses in contracts for construction projects.[24] Second, the FTA "generally will not approve a New Starts grant application for final design funding or a full funding grant agreement until value engineering is complete."[25] If a contract, such as a design-build contract, includes value engineering, "FTA does not require separate value engineering proposals, contract changes, or other processes."[26] FTA states, moreover, that "[f]rom a procurement view, the concept of value engineering is more important than the form it takes."[27]

Transit agencies reported on whether they have made incentive payments during the most recent 3-year period to contractors for submitting proposals that reduced the cost of a project (Table 2). Nineteen agencies said that they had not, whereas four agencies reported that they had made such payments. The Southeastern Pennsylvania Transportation Authority (SEPTA) reported paying $234,000 for VE.[28]

onlinepubs/tcrp/tsyn28.pdf (stating that "[t]he objective of value engineering during the design stage of a project is to ensure that the completed facility is adequate for its function at the lowest life-cycle cost reasonable").

[20] *Construction Project Management Handbook* at 6-6, hereinafter cited as "CPMH," available at http://www.fta.dot.gov/documents/FTA-CONSTRUCTION-PRJT-MGMT-HDBK2009.pdf, last accessed May 31, 2012.

[21] SMITH, CURRIE & HANCOCK, FEDERAL GOVERNMENT CONSTRUCTION CONTRACTS, A PRACTICAL GUIDE FOR THE INDUSTRY PROFESSIONAL 309 (Thomas J. Kelleher, Jr., Thomas E. Abernathy IV, Hubert J. Bell, Jr., & Steven L. Reed, Eds., John Wiley & Sons, Inc., 2d ed. 2010) (hereinafter cited as "Smith, Currie & Hancock").

[22] *Id. See* FAR §§ 48.001 and 52.248-3.

[23] Subpart 48.202. Clause for construction contracts, states,

> The contracting officer shall insert the clause at 52.248-3, Value Engineering—Construction, in construction solicitations and contracts when the contract amount is estimated to exceed the simplified acquisition threshold, unless an incentive contract is contemplated. The contracting officer may include the clause in contracts of lesser value if the contracting officer sees a potential for significant savings. The contracting officer shall not include the clause in incentive-type contraction contracts. If the head of the contracting activity determines that the cost of computing and tracking collateral savings for a contract will exceed the benefits to be derived, the contracting officer shall use the clause with its Alternate I.

See also FAR § 52.248.3.

[24] FTA Circular 4220.1F, at IV-28, http://www.fta.dot.gov/documents/FTA_Circular_4220.1F_-_Finalpub1.pdf.

[25] *Id.*

[26] *Id.*

[27] *Id.*

[28] Survey response of Southeastern Pennsylvania Transportation Authority (SEPTA).

Table 2. Incentive Payments to Contractors for Proposals Reducing Project Cost for the Most Recent 3-Year Period.

	No. of Agencies
Agencies that had paid incentives	4 (15%)
Agencies that had not paid incentives	19 (70%)
Agencies for which information was not available or that did not respond	4 (15%)

In contrast, according to the Washington State DOT, the department has used an early completion incentive to reward contractors for the early completion of a project or a phase of a project, thereby reducing the impact of construction projects on the public.[29] On some projects, contracts permitted contractors to bid the amount of time needed to perform the work for which the department paid a premium for early completion.[30]

The department also pays performance contracting rewards to contractors for submitting ideas that lower the cost of a project, referred to as Cost Reduction Incentive Proposals or CRIPs.[31] Thus, the department uses performance contracting to reward contractors throughout a project for providing consistent, on-time, high-quality performance.[32] Since 2000, Washington State DOT has used performance contracting to pay more than $4.5 million in schedule-related incentives on 61 completed contracts.[33] The department paid more than $836,000 in incentives, averaging almost $70,000 per contract, on 12 contracts completed in 2009.[34]

E. Value Engineering Clauses

The Massachusetts Bay Transportation Authority's (MBTA) General Conditions include a provision authorizing payments for VE. In brief, the provision permits a contractor to submit a proposal for a cost reduction that is based on a "sound study" conducted by the contractor that will result in a net saving to the agency. The proposal must be one that does not impair the project or require an "unacceptable extension" of the contract. The submission must describe the proposed change and the difference it will make in the existing contract and estimate the reduction in the cost of the contract. The decision of the agency whether to accept the proposal is final, and, if accepted, there is an equitable adjustment in the contract price by reducing the price by the amount of the "estimated decrease in the cost of performance minus 50 percent of the difference…." Thus, the agency and the contractor share equally in the saving of the cost of performance because of the contractor's proposal.

The aforesaid MBTA contractual provision states in full as follows:

> 1.1 CONTRACTOR COST REDUCTION PROPOSALS VALUE ENGINEERING (APPLICABLE TO CONTRACTS IN EXCESS OF $200,000)
>
> A. The Contractor may submit cost reduction Proposals for changing the Contract requirements. The Proposals shall be based upon a sound study made by the Contractor indicating that the Proposal:
>
> 1. Will result in a net reduction in the total Contract cost to the Authority;
>
> 2. Will not impair any essential form, fit, function, or characteristic of the Work, such as safety, service life, reliability, economy of operation, ease of maintenance, and necessary standardized features;
>
> 3. Will not require an unacceptable extension of the Contract completion time; and
>
> 4. Will require a Change Order to the Contract.
>
> B. Cost reduction or Value Engineering Proposals shall be processed in the same manner as prescribed for any Contract initiated Proposal which would necessitate issuance of a Change Order. The Contractor shall submit the following information as a minimum, with each Cost reduction Proposal:
>
> 1. A description of the difference between the existing Contract requirements and the proposed change, and the comparative advantages and disadvantages of each;
>
> 2. An itemization of the requirements of the Contract which must be changed if the Proposal is adopted and a recommendation as how to make such change (e.g., suggested revision);

[29] Washington State Dep't of Transp., *Performance Contracting at the Washington State Department of Transportation* (undated), available at http://www.ofm.wa.gov/contracts/resources/performance_based/performance_contracting_wsdot.pdf.

[30] *Id*.

[31] *Id*.

[32] *Id*.

[33] *Id*.

[34] *Id*.

3. An estimate of the reduction in Contract performance costs that will result from adoption of the Proposal, taking into account the cost of implementation by the Contractor (including any amount attributable to subcontracts in accordance with Paragraph E. below and the basis for the estimate).

4. A statement of the time by which a Change Order must be issued so as to obtain the maximum cost reduction during the remainder of this Contract, noting any effect of the Contract delivery schedule.

C. The Authority will not be liable for any delay in acting upon, or for failure to act upon, any Value Engineering Proposal submitted pursuant to this Article. The decision of the Authority as to the acceptance of any such Proposal shall be final. The Authority may accept in whole or in part, any Proposal submitted pursuant to this Article by issuing a Change Order. Unless and until a Change Order is issued, the Contractor shall remain obligated to perform in accordance with the terms of the Contract.

D. If a Value Engineering (cost reduction) Proposal is accepted and applied, an equitable adjustment in the Contract price and in any other affected provisions will be made. The equitable adjustment in the Contract price will be established by determining the total estimated decrease in the Contractor's cost of performance resulting from the accepted changes, taking into account the Contractor's cost of implementing the change (including any amount attributable to subcontracts in accordance with Paragraph E. below). The Contract price shall be reduced by such total estimated decrease in the cost of performance minus 50 percent of the difference between the amount of such total estimated decrease and any ascertainable collateral costs to the Authority which must reasonably be incurred as a result of application of the cost reduction Bid.

E. The Contractor shall include appropriate value engineering arrangements in any subcontract, which, in the judgment of the Contractor, is of such a size and nature as to offer reasonable likelihood of cost reductions. In computing any equitable adjustment in the Contract price under Paragraph D., the Contractor's cost of implementation of a Value Engineering Proposal which is accepted shall include any implementation cost of a Subcontractor and any value engineering incentive payments to a Subcontractor, which clearly pertain to such Proposal and which are incurred, paid or accrued in the performance of a subcontract.

F. The Contractor may restrict the Authority's right to see any portion of the Contractor's Proposal by marking it with the following requirement:

1. This data, furnished pursuant to Article 2.4 of the General Conditions of Contract No. _____ may not be duplicated, used or disclosed, in whole or in part, for any purpose except for evaluation, unless the Proposal is accepted by the Authority. This restriction does not limit the Authority's right to use information contained in this data if it is or has been obtained, or is otherwise available, from the Contractor or from another source, without limitations. When this Proposal is accepted by the Authority, the Authority will have the right to duplicate, use, and disclose any data in any manner and for any purpose whatsoever, and have others do so whether under this or any other Authority contract.

G. Contract modifications made as a result of this Article will state that they are made pursuant to it.[35]

Other agencies supplied examples of their contracts with VE clauses, including:

- A value engineering change proposal (VECP) specifying the conditions under which a VECP will be considered;[36] and
- Other VE provisions and cost reduction incentives.[37]

In replying to the survey questions, one agency stated that it had made incentive payments on its construction projects for VE, the costs of which "are shared with the contractor on a 50% basis."[38] Although stating that it had not made incentive payments, Metropolitan Transit Authority's Metro-North Railroad (Metro-North) stated that its contracts contain a VE clause that permits compensation to be paid to a contractor for "an amount equal to 50% of the savings to Metro-North to be determined by calculating the difference between the cost of the original workscope and the revised workscope."[39]

III. AUTHORITY FOR THE USE OF INCENTIVES AND LIQUIDATED-DAMAGES CLAUSES IN TRANSIT AGENCY CONTRACTS

A. Statutory and Regulatory Authority

According to the FTA's CPIR, not only are many contracts throughout the nation already providing for the payment of incentives to contractors, but also no new additional authority for the use of incentive provisions is needed in contracts funded under the New Starts process.[40] The only limitations on the use of incentives are those in other federal and state laws. Thus, "[c]ontracts to support New Starts project grantees are subject to the same rules and regulations as are other procurement contracts…."[41] The applicable federal law includes the Common Grant Rule Procurement regulations, 49 C.F.R. § 18.36; the laws applicable to New Starts grantees, 49 U.S.C. Chapter 53;[42] and FTA's guidance on third-party contracting in FTA Circular 4220.1F (November 1, 2008).[43] The Circular sets forth the requirements to which a grantee must adhere with respect to the solicitation, award, and administration of third-party con-

[35] MBTA, App. 3, at A3-73–A3-76.

[36] MTA Metro-North, App. 3, at A3-78–A3-81.

[37] Orange County Transp. Auth., App. 3, at A3-82–A3-87; SANDAG, App. 3, at A3-88–A3-92 § 5-1.16.

[38] Survey response of LACMTA.

[39] Survey response of MTA Metro-North.

[40] CPIR, *supra* note 15.

[41] *Id*. at 4.

[42] *Id*.

[43] *Id*. at 5.

tracts. Although FAR subpart 16.4[44] is "helpful," the FAR is not binding on FTA grantees.[45]

As FTA notes, state law applies to grantee procurements, "particularly with respect to completion requirements and contracting procedures…."[46] Thus, when an agency is "procuring property and services under a grant or cooperative agreement, a State may use the same procurement policies and procedures that it uses for acquisitions not financed with Federal assistance."[47] The FTA cautions, however, that "[s]tate contract law may limit a grantee's ability to use incentive contracts, and, in several instances, may expressly prohibit a grantee's ability to use mechanisms like Design-Build, DBOM [Design-Build-Operate-Maintain], and CM/GC [Construction Manager/General Contractor]"[48] Another possible limitation is a grantee's inability to manage a complex or sophisticated contract.[49]

State law may authorize the use of incentives. For example, in Florida, the chapter on public transportation provides:

> If the department determines and adequately documents that the timely completion of any project will provide a substantial benefit to the public health, safety, or welfare; will limit the disruptive effect of construction on the community; or is cost beneficial on a revenue-producing project, *the contract for such project may provide for an incentive payment payable to the contractor for early completion of the project or critical phases of the work and for additional damages to be assessed against the contractor for the completion of the project or critical phases of the work in excess of the time specified*. All contracts containing such provisions shall be approved by the head of the department or his or her designee. The amount of such incentive payment or such additional damages shall be established in the contract but shall not exceed $10,000 per calendar day, except that for revenue-producing projects the amounts and periods of the incentive may be greater if an analysis indicates that additional revenues projected to be received upon completion of the project will exceed the cost of the incentive payments.[50]

(Emphasis added.)

As for whether transit agencies are precluded from using incentive and liquidated-damages clauses in any contracts, although 20 agencies stated that they were not precluded from doing so, 3 agencies did report that they are subject to some limitations. In the case of the Central Oklahoma Transportation and Parking Authority (COTPA), the agency as a public trust may not use DBOM, CM/GC contracts[51] By statute, the Connecticut DOT is not permitted to utilize Design-Build (DB) or DBOM contracting methods. The MBTA stated that it may not provide for incentives in a Construction Manager at Risk contract because the "CM at Risk Statute MGL 149A, Section 7 limits cost sharing incentives."[52]

B. Bonding and Insurance Limitations

Transit agencies responding to the survey did not note any limitations imposed by bonding or insurance agencies on their use of incentives or liquidated-damages clauses. However, one agency's policy on determining the amount of liquidated damages to specify in a contract states that it is important not to have "open-ended, uncapped liquidated damages."[53] Besides being a detriment to competition that may result in an increase in the bid amounts, when "a surety bond is being required for the contract, uncapped liquidated damages may become a detriment to obtaining a bond. The contract, therefore, should include an overall maximum dollar amount or period of time, or both, during which liquidated damages may be assessed."[54]

Section VI.D discusses best practices in the use of liquidated-damages clauses, including the legal requirements for an enforceable liquidated-damages clause, guidelines for determining the amount of liquidated damages, and guidelines for drafting a liquidated-damages clause.

C. Suitability of Grantees, Contractors, and Contracts for High-Performance Contracts

1. Suitability of Grantees and Contractors

There are two broad categories of contractors, the first category including "professional services contractors like engineering and architectural companies, environmental, and project management consultants…."[55] The second category of contractors includes companies that "perform demolition, construction, testing, and project management…."[56] In regard to the suitability of contractors or grantees, "only those construction contractors that can directly influence the final cost of the project…are best suited to receive incentives based upon project cost" and "only the more experienced grantees are likely to be able to successfully employ these more complex or sophisticated incentives and innovative procurement practices."[57]

The FTA advises that incentive contracts are suitable in two areas—when contractors are influential in forecasting final project costs and when they are influential in meeting final project costs.[58] With respect to

[44] Available at https://www.acquisition.gov/far/.

[45] FTA, Incentive Contracts, available at http://www.fta.dot.gov/13057_6148.html; *see* FTA Circular 4220.1F, *supra* note 24, at II-9.

[46] CPIR, *supra* note 15, at 5.

[47] FTA Circular 4220.1F, *supra* note 24, at II-2.

[48] CPIR, *supra* note 15, at 11.

[49] *Id*. at 1.

[50] FLA. STAT. § 337.18(4)(a) (statute appearing in Tit. 26, Public Transportation).

[51] Survey response of COTPA.

[52] Survey response of MBTA.

[53] LYNX, App. 3, at A3-13–A3-14.

[54] *Id*.

[55] CPIR, *supra* note 15, at 5.

[56] *Id*. at 6.

[57] *Id*. at 1.

[58] CPIR, *supra* note 15, at 10.

the early planning and preliminary engineering phases of a project, however, contractors are "heavily influenced by assumptions and information beyond the contractor's control and project completion may occur many years after the foregoing preliminary phases."[59] Hence, the use of incentives for those stages may be difficult. The FTA advises that it is during the final design and construction phases that the use of incentives may be more feasible but that the construction phase is "[t]he most appropriate phase…for providing contractor incentives linked to projects completed below the original cost estimate…."[60]

As seen in Table 3 below, of the 27 agencies responding that they use performance-based contracting, 25 do so in their construction contracts. Sixteen agencies use the provisions in their procurement of rolling stock and other capital equipment. Ten agencies are using liquidated damages or incentive payment clauses in the procurement of services, including professional services such as for architects, engineers, or others. As for other types of contracts, eight agencies reported using the clauses in contracts for maintenance and repairs; five agencies do so in their management contracts; five use them in their procurement of materials; and four use them in the procurement of supplies.

[59] *Id*.

[60] *Id*. at 11.

Table 3. Types of Contracts in Which Transit Agencies Use Incentive Payment and Liquidated-Damages Clauses.

Type of Contract	No. of Agencies
Construction	25 (93%)
Management	5 (19%)
Maintenance and repairs	8 (30%)
Procurement of materials	5 (19%)
Procurement of supplies	4 (15%)
Procurement of rolling stock or other capital equipment	16 (60%)
Procurement of services, including procurement of professional services	10 (37%)

2. Types of Suitable Contracts

Although written from the perspective of the energy services industry, one commentator argues that "[a]nother critically important characteristic of performance contracting, but which is overlooked or misunderstood by many buyers, especially public agencies, is that performance contracting is a design-build process."[61] The writer argues that

> [b]ecause of this design-build nature of performance contracting, and the fact that performance contracts frequently have a very broad scope (covering an entire facility and the majority of its infrastructure systems), the relationship between the parties and the process that is used to create and implement a project assumes new and much greater importance.[62]

Nevertheless, the FTA states that the use of incentives is feasible in all New Start projects but that they are more suitable in some contracts for projects than others.[63]

> There are two typical types of incentives used by grantees in the New Start process: award fee, and incentive fee. Both Cost-Plus and Fixed Price contracts can contain these types of incentives, but with very different goals in mind.
>
> Cost-Plus Incentive Fee and Fixed Price Incentive Fee contracts provide incentives to the contractor strictly on cost-based, quantitative evaluation of contract work. In these contracts, a fee is awarded to the contractor based upon the ability of that contractor to meet the targeted cost. There is no evaluation of the quality of the work, just that the work was done and—hopefully—under the target project cost.
>
> Cost-Plus Award Fee and Fixed Price Award Fee contracts provide incentives to the contractor based upon the quality or performance of the contract work. In these contracts, the contractor is evaluated using qualitative measures, and an award is given if the work meets or exceeds certain performance standards.[64]

As explained by the FTA, "[a] cost-plus contract is a contract framed in such a way that when the contractor finishes the agreed upon work, it receives compensation equal to its expenses plus some bonus, which for Federally assisted contracts can be a fixed amount."[65] The CPIR states that "[t]ypical uses of cost-based contracts within the New Starts process are for professional services, program management, feasibility studies, environmental assessments, alternatives analysis that supports project development and delivery of construction work."[66] Under 49 C.F.R. § 18.36(f)(4), contracts may not be awarded on the basis of cost plus a percentage of cost.

With a fixed-price contract, when a contractor "finishes the agreed-upon work, it will only receive the amount reflected in its bid price…regardless of what costs it incurred."[67] Such contracts "are typical for construction, system/vehicle procurement, and other aspects of development when a specific product/deliverable is expected."[68] The CPIR discusses in more detail other types of contracts such as DB, DBOM,

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[61] JAMES P. WALTZ, MANAGEMENT, MEASUREMENT & VERIFICATION OF PERFORMANCE CONTRACTING 8 (The Fairmont Press, Inc. 2003).

[62] *Id*.

[63] CPIR, *supra* note 15, at 11.

[64] *Id*. at 7. There are two classes of contracts for procuring construction services, cost reimbursement or cost-plus and fixed price. *Id*. at 6. A contractor assumes a lower risk with a cost-plus-incentive fee, cost-plus-award fee, or cost-no-fee contract, whereas the contractor assumes a higher degree of risk with a fixed-price incentive fee, fixed-price-award fee, or firm-fixed-price contract. *Id*.

[65] *Id*. at 7.

[66] *Id*.

[67] *Id*.

[68] *Id*.

and CM/GC.[69] The appendix to the CPIR has additional information on the types of contracts and when their use is suitable.

Transit agencies responding to the survey reported on the kinds of contracts in which they are including high-performance clauses. The agencies did not report that there were any specific issues or problems with the use of incentive-payment or liquidated-damages clauses because of the type of contract in which they were included. Fixed-fee contracts are the type of contract most frequently mentioned by transit agencies.[70] Other types of contracts with incentive payment or liquidated-damages clauses include DB,[71] cost plus,[72] cost plus performance fee,[73] time and materials,[74] time and expense,[75] and CM/GC.[76]

One agency stated that it uses the clauses in all types of contracts.[77] The Central Ohio Transit Authority (COTA) uses fixed price requirements contracts for comprehensive transportation services for seniors with disabilities.[78] The Capital Metropolitan Transportation Authority (Capital MTA) in Austin, Texas, stated that most of its contracts are "firm fixed price:"[79]

> Our specification or scope of services contains enough information to allow the bidders to provide a fixed price. Firm fixed price contracts reduce the Authority's risk by transferring the risk to the contractor. We have also used the cost plus fixed fee along with a firm fixed price contract. The cost plus portion applied to the startup phase due to the unknown elements that were involved with the startup of a new rail service. After the startup phase the contract was a firm fixed price based on vehicle hours of service.[80]

Dallas Area Rapid Transit (DART) states that it uses performance-based contracting in CM/GC, DB, and cost-plus-fixed-fee (design and planning services) contracts.[81] Metro-North utilizes a hybrid, performance-based contract but depending on state or federal funding (construction versus services or materials) may include liquidated-damages clauses.[82] The MTA New York City Transit (NYCT) reports that it includes liquidated-damages clauses in lump-sum, firm-fixed-price construction contracts, in various operating contracts, and in capital contracts for rolling stock.[83] Omnitrans in California reports that it has used the clauses successfully in time and materials/labor hour contracts, firm-fixed-price, and DB contracts with performance-based clauses.[84] San Diego Association of Governments (SANDAG) advises that it has had a fixed-fee contract with performance-based incentives for one project in the past 3 years.[85] The San Diego Metropolitan Transit System (San Diego MTS) reports that its two-step service contracts have been successful with the first step to determine qualified, responsive proposals and the second step to negotiate terms with finalists.

The agencies did not indicate that a particular type of contract or incentive-payment or liquidated damages-clause was more successful or perilous than another one. The agencies' evaluations of the contracts and clauses were more general in nature but supportive of the use of such clauses in their contracts. The agencies did not indicate any problems in soliciting and obtaining contractors for a project, procurement, or service because of the inclusion, for example, of a liquidated-damages clause.

3. Performance Guarantees

According to one source, "[o]ne of the dominant features of performance contracting since its inception has been the inclusion of a performance guarantee."[86] As seen in the discussion of Table 4 in Section IV, 13 agencies responding to the survey report that they also include performance guarantees in their contracts.

IV. THE USE OF STANDARDS IN HIGH-PEFORMANCE CONTRACTS

A. Defining the Performance Contract

One of the keys to effective performance contracting is well-defined performance standards. If performance standards are to be used, they should include all criteria important for measuring performance and set forth definitive and objective means and schedules for monitoring performance. In a study of federal contracts conducted by the then General Accounting Office (GAO) for the House Committee on Government Reform, Subcommittee on Technology and Procurement Policy, the GAO emphasized that performance-based contracts should have the following attributes:

- A description of the requirements in terms of results rather than the methods of performance of

[69] *See id*. at 8–9.

[70] Survey responses of COTPA (described as fixed cost), Fort Worth Trans. Auth., Greater N.H. Transit Dist., Lane Transit Dist., LYNX, MBTA ("sum not to exceed for construction contracts"), NYC Transit, OCTA (fixed price), San Joaquin RTD, and SEPTA.

[71] Survey responses of LYNX, MBTA (stating that it has just started with DB), SEPTA, Stark (only DB), Utah Transit Auth.

[72] Survey responses of San Joaquin RTD and SEPTA.

[73] Survey response of San Mateo County Transit Dist.

[74] Survey response of Fort Worth Trans.

[75] Survey response of Orange County Transp. Auth.

[76] Survey response of Utah Transit Auth.

[77] Survey response of LACMTA.

[78] Survey response of COTA.

[79] Survey response of COTA.

[80] *Id*.

[81] Survey response of DART-Dallas.

[82] Survey response of MTA Metro-North.

[83] Survey response of NYCT.

[84] Survey response of Omnitrans.

[85] Survey response of SANDAG (*citing* the Catenary Contact Wire Replacement Project, CIP 1142000, Contract 5001200, Mar. 2010).

[86] WALTZ, *supra* note 61, at 21.

the work—"what is to be performed rather than how to perform it."[87]

• Measurable performance standards set "in terms of quality, timeliness, and quantity" that are "not unduly burdensome."[88]

• A description of how a contractor's performance will be evaluated in a quality assurance phase, which "should include a surveillance schedule and clearly state the surveillance methods to be used."[89]

• An identification of the positive and negative incentives to be used that "apply to the most important aspects of the work."[90]

However, the GAO reported that some agencies were too "prescriptive" in their approach to performance contracting as the agencies did not encourage contractors to find better, more cost-effective ways of doing business using performance-based contracting.[91] The GAO study stated that for more complex contracts and high-risk projects agencies had "found that they could not forego maintaining a strong role in specifying how the work should be done as well as overseeing the work."[92] Thus, the GAO concluded that with some performance-based contracts there still will be "complex situations [that] require strong government oversight."[93]

With respect to contracts for services, the GAO also found that the contracts "lend themselves to performance-based contracting" in part because the government is not required "to specify numerous unique requirements or to play a strong role in how the contract is executed."[94]

One commentator notes that "[w]ith rare exceptions, the installation and construction work on a performance contract always needs to be designed in a somewhat formal process"[95] and that "the planning for and implementation of measurement and verification steps must begin *at the very beginning* of a project."[96] Furthermore, "[p]erformance measurement means that governments specify what they want and formulate performance indicators to let them know if the objectives set out at the beginning have been achieved."[97] Thus, in a performance contract, "[g]overnments tend to put more focus on output-control than on the control of inputs. Outputs are made subject to various forms of audit, and auditing can be seen as an integrated part of a wider search for accountability."[98]

In regard to specifications included in a performance contract, a "contractor has general discretion and election as to the detail, but the work is still subject to the government's reserved right of final inspection and approval or rejection."[99] As the Court of Claims explained in *J.L. Simmons Co. v. United States,* design specifications may "set forth in precise detail the materials to be employed and the manner in which the work [is] to be performed…."[100] "In contrast, typical "performance" type specifications set forth an objective standard to be achieved, and the successful bidder is expected to exercise his ingenuity in achieving that objective or standard of performance, selecting the means and assuming a corresponding responsibility for that selection."[101]

A contract may have "composite specifications"—"literally a composite of two or three specification types and, as such, may contain design characteristics, performance features, or purchase elements."[102]

The Connecticut DOT stated that it "includes liquidated damages provisions in all construction contracts and may, at times, include incentive provisions in some construction contracts."[103] The department also "follows more of a 'method based' form of construction contracting" because its contracts include "provisions that determine the method of construction."[104]

B. Whether Standards Are Required

A threshold question is whether a high-performance contract having an incentive or liquidated-damages clause must include specified standards or criteria or simply may designate a third party to make a determination, for example, whether a project has been timely completed or otherwise in accordance with the contract. Unless the inclusion of performance standards are otherwise required by law, there is some authority that standards are not required.

The court's opinion in *McCarthy Brothers Construction Co. v. Pierce* [105] offers some guidance on performance determinations and whether a contract must include or refer to guidelines for deciding whether a contractor has complied with a contract. First, the court

[87] U.S. GEN. ACCOUNTING OFFICE, CONTRACT MANAGEMENT GUIDANCE NEEDED FOR USING PERFORMANCE-BASED SERVICE CONTRACTING 3–4 (GAO-02-1049, Sept. 2002) (hereinafter cited as "GAO Report"), available at http://www.gao.gov/new.items/d021049.pdf.

[88] *Id*. at 4.

[89] *Id*.

[90] *Id*.

[91] *Id*. at 2.

[92] *Id*. at 7.

[93] *Id*. at. 8.

[94] *Id*. at. 5.

[95] WALTZ, *supra* note 61, at 57.

[96] *Id*. at 24.

[97] GAVIN DREWRY, CARSTEN GREVE, & THIERRY TANQUEREL, CONTRACTS, PERFORMANCE MEASUREMENT AND ACCOUNTABILITY IN THE PUBLIC SECTOR 2 (IOS Press 2005).

[98] *Id*. at 1.

[99] ROBERT FRANK CUSHMAN & JAMES J. MEYERS, CONSTRUCTION LAW HANDBOOK 207 (Aspen Pub. 1999) (hereinafter cited as "Construction Law Handbook").

[100] 188 Ct. Cl. 684, 412 F.2d 1360 (1969).

[101] *Id*. at 688, 412 F.2d at 1362.

[102] CONSTRUCTION LAW HANDBOOK, *supra* note 99, at 496.

[103] Survey response of CTDOT.

[104] *Id*.

[105] 832 F.2d 463 (8th Cir. 1987).

stated that under Missouri law the parties to a contract "may agree that a designated third party shall determine questions relating to the performance of a contract, [however] those determinations are only binding as long as the decisions of the third party are not in bad faith, the product of a gross mistake, or arbitrary or capricious," allegations that McCarthy did not make.[106]

Second, "[t]he fact that the third party's decision reflects an error in judgment or that a court may ultimately reach a different conclusion does not establish bad faith."[107] The court held that there was no evidence of bad faith, a gross mistake, or arbitrariness or capriciousness.[108] The court rejected McCarthy's argument that the Department of Housing and Urban Development's (HUD) representative's determination regarding lack of substantial completion was one "without any guidelines and totally at his own whim and complete discretion," and that the date of substantial completion should be the date that the architect certified that the contract was substantially complete.[109]

C. Performance Standards Used by Transit Agencies

Transit agencies were asked about the types of provisions they use in their performance-based contracts. Twenty-three of 27 agencies reported that their contracts set forth the contract requirements in terms of the expected results. Fourteen agencies also stated that their contracts describe or specify the manner or methods to be used in performing the contract.

Nineteen agencies reported that their performance-based contracts include measurable and verifiable performance criteria, goals, or standards. As noted, 13 agencies also include performance guarantees in their contracts. Sixteen agencies' contracts describe how the contractor's performance will be evaluated pursuant to a quality assurance plan or program.

Twenty-three agencies include a provision in their contracts on how incentive payments and liquidated damages are to be determined or assessed.

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[106] *Id*. at 468 (*citing* Sunkyong Int'l, Inc. v. Anderson Land & Livestock Co., 828 F.2d 1245, 1250 (8th Cir. 1987); Phoenix Assurance Co. v. Appleton City, 296 F.2d 787, 790 (8th Cir. 1961); Fullington v. Ozark Poultry Supply Co., 327 Mo. 1167, 39 S.W.2d 780, 782–83 (1931); Twin River Constr. Co. v. Pub. Water Dist. No. 6, 653 S.W.2d 682, 693 (Mo. Ct. App. 1983); Juengel Constr. Co. v. Mt. Etna, Inc., 622 S.W.2d 510, 514 (Mo. Ct. App. 1981); Massman Constr. Co. v. Lake Lotawana Ass'n, 240 Mo. App. 469, 210 S.W.2d 398, 402 (1948)).

[107] *Id*.

[108] *Id*. at 469.

[109] *Id*. at 468 n.8.

Table 4. Types of Performance-Based Provisions in Transit Agency Contracts.

Description of Contractual Provision	No. of Agencies Including in Their Contracts
Requirements stated in terms of expected results	23 (85%)
Requirements stated in terms of manner or methods to be used	14 (52%)
Measurable and verifiable performance criteria, goals, or standards	19 (70%)
Performance guarantees	13 (48%)
Provisions for evaluating a contractor's performance	16 (60%)
Provisions determining the amount of incentive payments or liquidated damages	23 (85%)

Some agencies use both incentive and liquidated-damages provisions in their contracts. Although not necessarily relating to transit operations, the Connecticut DOT provided a copy of its incentive and liquidated-damages provisions for construction along Interstate 95 with incentive and liquidated-damages tables.[110] The department also provided a copy of its contract-time and liquidated-damages provisions with tables specifying liquidated damages per hour.[111]

Other provisions provided by transit agencies with respect to a variety of contracts include clauses applicable to

- Liquidated damages and early completion incentives.[112]
- Incentive payments for early completion of bridge replacement work and associated liquidated damages.[113]
- Performance bonuses and penalties for completed trips.[114]

D. Use of Surveillance

As stated, the GAO report discussed previously recommends a quality assurance phase providing for surveillance with clearly stated methods to be used to monitor performance. Transit agencies reported on whether in managing their performance-based contracts they use any form of surveillance to monitor the performance of contractors. Fifteen agencies said that they did and provided details on the form of surveillance and their use of it.[115] The same methods, of course, may be applicable to contracts without incentive-payment or liquidated-damages clauses.

COTPA in Oklahoma stated that its department head acts as the project manager; that the architect and engineer oversee a project to assure that it satisfies the specifications, and that a professional engineer from the city's public works department is also a project manager to keep the prime contractor on time and see that the finished project meets the specifications and the scope of the work. There are weekly meetings with updates and follow-up on the previous meetings.[116] The Utah Transit Authority performs "quality assessment and monthly on-site review of progress with respect to invoices" and uses an incentive program that rates performance on the basis of "quality, safety, cost, schedule, change orders, and stakeholder relations."[117]

The NYCT reports that it

> employs an extensive construction management team and maintains field offices at all job sites. Full-time resident engineers are assigned to each worksite and monitor all work activities. For procurements of rolling stock, NYCT employs inspectors to witness all phases of manu-

[110] CTDOT, App. 3, at A3-61–A3-65.

[111] *Id*.

[112] SANDAG, App. 3, at A3-88–A3-92, § 8-1.07.

[113] San Mateo County Transit Dist., App. 3, at A3-108–A3-113 (Incentives, § 01003).

[114] San Diego MTS, App. 3, at A3-93–A3-98, §§ 14 and 15.

[115] Survey responses of Capital MTA, COTPA, CTDOT, DART-Dallas, Fort Worth Trans. Auth., Greater N.H. Transit Dist., MBTA, MTA Metro-North, San Diego MTS, San Joaquin RTD, San Mateo County Transit Dist., SEPTA, TriMet, and Utah Transit Auth.

[116] Survey response of COTPA.

[117] Survey response of Utah Transit Auth.

> facture. [The] NYCT Access A Ride (Paratransit) management team monitors contract performance for adherence to contractual requirements and standards through periodic surveys and submission of reports from contractors. In addition, the team reviews trends in complaints for each contractor. The monitoring of the performance of the Paratransit call centers is conducted through a software application that provides real-time and historical comparison of actual performance by [the] agent and by [the] unit to the required contractual standards of performance.[118]

Other transit agencies' methods of surveillance include a full-time inspector during the entire performance period of a construction or other contract;[119] inspection and oversight by the department's construction office;[120] visits by the project manager to the site daily, the inclusion of performance reports with monthly invoices, and verification by the project manager of the accuracy of any report;[121] monitoring through on-site inspections by field personnel to assure compliance with a contract's scheduling requirements;[122] contracting with third-party vendors for inspection of large construction jobs and the use of an All-Agency Contractor Evaluation (ACE) and a quality assurance program;[123] for service contracts, reliance on management, "ghost rider monitoring," and video cameras on buses and at transit centers;[124] the use of cameras to film progress on bridge replacement and the comparison by agency personnel of performance at the construction site with the contract's schedule;[125] review by program and contract managers of the schedule, product, and design; and the use of "pilot testing" and "on-site, off-site inspections."[126]

V. TRANSIT AGENCY EXPERIENCE IN USING INCENTIVE PAYMENT AND LIQUIDATED-DAMAGES CLAUSES

A. Best Practices in the Use of Incentive Clauses

A TRB Synthesis states that "recent developments in establishing the construction time of contracts have proven effective in reducing the contract specified duration and in further reducing the achieved construction duration. These techniques are called the A plus B method and the incentive/disincentive method of bidding contract time."[127]

As explained in the Synthesis, the A represents the contractor's bid price; the contractor's time estimate for the contract is part of the bid that is multiplied by the daily cost rate, arriving at the B portion of the bid.[128] "The number of days bid by the contractor then becomes the contract completion date against which performance is measured."[129]

Although the A + B method can be used to calculate liquidated damages for failure to complete the contract within the B days bid (plus any agreed extensions), "[a]n I/D [incentive/disincentive] modification of this practice has been used more extensively."[130]

> An incentive/disincentive contract would be bid similar to an A + B but would add the proviso that the contractor is entitled to receive an incentive bonus payment each day that it finishes earlier than the bid time. The disincentive part of the clause is that the contractor would be subject to deduction from its contract earnings of a similar value for each day it finishes after the latest acceptable contract completion date. When using the incentive/disincentive bid process, many owners specify the maximum time that will be allowed under any circumstances, but set the calculation of the incentive/disincentive from the number of days that the contractor bid.[131]

The Synthesis concluded that "[t]he use of I/D scheduling seems to present a significant opportunity to drastically reduce the construction time estimated by project engineers…."[132]

According to the *Best Practices Procurement Manual*,[133] "[t]ransit agencies have had success in reducing project completion times by using a technique wherein bids are solicited and evaluated in terms of the prices offered and the best achievable completion schedule."[134] However, the Manual suggests that the use of incentives and liquidated damages "is important to keep the bidders 'honest' in their proposed completion schedules. The use of bonuses will provide an even stronger incentive for the bidders to successfully make their proposed schedules after contract award."[135]

The Manual includes some guidance on the use of incentives. For example, the price-plus- schedule bidding technique of contracting "is likely to encourage efficient contractors to bid, and it offers the likelihood of shorter construction project durations because of the

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[118] Survey response of NYCT.

[119] Survey response of Capital MTA (providing a checklist for the construction of one project).

[120] Survey response of CTDOT.

[121] Survey responses of Fort Worth Trans. Auth. and San Joaquin RTD (visits by the project manager to the site and review and monitoring of payment inquiries and a calendar of "due or expiring events").

[122] Survey response of MBTA (providing a copy of its standard schedule specifications § 01321 for details).

[123] Survey response of MTA Metro-North.

[124] Survey response of San Diego MTS.

[125] Survey response of San Mateo County Transit Dist.

[126] Survey response of SEPTA.

[127] CALLAHAN, *supra* note 19, at 1.

[128] *Id*. at 13.

[129] *Id*.

[130] *Id*. at 13–14.

[131] *Id*.

[132] *Id*. at 14.

[133] FED. TRANSIT ADMIN., BEST PRACTICES PROCUREMENT MANUAL, available at http://www.fta.dot.gov/grants/13054_6037.html.

[134] *Id*. § 6.1.9.

[135] *Id*.

strong financial incentives for achieving the best completion schedule.[136]

However, with such a technique,

> *[I]t is extremely important that the construction contractor have control over the work site*, and that the Agency's responsibilities at the work site be minimal or, preferably, nonexistent. If the contractor is dependent upon the Agency to furnish support at the work site, or if the contractor's work is dependent upon the activities of other contractors, the Agency can expect claims regarding the issue of delays, which in turn affect the incentive provisions of the construction contract. In view of the probabilities of claims and litigation, Agencies should avoid incentive contracts such as this unless they can turn a work site over to a construction contractor and allow the contractor to control that site and the scheduling of all work required to complete the project. Where contractors lack the necessary control over the work site, Agencies may well have to pay higher prices, based on the contract bonuses and the contractor's successful claims for delays, and still have a project that is late in completion.[137]

Although the agencies provided copies of clauses with specified amounts of incentive payments or liquidated damages, no agency indicated how it arrives at a specific hourly or daily rate. Nevertheless, the agencies did not report any litigation involving the specific amounts chosen for incentive payments or liquidated damages that were accepted by contractors in contracts applicable to construction projects or procurements of capital equipment or services.

B. Incentive Payments Made by Transit Agencies

In response to the survey, transit agencies reported on what they had paid in incentive awards or bonuses to a contractor for early or on-time completion for the most recent 3-year period (Table 5). Fourteen agencies using performance-based contracting had not made any incentive payments. Four agencies reported paying incentives amounting to $25,000,[138] $28,000,[139] $40,000,[140] and $132,000.[141] One agency, however, reported paying $2,500,000.[142] Six agencies did not respond or stated that the information was not available. For example, the NYCT stated that it does not maintain a central database of incentive awards or bonuses paid to contractors for early or on-time completion.[143]

[136] *Id*.

[137] *Id*.

[138] Survey response of MTA Metro-North (in connection with the completion of repairs to the West Hudson Line after Hurricane Irene).

[139] Survey response of Orange County Transp. Auth. (reporting $10,000 for passenger productivity incentive and $18,000 for on-time performance).

[140] Survey response of Utah Transit Auth. (figure applicable to 2010).

[141] Survey response of Capital MTA (stating that incentive payments for the 3-year period averaged $44,000 per year).

[142] Survey response of Utah Transit Auth.

[143] Survey response of NYCT.

Table 5. Incentive Payments Made by Transit Agencies for the Most Recent 3-Year Period.

Amount of Incentive Payments	No. of Agencies
$0	14 (58%)
$25,000 to $30,000	2 (8%)
$40,000	1 (3%)
$132,000	1 (3%)
$2,500,000	1 (3%)
Information not available or no response	8 (30%)

C. Examples of Incentive Payment Clauses Used by Transit Agencies

The Connecticut DOT's incentive payment and liquidated-damages clause establishes an "allowable completion date" and an "incentive completion date." If the contractor completes the specified work prior to the first date, the contractor receives a lump-sum incentive payment in the maximum amount. If the work is completed after the allowable-completion date but before the incentive-completion date, there is a lump-sum incentive payment less liquidated damages as calculated pursuant to a formula in the clause. If the contractor completes the work after the allowable-completion date, there is no incentive payment and liquidated damages are assessed for each day after the allowable completion date. Any incentive payment will not exceed $5,000,000, but liquidated damages that may be assessed are unlimited. Presumably, the unlimited range of liquidated damages has not precluded contractors from securing any necessary bonds or insurance as discussed in Section IV.B of the digest.

The department's incentive payment and liquidated-damages clause provides:

> Time will be of the essence in completing the stage construction for this project and in opening the new bridges, additional travel lanes and shoulders along I-95. In order to reduce the hazard, cost and inconvenience to the traveling public; the pollution of the environment; and the detriments to local businesses…, the following plan has been established and made a part of the Contract.
>
> The "Allowable Completion Date(s)" are the earliest possible dates that the Department desires to complete the specified Contract Construction Stage elements. The "Incentive Completion Date(s)" are the latest dates that the Contractor will receive incentive payments from the Department to complete the specified Contract Construction Stage elements. Completion prior to the "Allowable Completion Date(s)" will result in a Lump Sum Incentive Payment equal to the Maximum Incentive Payment Amount.
>
> Should the Contractor complete the specified Contract Construction Stage elements after the "Allowable Completion Date(s)" and on or before the "Incentive Completion Date(s)" the total payment shall be Lump Sum Incentive Payment less Total Liquidated Damages as defined below.
>
> Lump Sum Incentive Payment = Incentive Bonus Payment Amount + (Incentive Daily Payment Amount x (number of days the Contract Construction Stage elements complete before the "Incentive Completion Date"))
>
> Total Liquidated Damages = Liquidated Damages Daily Amount x (number of days the Contract Construction Stage elements complete after the "Allowable Completion Date")
>
> Total Payment = Lump Sum Incentive Payment – Total Liquidated Damages
>
> Should the Contractor fail to complete the specified Contract Construction Stage elements by the "Incentive Completion Date(s)" no Incentive Bonus Payment will be made and Liquidated Damages will be assessed for each day that the specified Contract Construction Stage elements complete after the "Allowable Completion Date(s)".
>
> Total Liquidated Damages = Liquidated Damages Daily Amount x (number of days the Contract Construction Stage elements complete after the "Allowable Completion Date").
>
> The Contractor shall complete all Contract stage construction work which would impede the corresponding traffic shift and be prepared to open the subject travel ways to traffic at their required widths, with travel lanes and shoulders before the corresponding dates and times, and total combined incentive payment(s) made by the Department to the Contractor under this Contract, if any are due, shall not exceed $5,000,000 for the Project. The total amount of liquidated damages that may be assessed and taken by the Department under this Contract shall not be limited.[144]

The department's contract also includes incentive and liquidated damages tables in connection with the foregoing.[145]

SANDAG's contracts may include a provision allowing for early-completion incentives and a table for calculating the amounts. It should be noted that the clause provides that if the contractor accelerates the

[144] CTDOT, App. 3, at A3-61–A3-65.

[145] *See id*.

work to meet a milestone established by the contract, any additional costs incurred in doing so are for the contractor's account, not for the agency's account.[146]

> If the Engineer determines that all work included in a Milestone described in Section 5-1.05, "Order of Work," is completed before the time provided for in Section 8-1.06, "Time of Completion," less the time specified in the table below, the Contractor is entitled to an Early Completion Incentive in the amount as specified in the table below.
>
> | Milestone | Time Incentive | Amount |
> |---|---|---|
> | A | less 7 working days | $20,000.00 |
> | B | less 14 working days | $30,000.00 |
> | C | less 21 working days | $40,000.00 |
> | D | less 28 working days | $50,000.00 |
> | E | less 35 working days | $60,000.00 |
>
> The early completion incentive time period is defined as the number of working days specified to complete the Milestone in Section 8-1.06, "Time of Completion," less the time specified in the table above.
>
> Should the Contractor choose to accelerate its work to complete the Work specified in each Milestone by the early completion incentive time period, then any additional labor, material, equipment, supervision, and overhead cost for acceleration of this work shall be performed at the Contractor's expense regardless of whether the Early Completion Incentive is achieved.
>
> If the Contractor elects to accept the Early Completion Incentive, then the Contractor agrees to waive all claims for the Work activities performed within that milestone as specified in Section 5-1.18, "Maintaining Rail Traffic," on page 5-41, in the "Table–ORDER OF WORK."
>
> *Contractor must request each incentive amount* within 15 working days following completion of the work contained in the Milestone. The Contractor shall submit a signed, written notice to the Engineer that the Contractor has completed the work within the early completion incentive time period. The notice shall state that the Contractor is waiving any and all:
>
> (a) Notice of Potential Claims as described in Section 9-1.04, "Notice of Potential Claim," for all contract work activities occurring during the entire early completion incentive time period;
>
> (b) resulting claims during the entire early completion incentive time period, and
>
> (c) any and all other disputes and claims arising during the entire early completion incentive time period between SANDAG and the Contractor arising under and by virtue of the contract.
>
> The Early Completion Incentive shall not be paid by the Engineer if the written request does not conform to all requirements set forth in this section.[147]

Other transit agencies provided copies of their performance-based contracting standards and conditions, including the following:

- A quality assurance program and related contractual provisions·[148]
- Specific liquidated damages with performance measures all paid on a monthly basis.[149]
- A contractor performance evaluation rating.[150]
- A contract modification with key performance indicators regarding quality of service, including on-board times and on-time performance and efficiency of service.[151]
- A liquidated-damages clause and a checklist in connection with providing transit services.[152]
- Performance matrices for contracted route service,[153] paratransit services,[154] and university shuttle services.[155]
- A performance matrix for maintaining schedule/run assignments and operator information; bidding-operator assignment selection; vehicle assignment and scheduling; operator availability and scheduled assignment changes; operator check-in; service dispatching and completion; operator communications; general process control, reporting, security, and performance; and interface requirements.[156]
- Performance bonuses and penalties (e.g., a completed trips incentive bonus or penalty).[157]

[146] SANDAG, App. 3, at A3-88–A3-92.

[147] *Id*.

[148] MBTA, App. 3, at A3-73–A3-76.

[149] San Diego MTS, App. 3, at A3-93–A3-98; *see also* San Joaquin RTD, App. 3, at A3-100–A3-107, § 3.4 (service performance standards and incentives).

[150] CTDOT, App. 3, at A3-60.

[151] COTA, App. 3, at A3-11–A3-12.

[152] LYNX, App. 3, at A3-13–A3-14.

[153] Capital MTA, App. 3, at A3-1–A3-2.

[154] *Id*. at A3-3–A3-5.

[155] *Id*. at A3-8–A3-10.

[156] LYNX, App. 3, at A3-16–A3-44.

[157] San Diego MTS, App. 3, at A3-93–A3-98.

D. Best Practices in the Use of Liquidated-Damages Clauses

1. Legal Requirements for an Enforceable Liquidated-Damages Clause

The parties may stipulate to the measure of damages for breach of a contract, including a public construction contract.[158] Of course, a construction contract may incorporate both an incentive clause and a disincentive or liquidated-damages clause. As a federal court stated in *Mega Construction Co., Inc. v. United States,*[159] a liquidated-damages clause is particularly "useful…when damages are uncertain in nature or amount or are unmeasurable, as in the case in many government contracts." (internal quotation marks omitted). Indeed, the federal government and all the states have statutes and regulations applicable to the use of liquidated damages in public construction and other contracts.[160]

In general, although state statutes and regulations, as well as judicial precedents, should be consulted, a liquidated-damages clause must be a reasonable forecast of the damages caused by a breach of the contract.[161] The enforcement of a liquidated-damages clause is a question of law determined by the court.[162] The burden of establishing whether a liquidated-damages clause is enforceable is on the party seeking to invalidate the provision.[163]

In the absence of a statute, the courts typically determine the validity of a liquidated-damages clause based on the interpretation in that jurisdiction of the rule set forth in the *Restatement of the Law Second, Contracts 2d*.[164] As the *Restatement* provides, "[d]amages for breach by either party may be liquidated in the agreement, but only at an amount that is reasonable in the light of the anticipated or actual loss caused by the breach and the difficulties of proof of loss."[165] First, the amount of liquidated damages must be reasonable in that the sum must "approximate[] the actual loss that has resulted from the particular breach, even though it may not approximate the loss that might have been anticipated under other possible breaches."[166] Second, the more difficult it is to prove that a loss has occurred or to establish the amount of the loss "with the requisite certainty…, the easier it is to show that the amount fixed is reasonable."[167]

There are various judicial formulations of the requirements for a valid liquidated-damages clause. To uphold a liquidated-damages clause in Georgia, the injury caused by the breach must be difficult or impossible of accurate estimation; the parties must have intended to provide for damages rather than for a penalty; and the sum stipulated must be a reasonable preestimate of the probable loss.[168] In Kansas, the courts

> distinguish unenforceable penalties from enforceable liquidated damages using "two considerations": first, whether the amount is "conscionable," that is, whether it is "reasonable in view of the value of the subject matter of the contract and of the probable or presumptive loss in case of breach"; second, whether the "nature of the transaction is such that the amount of actual damage resulting from default would not be easily and readily determinable"'…Kansas law echoes traditional common-law principles in this respect.[169]

(citations omitted).

In Missouri,

> [l]iquidated damages are a measure of compensation that, at the time of contracting, the parties agree will represent damages for breach. …Under Missouri law, liquidated damages provisions are generally enforceable. …The requirements for a liquidated damages provision to validly fix damages are (1) that the harm is of a kind difficult to accurately measure and (2) that the amount fixed as damages is a reasonable forecast of the harm caused by a breach.[170]

(citations omitted).

Thus, for a liquidated-damages clause to be upheld, the parties must have intended that the specified liquidated damages are a reasonable forecast of damages, which at the time of contracting were incapable of being estimated or were very difficult to estimate. Otherwise, a court may determine that the clause in question is an unenforceable penalty, thereby leaving the party seeking damages for breach to have to prove the actual damages caused by the breach.

In a case involving a public contract for the construction of a power and fiber-optic line for a city, a

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[158] Monsanto Co. v. Swann, 308 F. Supp. 2d 937, 944 (E.D. Mo. 2003).

[159] 29 Fed. Cl. 396, 503 (1993) (citation omitted).

[160] Scott M. Tyler, *No (Easy) Way Out: "Liquidating" Stipulated Damages for Contractor Delay in Public Construction Contracts*, 44 DUKE L.J. 357, 374 (1994).

[161] Fuqua Constr. Co. v. Pillar Dev., Inc., 293 Ga. App. 462, 463, 667 S.E.2d 633, 635 (2008); Paragon Group, Inc. v. Ampleman, 878 S.W.2d 878, 881 (Mo. App. 1994).

[162] Loomis v. Lange Financial Corp., 109 Nev. 1121, 1125–26, 865 P.2d 1161, 1163 (1993).

[163] Seven Seventeen HB Charlotte Corp. v. Shrine Bowl of Carolinas, Inc., 182 N.C. App. 128, 641 S.E.2d 711, 714 (2007); Harmony v. Sawyer, 98 Nev. 544, 547, 654 P.2d 1022, 1023 (1982).

[164] Tyler, *supra* note 160, at 374–75 (*citing* James A. Weisfield, Note, *"Keep the Change!": A Critique of the No Actual Injury Defense to Liquidated Damages*, 65 WASH. L. REV. 977, 980 (1990)).

[165] Restatement (Second) of Contracts 2d, § 356(1). Moreover, the Restatement states, "[a] term fixing unreasonably large liquidated damages is unenforceable on grounds of public policy as a penalty."

[166] *Id*. § 356, cmt. b.

[167] *Id*.

[168] *Fuqua Constr. Co.*, 293 Ga. App. at 463, 667 S.E.2d at 635.

[169] Hutton Contracting Co., Inc. v. City of Coffeyville, 487 F.3d 772, 781 (10th Cir. 2007).

[170] Monsanto Co. v. Swann, 308 F. Supp. 2d at 944.

federal court in Kansas held that the liquidated-damages clause was reasonable because the district court's award of liquidated damages approximated the increased administration and engineering costs to the city caused by the delay.[171]

In a Pennsylvania case, involving a prime contractor on a renovation project for the State's higher education system, the court affirmed a Board of Claims' determination that the experienced contractor had agreed to a liquidated-damages clause in a project in which delay was a risk and damages were difficult to prove. The court held that the Board properly assessed liquidated damages based on the period of delay, reduced by the number of days of delay that were beyond the contractor's control or that were due to the acts or omissions of the public entity.[172] In contrast, in another Pennsylvania case, the court held that the contractor carried its burden of proving that the full liquidated-damages award allowed by the contract would have been unreasonable and in the nature of a penalty under the circumstances of that case.[173]

One source argues that "[a] majority of jurisdictions consider whether an amount stipulated as liquidated damages bears a reasonable relation to the damages that reasonably might be expected to result from a breach."[174] (footnote omitted). However, in at least some states, the courts have held that in contracts for public projects a liquidated-damages clause will be enforced without proof that the public entity suffered any actual damages. As a Missouri court has held:

> Although we believe the liquidated damages clause was properly invoked under the Restatement standard, there is another reason we believe the assessment of liquidated damages by the Commission against Penzel was correct. The case before us involves a public works project, not a private owner. The southern district in *Sides Construction Co. v. City of Scott City*, 581 S.W.2d 443 (Mo. App. 1979), a case involving a contract to build a swimming pool, bathhouse, and related items in a city park, expressed its view that, in a public works project, the public entity may recover liquidated damages solely upon proof of a violation of the contract.[175]

As another source observes, some courts have held that in cases involving a public construction contract, "no actual damages, at all, need have been sustained in order to collect liquidated damages."[176]

Finally, as also advised by the FTA, a liquidated-damages clause may be used when a recipient "reasonably expects to suffer damages through delayed contract completion" and it "would be difficult or impossible to determine" the amount of damages.[177]

2. Guidelines for Determining the Amount of Liquidated Damages

As stated, the federal government and the states have statutes and regulations regarding the use of liquidated-damages clauses in public construction contracts.[178] (Footnote omitted.) Moreover, "[s]ome government agencies have their own internal guidelines for establishing liquidated damages rates."[179] (Emphasis supplied.) Some of the statutes and regulations require that government projects include a liquidated-damages clause.[180] The statutes or regulations may include or require standards for determining the amount of liquidated damages to be assessed. It should be remembered that "[l]iquidated damages rates consistent with such guidelines are presumed to be reason-

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[171] *Hutton Contracting Co.,* 487 F.3d at 781 (applying Kansas law).

[172] A.G. Cullen Constr., Inc. v. State Sys. of Higher Educ., 898 A.2d 1145, 1162 (Pa. 2006).

[173] Wayne Knorr, Inc. v. Dep't of Transp., 973 A.2d 1061, 1091 (Pa. 2009).

[174] *Tyler*, 44 DUKE L.J. 357, 377.

[175] Taos Constr. Co., Inc. v. Penzel Constr. Co., Inc. 750 S.W.2d 522, 526 (Mo. App. 1988) (also acknowledging other state court opinions in Melwood Constr. Corp. v. State, 126 Misc. 2d 156, 481 N.Y.S.2d 289, 292–93 (1984), *aff'd* 119 A.D. 2d 734, 132 Misc. 2d 338, 501 N.Y.S.2d 604 (1986); Dave Gustafson & Co. v. State, 83 S.D. 160, 156 N.W.2d 185, 188–89 (1968), as well as federal court decisions in United States v. Bethlehem Steel Co., 205 U.S. 105, 119, 27 S. Ct. 450, 455, 51 L. Ed. 731, 737 (1907); Bethlehem Steel Corp., 234 F. Supp. at 729–32; and Sw. Eng'g Co. v. United States, 341 F.2d 998, 1001–02 (8th Cir. 1965)).

[176] Matthew J. Christian, *Public Entities in Nevada Beware: The Liquidated Damages Clause in Your Construction Contract May Be Unenforceable*, 12 NEV. LAWYER 16 at *19 and n.1 (Oct. 2004) (*citing*, *e.g.*, Thompson v. St. Charles County, 126 S.W. 1044, 1050 (Mo. 1910) and Solomon v. Dep't of State Highways & Transp., 345 N.W.2d 717, 720 (Mich. Ct. App. 1984)).

[177] FTA Circular 4220.1F, *supra* note 21, at IV-12.

[178] *Tyler*, 44 DUKE L.J. 357, 374.

[179] SMITH, CURRIE & HANCOCK, *supra* note 21, at 432.

[180] In *Tyler*, 44 DUKE L.J. 375, n.85, the author cites to and quotes from a number of illustrative statutes and regulations on this point, including: ALASKA STAT. § 36.30.430(b)(1) (1992) ("[In state contracts, t]he commissioner shall adopt regulations permitting or requiring the inclusion…of clauses providing for…liquidated damages."); LA. REV. STAT. ANN. § 39:1661(B)(1) (West 1989) ("Regulations may permit or require the inclusion in state contracts of clauses providing for…liquidated damages as appropriate."); MD. CODE ANN. STATE FIN. & PROC. § 13-218(a)(4) (Supp. 1993) ("[State procurement contracts] shall include clauses covering…liquidated damages, as appropriate"); OHIO REV. CODE ANN. § 731.15 (Baldwin 1992) ("When a bonus is offered for completion of a contract prior to a specified date, [a village] may exact a prorated penalty in like sum for each day of delay beyond the specified date."); OKLA. STAT. ANN. tit. 15, §§ 214–215 (West 1993) ("A stipulation…providing for the payment of an amount which shall be presumed to be an amount of damage sustained by a breach of such contract, shall be held valid, when, from the nature of the case, it would be impracticable or extremely difficult to fix the actual damage."); 48 C.F.R. § 12.202 (1993) (Acquisition regulation permitting liquidated damages only "when…the Government may reasonably expect to suffer damage if…performance is delinquent, and…the extent…of such damage would be difficult or impossible to ascertain or prove").

able measures of the forseeable actual damages that the government will sustain due to late completion of the project."[181]

A Florida statute provides:

> Every contract let by the department for the performance of work shall contain a provision for payment to the department by the contractor of liquidated damages due to failure of the contractor to complete the contract work within the time stipulated in the contract or within such additional time as may have been granted by the department. The contractual provision shall include a reasonable estimate of the damages that would be incurred by the department as a result of such failure. *The department shall establish a schedule of daily liquidated damage charges, based on original contract amounts, for construction contracts entered into by the department, which schedule shall be incorporated by reference into the contract*.[182]

(Emphasis supplied.)

The same Florida statute also provides:

> The department shall update the schedule of liquidated damages at least once every 2 years, but no more often than once a year. *The schedule shall, at a minimum, be based on the average construction, engineering, and inspection costs experienced by the department on contracts over the 2 preceding fiscal years. The schedule shall also include anticipated costs of project-related delays and inconveniences to the department and traveling public. Anticipated costs may include, but are not limited to, road user costs, a portion of the projected revenues that will be lost due to failure to timely open a project to revenue-producing traffic, costs resulting from retaining detours for an extended time, and other similar costs*. Any such liquidated damages paid to the department shall be deposited to the credit of the fund from which payment for the work contracted was authorized.[183]

(Emphasis added.)

In an Illinois case, the court explained that the defendant arrived at its $200 per-diem amount for liquidated damages based in part on the Illinois DOT's Standard Specifications, which suggested that liquidated damages be set at $200 per day on a $1 million to $2 million project.[184]

Using the FAR as a guide and depending on the contract, "liquidated damages may be assessed for delays in completing phases of the contract and for delays in substantial completion of the entire project."[185] FAR Section 11.501 sets forth the basic factors and guidelines that should be considered when determining whether to use a liquidated-damages clause, as well as in establishing the rate for the damages.[186]

The FTA Circular advises that the rate and measurement standards must be specified in the solicitation and contract, must be "calculated to reasonably reflect the recipient's costs should the standards not be met," and must be "established at a specific rate per day for each day beyond the contract's delivery date or performance period."[187] The file should record "the calculation and rationale" for the damages assessed.[188] If the government is the cause of the delay, "liquidated damages are either waived or apportioned between the government and the contractor."[189] Any such damages that are recovered must be credited to the grant, thus becoming available to the agency for activities that are within the scope of the grant.[190]

3. Guidelines for Drafting a Liquidated-Damages Clause

There are some suggested guidelines to follow or language to include when drafting a liquidated-damages clause, such as:

- The parties should express their intent in the agreement that the liquidated-damages clause is in fact meant to be a liquidated-damages clause and not a penalty.
- The liquidated-damages clause is a reasonable forecast of the damages in the event of a breach of the contract.
- At the time of entering into the contract, the parties stipulate that the damages in the event of a breach of contract are incapable of being estimated or are very difficult to estimate.
- The contract should identify the type or types of breach of contract to which the liquidated-damages clause applies to assist in avoiding a ruling later that the clause is overbroad or punitive.
- The parties also may specify the types of damages that are difficult to estimate, such as when damages are incurred because of a delay in the completion of the contract.
- It has been recommended that the contract include a formula for calculating the liquidated damages that are applicable to a specific breach, such as a per-diem sum for each day of delay that is attributable to the fault of the contractor.[191] It may be noted that an

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[181] SMITH, CURRIE & HANCOCK, *supra* note 21, at 432.

[182] FLA. STAT. § 337.18(2). Although the section does not mention transit specifically, the Public Transportation chapter defines a "transportation facility" to be "any means for the transportation of people or property from place to place which is constructed, operated, or maintained in whole or in part from public funds." *Id*. § 340.03(30).

[183] *Id*. § 337.18(2).

[184] Stone v. Arcola, 181 Ill. App. 3d 513, 522, 536 N.E.2d 1329, 1335 (1989). Although the liquidated-damages clause was held to be "appropriate and enforceable," the court ruled in favor of the contractor on other grounds. *Id*., 181 Ill. App. 3d at 525, 536 N.E.2d at 1337.

[185] SMITH, CURRIE & HANCOCK, *supra* note 21, at 432.

[186] *Id*.

[187] FTA Circular 4220.1F, *supra* note 24, at IV-12.

[188] *Id*.

[189] CONSTRUCTION LAW HANDBOOK, *supra* note 99, at 355 (*citing* George Sollitt Constr. Co. v. United States, 64 Fed. Cl. 229, 243 (2005)).

[190] *Id. See also* FTA, Incentive Contracts, *supra* note 45.

[191] Public Health Trust of Dade County v. Romart Constr., Inc., 577 So. 2d 636, 638 (Fla. Ct. App. 1991) (upholding liq-

American Law Reports annotation collects cases that have upheld liquidated-damages clauses, including those providing for liquidated damages on a per-diem basis.[192]

• The parties may include a stipulation that the liquidated-damages clause is to be applied and enforced against the breaching party without any showing being required that there are any actual damages incurred or suffered at all by the public entity because of the breach and/or without any showing that there is any relationship between the stipulated amount of liquidated damages and the amount of actual damages caused by the breach.[193]

E. Liquidated Damages Collected by Transit Agencies

Transit agencies that are using performance-based contracting were asked to state for the most recent 3-year period how much each agency had collected or had been credited in liquidated damages for delay in contract completion (Table 6). Of 27 agencies using performance-based contracting, 17 reported that no liquidated damages had been collected or credited for the most recent 3-year period. Four agencies reported that they had collected or been credited liquidated damages in the amounts of $6,800;[194] $29,950;[195] $429,000;[196] and $471,300.[197] One agency, however, reported $6,000,000 in liquidated damages on one project.[198] Five agencies either stated that the information was not available or did not respond to the inquiry.

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uidated damages of $2,500 per day even though the county may have suffered no actual monetary loss).

[192] *See* Annotation, *Contractual Provision for Per Diem Payments for Delay in Performance as One for Liquidated Damages or Penalty*, 12 A.L.R. 4th 891 (2012 Supp.).

[193] *See* discussion of the foregoing suggestions in Henry F. Luepke III's *How to Draft and Enforce a Liquidated Damages Clause,* 61 J. OF MO. BAR 324, 326–28 (2005).

[194] Survey response of Orange County Transp. Auth. (stating that the amount was collected on one contract).

[195] Survey response of Omnitrans (reporting that for 1 year (July 1, 2010, to June 30, 2011) it had collected or been credited $16,000 and that for a partial year (July 1, 2011, to Feb. 29, 2012) it had collected or been credited $13,550).

[196] Survey response of Capital MTA (reporting an average of $143,000 per year).

[197] Survey response of CTDOT (reporting $258,000 for 2009, $63,200 for 2010, and $150,100 for 2011).

[198] Survey response of Port Authority/Trans Hudson (PATH).

Table 6. Liquidated Damages Collected by or Credited to Transit Agencies for the Most Recent 3-Year Period.

Amount of Liquidated Damages	No. of Agencies
$0	17 (63%)
$6,500	1 (4%)
$29,950	1 (4%)
$429,000 to $471,300	2 (7%)
$6,000,000	1 (4%)
Information not available or agency not responding	5 (18%)

F. Examples of Liquidated-Damages Clauses Used by Transit Agencies

The policy of the Central Florida Regional Transportation Authority (LYNX) on liquidated damages includes a definition of liquidated damages, a requirement that estimated damages must be computed on a case-by-case basis, a liquidated-damages checklist to complete, a statement that liquidated damages may be required in any type of contract, and other guidance on the assessment of liquidated damages:

> Liquidated damages are a specific sum (or a sum readily determinable) of money stipulated in the contract as the amount to be recovered for each day (or other period as appropriate) of delay in delivery of the product or completion of the contract. They do not represent actual damages but are established in the initial contract as a substitute for actual damages. They should represent, however, the most realistic forecast possible of what the actual damages are likely to be. In order to be enforceable, liquidated damages must be compensatory in nature (a reasonable estimate of actual damages), and not in the nature of a penalty. If the liquidated damages, in effect, provide for a penalty or punishment for breach of contract, rather than compensation for loss sustained by the Agency, the provision will be unenforceable by a court on grounds of public policy.
>
> A Liquidated Damages Checklist must be completed by the Project Manager prior to issuing the solicitation in order to document the Agency's estimate of what actual damages are likely to be for delays in contract completion. The estimated damages must be computed on a case-by-case basis and documented in the contract file.
>
> Liquidated damages may be used in any type of contract: supplies, services and construction when the time of delivery is important and LYNX may reasonably expect to suffer damage if performance is delinquent. When considering whether to use a liquidated damages clause, factors to be considered include the probable effect upon bidders' pricing, potential for discouraging competition, and the costs and difficulties of contract administration. When it is determined that a liquidated damages clause will be included in the contract, the applicable clause and appropriate rate(s) must be contained in the solicitation.
>
> Capping the Liquidated Damages: Open-ended, uncapped liquidated damages may be a serious detriment to competition and may increase the bid prices. Many companies are unable to accept open-ended risks or will simply add contingencies to cover the potential financial impact the damages may cause. If a surety bond is being required for the contract, uncapped liquidated damages may become a detriment to obtaining a bond. The contract, therefore, should include an overall maximum dollar amount or period of time, or both, during which liquidated damages may be assessed.
>
> Substantial Completion: Liquidated damages are not assessed after the date on which the work is substantially completed. Substantial completion is defined as "the time when the construction site or the supplies delivered are capable of being used for their intended purposes." There is no predetermined percentage that will establish substantial completion—the criterion to be used is the availability of the work for its intended use, not a formula as to the percentage of completion.[199]

Liquidated-damages clauses used by the San Mateo County Transit District provide for both hourly and daily rates of liquidated damages ranging from $2,000 per hour for certain delays to $7,500 per day for delays in obtaining substantial completion of the work.

> GP8.4 Liquidated Damages
>
> In case all or any designated portion of the Work called for under the Contract does not achieve Substantial Completion within the time set forth in the Special Provisions, damage will be sustained by the Owner, and the Contractor will pay to the Owner the sum set forth in the Special Provisions for each and every day's delay in achieving Substantial Completion of the Work in excess of the time specified in the Special Provisions. The Owner may deduct the amount of liquidated damages from any monies due or that may become due the Contractor under the Contract.
>
> SECTION 01002
>
> LIQUIDATED DAMAGES PART 1— GENERAL
>
> 1.01 DESCRIPTION

[199] LYNX, App. 3, at A3-13–A3-14.

A. Section includes liquidated damages for Substantial Completion and interim milestones.

1.02 LIQUIDATED DAMAGES

A. Attention is directed to General Provisions GP8.4, Liquidated Damages.

B. Liquidated damages in the amount shown per hour shall be assessed for each and every hour delay in finishing the Work of each interim milestone in excess of the specified completion time or date as follows:

1. $2,000 per hour shall be assessed for each and every hour's delay in completing work performed under a street closure….

C. Liquidated damages in the amount shown per day or as otherwise indicated shall be assessed for each and every day's delay in finishing the Work of each interim milestone in excess of the specified completion time or date as follows:

1. $5,000 per day shall be assessed for each and every day's delay in completing CP Scott and the temporary station as described in Section 01001.

D. In the event that the Owner directs Contractor to proceed with the work of Option 1, then:

1. Liquidated damages in the amount of $7,500 per day shall be assessed for each and every day's delay in completing the Work of the Main Contract as described in Section 01001.

E. Liquidated damages in the amount of $7,500 per day shall be assessed for each and every day's delay in obtaining Substantial Completion of the Work as described in Section 01001.

F. Liquidated damages shall accrue separately for each occurrence listed in Paragraphs 8, C D and E (above).[200]

Other transit agencies provided copies of their contractual documents and policies regarding the assessment of liquidated damages, including:

- Liquidated-damages clauses and checklists for liquidated damages.[201]
- A contract close-out performance evaluation.[202]
- Provisions regarding the preparation/bid tender with daily liquidated damages for each day the project is delayed beyond the mandatory completion date.[203]
- A solicitation packet for an invitation to bid for services,[204] a best-value bid for services for asbestos clean-up and removal,[205] and the agency's vendor evaluation form.[206]
- A schedule of deductions based on the value of the contract and the charges per calendar day for failure to complete the work on time.[207]
- The assessment of liquidated damages in a medical services contract for drug testing.[208]
- Various other clauses providing for the assessment of liquidated damages.[209]

G. The Use of Dispute Resolution Boards

According to a TRB Synthesis, some agencies have adopted the use of "a Dispute Review Board (DRB) to hear disputes relatively contemporaneously with construction and to submit nonbinding findings" to settle disputes.[210] According to the Synthesis,

> [t]he DRB was originally conceived to evaluate claims in differing site conditions, particularly in tunnel construction. The process, however, has been so successful that it has rapidly spread to other parts of the transit construction industry and is now being extensively used by several highway departments and is gaining acceptance in commercial applications.[211]

Moreover,

> [t]he DRB is created as a part of a contracting process and is established by the contract between the owner and the contractor and comes into being at the beginning of the contract. Initially, both the owner and the contractor select their appointed representative to the DRB, who must be acceptable to the other party, and these two nominees then select the third member who acts as chairman. ….
>
> The DRB members then become familiar with the contract through the review of the contract documents and a tour of the contract site.[212]

Although some transit agencies may be using DRBs, the agencies responding to the survey did not state or otherwise indicate that they are using DRBs in connection with their performance-based contracts.

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[200] San Mateo County Transit Dist., App. 3, at A3-114–A3-121.

[201] *See* LYNX, App. 3, at A3-13–A3-14 and A3-15 (liquidated damages checklist), and LYNX, App. 3, at A3-13–A3-14 (liquidated damages definition, policy, and guidelines). *See also* Orange County Transp. Auth., App. 3, at A3-82–A3-87 (deductions for liquidated damages).

[202] LYNX, App. 3, at A3-15.

[203] MBTA, App. 3, at A3-73–A3-76.

[204] COTPA, App. 3, at A3-51–A3-55.

[205] *Id*. at A3-56–A3-57.

[206] *Id*. at A3-58–A3-59.

[207] MBTA, App. 3, at A3-73–A3-76 (General Conditions § 6.9).

[208] Capital MTA, App. 3, at A3-7.

[209] *See* MTA Metro-North, App. 3, at A3-77 (Metro-North's damages in case of delay); San Joaquin RTD, App. 3, at A3-99, § 2.35 (liquidated damages); San Mateo County Transit Dist., App. 3, at A3-114–A3-121, § 01002 (liquidated damages from $2,000 per hour to $7,500 per day), and § 26 (liquidated damages); TriMet, App. 3, at A3-122, § 5.2.3 (liquidated damages of $100,000 after a date certain plus $10,000 for each calendar day until 10 cars have been conditionally accepted).

[210] CALLAHAN, *supra* note 19.

[211] *Id*. at 23.

[212] *Id*.

VI. TRANSIT AGENCIES' EVALUATION OF PERFORMANCE-BASED CONTRACTING

A. Transit Agencies' Success with Incentive Payments and Liquidated-Damages Clauses

Transit agencies in their responses reported on their experience with performance-based contracting. In doing so, transit agencies stated variously that performance-based contracts permit an agency to state what its requirements are while relying on the contractor to determine the best way to deliver the service, or product, in accordance with industry standards or best practices;[213] that incentives and liquidated damages are additional tools to obtain on-time, on- budget performance from vendor partners;[214] that the method of contracting allows for the evaluation of each submittal in accordance with the needs of the agency as outlined in the procurement documents;[215] and that liquidated damages, for example, are a useful method to enforce delivery or performance requirements.[216]

Transit agencies consider the use of performance-based clauses to be another aspect of the best practices to use in securing the timely performance of their construction and other contracts. For example, transit agencies stated that they have lower costs, fewer claims and disputes, and faster completion of contracts;[217] that there is a greater focus by a contractor on the areas that are important to the agency as the owner;[218] and that the potential for assessing liquidated damages motivates contractors to recover and mitigate schedule delays.[219]

Other agencies also observed that contracts are completed on time;[220] that the use of liquidated-damage clauses in construction contracts causes an agency in turn to provide timely milestones and contract-completion dates;[221] that such clauses facilitate project and contract management because they encourage early dialogue to avoid performance issues;[222] that a contractor is motivated to achieve set goals with an attendant increase in customer service and on-time performance;[223] and that the use of set goals informs contractors what is expected of them, and, moreover, improves a transit agency's management of a contract.[224]

SANDAG stated that, with respect to one performance-based contract, the contractor exceeded each milestone, was more motivated and easier to work with, and exceeded the "tight schedule" for the project.[225] COTA in Ohio reported that the use of performance-based contracting improved trip productivity from 1.48 in 2009 to 1.49 in 2011; that on-time performance improved from 94.5 percent in 2009 to 95.0 percent in 2011; and that missed trips declined from 19 per month in 2009 to 5 per month in 2011.[226]

In sum, transit agencies reported that performance-based contracting means the establishment of clearly-defined objectives, milestones, and standards; lower costs; improved performance by a contractor, including more on-time performance; increased competition; and the ability to recover costs caused by nonperformance.[227] One agency stated that, with respect to service contracts, the use of performance-based contracting has resulted in excellent performance, the contracts are a useful training tool, and managers are more involved in the performance of the system.[228]

B. Risks in Using Incentive Payment and Liquidated-Damages Clauses

Transit agencies did advise that there are some risks or adverse effects as a result of using performance-based contracts. The agencies reported that in their experience, the contracts require a more structured inspection system for documenting problems with performance; clarifying issues involving the scope of the work; validating performance deficiencies prior to deductions; and taking corrective actions—all factors that necessitate additional staff time to supervise and complete.[229] Another agency reported that the monitoring of performance may be difficult and that because monitoring is labor intensive, performance-based contracts may generate additional costs, including legal fees.[230] As one agency stated, there is an administrative burden in enforcing performance-based clauses.[231]

Because there may be differing levels of experience and familiarity with performance-based contracts, problems may arise during the "solicitation development and contract performance."[232] Furthermore, experience is required in writing performance-based specifications, statements of work, scope of services, and quality assurance surveillance plans.[233] One agency stated that an agency's personnel must be responsive to a contractor's requests for information so that the

[213] Survey response of Capital MTA.

[214] Survey response of LYNX.

[215] Survey response of Fort Worth Trans. Auth.

[216] Survey response of LACMTA.

[217] Survey response of DART-Dallas.

[218] Survey response of Utah Transit Auth.

[219] Survey response of SEPTA.

[220] Survey response of Greater N.H. Transit Dist.

[221] Survey response of MBTA.

[222] Survey response of MTA Metro-North.

[223] Survey response of Orange County Transp. Auth.

[224] Survey response of San Joaquin RTD.

[225] Survey response of SANDAG.

[226] Survey response of COTA.

[227] Survey responses of Omnitrans and TriMet.

[228] Survey response of San Diego MTS.

[229] Survey response of Capital MTA.

[230] Survey response of Orange County Transp. Auth.

[231] Survey response of LACMTA.

[232] Survey response of Capital MTA.

[233] *Id*.

agency does not delay a contractor in meeting milestones established by the contract.[234]

C. The Effect of Incentive Payment and Liquidated-Damages Clauses on Contract Claims

Although not providing any details, only two agencies reported having been involved in any litigation over an incentive payment or a liquidated-damages clause.[235] Some litigation was avoided through negotiated settlements. Captial MTA in Austin reports that liquidated damages were part of the sum of $750,000 paid to Captial MTA in a settlement involving a contract for the construction of an operations and maintenance building for the agency.[236] The NYCT stated that it

> reached a settlement with a contractor that claimed to incur costs for manpower overtime, night and weekend work performed in order to earn early completion incentives. The work was not completed on time. The contractor attributed [its] inability to meet the deadline for [the] incentive due to actions…by NYC Transit. A compromise was reached prior to the claim being adjudicated.[237]

One agency stated that performance-based contracting has resulted in no litigation for the agency,[238] but the MBTA stated that there have been a few claims that were settled through negotiations with contractors.[239] Although the use of liquidated-damages clauses are useful as leverage in resolving disputes with contractors,[240] one agency stated that their use may increase the potential for the termination of a contract for nonperformance.[241] Finally, if managed too aggressively or brusquely, performance-based contracting may "drive a wedge" between the transit agency and the contractor.[242]

D. Potential Claims in Connection with Performance-Based Contracting

1. Contractor Claims for Acceleration Costs to Meet Deadlines

A transit agency needs to be careful in the handling of incentive payments or assessing of liquidated damages as a contractor may accelerate the work to avoid liquidated damages or to claim an incentive payment, plus claim the cost of acceleration. Four transit agencies stated their agency has experienced claims for additional contractor costs based on a contractor's alleged acceleration of the work to avoid an assessment of liquidated damages or to earn an incentive payment under a contract.[243]

Although written from the perspective of federal procurement and contracts, one source explains that "[t]he constructive change doctrine…has been invoked where the government unjustifiably orders the contractor to speed up the performance of the work or implement a 'recovery schedule'—that is, a constructive acceleration—thus entitling the contractor to an equitable adjustment under the changes clause."[244] As the FTA warns, an agency "must be very careful…not to motivate the contractor to spend any amount of money it takes in order to meet the delivery date and earn the fee."[245] FTA also cautions against using a cost-type contract in which the only incentive is delivery because such an approach may "motivate the contractor to incur very high costs in order to earn the delivery incentive."[246]

As one court has observed, an explicit order to accelerate is not required:

> An order to accelerate need not be expressed as a specific command by the government unit, but may be constructive. A constructive acceleration order may exist, when the government unit merely asks the contractor to accelerate or when the government expresses concern about lagging progress. Whether a constructive acceleration order was given to a contractor is a question of law. (citations omitted).[247]

There may be constructive acceleration when a "contracting officer has refused a valid request for time extensions or threatened other action that requires the contractor to accelerate its work to avoid liquidated damages or other risk of loss."[248] Another form of acceleration is when the government interprets the contract incorrectly, thus forcing an acceleration of the work.[249] In such cases the contractor may be entitled to recover the costs related to the acceleration.[250]

It should be noted that there is no FTA prohibition on having an incentive contract in which the incentive is lost if the product is delivered even 1 day late, an issue that has arisen in some nontransit construction contract cases.

In *Department of Transportation v. Anjo Construction Co.*,[251] involving a contract with the DOT to reha-

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[234] Survey response of SANDAG.

[235] Survey responses of CTDOT and Orange County Transp. Auth.

[236] Survey response of Capital MTA.

[237] Survey response of NYCT.

[238] Survey response of COTPA.

[239] Survey response of MBTA.

[240] Survey response of San Mateo County Transit Dist.

[241] Survey response of Omnitrans.

[242] Survey response of San Diego MTS.

[243] Survey responses of COTPA, CTDOT, NYCT, and MBTA.

[244] SMITH, CURRIE & HANCOCK, *supra* note 21, at 303.

[245] FTA, Incentive Contracts, *supra* note 45.

[246] *Id*.

[247] Dep't of Transp. v. Anjo Constr. Co., 666 A.2d 753, 757 (Pa. Commw. Ct. 1995).

[248] SMITH, CURRIE & HANCOCK, *supra* note 21, at 303–04.

[249] *Id*. at 305.

[250] *Id*. at 304. *See id.* for five elements normally required to establish a claim for constructive acceleration. *See also* Utley-James, Inc., GSBCA No. 5370, 85-1 BCA ¶ 17816 (1985), *aff'd* 14 Cl. Ct. 804 (1988).

[251] 666 A.2d 753. *See* SNC-Lavalin Am., Inc. v. Alliant Tech Systems, Inc. 2012 U.S. Dist. LEXIS 61787, at *36, stating

bilitate a bridge in the Pittsburgh area, the contract originally required the work to be completed by December 31, 1987, and contained incentive/disincentive clauses to encourage timely completion. In one incentive clause, Anjo was to receive $43,000 for each weekend less than the maximum of six permitted by the contract that it closed the bridge. A second incentive clause provided that for each day the bridge was opened to unrestricted traffic prior to January 1, 1988, Anjo would receive $14,350 per day up to a maximum of 100 days. Thus, the maximum incentive payment that Anjo could earn was $1,435,000.[252]

Because of errors in an engineering firm's designs, resulting in reconstruction of the bridge and "protracted delays," Anjo was forced to accelerate its work under the contract, causing an increase in the company's labor and other costs. Although Anjo notified the DOT on January 30, 1987, that the design errors would seriously delay the project, the DOT did not immediately adjust the project's completion date.[253] Ultimately the completion date was changed to March 18, 1988; however, Anjo completed the project by December 9, 1987, and received the full incentive. Afterwards, Anjo submitted a claim for extra labor costs and profit on the costs as well as for other extra work and costs.[254]

The Board of Claims ruled in Anjo's favor on damages sought for acceleration costs and other expenses but denied other aspects of the claim, such as the claim for profits on the additional labor costs.[255] On appeal, Anjo argued that the denial of part of its claim was error while the DOT argued that Anjo was not entitled to acceleration damages and that the Board had disregarded language in the contract that precluded a claim "based on impacts from extra work."[256]

The DOT contended that Anjo was not entitled to damages for extra labor costs because the department never ordered Anjo to accelerate its performance. However, the court stated that

> [a]cceleration occurs when a contractor speeds up the pace of its work, faster than the rate prescribed in the original contract. A contractor may recover for the increased costs incurred as a result of accelerating performance, when (1) its own delays in performance are excusable, (2) the contractor was ordered to accelerate, and (3) the contractor did so and sustained extra costs.[257]

The court agreed with the Board that the DOT constructively ordered Anjo to accelerate its work. Moreover, a memorandum of understanding "stated that DOT would consider costs previously incurred by [Anjo], which have been identified as necessary to accelerate the work in an attempt to maintain the project schedule." (Internal quotation marks omitted.) [258]

Even though the DOT ultimately extended the contract, the court held that the DOT had not granted the extension within a reasonable time, noting that Anjo had begun accelerating its work prior to the extension.[259] Furthermore, the court agreed that the acceleration was not to earn the incentive payment but to meet project deadlines, pointing out that Anjo's extra labor cost exceeded the incentive payment by $200,000.[260]

Another acceleration case is *Edward Kraemer & Sons, Inc. v. City of Overland Park.*[261] Edward Kraemer & Sons (Kraemer) repeatedly requested a change in the completion date of certain aspects of a highway construction project to reflect the department's delay in issuing a notice to proceed. As a result, Kraemer adopted an accelerated work schedule to meet the scheduled date of completion.[262] A jury awarded Kraemer $465,000 in incentive payments but awarded no damages for costs associated with the accelerated work schedule.[263] The appellate court affirmed, holding, *inter alia*, that Kraemer's cause of action for breach of contract did not accrue until Kraemer completed the work and demanded the incentive payments and the cities of Overland Park and Merriam had rejected the demand.[264]

In *James Cape & Sons Co. v. Illinois,*[265] involving a highway construction contract, the contract had a completion date for the work of October 30, 1993; a liquidated damages provision for delayed completion; and an incentive provision for early completion. The contractor alleged that certain events attributable to the State resulted in additional cost to perform the work and a delay of 64 days in completion.[266] The special provisions to the contract stated:

> Should the contractor be delayed in the commencement, prosecution or completion of the work for any reason,

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> [t]he majority of cases involving claims for constructive acceleration have been litigated in the federal agency appeals boards and the United States Court of Federal Claims, and have involved construction or procurement contracts with the federal government. The theory has also been utilized, however, in cases involving claims against private contractors, as well as state and local government entities.

(*citing Anjo*, McDevitt & Street Co. v. Marriott Corp., 713 F. Supp. 906, 915 (E.D. Va. 1989); Envirotech Corp. v. Tennessee Valley Auth., 715 F. Supp. 190, 191 (W.D. Ky. 1988); Sherman R. Smoot Co. v. State, 136 Ohio App. 3d 166, 170, 736 N.E.2d 69, 72 (2000); and Fru-Con Corp. v. State of Illinois, 50 Ill. Ct. Cl. 50, 51 (1996)).

[252] *Anjo*, 666 A.2d at 756.

[253] *Id*.

[254] *Id*.

[255] *Id*. at 757.

[256] *Id*.

[257] *Id*. (*citing* Norair Eng'g Co. v. United States, 229 Ct. Cl. 160, 666 F.2d 546 (Ct. Cl. 1981)).

[258] *Id*. at 757.

[259] *Id*. at 758.

[260] *Id*.

[261] 19 Kan. App. 2d 1087, 880 P.2d 789 (1994).

[262] *Id*. at 1088, 880 P.2d at 791.

[263] *Id*. at 1089, 880 P.2d at 791.

[264] *Id*. at 1093, 880 P.2d at 793.

[265] 52 Ct. Cl. 322 (Ill. Ct. Cl. 2000).

[266] *Id*. at 324.

> *there shall be no extension of the incentive payment calculation date* even though there may be granted an extension of time for completion of the work unless significant extra work is added to the contract by the Department.

(Emphasis added.)[267]

The contract included three special provisions, one of which was that

> [t]he Liquidated Damages Deadline would be extended beyond October 30, 1993, for events described in Art. 108.09(b) of the Specifications, which included: delays due to causes beyond the control and without the fault or negligence of the contractor, INCLUDING ACTS OF GOD, AND WORK ADDED WHICH AFFECTS PROGRESS ON THE CONTROLLING ITEM.[268]

The claimant argued that although it substantially completed the work prior to the deadline, the claimant incurred over $3 million in additional and unreimbursed costs, in part because of significant extra work added by Illinois DOT (IDOT). The court stated

> IDOT failed to comply with contract specifications and industry practices. In addition to not reimbursing Claimant for the costs related to the foregoing, IDOT refused repeated requests by Claimant to extend the liquidated damages deadline and the incentive payment deadline. *Faced with the prospect of unlimited liquidated damages, Claimant accelerated its efforts beyond what was required by the contract.* While IDOT continually assured Claimant that Claimant's additional costs would be reimbursed, IDOT disavowed all prior assurances once substantial completion of the work was achieved.

(Emphasis added.)[269]

As for the applicable law, "[t]he general rule is that a contractor is bound by the damage provisions of the contract and has no right to additional compensation for delays which prevent the contractor from completing the contract unless the delays are the sole responsibility of the State."[270] The court stated, however, that "[i]t is inevitable there will be some delays and delay will be tolerated if reasonable" and that "[i]t is Claimant's burden to prove the contract, the breach, and the damages…."[271] However, when

> "the evidence shows more probably than not that the respondent should have granted reasonable extensions of time for delays due to unforeseen causes beyond claimant's control and without claimant's fault or negligence, then claimant is entitled to all retainage without liquidated damages." …The State should allow an extension where the cause is not the fault of the claimant.[272]

[267] *Id*. at 327.

[268] *Id*. at 330.

[269] *Id*. at 330. The court's opinion provides details on the extra work performed.

[270] *Id*. at 360 (*citing* Illinois Constructors Corp. v. State, 45 Ill. Ct. Cl. 124 (1993) (*citing* Johnson County Asphalt v. State, 39 Ill. Ct. Cl. 36 (1987) and Walsh Constr. Co. v. State, 24 Ill. Ct. Cl. 441 (1964))).

[271] *Id*. at 360.

[272] *Id*. (*citing* Fruin Colmon Contracting Co. v. State, 26 Ill. Ct. Cl. 138 (1967); J.F., Inc. v. State, 41 Ill. Ct. Cl. 5 (1988); Davinroy v. State, 44 Ill. Ct. Cl. 268 (1991); McHugh Constr. Co. v. State, 27 Ill. Ct. Cl. 232 (1969)).

2. Disputes Over the Contract Documents and Their Interpretation

A TRB Synthesis reports that "[a] number of studies have examined the underlying causes of claims and disputes and concluded that deficiencies in contract documents typically account for half of all problems and site conditions account for 20 percent."[273] Five transit agencies responding to the survey stated that their agency had experienced claims based on the parties' differing interpretation of a contract specifically in regard to a liquidated damages or an incentive-payment clause in a contract.[274]

Trocom Construction Corp. v. City of New York[275] involved a contract for the reconstruction of a portion of Sixth Avenue in Manhattan for which the plaintiff was to perform soil borings. The contract included payment incentives for early completion.[276] After a dispute arose over how to perform the borings on the west side, a Contract DRB agreed both that the plaintiff's interpretation of the contract specifications was reasonable and that the plaintiff was entitled to compensation for the extra work performed. The Contract DRB did not have jurisdiction to decide the plaintiff's claim for the incentive fee. The trial court thereafter granted the defendant's motion for summary judgment, reversed, and dismissed the complaint.

The appellate division reversed the trial court's order, denied the City's motion for summary judgment, and remanded the matter for further proceedings. The court held that the bonus is "an element of damages, naturally flowing from the breach…."[277] Second, the court rejected the "defendant's argument that the bonus is barred by the 'no damages for delay' provision of the contract. Compensation for the loss of an incentive bonus is not 'damages for delay' within the meaning of such a provision."[278] The appeals court held that

[273] CALLAHAN, supra note 19, at 18.

[274] Survey responses of CTDOT, MBTA, NYCT, Orange County Transp. Auth., and San Mateo County Transit Dist.

[275] 51 A.D.3d 533, 859 N.Y.S.2d 41 (App. Div. 1st Dep't 2008).

[276] *Id.* at 533, 859 N.Y.S.2d at 41.

[277] *Id*.

[278] *Id*. at 534, 859 N.Y.S.2d at 42. *See also* Plato General Constr. Corp. v. Dormitory Auth. of the State of New York, 21 Misc. 3d 1138A, 875 N.Y.S.2d 823 (N.Y. Supreme, Kings County (2008)) (stating that

> a no-damage-for-delay clause may not be invoked to bar the recovery of damages for (1) delays caused by the [owner's] bad faith or its willful, malicious, or grossly negligent conduct, (2) uncontemplated delays, (3) delays so unreasonable that they constitute an intentional abandonment of the contract by the [owner], and (4) delays resulting from the [owner's] breach of a fundamental obligation of the contract.

(*citing* Trocom Constr. Corp. v. City of New York, *supra* note 275; Trataros Constr., Inc. v. N.Y. City Hous. Auth., 34 A.D.3d 451, 453, 823 N.Y.S.2d 534 (2006); Eldor Contr. Corp. v. County of Nassau, 6 A.D.3d 654, 655, 775 N.Y.S.2d 556 (2004);

the trial court had overlooked the plaintiff's evidence that at least raised a triable issue whether the plaintiff could have completed the work within the 30-day period specified in the contract to earn the west side bonus.[279]

In *McCarthy Brothers Construction Co.,*[280] pursuant to a contract for the construction of housing units for the elderly, McCarthy was entitled to an incentive payment if its work was completed at a cost savings by the promised date.[281] The issue was not the amount of the incentive but whether the work was completed prior to the required date of completion.

Whether the stated date of completion had been met was a matter of the interpretation of the contract, more specifically whether the contract, identified as FHA Form 2442A, "Construction Contract—Cost Plus," took "precedence over all inconsistent provisions in the…AIA General Conditions, forming part of the contract.[282] The inconsistency at issue had to do with the person who was to determine when there was substantial completion—whether it was the architect or HUD.[283] The court held that the contract was unambiguous. First, the FHA Form 2442A construction contract took precedence over any inconsistent provision in the AIA General Conditions.[284] Second, Article 2D of the contract provided that HUD's representative determines the date of substantial completion.[285] As noted previously, the court rejected McCarthy's argument that the HUD representative's determination regarding lack of substantial completion was one "without any guidelines and totally at his own whim and complete discretion" and that the date of substantial completion should be the date that the architect certified that the contract was substantially complete.

Another case involving a contract with an early-completion incentive/liquidated-damages clause is *Milton J. Womack v. House of Representatives of the State of Louisiana,*[286] which arose out of renovations of the State Capitol building. Because the plaintiff failed to finish by the stated completion date, the House did not pay the early completion bonus. The trial court ruled that the plaintiff and the House "'fully understood that in *no* event[] would there be an extension of the early completion incentive date.'"[287] The issue was whether the contractor was entitled to the bonus when the delay in completion was caused by the specifications' failure to discover and disclose an X-brace in a wall that was the cause of the delay. The court held that the architect retained by the House was at fault. However, the contract between the House and the architect was not in evidence; consequently, the court held that the plaintiff failed to establish the House's vicarious liability for the conduct of the architect, an independent contractor.[288]

The court held that the trial court's decision was not "clearly wrong" in permitting parol evidence to explain the meaning of the bonus clause that did not permit for any reason an extension of the date of completion in regard to the bonus payment.[289] Although the House was not liable, the court reversed the judgment below in favor of the architect and awarded judgment and damages to the contractor against the architect in the amount of $100,000.[290]

Ray Bell Construction Co., Inc. v. Tennessee[291] concerned an alleged breach of an incentive clause in a contract with the Tennessee DOT (TDOT). The Claims Commission allowed parol evidence to address a "latent ambiguity" to determine that the contractor was entitled to a modification of the incentive provision. In order of precedence, the Supplemental Specifications controlled the Standard Specifications; the contract plans controlled both the Supplemental and Standard Specifications; and the Special Provisions controlled the contract plans and Supplemental and Standard Specifications.[292] Special Provision 108(B) addressed liquidated damages, incentive payments, and disincentive payments.[293]

Bovis Lend Lease LMB v. GCT Venture, 6 A.D.3d 228, 229, 775 N.Y.S.2d 259 (2004); Tougher Indus. v. Northern Westchester Joint Water Works, 304 A.D.2d 822, 822, 757 N.Y.S.2d 874 (2003); Abax Inc. v. N.Y. City Hous. Auth., 282 A.D.2d 372, 373, 723 N.Y.S.2d 490 (2001); Clifford R. Gray, Inc. v. City School Dist. of Albany, 277 A.D.2d 843, 844, 716 N.Y.S.2d 795 (2000)).

[279] *Trocom Constr.*, 51 A.D.3d at 535–36, 859 N.Y.S.2d at 43.

[280] 832 F.2d 463 (8th Cir. 1987).

[281] Art. 3A(3) of the contract provided:

> If the work is completed prior to the time for completion specified in this contract, the Owner shall make an incentive payment to the Contractor. The amount of the payment shall be ascertained according to the instructions on the attachment entitled Incentive Payment Computation which is made a part hereof.

Id. at 465.

[282] *Id*. at 465.

[283] *Id*. at 467 n.6.

[284] *Id*. at 467.

[285] *Id*. at 468.

[286] 509 So. 2d 62 (La. App. 1987).

[287] *Id*. at 64.

[288] *Id*. at 68.

[289] *Id*.

[290] *Id.* at 69.

[291] 2010 Tenn. App. LEXIS 737, at *1, 2 (Tenn. App. 2010).

[292] *Id*. at *7.

[293] *Id*. at 5. In part, Special Provision 108(B) stated:

> The project shall be completed in its entirety on or before December 15, 2006.
>
> For each calendar day prior to December 15, 2006, that all work in the original contract has been completed and all lanes are opened to the free, safe and unrestricted passage of traffic, an incentive payment of ten thousand dollars ($10,000) per day shall be made to the contractor as an incentive. However, the maximum amount of incentive payments shall not exceed two million five hundred thousand dollars ($2,500,000).
>
> For each day after December 15, 2006, that all work in the original contract is not completed, the sum of ten thousand dollars ($10,000) per day shall be deducted from monies due

Both the Standard Specifications and Special Provisions of the contract addressed the matter of time extensions. As explained by Ray Bell's project manager, one paragraph of the Standard Specifications dealt with pro-rata extensions when time extensions were granted on a pro-rata basis for increased work beyond the original bid.[294] The second paragraph dealt with "delays beyond a contractor's control, such as a change in design or TDOT's inability to secure an easement to the property."[295]

Although there were numerous delays beyond the contractor's control, "the Redesign and Easement delays were the only ones for which [Ray Bell] sought additional time."[296] TDOT agreed to an extension of time for some of the delays but "expressly stated that the time extension would not apply to the incentive payment."[297]

The project was funded 90 percent by the Federal Highway Administration (FHWA), which advised in early 2005 of "a change in policy by FHWA to eliminate the use of the pro-rata method for calculating time extensions when there are quantity overruns on projects with incentive clauses."[298] Thereafter, TDOT by letter sought approval of the pro-rata method for "existing contracts," a request that was approved.[299]

Another project for which Ray Bell had a contract with an incentive clause was included on TDOT's list of existing contracts,[300] but because of an apparent oversight, the Midtown Interchange Project at issue in this case was omitted. There was other evidence that, prior to February 2005, when FHWA advised of the above change in policy, incentive dates could and had been extended.[301]

The Commission found

> that the proof developed over four days of trial establishes clearly that up until February or March of 2005, TDOT and FHWA permitted extensions of completion dates for purposes of earning incentives, even in the face of the language contained in SP108(B).
>
> This case is a strong example of why parol evidence is sometimes admitted in establishing the full intent of parties to a contract.[302] ….
>
> There may well have been a change in FHWA policy in perhaps late 2004 and early 2005 but this contract was entered into well before that…[T]here is no evidence that the ground rules for interpreting the terms of this contract had changed prior to its effective date.[303]

The Commission found that Special Provision 108(B) was ambiguous in three ways including with respect to TDOT's past practices.[304]

A divided Court of Appeals affirmed the judgment of the Claims Commission.[305] The court agreed with the Commission's admission of parol evidence to aid in the interpretation of the contract, including

> the Commission's findings that a change in the contract completion date could be applied to the incentive date, as evidenced by the admissions in the TDOT letter, the change of the incentive date on another RBCC project with the exact same language, and examples of both exemplary and prohibitory language in numerous other contracts.[306]

The Supreme Court of Tennessee, however, reversed the Appeals Court's decision and remanded the case to the Court of Claims for modification of the final judgment.[307] In contrast to the Claims Commission, the highest court found the contractual provisions to be unambiguous.[308] Applying the order of precedence clause, the court held that the completion provision is controlling and governs whether there is to be an ex-

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the Contractor as a disincentive. The amount of monies that may be deducted as a disincentive shall be unlimited except that the disincentive may be waived if the working time is extended in accordance with the Standard Specifications.

Id. at *5–6.

[294] *Id*. at *3. Standard Specification 108.06 stated:

> The number of days for performance allowed in the Contract as awarded is based on the original quantities as defined in Subsection 102.03. If satisfactory fulfillment of the Contract requires performance of work in greater quantities than those set forth in the proposal, the contract time allowed for performance shall be increased on the basis commensurate with the amount and difficulty of the added work. If the Engineer determines that an increase in the contract working time proportionate to the value of the increase in quantities is commensurate with the amount and difficulty of the added work and a written request to extend the time as provided below has not been made, he may proportionately increase the contract working time.

Id. at * 3–4.

[295] *Id*. at *5. Standard Specification 108.06 also provided:

> If the Contractor finds it impossible for reasons beyond his control to complete the Work within the contract time as specified or as extended in accordance with the provisions of this Subsection, he may, at any time prior to the expiration of the contract time specified or as extended, make a written request to the Engineer for an extension of time setting forth therein the reasons which he believes will justify the granting of his request. The Contractor's plea that insufficient time was specified is not a valid reason for extension of time. If the Engineer finds that the Work was delayed because of conditions beyond the control and without the fault of the Contractor, he may extend the time for completion by a properly executed Supplemental Agreement in such amount as the conditions justify. The extended time for completion shall then be in full force and effect the same as though it were the original time for completion.

Id. at *4–5.

[296] *Id*. at *7–8.

[297] *Id*. at *8.

[298] *Id*. at 13–14.

[299] *Id*. at 17.

[300] *Id*. at *18–19.

[301] *Id*. at *22.

[302] *Id*. at *25.

[303] *Id.* at *29.

[304] *Id*. at *31.

[305] Ray Bell Constr. Co. v. State, 2010 Tenn. App. LEXIS 737 (Tenn. Ct. App. 2010).

[306] *Id*. at *38–39.

[307] Ray Bell Constr. Co., Inc. v. Tennessee, Tennessee Dep't of Transp., 356 S.W.3d 384 (2011).

[308] *Id*. at 387.

tension of the incentive date.[309] Under the completion provision, the completion date could be extended in accordance with the Standard Specifications but "no incentive payment will be made if work is not completed in its entirety by December 15, 2006."[310] Thus, the court agreed with TDOT that "[e]ven if the completion date is extended due to circumstances beyond the contractor's control, no incentive payments are due if the contract was completed after December 15, 2006."[311]

Because the Claims Commission "implicitly" held that the contract was not completed by the December date, Ray Bell was not entitled to an incentive bonus. As explained by the court, the extension provision of the contract allowed for an extension of the contract completion date and of the disincentive date if circumstances warranted because of events beyond the contractor's control. The completion provision, however, did not provide for an extension of the ultimate date for contract completion, December 15, 2006, to earn the incentive payments.[312]

Because TDOT had not appealed the Claims Commission's finding that the completion date should be extended by at least 250 days, the department could not enforce the disincentive penalty in the contract. Although Ray Bell was not entitled to an incentive payment, the court remanded the case to the Claims Commission to enter judgment for Ray Bell for the liquidated damages and disincentive payments previously withheld by TDOT.[313]

3. Oral Contract for Incentive Payment

In *Marathon Enterprises, Inc. v. H. Angelo and Company, Inc.*,[314] the Fourth Circuit affirmed the dismissal of a complaint for an incentive fee. Although it may be assumed that any contract or supplement or addendum thereto necessarily would be in writing, Marathon Enterprises claimed to have an oral agreement to provide management services on a government contract amounting to more than $5 million. The plaintiff alleged that an Angelo representative orally promised an incentive payment if the direct costs of the project were less than $4,435,000. The plaintiff claimed an incentive of $273,309. However, although the plaintiff alleged how the incentive payment was to be calculated, the court concluded that there had not been a meeting of the minds on the contract. "Specifically, the judge concluded that there was not meeting of the minds on how 'direct costs' would be calculated in determining whether the project came in under the (target) direct cost figure of $4,435,000," or on the sharing of profits on change orders, or on the calculations of Angelo's home office overhead and bond costs.[315]

4. Federal Agency Liability for an Incentive Payment

In *Thompson Tower Limited Dividend Housing Association v. United States,*[316] at issue was the builder's early completion by 9 months of the construction of a housing project. The early completion saved the sponsor of the project approximately $200,000 in interest, taxes, and property and mortgage insurance premiums. HUD disapproved the certification of an incentive payment under the contract. The court held that HUD was not liable for the incentive because HUD was not a party to the construction contract.[317] Furthermore, HUD was "not liable to third parties whose contracts with others are subject to the terms, approval, or supervision of the agency."[318]

CONCLUSION

Because of the importance of transit agency contracts being performed on time and within budget, transit agencies are using performance-based contracting for all types of contracts, including contracts for construction projects, for the procurement of capital equipment such as rolling stock, and for services. Only three agencies responding to the survey state that they are precluded in their state from using the clauses in certain kinds of contracts. Thus, the contracts of transit agencies may include payment incentives for early or on-time performance and liquidated damages for delay.

The FTA encourages the use of the clauses for any project receiving financial assistance from the FTA, such as funding for fixed guideways and for equipment

[309] *Id*. at 388.

[310] *Id*.

[311] *Id*.

[312] *Id*.

[313] *Id*. at 389.

[314] 2000 U.S. App. LEXIS 20161 (4th Cir. 2000) (per curiam) (unrpt.).

[315] *Id*. at *3.

[316] 228 Ct. Cl. 766, 768 (Ct. Cl. 1981). *See also* Maniere v. United States, 31 Fed. Cl. 410, 416, n.2 (1994) (quoting Thompson Tower Ltd. Dividend Housing Ass'n, stating, "Congress has not given this court jurisdiction over suits on contracts where there is no privity between the plaintiff and the Government" and "[p]rivity of contract encompasses a contractual relationship between the claimant and the Government") (*citing* Erickson Air Crane Co. v. United States, 731 F.2d 810, 813 (Fed. Cir. 1984); Continental Ill. Nat'l Bank & Trust Co. v. United States, 112 Ct. Cl. 563, 566, 81 F. Supp. 596, 598 (1949); Thomas Funding Corp. v. United States, 15 Cl. Ct. 495, 499 (1988)).

[317] *Thompson Tower Ltd*., *supra* note 316, at 770 (*citing* Aetna Casualty and Surety Co. v. United States, 153–54, 655 F.2d 1047, 1052–53 (1981); H.A. Ekelin & Assocs. v. United States, 225 Ct. Cl. 561 (1980); *cf*. Somerville Technical Services v. United States, 226 Ct. Cl. 291, 296, 640 F.2d 1276, 1279–81 (1981) (no privity between contractor and Federal Housing Administration (FHA) on contracts FHA is not a party to); D. R. Smalley & Sons, Inc. v. United States, 178 Ct. Cl. 593, 596–98, 372 F.2d 50, 506–08 (1967) (no privity arises between contractor and Government from latter's intimate involvement in details of contract)).

[318] *Thompson Tower Ltd*., *supra* note 316.

and other capital acquisitions. The FTA's CPIR discussed previously states that many transit agency contracts throughout the nation already provide for payment incentives and liquidated damages. However, although transit agencies responding to the survey provided copies of contractual provisions authorizing incentive payments, only four agencies had made incentive payments in the preceding 3-year period. Only five agencies had collected or been credited with liquidated damages in the same period.

The agencies' evaluation of the clauses is quite supportive of the use of performance-based contracting. Transit agencies did not report any specific issues or problems with the use of incentive-payment or liquidated-damages clauses because of the type of contract in which they were included. Moreover, the agencies did not indicate that a particular type of contract or incentive-payment or liquidated-damages clause was more or less successful than others. The agencies did not suggest that there were any difficulties in obtaining contractors for a construction project or in procuring goods or services because of a policy of including, for example, a liquidated-damages clause in a contract.

As explained in a GAO Report, one of the keys to effective performance-based contracting is well-defined performance standards. The agencies indicated that they primarily use performance-based contracting for construction projects and for the procurement of capital equipment. However, consistent with the GAO's conclusion that incentive-payment and liquidated-damages clauses are suitable in contracts for services, transit agencies are using the clauses when procuring services, as well as by some agencies in management contracts. Transit agencies provided copies of contracts demonstrating that their contracts include definitive and objective means and schedules for monitoring performance and state how incentive payments or liquidated damages are to be determined or assessed.

Other than by providing copies of relevant contracts, the agencies did not indicate how they arrive at a specific hourly or daily rate for incentives or liquidated damages. Nevertheless, the agencies did not report any litigation involving the specific amounts chosen and designated in their contracts. Only two agencies responding to the survey reported having been involved in any litigation specifically over an incentive-payment or a liquidated-damages clause; a few agencies reported resolving some potential cases through settlements.

Although supportive of the method of contracting, some agencies reported that in their experience there is some administrative burden imposed by performance-based contracts. Nevertheless, it appears that transit agencies consider the use of performance-based contracting to be another best practice on which to rely to secure the timely performance of their construction and other contracts.

APPENDIX A—SURVEY QUESTIONS

TCRP J-5, STUDY TOPIC 14-3, CONTRACTUAL MEANS OF ACHIEVING HIGH LEVEL PERFORMANCE IN TRANSIT CONTRACTS

Agency Name: _____

Name of Employee: _____

Job Title: _____

Contact telephone/cell phone number: _____/ _____

Email address: _____

How many years have you been with the agency? _____

NOTE:

(a) Please provide copies of or an Internet-link(s) for any contracts or other documents identified in your responses.

(b) In responding to the following questions, please feel free to attach extra pages as needed.

1. Is your agency using performance-based contracting (*e.g.*, liquidated damages and/or incentive clauses) in your construction contracts, maintenance and repair contracts, service contracts and/or procurement contracts (*e.g.*, for materials, supplies, or rolling stock)?

YES ___ **NO** ___

If your answer is "yes", please answer the following questions.

2. For the most recent three-year period for which your agency has records, how much <u>each</u> <u>year</u> has your agency:

(a) collected or been credited in liquidated damages for delay in contract completion?

_____

_____

_____

(b) paid in incentive awards or bonuses to a contractor for early or on time completion?

_____

_____

_____

3. For the most recent three-year period for which your agency has records, has your agency made incentive payments to contractors for submitting ideas that lower the cost of a project?

YES ___ **NO ___**

If your answer is "yes," please state the amount for each year?

_____

_____

_____

4. Please state whether your agency uses liquidated damages and/or incentive payment clauses in any of the agency's contracts for:

(a) construction; **YES ___** **NO ___**

(b) management; **YES ___** **NO ___**

(c) maintenance and repairs; **YES ___** **NO ___**

(d) procurement of materials; **YES ___** **NO ___**

(e) procurement of supplies; **YES ___** **NO ___**

(f) procurement of rolling stock; **YES ___** **NO ___**

(g) procurement of services, including professional services such as for architects, engineers or others? **YES ___** **NO ___**

5. For performance-based contracting please state whether your agency's contracts:

(a) set forth the contract requirements in terms of the expected results, or

YES ___ NO ___

(b) alternatively, describe or specify the manner or methods to be used in performing the contract;

YES ___ NO ___

(c) include measurable and verifiable performance criteria, goals, or standards;

YES ___ NO ___

(d) include performance guarantees;

YES ___ NO ___

(e) describe how the contractor's performance will be evaluated pursuant to a quality assurance plan or program; and/or

YES ___ NO ___

(f) include a provision regarding how liquidated damages are to be assessed and/or the amount of incentive payments are to be determined?

YES ___ NO ___

If your answer is "yes" to any subpart(s), please provide a copy of or an Internet-link for any contract provisions used by your agency.

_____

_____

_____

6. Please identify and explain the types of contracts (*e.g.*, fixed fee, cost-plus, design-build, etc.) with performance-based provisions that your agency (a) has used successfully or (b) has not been able to use successfully.

_____

_____

_____

7. In your state are there any types of contracts (*e.g.*, Design-Build, Design-Build-Operate-Maintain (DBOM), and Construction Manager/General Contractor (CM/GC)) that your agency is not permitted to use with a liquidated damages or incentive payment clause?

YES ___ NO ___

If your answer is "yes," please identify the type of contract and provide a citation to any law and/or regulation prohibiting the use of the type of contract.

_____

_____

_____

8. (a) Has your agency experienced claims for additional contractor-costs based on a contractor's alleged acceleration of the work to avoid an assessment of liquidated damages and/or to earn an incentive payment under a contract?

YES ___ NO ___

(b) Has your agency had claims based on the parties' differing interpretation of a contract specifically in regard to a liquidated damages or an incentive payment clause in the contract?

YES ___ NO ___

(c) Has your agency been involved in any claim or litigation regarding a liquidated damages or incentive payment clause in a contract?

YES ___ NO ___

If your answer is "yes" to any subpart(s), please discuss the nature of the litigation and the outcome and provide citations to any opinions filed in the case(s).

_____

_____

_____

9. With respect to performance-based contracting, does your agency use any form of surveillance to monitor contractor performance?

YES ___ NO ___

If your answer is "yes," please describe the method(s) of surveillance and its implementation and any schedule used for such purpose and/or provide a copy of or an Internet link for any relevant documents.

_____

_____

_____

10. Please describe any benefits experienced by your agency in the use of performance-based contracting.

_____

_____

_____

11. Please describe any adverse effects that your agency has experienced with performance-based contracts, such as delays, claims, litigation, limiting of competition, problems in enforcement of the performance criteria or standards, increased costs, or otherwise.

_____

_____

_____

12. Please include any other comments regarding your agency's use of and experience with performance-based contracting.

_____

_____

_____

****

Please return your completed survey <u>preferably via e-mail</u> to:

The Thomas Law Firm
ATTN: Larry W. Thomas
1701 Pennsylvania Avenue, N.W.
Suite 300
Washington, D.C. 20006
Tel. (202) 280-7769: email: lwthomas@cox.net

APPENDIX B—LIST OF TRANSIT AGENCIES RESPONDING TO THE SURVEY

Bay Metropolitan Transportation Authority (Bay Metro), Bay City, Mich.

Ben Franklin Transit, Richland, Wash.

Capital Metropolitan Transportation Authority (Capital Metro), Austin, Tex.

Central Florida Regional Transportation Authority (LYNX), Orlando, Fla.

Central Arkansas Transit Authority (CATA), North Little Rock, Ark.

Central Ohio Transit Authority (COTA), Columbus, Ohio

Central Oklahoma Transportation and Parking Authority (COTPA), Oklahoma City, Okla.

Columbia Transit and Paratransit, Columbia, Mo.

Connecticut Department of Transportation (CTDOT), Newington, Conn.

Dallas Area Rapid Transit (DART), Dallas, Tex.

Decatur Public Transit System (DPTS), Decatur, Ill.

East Central Intergovernmental Association (The Jule), Dubuque, Iowa

Fort Worth Transportation Authority (The T), Fort Worth, Tex.

Gary Public Transportation Commission, Gary, Ind.

Golden Empire Transit District (GETbus), Bakersfield, Cal.

Greater New Haven Transit District, New Haven, Conn.

Greater Portland Transit District (METRO), Portland, Me.

La Crosse Municipal Transit Utility (MTU), La Crosse, Wis.

Lane Transit District (LTD), Eugene, Or.

Los Angeles County MTA (LACMTA), Los Angeles, Cal.

Manchester Transit Authority (MTA), Manchester, N.H.

Mass Transportation Authority (MTA), Flint, Mich.

Massachusetts Bay Transportation Authority (MBTA), Boston, Mass.

MTA Metro-North Railroad (Metro-North), New York, N.Y.

MTA New York City Transit (NYCT), New York, N.Y.

Omnitrans, San Bernadino, Cal.

Orange County Transportation Authority (OCTA), Orange, Cal.

Oshkosh Transit System, Oshkosh, Wis.

Pine Bluff Transit, Pine Bluff, Ark.

Port Authority/Trans Hudson Corp. (PATH), New York, N.Y.

Rhode Island Public Transit Authority (Rhode Island PTA), Providence, R.I.

Rochester General Regional Transportation Authority (RGRTA), Rochester, N.Y.

San Diego Association of Governments (SANDAG), San Diego, Cal.

San Diego Metropolitan Transit System (San Diego MTS), San Diego, Cal.

San Joaquin Regional Transit District (San Joaquin RTD), San Joaquin, Cal.

San Mateo County Transit District, San Mateo County, Cal.

Southeastern Pennsylvania Transportation Authority (SEPTA), Philadelphia, Pa.

Space Coast Area Transit, Brevard County, Fla.

Stark Area Regional Transit Authority (SARTA), Canton, Ohio

Suffolk County Department of Public Works, Hauppage and Riverhead, N.Y.

Transit Authority of the City of Omaha (Metro), Omaha, Neb.

Tri-County Metropolitan Transportation District of Oregon (TriMet), Portland, Or.

Utah Transit Authority, Salt Lake City, Utah

APPENDIX C—INDEX TO PERFORMANCE-BASED CLAUSES AND STANDARDS

[Included on enclosed CD-ROM]

A3-60	Connecticut Department of Transportation	Contractor Performance Evaluation Rating
A3-61–A3-65	Connecticut Department of Transportation	Incentive and Liquidated Damages Provisions
A3-66–A3-70	Fort Worth Transportation Authority	Solicitation Package with Liquidated Damages Provision
A3-71–A3-72	Mass Transportation Authority	Bid Tender
A3-73–A3-76	Massachusetts Bay Transportation Authority	General Conditions
A3-77	MTA Metro-North Railroad	Metro-North's Damages in Case of Delay
A3-78–A3-81	MTA Metro-North Railroad	Value Engineering Change Proposal
A3-82–A3-87	Orange County Transportation Authority	General Conditions with Value Engineering and Liquidated Damages Clauses
A3-88–A3-92	San Diego Association of Governments	Cost Reduction Incentive
A3-93–A3-98	San Diego Metropolitan Transportation System	Performance Bonuses and Penalties
A3-99	San Joaquin Regional Transportation District	Liquidated Damages
A3-100–A3-107	San Joaquin Regional Transportation District	Service Performance Standards and Incentives
A3-108–A-3-113	San Mateo County Transit District	Incentives
A3-114–A3-121	San Mateo County Transit District	Liquidated Damages
A3-122	Tri-County Metropolitan Transportation District of Oregon	Liquidated Damages

ACKNOWLEDGMENTS

This study was performed under the overall guidance of TCRP Project Committee J-5. The Committee is chaired by **Robin M. Reitzes**, San Francisco City Attorney's Office, San Francisco, California. Members are **Rolf G. Asphaug**, Denver Regional Transportation District, Denver, Colorado; **Sheryl King Benford**, Greater Cleveland Regional Transit Authority, Cleveland, Ohio; **Darrell Brown**, Darrell Brown & Associates, New Orleans, Louisiana; **Robert Brownstein**, Consultant, New York, New York; **Dennis C. Gardner**, Ogletree, Deakins, Nash, Smoak & Stewart, Houston, Texas; **Elizabeth M. O'Neill**, Metropolitan Atlanta Rapid Transit Authority, Atlanta, Georgia; and **James S. Thiel**, Wisconsin Department of Transportation, Madison, Wisconsin. **Rita M. Maristch** provides liaison with the Federal Transit Administration, **James P. LaRusch** serves as liaison with the American Public Transportation Association, and **Gwen Chisholm Smith** represents the TCRP staff.

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Contractor Performance Incentive Report

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Prepared by:
Federal Transit Administration
Office of Budget and Policy
U.S. Department of Transportation

http://www.fta.dot.gov

Table of Contents

Executive Summary

- There are a large number of contractors who support New Start project development and construction.
    - They fall into two broad categories:
        - professional services consultants who enable project development and approval; and,
        - construction management and construction contractors who manage or perform construction work.
- Overall, the grantee has the ultimate responsibility for projects meeting cost, scope, and schedule projections. However, contractors play a significant role in execution of project development and construction.
- Overall, incentives already exist in contracts to support the New Starts process.
    - No new additional authority is needed, and they are currently being used throughout the country.
    - Many contracts already provide incentives for contractors.
        - The only limitations are legal (Federal standards for suitability and/or state/local limitations) and technical (grantee's ability to oversee/manage more complex or sophisticated contracts)
    - There also are additional innovative procurement practices, such as design-build, design-build-operate-maintain, and construction manager/general contractor, that provide greater incentive opportunities for contractors.
- However, the *suitability* of contractors to receive incentives based on final project cost is limited.
    - It is only those construction contractors that can directly influence the final cost of the project that are best suited to receive incentives based upon project cost.
- Finally, only the more experienced grantees are likely to be able to successfully employ these more complex or sophisticated incentives and innovative procurement practices.

Background

FTA's New Starts Capital Investment Grant program

The Federal Transit Administration's (FTA) New Starts program is the Federal government's primary financial resource for supporting locally planned, implemented, and operated major transit capital investments. Authorized by 49 U.S.C. 5309, the New Starts program is the original component of FTA's "Capital Investment Grant" program, also referred to as "Section 5309." Participation in this program and funding is based upon competitive selection and the availability of annual appropriations.

The New Starts program funds new and extensions to existing fixed guideway transit systems in every area of the country. These projects include commuter rail, light rail, heavy rail, bus rapid transit, streetcars, and ferries. Recently, the Safe, Accountable, Flexible, Efficient Transportation Efficiency Act: A Legacy for Users (SAFETEA-LU) established project size thresholds for the New Starts program and introduced a second capital investment grant program for smaller fixed guideway projects. Under these new provisions, New Starts projects are focused on those projects seeking $75 million or more in FTA Capital Investment Grant funds *or* have a total project cost of greater than $250 million. SAFETEA-LU also created the Small Starts program to provide grants to those projects seeking less than $75 million in FTA Capital Investment Grant funding *and* have a total project cost of less than $250 million.

As the Small Starts program is new, beginning in Fiscal Year 2007, the findings of this report are based on the experiences of the New Starts program. However, many of the opportunities and constraints identified may be transferable to the Small Starts program. These are identified below.

Report on Contractor Incentives: Requirement and Context

SAFETEA-LU directs the Secretary of Transportation to submit a report on the "suitability of allowing contractors to public transportation agencies that undertake new fixed guideway capital projects under the [New Starts and Small Starts programs] to receive performance incentive awards if a project is completed for less than the original cost" 49 U.S.C. 5309(l)(3). This report responds to this requirement.

This report is a part of a larger consideration of incentives authorized for the New Starts/Small Starts program by SAFETEA-LU. For grantees, SAFETEA-LU authorizes the Secretary to allow for additional scope to be added to a Full Funding Grant Agreement (FFGA) project if the final cost comes in below the original FFGA project cost, 49 U.S.C. 5309(h)(2). Further, a grantee may receive a higher share of Federal funding if "the Secretary determines that "the net project cost of the project is not more than 10 percent higher than the net project cost estimated at the time the project was approved for advancement into preliminary engineering (49 U.S.C. 5309(h)(3)(A)); and, "the ridership estimated for the project is not less than 90 percent of the ridership estimated for the project at the time the project was approved for advancement into preliminary engineering", 49 U.S.C. 5309(h)(3)(B).

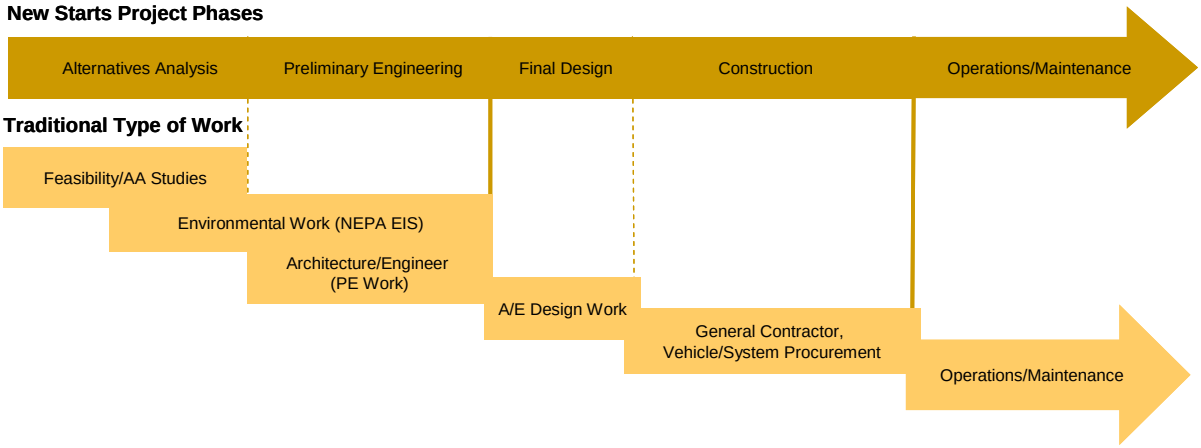
This report also relates to the annual Contractor Performance Assessment Report required under 49 U.S.C. 5309(l)(2), where FTA reports on the accuracy of contractor projections for cost and ridership from entry into Preliminary Engineering (PE) through two years after the system is open for service. This report will provide grantees with an opportunity to review the past practices of those New Starts contractors involved in the design stages of the project, from entry into preliminary engineering through final design. The first annual FTA Contractor Performance Assessment Report, focusing on methodology, was transmitted to Congress on August 10, 2006.

The Relationship of Contractors to New Starts Projects

The New Starts process consists of a series of several major phases of project selection, development, construction/acquisition, and operations. Each phase has a distinct set of activities that are required, and often reflect the specific scope of work carried out under contract.

While the grantee has ultimate responsibility to manage the New Starts project's cost, scope, and schedule, contractors play a critical role in overall project success. The level of involvement of contractors in a New Starts project varies broadly, often based upon the in-house experience and expertise of the grantee. Generally, grantees with more experience in the New Starts process have developed in-house expertise enabling them to manage more innovative procurement methods so that they are not as dependent upon consultants for project management advice. In contrast, grantees new to the New Starts process may contract out almost all aspects of project development, management, design, and construction.

New Starts Phases and Traditional Types of Work



Typical New Starts Contractor Support

During **Alternatives Analysis,** grantees or their contractors will conduct feasibility studies and other assessments to determine the locally-preferred alternative. In addition, environmental work related to meeting the requirements of the National Environmental Policy Act (NEPA) will be initiated. These tasks can be performed by the grantee, or, if contracted out, by an individual or group of consultants. Often the alternative analysis work can be a part of the NEPA review process in order to evaluate the impacts of different alternatives on the environment and the project's purpose and need.

During **Preliminary Engineering**, project development work shifts to creating more detailed design and engineering work. During this period, it is possible that the environmental work required to complete the Environmental Impact Statement and related activities, if not performed by the grantee, will continue under the same contract as established during Alternatives Analysis.

Council for Environmental Quality regulations, 40 C.F.R. 1506.5(c), require contractors to sign a disclosure statement specifying that they have no financial or other interest in the outcome of the project. Accordingly, once the project is approved for entry into Final Design, the grantee will usually be required to select a new consultant to continue the detailed design and engineering work.

The **Final Design** phase requires the grantee to address any remaining uncertainties in the construction cost estimate that were specified at the end of preliminary engineering. During this phase, grantees and their contractors prepare detailed specifications and bid documents, and address all remaining financial, technical, and regulatory issues necessary to begin construction. It is during Final Design that the most detailed designs, and resulting cost estimates, are established.

Once the grantee enters into a Full Funding Grant Agreement (FFGA) with FTA – a multiyear funding commitment between FTA and the grantee, the **Construction** phase begins. At this time, the grantee will typically select a general contractor, specialty construction and related subcontractors, and begin vehicle and system procurement. The scope and duration of these contracts will be based on the size of the project and on whether the grantee selects a more innovative approach to project construction, such as design-build, design-build-operate-maintain, or construction manager/general contractor. More information on these types of contracts is discussed later in this report.

Finally, once the construction and related acquisition activities are complete, the project moves beyond the New Starts process into **Operations and Maintenance**. It is at this point that the project begins service and, assuming all FFGA funding is complete, the project graduates from the New Starts program.

Other Contractor Support

As mentioned earlier, grantees with less in-house expertise in transit capital project management may seek further contractor assistance during project development and construction. In these cases, a grantee will employ a Project or Program Management contractor to oversee all aspects of the New Starts process. This contract would be in addition to other contracts for specific technical and design work required by each phase of the New Starts process.

An Overview of Contracts

Contract Requirements, Rules, Limitations

Contracts to support New Starts project grantees are subject to the same rules and regulations as all other procurement contracts. The laws governing most grantee procurement contracts are derived from Federal statutes set forth in 49 U.S.C. Chapter 53 and other cross-cutting Federal

statutes, such as Davis Bacon Act prevailing wage rate provisions, Civil Rights Act responsibilities, bid protest procedures, etc. The Federal Common Grant Rule Procurement regulations at 49 C.F.R. 18.36 must also be honored in addition to Federal implementing regulations.

FTA requires grantees to comply with FTA guidance on Third-Party Contracting (FTA Circular 4220.1E), except as superseded by Federal law. This circular applies to all FTA grantees that contract with outside sources under FTA assistance programs. In this Circular, FTA sets forth requirements that grantees must adhere to in the solicitation, award and administration of its third party contracts. These requirements are based on the common grant rules, Federal statutes, Executive Orders and their implementing regulations, and FTA policy.

Beyond the Federal level, State statutes, regulations, and case law also influence grantee procurements, particularly with respect to competition requirements and contracting procedures, sometimes significantly. Certain types of procurement contract types, for example, are not permitted by some States. Additionally, State legislative and regulatory provisions may limit a grantee's ability to use incentives or awards for contracts, or to use some of the innovative procurement practices noted below. Regardless of Federal rules and regulations on procurement, each State will dictate how much flexibility each grantee in its jurisdiction will have in terms of employing innovative or incentive-based contracts.

General Contract Characteristics

The are two broad categories of contractors employed by any public or private sector owner seeking to build facilities or infrastructure like utilities or transportations systems. First, professional services contractors like engineering and architectural companies, environmental and project management consultants enable the owner to develop the scope of work to be accomplished, estimate its cost, complete environmental analyses, and prepare detailed design drawings and specifications. All of the work accomplished by these professional services contractors and consultants is a prerequisite to gain government grants, private financing such as bonds, and various project planning and execution approvals by local, state and Federal regulatory and taxing authorities.

Some of these contracts, such as those for design work, are covered by the Federal Brooks Act (chapter 11 of Title 40, United States Code) which provides for competition based on technical qualifications and negotiations for the prices of the services to be performed. In the alternative, if before August 10, 2005, a State has enacted a law establishing qualifications-based requirements for contracting for architectural, engineering, and design services, the grantee may comply with that State law, as authorized by 49 U.S.C. 5325.

The expertise and talent of these contractors can shorten or extend the time and cost for project planning, design, and construction based on the quality of work products and the experience of the owner, project partners, and government approval agencies in performing this type of development work. Evaluation of contractor performance is often subjective until the project construction and operations phases are underway or completed.

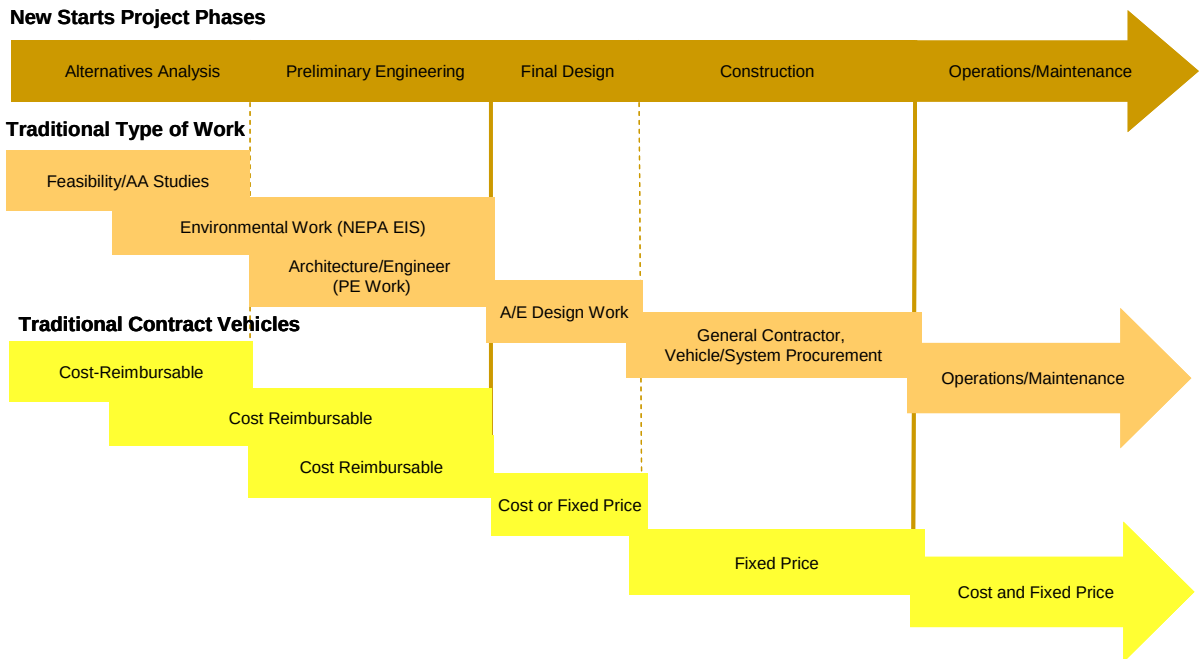
The second broad category of contractors employed by owners can be categorized as companies that actually perform demolition, construction, testing, and project management. Evaluation of the performance of construction contractors can be more quantitative based on time and cost to complete the project, safety records, community complaints and quality of the finished product. Overall, the type of contract mechanism selected by the grantee to procure these construction services is based upon the nature of the work to be conducted by the contractor. There is a range of contracts that are used by New Starts grantees which generally fall into two classes: Cost Reimbursement (or "Cost-Plus") and Fixed Price.

Risk Level of Contract Types

The most commonly-used types of procurement contracts are described above based on the degree of risk assumed by the contractor and, inversely the grantee, with each type. These range from cost-no-fee and cost-plus-fixed-fee, where the contractor has minimal risk for performance costs and the fee amount (if any) is not adjusted in response to actual costs or performance, to firm-fixed-price, representing contractor assumption of all cost risk.

A **Cost-plus contract** is a contract framed in such a way that when the contractor finishes the agreed-upon work, it receives compensation equal to its expenses plus some bonus, which for

Traditional Types of New Starts Contract Vehicles



Federally assisted contracts can be a fixed amount). Grantees may not award Federally assisted contracts on the basis of cost plus a percentage of cost, 49 C.F.R. 18.36(f)(4). Even if the contractor suffers cost overruns, it will still receive full compensation agreed upon under the contract (with the possibility that overrun costs will also be honored) plus their expected profit. There is little or no direct financial incentive to minimize costs, since the contractor will always be fully reimbursed (plus profit) upon contract completion.

Typical uses of cost-based contracts within the New Starts process are for professional services, program management, feasibility studies, environmental assessments, alternatives analysis that supports project development and delivery of construction work.

A **Fixed-price contract** is a contract framed in such a way that, when the contractor finishes the agreed-upon work, it will only receive the amount reflected in its bid price (pre-arranged compensation), regardless of what costs it incurred. The contractor's bid price is usually based on the expense it expects to incur to complete the work, plus an amount that will provide it a profit instead of breaking even. If the contractor is able to complete the work under budget, those savings become extra profit for the contractor. Going over-budget, however, reduces the amount of profit the contractor realizes from the contract and may even result in the contract being a net financial loss to the contractor, so that the contractor has a strong incentive to minimize expenses.

Within the New Start project process, fixed price contracts are typical for construction, system/vehicle procurement, and other aspects of development where a specific product/deliverable is expected.

Incentive-Based Contracts

For most phases of New Starts projects, grantees already use incentive-based contracts for their support work. As mentioned above, the use of a specific type of contract is based upon the nature of the work; whether a fixed deliverable or ongoing effort. At the same time, use of a specific type of incentive is also based upon the nature of the work; but also on what type of motivation the grantee seeks through the use of incentives.

There are two typical types of incentives used by grantees in the New Start process: award fee, and incentive fee. Both Cost Plus and Fixed Price contracts can contain these types of incentives, but with very different goals in mind.

Cost-Plus Incentive Fee and **Fixed Price Incentive Fee** contracts provide incentives to the contractor strictly on cost-based, quantitative evaluation of contract work. In these contracts, a fee is awarded to the contractor based upon the ability of that contractor to meet the targeted cost. There is no evaluation of the quality of the work, just that the work was done and – hopefully – under the target project cost.

Cost-Plus Award Fee and **Fixed Price Award Fee** contracts provide incentives to the contractor based upon the *quality* or *performance* of the contract work. In these contracts, the contractor is evaluated using qualitative measures, and an award is given if the work meets or exceeds certain performance standards.

More details on each of these incentive contract vehicles are provided in the appendix to this document.

Other Innovative Procurement Practices

Design-Build

Design-build is a project delivery method that combines two, usually separate services into a single contract. With design-build procurements, owners execute a single, fixed-price contract for both architectural/engineering services and construction. The design-build entity may be a single firm, a consortium, joint venture or other organization assembled for a particular project.

With design-build delivery, the design-builder assumes responsibility for the majority of the design work and all construction activities, together with the risks associated with providing these services for a fixed fee. When using design-build delivery, owners usually retain responsibility for defining the scope of work or expected system performance, financing, operations and maintenance of the project. While design-build procurement has been more prevalent in private sector work, it is also gaining acceptance among many public sector transportation infrastructure owners. The Hiawatha Light Rail project in Minneapolis-St. Paul, explained in Case Study 1, is an example of how design-build is utilized for a transit project.

Case Study 1

Design Build: Hiawatha Light Rail Transit

Hiawatha Light Rail links downtown Minneapolis with Minneapolis-St. Paul (MSP) International Airport and the Mall of America. Project scope includes 12.0 miles, 17 stations including a subway station at MSP International Airport and up to 26 light rail vehicles.

The project utilized two separate design-build contracts: one for rail vehicles, and one to place rail and signal and communication equipment along the alignment.

Although design-build contracts are used for the remainder of the route, the Metropolitan Airport Commission officials opted on a design-bid-build procurement for the two 7,400 foot airport tunnels. This decision was based on the risk of tunneling below two runways and building two 30-ft-high, 60-ft-wide, and 500-ft-long stations 66 feet below grade in the middle of the airport. The tunnels were built adjacent to each other to carry northbound and southbound train traffic. Each tunnel is 7,400 feet (1.4 miles) in length. The Lindbergh Terminal and Humphrey Terminal stations are open for service. The stations opened on December 4, 2004.

Design-Build-Operate-Maintain (DBOM)

The build-operate-transfer (BOT) / design-build-operate-maintain (DBOM) model is an integrated partnership that combines the design and construction responsibilities of design-build procurements with operations and maintenance. These integrated methods transfer design, construction, and operation of a single facility or group of assets to a private sector partner. This project delivery approach is practiced by several governments around the world and is known by a number of different names, including "turnkey" procurement, BOT, and DBOM.

The advantage of the BOT / DBOM approach is that it combines responsibility for usually disparate functions—design, construction, operations and maintenance—under a single entity.

This allows the private partners to take advantage of a number of efficiencies. The project design can be tailored to the construction equipment and materials that will be used. In addition, the BOT team is also required to establish a long-term maintenance program up front, together with estimates of the associated costs. The team's detailed knowledge of the project design and the materials utilized allows it to develop a tailored maintenance plan that anticipates and addresses needs as they occur, thereby reducing the risk that issues will go unnoticed or unattended and then deteriorate into much more costly problems. New Jersey Transit's Hudson-Bergen Light Rail project, highlighted in Case Study 2, provides an example of how the DBOM model was utilized in a transit project.

Case Study 2

Design-Build-Operate-Maintain: Hudson-Bergen Light Rail (Stage 1)

As a part of the FTA Turnkey Demonstration Program, New Jersey Transit Corporation used a DBOM 15 year fixed price contract in 1996 to design and construct a 9.5 mile initial operating segment with a guaranteed completion date, provide a fleet of light rail vehicles, and 15 years of operation and maintenance.

The DBOM project delivery approach was selected because of the estimated eight years that would be saved compared to the traditional multiple design/bid/award/construct approach.

Overall, the initial stage of this light rail system is a 9.3-mile line with 16 stations, parking, maintenance, and storage facilities. This light rail line runs principally along the Hudson River waterfront in Hudson and Bergen Counties, New Jersey.

Construction Manager/General Contractor (CM/GC)

An additional method of non-traditional procurement is called Construction Manager/General Contractor (CM/GC). The CM/GC form of contracting is a technically complex project delivery system. Unlike the design-build form of contracting, the CM/GC form of contracting does not contemplate a "single point of responsibility" under which the contractor is responsible for successful completion of all work related to a performance specification.

With CM/GC, the contractor is selected during the design process and provides value engineering and constructability reviews; the CM/GC contractor is not responsible for final design, however, the selection is based on several evaluation criteria, such as technical and management experience; prior performance; safety record; proposed quality control plan; proposed community outreach, including disadvantaged business participation and workforce hiring/training programs; and, maximum percentage fee on construction value.

In a CM/GC contract, the contractor assumes responsibility for the entire construction package with a dual role as the *construction manager* for all project work, self-performed and subcontracted, and the *general contractor*, soliciting bids from and executing contracts with subcontractors. The owner contracts only with the CM/GC contractor. Construction price is negotiated once final design is complete.

Like all other procurement actions, there are State and local legal barriers that may limit the ability for a grantee to use a CM/GC-type procurement. Additionally, the grantee must be experienced in construction and have the internal resources to check contractor cost proposals

and negotiate a contract with confidence that the agreed upon terms are fair and reasonable. The Trimet Interstate MAX Light Rail in Portland, Oregon, highlighted in Case Study 3, provides an example of how CM/CG was successfully utilized.

Case Study 3

Construction Manager/General Contractor: Trimet Interstate MAX Light Rail

TriMet, the regional transit agency for the Portland, OR area has developed over 44 miles of light rail and has another two projects in final FTA approval to expand its system to new jurisdictions. Given the expertise gained over the years, TriMet has successfully used innovative procurement strategies like the Construction Manager/General Contractor (CM/GC) to build its Interstate Max line.

This 5.8 mile light rail extension was completed ahead of schedule and for less than the approved budget due to excellent grantee project management and through the use of CM/GC contracting for a portion of the construction. Shared risks between the owner, TriMet and the contractor and contractor input into the final design, allowed the Guaranteed Maximum price that was negotiated after the initial contract competition, to be more accurate than the traditional design-build-low bid process. For example, design conflicts and unknown contingencies were identified and either resolved to allow more definitive pricing or specific cost allowances were provided in the bid rather than using speculative (high) estimates.

Overall Suitability

This report focuses on the suitability of contractors to receive performance incentives if a New Starts project comes in below cost. Thus, while incentive contracts are available to all New Starts contractors, the *suitability* falls in two areas: 1) where contractors play an influential role in *forecasting* final project costs; and, 2) where contractors play an influential role in *meeting* final project costs.

As discussed above, the grantee has ultimate responsibility to manage the New Starts project's cost, scope, and schedule. This makes it difficult to link specific contractor work to overall project performance. Grantees establish project assumptions, manage information, and are the final decision makers throughout the New Start process.

Early Planning Stages through Preliminary Engineering

While the level of contractor involvement during the Alternative Analysis and Preliminary Engineering phases varies by grantee, the actual influence of those contractors on final project cost (and ridership) is quite limited. During the development of cost and ridership forecasts, contractors generally make extensive use of information and other forecasts and estimates provided by external parties, such as project sponsors, Metropolitan Planning Organizations (MPOs), and other local agencies. In these cases, the final product of these contractors may be heavily influenced by assumptions and information beyond the contractor's control.

In addition to the limited influence of contractors on specific data during these early phases, there may also be difficulty providing incentives for project completion for many years after

these phases are completed. Even simple New Starts projects may not be completed until five to ten years after preliminary engineering is initiated. During this early project development phase, the project alignment, scope, and other critical factors may change, further reducing the influence of these early contractors on final project cost. Additionally, by the time a New Starts project is completed, the contractor company may cease to exist, or the staff involved in the project may no longer be with that firm.

Final Design

It is in the final design phase that the engineering designs, vehicle/systems specifications, and other detailed items related to the project are completed. These detailed, construction-level specifics allow the contractor, and thus, grantee, to produce a project cost estimate with the greatest level of confidence. The resulting contract work during this phase, while still based upon some assumptions provided by the grantee, is more reliant on standard engineering and construction practices than the earlier phases. Therefore, it may be suitable for grantees to provide final design contractors with incentives based upon the final cost.

Construction

The most appropriate phase of the New Starts process for providing contractor incentives linked to projects completed below the original cost estimate is the construction phase. By the time a New Starts project enters into a Full Funding Grant Agreement, the engineering designs are set and vehicle and system plans are finalized. In addition, the nature of the work – to complete a tangible product in a pre-determined time – lends itself to be suitable for contractor incentives. Additionally, the construction phase lends itself to more innovative contracting mechanisms, such as Design-Build, DBOM, and CM/GC, which provide inherent incentives to contractors (as well as potential cost savings to grantees) through the packaging of many steps into one fixed-price contract.

Limitations: Grantee Location and Experience

While specific phases and contract types related to New Starts project development lend themselves to incentive contracts, two additional factors must be taken into account in assessing suitability. Specifically, while Federal procurement regulations provide overarching parameters for procurement contracts done by New Starts grantees, they are still limited to specific State rules and regulations. State contract law may limit a grantee's ability to use incentive contracts, and, in several instances, may expressly prohibit a grantee's ability to use contracting mechanisms like Design-Build, DBOM, and CM/GC.

Finally, new, less-experienced grantees may shy away from incentive-based contracts and more innovative contract mechanisms because they require greater understanding of contract mechanics. As such, grantees new to the New Starts process may elect not to use incentive-based contracts or, because of their complexity, be less successful in their implementation.

Conclusion

While incentives are feasible in all contracts related to the New Starts development process, it is in the Final Design and Construction contracts where the use of incentives based upon meeting project costs is the most appropriate. These phases of New Starts project development are most

closely linked to the determination and implementation of the final project cost. In addition, the nature of the work of these phases is deliverable-based, providing tangible products that are easy to link to incentive-type rewards.

More importantly, however, incentives should only be viewed as one way of facilitating on or below budget New Starts projects. The success of a New Starts project lies with the grantee's experience, technical capability, and the ability to effectively manage the project. And, finally, a successful New Starts project is also linked to access to ongoing FTA technical assistance and close project oversight throughout all phases of the project.

Appendix – Specifics on Incentive Contracts

(The following is based on Federal Acquisition Regulation standards of 48 C.F.R. Subpart 1.)

Cost-plus-award-fee (CPAF) - CPAF contracts include an estimated cost and an award fee amount that is paid based upon periodic subjective evaluations of contractor performance. The award fee determination is made unilaterally by the grantee and is not subject to Disputes clause procedures. In non-services contracts, while not encouraged, a base fee may be included which is paid based on the contractor achieving at least satisfactory performance. CPAF contracts offer significant evaluation flexibility in two ways: the flexibility to evaluate on a judgmental basis, taking into consideration both contractor performance levels and the conditions under which such levels were achieved; and the flexibility to adjust evaluation plans quickly to reflect changes in Government management emphasis or concern.

Application.

(1) The cost-plus-award-fee contract is suitable for use when --

(i) The work to be performed is such that it is neither feasible nor effective to devise predetermined objective incentive targets applicable to cost, technical performance, or schedule;

(ii) The likelihood of meeting acquisition objectives will be enhanced by using a contract that effectively motivates the contractor toward exceptional performance and provides the Government with the flexibility to evaluate both actual performance and the conditions under which it was achieved; and

(iii) Any additional administrative effort and cost required to monitor and evaluate performance are justified by the expected benefits.

(2) The number of evaluation criteria and the requirements they represent will differ widely among contracts. The criteria and rating plan should motivate the contractor to improve performance in the areas rated, but not at the expense of at least minimum acceptable performance in all other areas.

(3) Cost-plus-award-fee contracts provide for evaluation at stated intervals during performance, so that the contractor will periodically be informed of the quality of its performance and the areas in which improvement is expected. Partial payment of fees generally corresponds to the evaluation periods. This makes the incentive effective which the award fee can create by inducing the contractor to improve poor performance or to continue good performance.

Limitations.

No cost-plus-award-fee contract shall be awarded unless --

(1) The contractor's accounting system is adequate for determining costs applicable to the contract; and the grantee's surveillance during contract performance is sufficient to provide reasonable assurance that efficient methods and effective cost controls are used.

(2) The contract amount, performance period, and expected benefits are sufficient to warrant the additional administrative effort and cost involved.

Cost-plus-incentive-fee (CPIF) - CPIF contracts provide for a target cost and target fee, a minimum and maximum fee and a fee adjustment formula (e.g., 70/30, 60/40), all established at contract award. The fee and fee adjustment formula incentivize only cost performance. If desired, separate incentives may be included for other significant performance elements such as accomplishments, schedule, or quality. Upon contract completion, the formula is applied and, subject to the minimum and maximum fee limits, the fee is increased from target fee for underruns and decreased for overruns. Regardless of the final cost outcome, the contractor's risk is limited since the fee paid cannot be less than the minimum fee. However, the minimum fee can be zero or even a negative number. All allocable, allowable and reasonable costs incurred on the contract are paid.

Application.

(1) A cost-plus-incentive-fee contract is appropriate for services or development and test programs when --

(i) A cost-reimbursement contract is necessary because uncertainties involved in contract performance do not permit costs to be estimated with sufficient accuracy to use any type of fixed-price contract; and

(ii) A target cost and a fee adjustment formula can be negotiated that are likely to motivate the contractor to manage effectively.

(2) The contract may include technical performance incentives when it is highly probable that the required development of a major system is feasible and the Government has established its performance objectives, at least in general terms. This approach also may apply to other acquisitions, if the use of both cost and technical performance incentives is desirable and administratively practical.

(3) The fee adjustment formula should provide an incentive that will be effective over the full range of reasonably foreseeable variations from target cost. If a high maximum fee is negotiated, the contract shall also provide for a low minimum fee that may be a zero fee or, in rare cases, a negative fee.

Limitations.

No cost-plus-incentive-fee contract, shall be awarded unless the contractor's accounting system is adequate for determining costs applicable to the contract; and the grantee's surveillance during contract performance is sufficient to provide reasonable assurance that efficient methods and effective cost controls are used.

Fixed-price contracts with award fees (FP-AF) - A fixed price consisting of all estimated costs and profit is established at contract award along with an additional, separate award fee amount. The fixed price is paid for satisfactory performance; the award fee is earned, if any, for performance beyond that required. FP-AF combinations are used when the grantee, although wanting to incentivize the contractor to deliver at an excellent or outstanding technical level, is unable to define that level in quantitative terms; or when metrics aren't available or their use is not practical.

a) Award-fee provisions may be used in fixed-price contracts when the Government wishes to motivate a contractor and other incentives cannot be used because contractor performance cannot be measured objectively. Such contracts shall --

> (1) Establish a fixed price (including normal profit) for the effort. This price will be paid for satisfactory contract performance. Award fee earned (if any) will be paid in addition to that fixed price; and
>
> (2) Provide for periodic evaluation of the contractor's performance against an award-fee plan.

(b) A solicitation contemplating award of a fixed-price contract with award fee shall not be issued unless the following conditions exist:

> (1) The administrative costs of conducting award-fee evaluations are not expected to exceed the expected benefits;
>
> (2) Procedures have been established for conducting the award-fee evaluation;
>
> (3) The award-fee board has been established; and
>
> (4) An individual above the level of the contracting officer approved the fixed-price-award-fee incentive.

Fixed-price incentive (FPI) - FPI contracts include a target cost and target profit, a ceiling price and a profit adjustment formula. Unlike CPIF contracts, there is no ceiling or floor on profit. At the end of the contract, using the formula, target profit is either increased for a cost underrun or decreased for an overrun up to a ceiling price. The contractor assumes full responsibility for all costs incurred beyond the ceiling. The contractor must successfully perform to the contract requirements within the ceiling price. FPI contracts are appropriate when a realistic firm target cost and profit and a profit formula can be established at the outset of the contract, which will

provide a fair and reasonable incentive for the contractor. Technical and cost uncertainties must be reasonably identified and the parties should be confident that performance can be achieved.

Application.

A fixed-price incentive (firm target) contract is appropriate when the parties can negotiate at the outset a firm target cost, target profit, and profit adjustment formula that will provide a fair and reasonable incentive and a ceiling that provides for the contractor to assume an appropriate share of the risk. When the contractor assumes a considerable or major share of the cost responsibility under the adjustment formula, the target profit should reflect this responsibility.

Limitations.

This contract type may be used only when --

(1) The contractor's accounting system is adequate for providing data to support negotiation of final cost and incentive price revision; and

(2) Adequate cost or pricing information for establishing reasonable firm targets is available at the time of initial contract negotiation.