March 2026

Construction Manager's Manual

ILLINOIS STATE TOLL HIGHWAY AUTHORITY

Illinois Tollway

OVERVIEW

Construction Manager's Manual

The Construction Manager's (CM) Manual provides guidance to the Illinois Tollway Construction Manager for the successful administration of the project's construction contract documentation and observation. The CM shall verify the construction activities are performed and production achieved per the contractual requirements, open issues and/or activities are promptly resolved and required documentation is adequately prepared and maintained.

By performing the tasks outlined in this manual, the CM will meet the Illinois Tollway's documentation and inspection requirements, deliver a quality completed project and ultimately improve the driving experience of the traveling public, our customer. It shall be understood this manual is contractually a part of and directly pursuant to the Proposal and Agreement for Construction Management Services.

Construction Manager's Manual, dated March 2026, replaces the version issued March 2025.

Major Revision Highlights:

Section 1.0 Introduction	
Article 1.3	Various definition updates.
Section 3.0 Responsibility and Authority	
Article 3.3.1	Updated contract documents plan set issuance from hard copy to electronic. Added electronic data files shall be uploaded into the WBPM System by the DSE.
Section 4.0 Construction Manager's Tasks	
Article 4.1.1	Added requirement for CM Staff; Building Construction Inspector. Revised Office/Documentation Engineer to Documentation Technician. Added QA to Material Technician.
Article 4.4.3	Added reference for Monthly Progress Meetings.
Article 4.4.6	Updated Coordination of Utility Work. Updated Fiber Optic Splicing Coordination.
Article 4.4.9	Updated Transmitting Pay Estimates. Updated Semi-Final Pay Estimate and WBPM A-34 PRR Process.
Article 4.4.10	Removed reference to Exhibit A ISO Form. Added Exhibit A shall be generated in CEPS. Added guidance for PCO / ATP / Supplemental PCO / ATP Numbering. Added guidance for Change Order and Extra Work Order signatures and recommendation letter. Updated the process steps for submitting an Authorization to Proceed (ATP) Added new Exhibit A Category. Added guidance to link TER Process to related CO/EWO Process, if applicable Added reference links to WBPM System User Manual for ATP/CO/EWO process and workflow diagram.
Article 4.4.11	Updated Value Engineering Proposal to be submitted as (VEP) process in the WBPM system.

Article 4.4.13	Added clarification for working set of record drawings.
Article 4.4.16	Added additional comment under CM's evaluation of extension of time.
Article 4.4.19	Added clarification for CM review of Railroad Invoices.
Article 4.4.20	Updated requirement for staffing modifications.
Article 4.4.22	New Article; CM Project Status Evaluation
Article 4.4.23	New Article; CM Project Closeout
Formerly Article 4.4.22 Current Article 4.4.24	Renumbered article number
Formerly Article 4.4.23 Current Article 4.4.25	Renumbered article number
Formerly Article 4.4.24 Current Article 4.4.26	Renumbered article number
Formerly Article 4.4.25 Current Article 4.4.27	Renumbered article number
Formerly Article 4.4.26 Current Article 4.4.28	Renumbered article number
Article 4.4.29	New Article added; Lessons Learned.
Article 4.8.3	Clarified GEC Inspections are required to be done while under existing MOT.
Article 4.10.4	Added guidance for maintaining electronic A-5, A-6 forms and eTicket Summary Reports. Added the breakdown of progress payment for lump sum items, is to be agreed on prior to work commencing.

Article 4.10.7	Updated Pay Item numbering system when establishing an Agreed Unit Price and/or Force Account Pay Item. Updated Progress Documentation for Force Account Invoices and Certified Payroll.
Article 4.10.10	Updated original signed CO / EWO / GCPE forms shall be submitted in the WBPM System.
Article 4.11.1	Updated coordination and types of Pre-Final Walk Through.
Article 4.12	Added CM to provide benchmarks as specified in Article 4.4.13 Record Drawings. Removed Post Construction/Lessons Learned.
Section 6.0 Reference Documentation	
Article 6.1	Clarified location of Capital Program Procedures - ISO Forms.
Appendices	
Appendix F	Removed ATP/CO/EWO Flow Chart. Added Construction Manager's Building Inspector Checklist.
Appendix G	Digital Surveys and Volumetric Documentation Requirements

TABLE OF CONTENTS

TABLES

APPENDICES

SECTION 1.0 INTRODUCTION

1.1 Purpose and Use

The Construction Manager's (CM) Manual is to provide guidance to the Illinois Tollway Construction Manager (CM) for the successful administration of the project's construction contract documentation and observation. The CM shall monitor and report the contractor's activities and construction contract. The CM shall verify that the construction activities are performed, and production achieved per the contractual requirements, open issues and/or activities are promptly resolved, and required documentation is adequately prepared and maintained. By performing the tasks outlined in this manual, the CM will meet the Illinois Tollway's documentation and inspection requirements, deliver a quality completed project, and ultimately improve the driving experience of the travelling public, our customer.

1.2 Abbreviations and Acronyms

The acronyms provided are in addition to the abbreviations listed in the Definition of Terms, the Illinois Tollway Supplemental Specifications Article 101, and latest edition as modified by the contract documents.

ACI	American Concrete Institute
USACE	United States Army Corps of Engineers
Agg	Aggregates
AASHTO	American Association of State Highway and Transportation Officials
ASTM	American Society for Testing Materials
ATP	Authorization to Proceed
AUP	Agreed to Unit Price
Blue Book	Equipment Watch's Rental Rate Blue Book
Capture	DBE/EEO Reporting Application
CCC	Construction Communication Coordinator
CCM	Corridor Construction Manager
CCTV	Closed Circuit Television
CFR	Code of Federal Regulations
C5	Contract Cost Change Controls Committee
CLSM	Controlled Low Strength Material
CM	Construction Manager
CO	Change Order
CORS	Continuously Operating Reference Stations
CQP	Contractor's Quality Program
CQP-CM	Consultant Quality Program – Construction Manager
CREATE	Chicago Region Environmental and Transportation Efficiency Program
CDA	Construction Documentation Audit
DCM	Design Corridor Manager
DBE	Disadvantaged Business Enterprise
DMS	Dynamic Message Sign
DOR	Designer of Record
DPM	Deputy Program Manager
DR	Daily Report
DSE	Design Section Engineer
ECP	Earned Credit Program

EDM	Electronic Distance Measurer
EEO	Equal Employment Opportunity
EO	Errors and Omissions
EPA	U.S. Environmental Protection Agency
ECLM	Erosion Control and Landscape Manual
ESCP	Erosion and Sediment Control Plan
EWO	Extra Work Order
FHWA	Federal Highway Administration, Department of Transportation
FOC	Fiber Optic Cable
GEC	General Engineering Consultant
GPS	Global Position System
HMA	Hot Mix Asphalt
IEMA	Illinois Emergency Management Agency
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
I-MIRS	Illinois Materials Inspection and Reporting System
ISO	International Organization for Standardization
ISTHA	Illinois State Toll Highway Authority, also Tollway, also Illinois Tollway
ITFOV	Illinois Tollway Fiber Optic Vendor
ITS	Intelligent Transportation Systems
INVEST	Infrastructure Voluntary Evaluation Sustainability Tool
ION	Incidence of Non-Compliance
JOC	Job Order Contracting
NCR	Non-Conformance Report
NEC	National Electrical Code
NOA	Notice of Award
NOD	Notice of Delay
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NTP	Notice to Proceed
MA	Meeting Agenda
MM	Meeting Minutes
MOT	Maintenance of Traffic
MVDS	Microwave Vehicle Detection System
OR	Owner's Representative
OSHA	Occupational Safety and Health Administration
PCL	Project Communication Liaison
PCC	Portland Cement Concrete
PCO	Potential Change Order
PCR	Project Change Request
PIR	Project Initiative Request
PM	Project Manager
PMO	Program Management Office
QA	Quality Assurance
QC	Quality Control
QR	Quality Representative, usually the Contractor's
RE	Resident Engineer
RQDS	Ramp Queue Detection System
RFI	Request for Information
ROW	Right-of-Way

RWIS	Road Weather Information System
SAAEOE	Schedule of Average Annual Equipment Ownership Expense
SBSP	Small Business Set-Aside Project
SWPPP	Storm Water Pollution Prevention Plan
SWZ	Smart Work Zone
TIMS	Traffic Information Management System
TOC	Traffic Operations Center
UFS	Uniform Filing System
VEP	Value Engineering Proposal
VM	Value Management
VOSB	Veteran Owned Small Businesses
VWIM	Virtual Weigh In Motion
WBPM	Web-Based Program Management
WIM	Weigh In Motion
WMA	Warm Mix Asphalt

1.3 Definitions

The definitions provided are in addition to the definitions listed in the Definition of Terms, Illinois Tollway Supplemental Specifications Article 101 latest edition as referenced by the contract documents. Whenever this manual uses the following terms, their intent and meaning shall be as follows:

Authorization to Proceed (ATP): Approved document/process to proceed with additional and/or changed contract work PRIOR to the processing of the corresponding Change Order/Extra Work Order.

B2Gnow: Is a vendor payment management program that the Illinois Tollway's Diversity Department uses to monitor the status of payments to DBEs.

Capital Program Processes and Procedures: ISO format document procedures determined by the Illinois Tollway to be followed in each project. Earlier versions were called Project Management Procedures and the Congestion Relief Plan.

Capture: EEO stand-alone software application available on the Illinois Tollway website allowing the contractor to electronically complete EEO. The EEO are submitted through the Capture system.

CENTRALSYS: This system has been replaced with Central Engineering Payment System (CEPS) for all projects.

CEPS: The Central Engineering Payment System was developed by the Illinois Tollway to replace all functions previously associated with Fieldsys and CentralSys.

Checklist, Construction Inspectors: The lists derived from the Illinois Tollway Special Provisions and Supplemental Specifications. IDOT Standard Specifications are used to verify essential items of the work to meet contractual requirements. The checklists are in no way intended to serve as a substitute or waiver of any provisions of the contract. They may be modified by the contractor to meet Project requirements.

Checklist: Documented lists used to verify essential items of the work to meet contractual requirements.

Checklists, CQP: The Contractor or Consultant Quality Program guidelines are used to determine if the contractor or consultant is fulfilling the requirements of the Capital Program and Procedures P6000 procedure and their approved CQP plans.

Chicago Region Environmental and Transportation Efficiency Program (CREATE): Public-private partnership to address freight, commuter, and intercity passenger rail congestion in the Chicago area.

Chief Engineering Officer: The individual responsible for the Engineering Division of the Illinois Tollway.

Commissioning, ITS: The process of ensuring that all systems and components pertaining to Intelligent Transportation Systems (ITS) are installed, configured, and tested according to the operational requirements of the Illinois Tollway.

Completion Date, Final: The date all construction contract items, including the punch list, have been completed.

Completion Date, Interim: The dates established in the Special Provisions, designating the completion of certain job progress milestones.

Completion Date, Substantial: The date established in the Special Provisions, designating the portion of the project that is sufficiently complete.

Construction Communication Coordinator (CCC): Illinois Tollway representative to whom the CM's Project Communications Liaison (PCL) reports to in order to provide timely project construction activity information.

Construction Manager (CM): The Engineer or firm of engineers and their duly authorized employees, agents, and representatives retained by the Illinois Tollway to observe the work to determine whether or not it is being performed and constructed in compliance with the Contract.

Construction Manager Agreement (CM Agreement): The written agreement executed between the Illinois Tollway and the consultant performing the Construction Management Services. The agreement includes the Consultant's Proposal and the signed contract. This document is also called Proposal and Agreement for Construction Management Services.

Consultant Quality Program – Construction Manager (CQP-CM): The CM's approved internal quality program that addresses the quality of the CM services, assuring they are provided in a professional, correct, and adequate manner to meet the Illinois Tollway's needs. The CQP-CM does not address quality control of the construction contractor's work. However, it does include the review of the Contractor's Quality Control Documentation.

Contract Cost Change Controls Committee (C5): An Illinois Tollway Board authorized panel that recommends or rejects an Authorization to Proceed (ATP).

Contractor: The individual, partnership, firm or corporation, or any combination thereof, who has entered into the Construction Contract.

Contractor's Designer: The professional engineering entity that is responsible to the contractor for the scope of design defined in the construction contract for Performance Based design work.

Contractor's Quality Program (CQP): The contractor's approved program that details the method of inspection and documentation procedures that will be taken to ensure that all of the work included under the project conform to the contract requirements, whether constructed and/or processed by the contractor, or procured from subcontractors or vendors.

Corridor Construction Manager (CCM): The engineer or the firm of engineers contracted by the Illinois Tollway to act as the duly authorized agent of the Chief Engineering Officer to manage other Construction Managers (CMs), in accordance with the scope of the particular duties delegated to them by the terms of their Agreement.

Deputy Program Manager (DPM): An individual Engineer responsible for a corridor within the Illinois Tollway system under the supervision of the Deputy Chief of Program Implementation.

Designer: The individual (or consultant team) responsible for performing a design task for an Illinois Tollway project. Although this is typically the Design Section Engineer (DSE), it may also include a person (or consultant team) hired by a contractor to perform design as part of a Value Engineering Proposal or part of a Performance Based Design. This document will use the term "Designer", which covers anyone performing design and will only use the term "DSE" when discussing tasks specific to the DSE.

Designer of Record (DOR): The engineering firm that takes responsibility for the design work for the entire project or certain specified sections. The Engineer of Record (EOR) is the firm's professional engineer (PE) or structural engineer (SE) who stamps the drawings and specifications. The EOR is employed by the DOR, which may be the Design Section Engineer or the Contractor's Designer as designated by the contract.

Disadvantaged Business Enterprise (DBE): Business with majority ownership by a woman or minority. The Illinois Tollway is committed to providing DBE construction contractors, suppliers, and consultants with opportunities afforded to them by State and Federal law and the Illinois Tollway policies.

Diversity Program: Illinois Tollway Management initiative responsible for ensuring the participation of minorities, veterans, and females in both professional and construction business and employment opportunities on Illinois Tollway projects. This program is administered by the Diversity and Strategic Development Department with the assistance of the Construction Manager.

E-Ticket: A valid entry in the Illinois Tollway electronic ticketing system for aggregate, PCC, or HMA representing a single load of material. All E-tickets are processed through the Illinois Tollway approved software and may be reported through the agency software portal.

Equal Employment Opportunity (EEO): The process, mandated by the Federal Government, of providing equal access to the marketplace for women and minorities. The U.S. Department of Labor has created requirements and goals related to the total number of hours worked by women and minority tradespersons.

Equipment Watch's Rental Rate Blue Book (Blue Book): A web-based document designed for use on force account bills of contractors performing work for the Illinois Tollway, IDOT, and local government agencies who choose to adopt these equipment rates. The Blue Book replaces the Schedule of Average Annual Equipment Ownership Expense (SAAEOE). The Illinois Tollway has adopted these equipment rates for all force account work.

Erosion Control and Landscape Manual (ECLM): An Illinois Tollway manual that provides general guidelines for plan preparation and permitting of erosion and sedimentation control and landscape planning and design. The information documented in the manual is for use to ensure fulfillment of commitments associated with Section 402 and Section 404 permits of the Clean Water Act issued by the U.S. Army Corps of Engineers (USACE), Illinois Environmental Protection Agency (IEPA), and other regulatory and natural resource agencies during project development.

Erosion and Sediment Control Plan (ESCP): Plans that are part of the Storm Water Pollution Prevention Plan (SWPPP) that detail the strategy and measures that will be implemented during construction to minimize erosion and prevent off-site sedimentation. The ESCP may also include permanent measures that will remain in place once construction is complete, to the control erosion and sedimentation.

Fieldsys: This system has been replaced with Central Engineering Payment System (CEPS) for all projects.

General Engineering Consultant (GEC): The engineer or firm of engineers retained by the Illinois Tollway for the purpose of carrying out the duties imposed on the General Engineering Consultant pursuant to the terms and conditions of any trust indenture, and any additional requirements, entered into, by, or on behalf of the Illinois Tollway.

Geotechnical Engineer: The engineer or firm of engineers contracted by the Illinois Tollway or the DSE to perform work in the field of Soil Mechanics and Foundation Engineering for the Design Section and/or the Construction Section.

Illinois Tollway INVEST Program: Processes and tools adopted by the Illinois Tollway to incorporate sustainability into project design and construction as well as System-Wide Planning and Operations and Maintenance activities. The program is based on the implementation of the Federal Highway Administration's (FHWA's) INVEST Tool.

Illinois Tollway Project Manager (PM): The representative of the Illinois Tollway that the Chief Engineering Officer assigned to be the technical and administrative liaison between the Illinois Tollway and its various contractors, DSEs, program manager, consulting engineers and CMs. (Note In the event a Project Manager (PM) is not available to perform their assigned duties, another Project Manager can perform the responsibilities in lieu of the assigned Project Manager to ensure that such duties are completed in a timely manner).

Illinois Tollway Supplemental Specifications: The Illinois Tollway Supplemental Specifications to the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction adopted March 1, 2024.

I-MIRS (Illinois Materials Inspection and Reporting System): Illinois Materials Inspection and Reporting System is a stand-alone software application allowing the Contractor and CM to submit Aggregate/PGE gradations; tack coat applications, and HMA/WMA & PCC plant and field-testing reports for analysis by the Illinois Tollway. I-MIRS is considered the final project record for

Aggregate, HMA/WMA & PCC material testing reports.

Independent Assurance (IA): The Independent Assurance (IA) program is a component of the system used by the Illinois Tollway to assure that soils, aggregate, asphalt, concrete and manufactured materials conform to specification requirements. The IA program provides a final check on the QC and QA processes through random independent oversight and testing to ensure the system is producing products that fully conform to specification requirements.

Inspector: The authorized representative of the construction manager, who must perform the necessary quality assurance checking, verification and measurements of the work to document its conformance with the CQP and the contract plans and specifications.

Interim Completion Dates: See **Completion Date**, **Interim.**

JOC (Job Order Contracting): Job Order Contracting is a unique indefinite quantity type of contract that enables facility owners to accomplish a large number of repairs, maintenance, and construction projects with a single, competitively bid contract. It eliminates the time and expense of completing the normal design-bid-construct cycle for each project. Contractors competitively bid an adjustment factor to be applied to a catalog of construction tasks with pre-set unit prices. The overall contract amount (the sum of the individual projects that may be performed) is expressed as a range in dollar volume, for example from $50,000 to $1,000,000. The contractor will be asked to perform a series of projects one after the other. The price for each project will be the pre-set unit prices multiplied by the quantity, multiplied by the competitively bid adjustment factor.

LPC Tracker: The Illinois Tollways stand-alone software application available on the Illinois Tollway website allowing the contractor and subcontractors to electronically report al EEO and State of Illinois prevailing wage requirements.

Materials Coordinator(s): The member of CM staff responsible for the management of QC/QA functions as well as any soil, aggregate, concrete, asphalt and manufactured materials to determine whether or not it is being produced and constructed in compliance with the Contract.

Method of Material Acceptance: Means of determining whether material supplied is in conformance with specifications. See the materials acceptance list in Appendix C.

Milestone Acceptance: Is a process that is managed through the WBPM System. It is the contractor's responsibility to initiate this process.

National Pollutant Discharge Elimination System (NPDES): A provision of the Clean Water Act that prohibits discharge of pollutants into the waters of the United States unless a special permit is issued by the Environmental Protection Agency (EPA), a state or other designated regional agency.

Non-Compliance: Failure to comply with written contract documents, directives, standard requirements, or government rules and regulations.

Non-Conformance: A failure to fulfill contractual requirements, which renders the quality of a process or work product unacceptable or indeterminate in regard to meeting all relevant contract requirements.

Non-Conformance Report (NCR): Process developed in the WBPM System to document non-conforming actions, non-conforming work, and acceptable corrective action.

Notice of Award (NOA): A written or electronic notice from the Illinois Tollway to the apparent successful bidder that the Illinois Tollway is planning to award the Contract to that bidder. This notice will also establish the times and dates for the contract and pre-construction meeting.

Notice of Intent (NOI): Notification to the IEPA of a planned discharge for which coverage under the ILR10 general permit is needed and contains information about the planned discharge. The NOI serves as notice to the IEPA that the Illinois Tollway intends for the discharge to be authorized under the terms and conditions of the general permit and by signing and submitting the NOI, the Illinois Tollway certifies that the discharge meets all of the eligibility conditions specified in the general permit and indicates the intent to follow the terms and conditions of the permit.

Notice to Proceed (NTP): A written or electronic telegraphic notice from the Chief of Contract Services to the Contractor that will be issued after the Board has approved the Contract, which notice designates the date for commencement of the work by the Contractor pursuant to the terms and conditions of the Contract.

Notice of Termination (NOT): Notification to the IEPA that the permitted discharge under the ILR10 general permit is no longer required and that final stabilization has been achieved (as defined in the ILR10 permit) on all portions of the permitted construction site.

Owner's Representative (OR): The engineer or the firm of engineers contracted by the Illinois Tollway to act as the duly authorized agent of the Chief Engineering Officer to coordinate all contract matters and all matters related to delivering the project in accordance with the scope of the particular duties delegated to them by the terms of their Agreement.

Plans: The contract drawings, or exact reproductions thereof, bearing a stamp and signature of the Design Section Engineer which show the location, character, dimensions, and details of The Work. Contract drawings include, but are not limited to, the approved plans, profiles, typical cross sections, detail drawings, shop drawings, working drawings, layout drawings, supplemental drawings, Illinois Tollway Standard Drawings, and IDOT Highway Standards.

Potential Change Order (PCO): Represents a possible modification to the contract work which would result in increases or decreases in the quantity, or cancellations of any one or more of the unit price or lump sum items. The PCO alerts the Illinois Tollway management to potential changes to the contract budget. The PCO process also includes any additional work not included in the original contract. Following the issuance and approval of an Authorization to Proceed (ATP), a PCO may be converted into a formal Change Order (CO) or Extra Work Order (EWO). A log of all PCOs is uploaded to the WBPM System weekly.

Private Laboratory: Any construction material testing or design facility not operated by the Illinois Tollway. This requirement includes contractor, producer, consultant, or local agency testing facilities performing quality control, quality assurance, acceptance, independent assurance, or any other required or contracted testing on a Tollway project. All private laboratories must be IDOT approved and also AASTHO Resource accredited as required.

Program Management Office (PMO): The Engineer or firm of Engineers retained by the Illinois Tollway for the purposes of carrying out the duties imposed on the Program Manager, pursuant to the terms and conditions of an authorized Program Management Contract.

Project Change Request (PCR): The process used to request and approve changes to the project scope and budget of capital program projects.

Project Communication Liaison (PCL): CM or CCM employee assigned to facilitate the link between Illinois Tollway Communications and the CM. The PCL will provide timely updates about the project's construction activities so Communications may convey up-to-date information to the travelling public.

Proposal and Agreement for Construction Management Services: See Construction Manager Agreement.

Punch List: A list(s) prepared by the CM of outstanding work items and/or work items not completed in conformance with the contract. Reference the A-45 PL Punch List Template. The Punch List process is managed through the WBPM System.

Quality Assurance (QA): The inspection, sampling, and testing programs performed by the Construction Manager and/or the Illinois Tollway to verify and validate the results of the Contractor's Quality Control Program (CQP) to assure general conformance with the contract requirements. In the CQP-CM, QA is performed by the Consultant's Quality Representative (QR) as an internal audit of the CM staff's tasks.

Quality Control (QC): The process and activities put forth by the contractor to ensure conformance with the specification requirements. This is the responsibility of the Contractor. The CM shall refer to the Illinois Tollway Contractor's Quality Program (CQP), the Illinois Tollway CQP Manual, and Capital Program Procedures.

Quality Representative (QR): The construction managers assigned individual responsible for implementing and administering the CQP-CM with the authority to act in all quality matters, remaining at all times independent of those having direct responsibility for the work being performed and not responsible for cost, construction, schedule, or production of work. The contractor has a representative designated as a QR to administer their CQP. The QR is required to perform the CM internal audit of the CQP-CM.

Request for Information (RFI): A formal request from the contractor to the CM, seeking clarification of a specific element of the contract. The CM is to provide the response to the RFI within 7 days of it being submitted. The CM may send the RFI to either the Designer of Record or the Illinois Tollway for input or clarification prior to responding to the contractor. The RFI process is managed through the WBPM System.

Schedule of Average Annual Equipment Ownership Expense (SAAEOE): Document that has been replaced by the web-based Equipment Watch's Rental Rate Blue Book.

Shop Drawings or Working Drawings: Drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for the Contractor to illustrate some portion of the work, together with all illustrations, brochures, standards, schedules, performance charts, instructions, diagrams and other manufacturers' literature; all as approved and accepted by the Contractor and submitted to the CM and DSE as necessary to illustrate material or equipment to be incorporated in a portion of the work.

Brochure: A pamphlet or booklet containing descriptive and technical data to help facilitate the acceptability of a product or service.

Sample: A representative part or a single item from a larger whole presented for inspection or to show evidence of the quality of and compliance with contract requirements.

Small Business Set-Aside Project (SBSP): Construction contracts, generally with values of approximately $1 million, that are set aside specifically for small businesses. The SBSPs have no DBE or VOSB goals, nor is any DBE/VOSB paperwork required during the contract. EEO documentation is required for SBSPs.

Storm Water Pollution Prevention Plan (SWPPP): Document required by the Illinois Tollway to meet IEPA and other regulatory and environmental resource agency requirements to specify erosion and sediment control, spill prevention and spill control measures on the project site to prevent water pollution during construction activities. This is required by the IEPA for all construction projects where the total land disturbance is equal to or greater than one acre. A SWPPP is also required per Illinois Tollway policy for projects with less than 1 acre of land disturbance in which erosion and sediment controls are required and/or a reasonable potential to impact storm quality exists due to sediment or other potential stormwater contaminants.

Submittals: A WBPM process used during the construction phase to manage the submission and review of information required to be submitted by the General Contractor (GC). Submittals include items such as shop drawings, product data, samples, or any other information required to be submitted for review or record. A response must be provided within 14 days of creating the submittal.

Substantial Completion Date: See **Completion Date, Substantial**.

Utility Work Order: An order to a utility for the removal, rearrangement, relocation, protection, or construction of its facilities on the Illinois Tollway Right-of-Way (ROW) and off the ROW if it is part of the work. Such order, usually prepared and issued by the Illinois Tollway, specifies both the work to be done by the utility and the basis of payment for such work.

Value Engineering Proposal: Method of evaluation done by the contractor to provide a written proposal to the Illinois Tollway for modifying the contract documents to provide innovative, alternative, and/or lower cost construction without impairing the essential functions and characteristics of the facility including, but not limited to, service life, reliability, economy of operation, ease of maintenance, necessary standardized features, desired appearance, or IDOT and the Illinois Tollway design standards. Refer to the Illinois Tollway Supplemental Specifications Article 104.07 and Capital Program Procedure P5150. The Value Engineering process is managed through the WBPM System.

Visual Examination: Assessment of any item's markings, physical dimensions, obvious defects, or damage for acceptance or rejection and/or close conformity with contract requirements.

VOSB (Veteran Owned Small Businesses): A business that is majority-owned by a veteran. The Illinois Tollway is committed to providing VOSB construction contractors, suppliers, and consultants with opportunities afforded by State and Federal law and the Illinois Tollway policies.

Web-Based Program Management (WBPM) system: Software tool used to reduce coordination errors and improve productivity through automation of previously paper-based processes. The secure system is administered via a website on the Internet, allowing controlled access to the documentation processes. The WBPM System is utilized as a communication, collaboration, and coordination tool, as well as a document management solution, for most project

activities during planning, design, and construction phases. The WBPM System allows Illinois Tollway authorized users with various roles to collaborate on various types of projects. The WBPM System is the official repository of the project records.

SECTION 2.0 SCOPE OF CONSTRUCTION MANAGER'S MANUAL

2.1 Scope

It shall be understood that this manual shall be contractually a part of and directly pursuant to the Proposal and Agreement for Construction Management Services. This manual replaces all the previous versions of the Construction Manager's Manual effective immediately. Procedures, processes, expectations, and nomenclature presented in this manual are subject to change at any time upon notification from the Illinois Tollway. The emphasis will be on the procedures the CM has to follow derived from such documents as but not limited to: The contract documents (See Exhibit 1), the Capital Program procedures, the WBPM System, the approved Consultant Quality Program (CQP-CM), and various construction checklists. See SECTION 6.0, Reference Documentation, in this CM Manual.

2.2 Contractor's Responsibilities

The contractor is not contractually bound by the Construction Manager Manual. However, when contractor responsibilities are identified in this document, they are usually requirements from the contract documents. This information is provided as a guide to the CM.

2.3 Contract Documents

The documents as listed in the Contract Requirements Volume 1.

2.4 Electronic Database Systems

The CM and their staff will use various electronic database systems to manage the contractor and the construction contract.

The Illinois Tollway has implemented a WBPM System to facilitate the process of contract activities. All parties who utilize the WBPM System are required to use the Illinois Tollway naming convention when uploading project documents. The Illinois Tollway naming convention may be found on the WBPM System under project 16. Various Illinois Tollway Engineering groups use other types of databases, such as I-MIRS (Engineering-Materials), CEPS (Central Engineering Payment System), Capture and or B2GNow (Diversity), and LPC Tracker. The Illinois Tollway has separate training classes for these databases (See Exhibit 3 for references). Throughout this manual, the CM will be alerted to which database is used.

SECTION 3.0 RESPONSIBILITY AND AUTHORITY

All responsibility and authority relationships are governed by the specific project contract documents, contractor contract, and construction manager agreement (CM Agreement).

3.1 Illinois Tollway

3.1.1 Illinois Tollway Responsibility

The Illinois Tollway is responsible for such items, but not limited to:

Design of the project except Performance Based Specifications work.

Selection of the CM and award of the contract to the contractor for the project.

Communications to inform the travelling public about roadway conditions.

Training for the Contractor and CM in Illinois Tollway administered software applications and the WBPM System.

Payments to the contractor and CM.

Final assessment of the Diversity Program conformance with the contract requirements.

3.1.2 Illinois Tollway Authority

The Illinois Tollway has overall authority over the contractor, CM, and final contract compliance. Disputes that cannot be resolved at the CM level are decided by the Illinois Tollway. See Capital Program Procedure P3120 Construction Dispute Resolution Procedure.

The Illinois Tollway has delegated specific tasks enumerated in this manual for the CM to perform, making the CM the Illinois Tollway's Project construction representative. Some of the Capital Program Procedures requiring CM participation are, but not limited to:

P1010 Deviating from Procedures

P1040 Meeting Agendas and Minutes Procedure

P1070 Developing or Revising Procedures and Forms Procedure

P3040 Evaluation of Contractor Performance

P3080 Contract Change Order & Extra Work Order Procedure

P3090 Errors and Omissions on Consultant Work Procedure

P3115 Consultant Upon Request

P3120 Construction Dispute Resolution Procedure

P3200 Consultant Contract Supplement/ Continuation of Services/ Contract Renewal Procedure

P4000 Design Management Procedure

P4010 Acquisition of Permits Procedure

P4015 Railroad Flagging Procedure

P4020 Value Management Procedure

P4100 Constructability Review Procedure

P4110 Cost Estimating Procedure

P5000 Pre-Construction Agenda Procedure

P5030 Submittals Procedure

P5050 Corrective and Preventive Actions Procedure

P5070 Nonconformance Reports Procedure

P5080 Construction Administration Procedure

P5120 Calculating Liquidated Damages Procedure

P5130 Construction Contract Closeout Procedure

P5140 Maintenance of Traffic Stage Change Approval Procedure

P5150 Construction Value Engineering Proposal Procedure

P6000 Evaluation of Consultants' and Contractors' Quality Plan Procedure

P6010 Quality Training Procedure

P6040 Quality Assurance Audit Procedure

P6060 Document Control Procedure for Quality Manuals and Program Management Procedures Manuals

P6110 Management Review of Quality Management System Procedure

P6120 Quality Assurance, Quality Control During Construction Procedure

P7000 Web-Based Program Management (WBPM) Procedure

P7010 Monthly Status Reporting Procedure

P7040 Measurement, Analysis and Improvement Procedure

P7060 Lessons Learned

P7110 Scheduling Control Procedure

See Article 6.4, for a list of Capital Program Procedures ISO Forms

3.2 General Contractor

3.2.1 General Contractor Responsibility

The contractor shall provide goods, services, and workmanship as specified in the contract documents. Depending on the scope of the contract, some other responsibilities are, but not limited to:

Knowledge of the contract documents.

Agree to and implement the Illinois Tollway's Contractor's Quality Program (CQP).

Provide Soils, Aggregate, PCC, and HMA/WMA Quality Control testing in accordance with the IDOT QC/QA Program and Illinois Tollway S.P. requirements.

Provide other QC testing for other materials and services.

Supervise subcontractors and subconsultants.

Provide required materials that have been approved by IDOT, the Illinois Tollway or other entities the Illinois Tollway has designated for processing of payment. This includes material documentation requested by the CM.

Participate in the Illinois Tollway's Diversity Program.

Inform the Illinois Tollway through the CM of discrepancies in writing utilizing WBPM System in a timely manner, so an equitable solution may be determined.

3.2.2 General Contractor Authority

The Contractor has overall authority over their suppliers, vendors, subcontractors, and subconsultants.

3.3 Construction Manager

3.3.1 Construction Manager Responsibility

Each CM shall furnish services assigned to them per the agreement with the Illinois Tollway and in accordance with this Construction Manager's Manual. The CM will use the WBPM System as a tool to allow the contract participants to perform many of the requirements of the contract documents and Capital Program Procedures electronically. Such services shall be performed under the direct administration of the Illinois Tollway.

Other Responsibilities

Other responsibilities include, but are not limited to:

Knowledge of the contract documents.

Developing and adhering to the Illinois Tollway's Consultant Quality Program-Construction Manager (CQP-CM).

Providing QA Soil, Aggregate, PCC, and HMA/WMA Quality Assurance testing following the IDOT QC/QA Program requirements and contract documents per Capital Program P6120.

Provide a designated Materials Coordinator unless stated otherwise in the Professional Bulletin Services project scope.

Monitoring the CQP activities per Capital Program P6000.

Providing qualified staff as defined in the CM Agreement.

Monitoring the project construction activities.

Coordination and monitoring of contractor installed Maintenance of Traffic.

Maintaining the project record as required by the Illinois Tollway.

Generate and process contractor Pay Estimates.

Monitoring contractor submission of EEO data in Capture.

Process Property Damage Claims for Tollway Risk Management.

Abide by the terms and conditions outlined in the Tollway Survey Access Letter and maintain copies on hand during the work.

All personnel shall perform their duties in a safe and professional manner and comply with Illinois Law regarding distracted driving.

CM Reporting to the Illinois Tollway

The Construction Manager (CM) is advised that the Illinois Tollway has retained a Program Manager (PMO), Project Manager (PM), General Engineering Consultant (GEC), Illinois Tollway Independent Assurance, and, at times, Owner's Representative (OR) and Corridor Construction Manager (CCM) to perform certain functions when directed by the Illinois Tollway (See **Exhibit 4**). The CM shall cooperate fully with these representatives of the Illinois Tollway in the performance of their duties and functions. The CM shall keep the Illinois Tollway and its representatives informed of the activities of their own operations, as well as those of the Contractor, by making job related documents and reports accessible at all times.

Items Furnished to the Construction Manager

The CM is responsible for obtaining the following items, which will be furnished to the CM from various sources. Generally, only those portions of these listed items applicable to the particular construction section will be furnished to the CM to the extent deemed necessary. Reimbursement for direct costs related to expenditures for any of the following items shall be in accordance with the applicable Professional Services Bulletin and the CM Agreement with the Illinois Tollway.

Contract Documents

One reproducible electronic copy of the complete plan set for each awarded construction contract assigned to the CM shall be available in the as-bid documents located in the WBPM System. The CM may use these files to produce additional prints in the desired sizes.

One reproducible electronic copy of the complete contract requirements for each awarded construction contract assigned to the CM, shall be available in the construction contract documents located in the WBPM System.

An electronic copy of the Traffic Barrier Warrant analysis document was obtained from the DSE through the PM.

Copies of the Supplemental Specifications are obtained under the "Doing Business" section of the Illinois Tollway website. See Section 6.0.

One reproducible electronic copy of each of the Structure Soils Report and the Roadway Soils Report prepared by the Geotechnical Engineer (request stored in the WBPM System where appropriate).

Blank electronic copies of the Illinois Tollway standard "A" forms and the Illinois Tollway material forms as needed for quantity reproduction by the CM are available on the Illinois Tollway website or the WBPM System. See Section 6.0 for locations and form lists.

One reproducible electronic copy of each Utility Order, Railroad Agreement, and/or Agency Agreement applicable to the construction section. A utility relocation job file for each utility conflict, along with executed Agreements or Permits affecting each utility company will be provided.

A reproducible electronic copy of this CM manual can be obtained from the Illinois Tollway website.

A reproducible electronic copy of the latest version of the Illinois Tollway's Roadway Traffic Control and Communications Guidelines can be obtained from the Illinois Tollway website.

A reproducible electronic copy of the latest version of the Illinois Tollway's Erosion and Sediment Control, Landscape Design Criteria can be obtained from the Illinois Tollway website.

A field office and/or laboratory complete with furniture, air conditioning, heat, electricity, telephone, internet, reproducing equipment and sanitary facilities will be furnished by the Contractor as an item of the work if and as specified in the construction contract.

An electronic copy of any permits and/or agreements secured by the Illinois Tollway and uploaded to the WBPM System.

An electronic copy of the Project INVEST Scorecard-95D, if applicable.

An electronic copy of the Survey Authorization Letter for the CM contract.

An electronic copy of the Right-of-Way plats and/or strip maps applicable to the construction section which supplement the plans and specifications.

An electronic copy of the Illinois Tollway's bid and meeting calendar for the current year is also located on the Illinois Tollway website.

Electronic Data Files shall be uploaded into the WBPM System by the DSE.

Diversity Program Documents

Diversity Reporting forms as displayed on the Illinois Tollway website or the WBPM System:

Prime contractor's approved Disadvantaged Business Enterprise (DBE) and Veteran Owned Small Business (VOSB) Utilization Plans, if applicable, to be uploaded by Tollway Diversity.

- DBE/VOSB Forms, if applicable, shall be submitted to the Illinois Tollway's B2GNow system:
    - 2024, 2025, 2026 Trucking Reporting and Verification
    - B2GNow Monthly Payment Report
    - 2115 Final Payment Report
    - Equal Employment Opportunity (EEO) Form 003
    - List of Recommended EEO Posters for Job Site Trailers.
    - Earned Credit Program (ECP) Brochure and Flier.
    - Capture User Manual.

Designer of Record Documents

One electronic copy of the following prepared by the Designer of Record:

Design Calculations

Quantity Calculations

Bridge Condition Report(s) (if applicable)

Set of Plans (DGN/XML & PDF), Specifications and Addenda. NOTE: Individual plan sheets shall be uploaded by the Designer to the Construction Project in the WBPM System.

Permits

Utility Conflict Report

Items Furnished by Construction Manager

It is the intent of the Illinois Tollway that the CM furnish, at no additional cost to the Illinois Tollway, unless specifically stipulated otherwise in the applicable Professional Services Bulletin and/or the CM Agreement with the Illinois Tollway, all such equipment and materials necessary to perform and manage the Quality Assurance inspection and testing of soils, aggregate, concrete, and asphalt materials and all remaining Engineering and Management Services as required by this Manual.

Testing Equipment

The equipment furnished shall include, but not necessarily be limited to, the following:

Calibrated soil testing equipment including dynamic cone penetrometer (DCP), pocket penetrometer and/or unconfined soil testers (Rimac), field density apparatus, access to a laboratory's proctor soil density apparatus, scales, drying oven, hot plate, sample bags, containers, and miscellaneous small tools, and equipment as needed.

Concrete testing equipment including cylinder molds, calibrated testing machines for on-site

compressive or flexural strengths when specified, air meters, slump cones, tamping rods, concrete thermometers, maximum/ minimum thermometers for cold weather concrete work, buckets, shovels, test cylinder curing equipment, miscellaneous small tools, and equipment as needed.

Calibrated HMA/WMA testing equipment including that required in connection with mixture specific gravities (bulk and maximum theoretical), any specified HMA/WMA performance tests, asphalt extractions and tack coat testing, together with thermometers, scales, miscellaneous small tools, and equipment as needed.

Aggregate and soil gradation equipment including screens, screen shakers, timers, drying equipment, soil containers, scales, balances, miscellaneous small tools, and equipment as needed.

Calibrated nuclear density gauge for testing compaction of HMA/WMA and earthwork.

Equipment necessary for paint testing, including calibrated sling psychrometer for determining dew point, a calibrated surface temperature measuring device, surface roughness profilograph, wet and dry film paint thickness gauges, and other miscellaneous equipment needed for those contracts which include steel bridge painting or pavement markings.

Multi-meter for determining proper voltage, grounding, and continuity of all ITS field devices.

Other Supplies and Equipment

Office furniture and equipment required by the CM but not furnished under the construction contract, special provisions, or CM's agreement, such as answering machines, calculators, adding machines, and such miscellaneous office equipment and supplies as needed.

Survey supplies and calibrated field equipment such as transits, levels, Electronic Distance Measurer (EDM), Global Positioning System (GPS), and related devices, along with rods, tapes, paint, and flagging as needed.

Any person performing work on the Tollway's system representing the CM Contract shall have an approved, up-to-date Survey Authorization Letter (SAL) on hand at all times while performing the work. The CM shall comply with the requirements in the SAL. The initial and subsequent updated SALs shall be requested through the Tollway Project Manager a minimum of fourteen (14) calendar days in advance of the scheduled work.

Safety devices such as hard hats, high visibility safety apparel and accessories, safety glasses are required by the CM, subconsultants, contractor, subcontractors, and any other personnel present onsite.

High visibility safety apparel and accessories shall comply with the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 3.

All vehicles, including passenger cars, shall be equipped with a yellow, high-intensity, rotating, flashing, oscillating, or strobe warning light visible on a sunny day from a distance of 1,000 feet to the rear of the vehicle. The vehicle lighting shall be compliant with the Illinois Motor Vehicle Code. In addition, a sign must be displayed on both sides of the vehicle with letters at least 3 inches in height, with a suitable font showing the company identification. Magnetic or temporary signs are acceptable.

All specifications, manuals, reference publications, and related literature called for in the contract documents for use by the CM's staff (ASTM, AASHTO, ACI, NEC, etc.).

Computer hardware and software for use in the field office in accordance with the latest update in the Supplemental Specifications on the Illinois Tollway website or as stipulated in the CM Proposal and Agreement.

Use of Subconsultant Testing Laboratory

Should the CM engage the services of a subconsultant to perform any portion of the contracted work, all terms set forth in this manual shall also apply to the subconsultant.

In the event the CM engages the services of a testing agency to perform any testing of on-site work required by the contract, only the labor of the testing agency's personnel shall be invoiced to the Illinois Tollway as a direct cost. Materials sampled onsite that require offsite testing may be billed by test. No payment will be made for individual tests performed by the testing agency representative whose time is being invoiced on an hourly basis. No payment will be made for equipment furnished by a testing agency under contract to the CM. Such equipment is considered to be furnished by the CM in accordance with the sub-paragraphs above.

Article 4.2.5 references the testing agency requirements. All testing agencies shall be paid Prevailing Wages when applicable.

3.3.2 Construction Manager Authority

The CM has overall authority over their subconsultants. The CM has authority over the contractor as defined by the Illinois Tollway Supplemental Specifications Articles 101.82, 105.01, 105.10, 105.11 and 105.14. The CM acts as a delegate to the Chief Engineering Officer.

3.4 Impact by the Capital Program - Plan Procedures

In Section 4.0, Construction Manager's tasks, responsibilities, and authority may be modified to meet the specific requirements of a Capital Program Procedure or the Illinois Tollway practice. These modifications will be indicated in Section 4.0.

SECTION 4.0 CONSTRUCTION MANAGER'S TASKS

The tasks identified in this section are impacted by the contract documents, Capital Program Procedures, and IDOT QC/QA Programs for Aggregate, PCC, and HMA/WMA, and various manuals and guidelines as listed in Section 6.0, Reference Documentation. Numerous documents generated while performing CM tasks are managed by a WBPM system (refer to Article 4.4.1) CEPS and I-MIRS software applications.

4.1 Construction Manager's Staff Requirements

The Illinois Tollway Professional Service Bulletin and CM Agreement identify the qualifications required by the CM organization. The Capital Program Procedures P6120, Quality Assurance, Quality Control during Construction and P6000, Evaluation of Consultants' and Contractors' Quality Programs with attachments, influence the CM's organization and qualification.

CM Organization

The CM shall provide a competent and qualified field organization staff as listed in Article 4.1.2. The field organization is necessary to perform scope of work inspections, monitor and verify the Contractor's Quality Program (CQP), as well as to report on the Diversity Program performance status, and conformance to the contract requirements.

The CM shall provide and maintain an organization chart and staffing plan for review and approval by the Illinois Tollway. The chart and plan shall be kept current for review, approval, and modification by the Chief Engineering Officer and shall be updated when requested by the Illinois Tollway.

4.1.1 CM General Qualifications

The CM firm must have a Illinois Licensed Professional Engineer(s) on staff who will always be available to provide the Illinois Tollway with analysis services in structural, drainage, roadway, or Intelligent Transportation Systems (ITS) when required in support of the field staff. Where subconsultants, including DBEs and VOSBs, are anticipated, the individual names, work experiences, and qualifications are required to be submitted by the CM for review and approval by the Illinois Tollway. The applicable work experience, in addition to the verification of the required training and certification for the Documentation Technician, laboratory technician, construction inspectors and the registration of any professional land surveyor, shall be included with the individual resumes of any subconsultant.

Specific staff requirements and qualifications will be detailed in the applicable Professional Services Bulletin (PSB). The Illinois Tollway must approve all changes of key personnel as defined in the PSB.

CM Staff

The Construction Manager's project staff, including subconsultants, shall include the following personnel as detailed in the applicable Professional Services Bulletin.

Standard Key Personnel:

Project Manager
Resident Engineer
Material Coordinator
Documentation Technician
Material QA Technician
Quality Representative(s)

Additional Personnel that may be required:

Inspector(s)
Professional Land Surveyor(s)
Erosion and Sediment Control Site Representative(s)
Intelligent Transportation System (ITS) Inspector
Landscape Architect
Scheduler
Structural Engineer
Administrative/Clerical Assistants
Building Construction Inspector

CM Staff Qualifications

The Construction Manager's project staff, including subconsultants, shall possess the minimum qualifications stated below and in the applicable Professional Services Bulletin.

CM Project Manager

Shall be an Illinois Licensed Professional Engineer, or an Illinois Licensed Structural Engineer for predominantly Structure Improvements under the direct employment of the Construction Manager and shall be responsible for the performance of all services required by the Construction Manager Agreement with the Illinois Tollway. The Project Manager must be fully knowledgeable in construction engineering and construction management, client-oriented, assertive, well-rounded in technical training and experience, a strong personnel manager who is able to delegate effectively, and a good communicator. The Project Manager shall possess the qualifications required in the applicable Professional Services Bulletin.

Resident Engineer

Is preferred to be a Professional Engineer or must have a minimum of 15 years of Phase III Construction Inspection experience in the construction of projects of a similar type and magnitude of work and shall have substantial administrative ability. The Resident Engineer must possess the technical competence and the ability to represent the Illinois Tollway professionally in the field and to determine contractor compliance with the requirements of the contract documents. These skills must be satisfactorily demonstrated on prior assignments as a Resident Engineer. The extent and nature of individual experience and the possession of the attributes listed will be considered in relation to project size and complexity. The Resident Engineer shall possess the qualifications as required in the applicable Professional Services Bulletin.

A 30-Hour OSHA certification in construction safety and health within the last five years is mandatory for all Resident Engineers for all projects.

Material Coordinator

For contracts which include soils, aggregates, asphalt and/or concrete placement, the CM shall provide a Material Coordinator, exclusively for this role, unless waived by Tollway Materials for smaller projects. The Material Coordinator shall be pre-qualified to manage the Contractor's Material QC reporting output and to manage the Construction Manager's approved Materials QA Program. The Material Coordinator shall have passed IDOT's Level II Hot Mix Asphalt, Level II Portland Cement Concrete training courses for QC/QA management, Soils Field Testing and Inspection S-33 and IDOT Documentation of Contract Quantities S-14. The Material Coordinator shall possess the qualifications required in the applicable Professional Services Bulletin.

The Material Coordinator shall also have a working knowledge of the I-MIRS database system.

Documentation Technician

Shall possess a current certificate indicating passage of IDOT's Specific Task Training Program S-14 for Documentation of Contract Quantities and shall have substantial administrative ability, including computer and organizational skills and a working knowledge of applicable terminology. The Documentation Technician shall preferably have considerable knowledge of the construction industry to handle the many facets of construction documentation and shall possess the qualifications required in the applicable Professional Services Bulletin.

Material QA Technicians

Material QA Technicians shall be required to be prequalified by having passed the certification/ training requirements outlined in Article 4.2.2. The CM will provide copies of Material QA Technicians' certifications. Any changes to the status of the trained technician (name, address, employer, etc.) should be reported to the IDOT Bureau of Materials.

Quality Representative (QR)

Shall have substantial knowledge in both quality control and quality assurance procedures necessary for contract compliance. The QR will provide an equal but parallel role in the Work and will report to the Principal. The QR performs tasks for the Consultant's Quality Program-Construction Manager (CQP-CM). Refer to Article 4.3 – Inspectors.

Inspectors

All inspectors must be able to read and interpret plans and specifications in order to decide whether or not the Work meets the requirements of the construction contract. Inspectors shall preferably be a degreed Engineer, with Professional Engineer (PE) or Engineer-in-Training (EIT)/Engineer Intern (EI) certification and/or a person certified in the area of inspection in lieu of having a degree or PE. All shall meet the qualifications required in the current Professional Services Bulletin. All inspectors should possess a current certificate indicating passage of IDOT's Specific Task Training Program S-14 for Documentation of Contract Quantities. Inspector(s) monitoring earthwork operations should possess IDOT's Specific Task Training Program S-33 certificate.

Professional Land Surveyor

An Illinois Professional Land Surveyor shall be required for contracts including work to set monuments and markers as specified in Right-of-Way Marker, Drainage Markers, and Permanent Survey Markers (Sections 666 and 667 of the IDOT Standard Specifications). This also applies to contracts that include complex structures.

Erosion and Sediment Control Site Representative

The Erosion and Sediment Control Site Representative (ESCSR) shall have verification of completing Illinois Center for Transportation workshops Fundamentals of Storm Water Pollution and Inspection of Erosion & Sediment Control Best Management practices, in compliance with IDOT Departmental Policy D&E-23 or 12 hours of equivalent erosion and sediment control training from the following sources:

Online professional training

Higher education training or workshops

County Stormwater Management Agency training in the topics of NPDES, Stormwater, or other similar topics

County Soil and Water Conservation District seminars

The ESCSR determines compliance with permit conditions, applicable regulations, and other requirements and assesses the adequacy of best management practices to protect natural resources and control the quality of stormwater discharges from a project. The ESCSR should have experience in highway construction and in stormwater BMP implementation, maintenance standards, and repairs. The Tollway prefers that the ESCSR maintains a professional license, such as a licensed Professional Engineer (P.E.), or relevant certifications such as Certified Professional in Erosion and Sediment Control (CPESC), a Certified Erosion Sediment and Storm Water Inspector (CESSWI), or a Certified Stormwater Inspector (CSI). See Article 6.3, Reference Documentation Table for more details.

Intelligent Transportation System (ITS) Inspector

The Illinois Tollway prefers to have an ITS inspector with a minimum of 5 years of experience in the construction of ITS projects, specifically in the installation of Closed-Circuit Television (CCTV) cameras, Dynamic Message Signs (DMS), and Vehicle Detection Systems (VDS). The inspector must be able to comprehend wiring schematics, test voltage, grounding, circuit continuity, and

successfully provide all of the services noted in Appendix A CM ITS Checklist.

Landscape Architect

For contracts which include landscape improvements, tree and/or shrub plantings, and preservation, the CM shall provide a qualified licensed Landscape Architect if required in the PSB. The Landscape Architect should have experience in road and highway landscape layout, construction, and inspection in relation to the project size and complexity.

Scheduler

The CM Scheduler must have at least 5 years' experience reviewing and interpreting Critical Path Method (CPM) schedules. The CM Scheduler will review the contractor's submitted Baseline Schedule to evaluate and offer recommendations for acceptance of the proposed construction schedule to the Illinois Tollway. If the CM Scheduler finds the proposed Baseline Schedule unacceptable, the CM Scheduler will coordinate with the Contractor to resolve any deficiencies, in an attempt to expedite the resubmission and acceptance of the Baseline Schedule in accordance with the Illinois Tollway Supplemental Specification, Article 108.02.

The CM Scheduler will also be responsible for the review and recommendation of contractor submitted Monthly Schedule Updates, which compare construction progress to the Baseline Schedule. The CM Scheduler must also have familiarity with delay claim analysis and schedule recovery.

If a particular project is not assigned to a CM Scheduler, the Resident Engineer shall act as the CM Scheduler and meet all the requirements referenced above.

Structural Engineer

The Structural Engineer shall be an Illinois Licensed Structural Engineer, respond to structural engineering RFI's, complete construction review of structure plans, quantities, and calculations prior to the start of construction, and assist preparation of record drawing structure plans. The Structural Engineer may act as the Project Manager for predominantly structural improvements.

Administrative/Clerical Assistants

The Administrative/Clerical assistants may be required due to the size and/or complexity of projects. The Administrative/Clerical assistant will assist the Documentation Technician and Resident Engineer with project documentation tasks. The assistant shall have substantial administrative ability, including computer and organizational skills.

Building Construction Inspector

For projects involving building construction, the CM shall provide a Building Construction Inspector with demonstrated experience in managing, overseeing or inspecting building construction projects. The Inspector should be familiar with building structural, architectural, mechanical, electrical & plumbing systems, building codes, materials and construction requirements.

4.2 Construction Manager's Materials Training & Laboratory Requirements

4.2.1 IDOT QC/QA Programs

For the IDOT Prequalified Consultant List, IDOT QC/QA Program and other IDOT training, see Article 6.3, Reference Documentation Table for website locations.

Qualified Laboratories

Test laboratories used to support the QC and QA testing inspections must be qualified by IDOT. See Article 4.2.5 for details.

4.2.2 Material Testing Training Requirements

The following tables for Aggregate Gradation, Hot Mix Asphalt (HMA), cast-in-place concrete, and precast concrete training are from the IDOT Project Procedure Guide. Check the Guide for the latest updates, CET and number after referring to the Lake Land College course designation. Lake Land College administers all the QC/QA training classes. Contact the Precast/Prestressed Concrete Institute (PCCI) for the latest class information.

Refer to the governing specification, special provision or Contract document for details concerning requirements and limitations of trained technicians under the QC/QA programs. Refer to Article 6.3 for website locations.

Table 4.2–A Aggregate Gradation Training Requirements

PERSONNEL	TASK	REQUIRED TRAINING COURSE
Producer	AGCS Program Management	Aggregate Technician (CET 021) or A.G.C.S. Technician (CET 032)
CM / Material Coordinator	Quality Assurance Oversight	Aggregate Technician (CET 021) or A.G.C.S. Technician (CET 032)
All	Aggregate Sampling	Aggregate Technician (CET 021) or Mixture Aggregate Technician (CET 020) or A.G.C.S. Technician (CET 032)
All	Splitting and Gradation Testing	Aggregate Technician (CET 021) or Mixture Aggregate Technician (CET 020) or Gradation Technician (Department ½-day class)

Table 4.2–B Hot Mix Asphalt Training Requirements

PERSONNEL	TASK	REQUIRED TRAINING COURSE
Producer	Quality Control Management	Hot Mix Asphalt Level II (CET 023)
CM / Material Coordinator	Quality Assurance Oversight	Hot Mix Asphalt Level II (CET 023)
All	Aggregate Sampling and Gradation Testing	Hot Mix Asphalt Level I (CET 022 or CET 029) or Aggregate Technician (CET 021) or Mixture Aggregate Technician (CET 020)
All	Aggregate Gradation Testing	Gradation Technician (Department ½-day class)
All	HMA Sampling and Testing	Hot Mix Asphalt Level I (CET 029)
All	HMA Mix Design	Hot Mix Asphalt Level III (CET 031)
PERSONNEL	TASK	REQUIRED TRAINING COURSE
Producer	Quality Control Management	Hot Mix Asphalt Level II (CET 023)
CM / Material Coordinator	Quality Assurance Oversight	Hot Mix Asphalt Level II (CET 023)
All	Aggregate Sampling and Gradation Testing	Hot Mix Asphalt Level I (CET 022 or CET 029) or Aggregate Technician (CET 021) or Mixture Aggregate Technician (CET 020)
All	Aggregate Gradation Testing	Gradation Technician (Department ½-day class)
All	HMA Sampling and Testing	Hot Mix Asphalt Level I (CET 029)
All	HMA Mix Design	Hot Mix Asphalt Level III (CET 031)
All	HMA Field Density	ALL: ½-day class taught by Lake Land College or Bureau of Materials. CONTRACTOR/CONSULTANT: Specific Task Training Program S-34, "Radiation Safety and Density by the Nuclear Method". The Radiation Protection Officer or District Radiation Safety Officer will monitor the operator until the individual can demonstrate the competent use of the nuclear gauge. CONTRACTOR/CONSULTANT: Radiation safety class as approved by the Illinois Emergency Management Agency (IEMA), Division of Nuclear Safety.

Table 4.2–C Cast-In-Place Concrete Training Requirements

PERSONNEL	TASK	REQUIRED TRAINING COURSE
Producer/Contractor	Quality Control (proportioning at plant)	PCC Level II (CET 024)
Producer/Contractor	PCC Mix Design	PCC Level III (CET 039)
Contractor	Quality Control Management	PCC Level II (CET 024)
CM / Material Coordinator	Quality Assurance Oversight	PCC Level II (CET 024)
All	Aggregate Sampling and Gradation Testing	Aggregate Technician (CET 021) or Mixture Aggregate Technician (CET 020)
All	Aggregate Gradation Testing	Gradation Technician (Department ½-day class)
All	Mix Sampling and Testing	PCC Level I (CET 030) or PCC Tester (Department ½-day class)

Table 4.2–D Precast Concrete and Precast, Prestressed Concrete Training Requirements

PERSONNEL	TASK	REQUIRED TRAINING COURSE
PRECAST CONCRETE		
Producer	Quality Control Management	ACI Grade I or PCC Level I (CET 030) AND Precast / Prestressed Concrete Institute Level I and Level II
IA	Quality Assurance Oversight	ACI Grade I or PCC Level I (CET 030) AND Precast / Prestressed Concrete Institute Level I and Level II
All	Mix Sampling and Testing	ACI Grade I or PCC Level I (CET 030)
PRECAST, PRESTRESSED CONCRETE		
Producer	Quality Control Management	Mixture Aggregate Technician (CET 020) or Aggregate Technician (CET 021); AND ACI Grade I or PCC Level I CET 030); AND Precast / Prestressed Concrete Institute Level I and Level II
IA	Quality Assurance Oversight	Mixture Aggregate Technician (CET 020) or Aggregate Technician (CET 021); AND ACI Grade I or PCC Level I CET 030); AND Precast / Prestressed Concrete Institute Level I and Level II
All	Aggregate Sampling and Gradation Testing	Mixture Aggregate Technician (CET 020) or Aggregate Technician (CET 021)
All	Mix Sampling and Testing	ACI Grade I or PCC Level I (CET 030)
All	Cylinder Testing	ACI Grade I or PCC Level I
All	Strand Tensioning	Precast/Prestressed Concrete Institute Level I and Level II

4.2.3 Soils Inspection and Compaction

Perform soils sampling and testing at a 20% frequency of QC. Perform soils inspections as required by the Illinois Tollway to verify that the Contractor maintains proper control of density and moisture content of subgrade, embankments, backfills, and other earthwork items. Provide soil testing and recommendation of borrow sources for approval by the Illinois Tollway. For chemical stabilization and modification of subgrade and embankment, the CM shall perform TTP 013 at the first placement of material and periodically thereafter.

The following table is from the IDOT Project Procedure Guide. Check the guide for the latest updates. Specific Task Training Program information is available on the IDOT website. Refer to Article 6.3 for website location.

Table 4.2–E Soils Density Training Requirements

PERSONNEL	TASK	REQUIRED TRAINING COURSE
All	Volumetric Density	Specific Task Training Program S-33, "Standard Earth Density"
All	Nuclear Density	ALL: Specific Task Training Program S-33, "Standard Earth Density". **DEPARTMENT/LOCAL AGENCY:** Department and Local Agency employees must also have Specific Task Training Program S-34, "Radiation Safety and Density by the Nuclear Method". The Radiation Protection Officer or District Radiation Safety Officer will monitor the operator until the individual can demonstrate the competent use of the nuclear gauge. **CONTRACTOR/CONSULTANT:** Radiation safety class as approved by the Illinois Emergency Management Agency (IEMA), Division of Nuclear Safety.
All	Caisson Inspection	IDOT Specific Task Training Program S-32, "Drilled Shaft Foundation"

General Notes:

These programs document that a person is qualified to perform density tests by either the sand-cone method or the nuclear method on granular and earth embankment, chemically modified soil, granular subbase, cement aggregate mixture and aggregate base course.

4.2.4 Miscellaneous Inspections

Depending on the specific project requirements, the CM Materials staff will witness these additional tests performed by the Contractor, including but not limited to:

Bridge bolting testing

Stud weld bend tests

Tie bar pull-out tests

Caisson inspection

4.2.5 Laboratory Qualifications/Qualified Laboratories

The IDOT Central Bureau of Materials and the IDOT Districts inspect all Laboratories that perform Quality Control testing in aggregate, WMA/HMA, and PCC. All laboratories performing Quality Control shall be approved by IDOT for an interval not to exceed two calendar years. If a Quality Control laboratory does not have a current IDOT approval, the laboratory must be inspected and approved by the Illinois Tollway.

Laboratories that perform aggregate, WMA/HMA, and PCC Quality Control, Quality Assurance and Independent Assurance must meet the requirements outlined in the current IDOT Policy Memorandum "Minimum Private Laboratory Requirements for Construction Materials Testing or Mix Design." This memorandum outlines requirements for QC and QA laboratories, including the requirement for QA laboratories to maintain AASHTO accreditation. IA laboratories shall also meet the equivalent requirements of QA laboratories outlined in the Policy Memo. If QC testing is performed by a company not producing or placing material, these labs shall be required to meet the equivalent requirements of QA laboratories outlined in the Policy Memo. Laboratories that perform soils Quality Control, Quality Assurance, and Independent Assurance shall maintain AASHTO accreditation for the performed tests.

<table>
<tr><th>Material Tested</th><th>Type of Laboratory</th><th>Laboratory Requirements</th></tr>
<tr><td rowspan="4">Aggregate, WMA/HMA, PCC</td><td>QC (Contractor)</td><td>IDOT Policy Memo</td></tr>
<tr><td>QC (company not producing or placing material)</td><td rowspan="3">IDOT Policy Memo and AASHTO Accreditation</td></tr>
<tr><td>QA</td></tr>
<tr><td>IA</td></tr>
<tr><td>Soils</td><td>QC, QA, IA</td><td>AASHTO Accreditation</td></tr>
</table>

Refer to Article 6.3 for website locations.

4.3 Consultant Quality Program - Construction Manager

The Consultant Quality Program-Construction Manager (CQP-CM) shall conform to the requirements of Capital Program Procedure P6000 – Evaluation of Consultants' and Contractors' Quality Programs Procedure with attachments.

4.3.1 Quality Assurance (QA) by the Construction Manager

The Construction Manager (CM) is an integral part of the Illinois Tollway's quality team. Capital Program Procedure P6120 (Quality Assurance, Quality Control during Construction) requires the CM to verify QA/QC requirements. While the contractor is solely responsible for the quality control of their work, the CM is responsible for providing adequate quality assurance to ensure the Illinois Tollway obtains the specified standards for their projects. Sampling frequency shall be as required by the IDOT Project Procedures Guide. CM QA responsibilities include monitoring and auditing the Contractor's Quality Control processes and documentation to ensure the contractor delivers documents (per the WBPM system) and maintains contractually compliant work.

4.3.2 Purpose of the CQP-CM

The purpose of the CQP-CM is to describe the consultant's internal quality program to ensure the CM services are provided in a professional, correct, and adequate manner that meets the Illinois Tollway's needs and ensure the Contractor is performing the work in accordance with the construction contract documents.

Quality projects will be achieved when all CM management, engineering, technical, and support levels of the project organization are engaged in the quality process. All the consultant's team members are responsible for the implementation and success of their quality program. The CM's responsibility for quality work also extends to include Sub-consultants, testing firms, suppliers, and others that are under contract to the CM or on whom the CM relies for input to or assistance with the work.

4.3.3 Scope of the CQP-CM

The CQP-CM defines in detail the aspects of the work to be monitored for quality and the frequency of such quality inspections and audits. The CQP-CM addresses the quality of the CM's services, not the quality assurance of the contractor's work.

4.3.4 Submittal, Acceptance and Monitoring of the CQP-CM

The CQP-CM will be submitted, approved by the Deputy Chief of Program Implementation and implemented as set forth herein. The CM must submit, implement, and maintain an effective quality program that will ensure that its services conform to the requirements set forth in the agreement for professional services. The CQP-CM shall meet the requirements established herein.

The CQP-CM must work in conjunction with other Illinois Tollway-mandated management systems, specifically the WBPM system, CEPS, and I-MIRS. Accordingly, it is a requirement of the CQP-CM that the procedures therein are management tools to proactively manage all contractual requirements of the CM and the Contractor, and that open actions from meetings, RFIs, submittals, NCRs, etc., are effectively and satisfactorily completed.

After receiving the Notice to Proceed (NTP), the consultant, the CM's firm, shall supply their CQP-CM, signed by an appropriate officer, to the Illinois Tollway Quality Management team within 14 days. The CQP-CM shall be signed by top management and include a written endorsement by the Consultant's Quality Representative (QR). The CQP-CM shall be developed using the CQP-CM template supplied by the Illinois Tollway, which may be found in the WBPM system under project 16. The CQP-CM is to be submitted via the WBPM system under the assigned CM contract number.

If the CQP-CM is not sent within 14 days, or the plan is not accepted by the Illinois Tollway, CM operations may be suspended until the consultant provides an acceptable plan addressing quality assurance requirements. Delays in developing and implementing an Illinois Tollway-approved CQP-CM may result in sanctions against the consultant.

The Illinois Tollway will accept the CQP-CM based on satisfactory review of the plan and work performance. As the work progresses, the CM may be required to revise the CQP-CM for consistency. Any revisions will be subject to the Illinois Tollway's approval. The Consultant shall notify the Illinois Tollway via the WBPM system of any proposed changes to the CQP-CM.

4.3.5 CQP-CM Responsibilities and Authority

Top management of the CM must approve and endorse the CQP-CM in writing and review it at defined intervals over the course of the project for suitability and effectiveness.
A Quality Representative (QR) shall be assigned by the CM to the project who will implement and

administer the CQP-CM and have the authority to act in all matters pertaining to quality of the CM's services. The QR shall be qualified for this role by demonstrated education, training, and/or experience. Personnel assigned to the CQP-CM organization shall have the necessary authority and independence to perform their roles effectively. To minimize conflicts of interest, the CQP-CM quality organization shall include leadership independent of the direct project staff. Staff required to support the QR and conduct the quality-related tasks on the project shall be assigned as needed to meet the varying levels of activity throughout the project.

The CQP-CM shall include an organization chart with names and titles that illustrate the lines of authority and interrelationships of those responsible for the activities on each construction project. All staff shall interface with the project team and with the CM organization. The CQP-CM shall describe in detail the roles and responsibilities of the quality organization. Each role must be assigned to a specific CM staff member.

Resumes of the CM's quality staff members shall be included as an attachment to the CQP-CM. Resumes will demonstrate that the assigned staff have suitable training, experience, and/or credentials for their roles.

4.3.6 CQP-CM Elements

The CQP-CM is made up of the following elements:

Management Responsibilities and Authority

Quality of CM Services

Document Control/Records

CM activities requiring specific Quality procedures

Non-Conformances

Corrective Action

Internal Monitoring

ITS System and Site Testing (if applicable)

Procedures training

Detailed QA Material Management Plan for HMA/WMA & PCC materials

Scope of QA services on all remaining construction materials specified

Refer to Capital Program Procedure P6000, Form F6000.02, CQP-CM Guidelines, and CQP-CM template for more details.

4.4 Project Administration

Administration of the project shall conform to the requirements of Capital Program Procedure P5080 - Construction Administration Procedure and per the WBPM system detailed in Article 4.4.1.

4.4.1 Web-Based Program Management System

The Illinois Tollway has implemented a WBPM system for all official project communications as mandated by the Illinois Tollway Supplemental Specifications Article 105.19. This system provides all project team members:

Simplification of communications.

Automated tracking of time-sensitive information.

Workflow configured to match project processes and best practices.

Common document storage and management, electronic documents reside in a central repository.

Audit trail of information so project participants will be able to determine who did what and when.

Secure, real-time 24/7 access and exchange of project information via the internet.

Robust and customizable project reporting.

The CM shall be required to use this system for all official project communications and interactions, including but not limited to:

Meeting Minutes & Agendas

Requests for Information (RFI's)

Issues (ISU)

General Correspondence (Utilizing the "Forms" module)

Punch List (PL)

Resident Engineer's Daily Diary (REDD)

Daily Activity Reports (DAR)

Non-Conformance Reports (NCR's)

Shop and Working Drawing Submittals

Schedule Submittals

Monthly Status Reports (MSR)

Record Drawing Management

Project Archiving and Closeout

ITS System and Site Testing (if applicable)

Traffic Control Inspection Reports (A-1C)

TCB Impact Reports

Erosion Control Inspection Reports (A-38)

Environmental Permits (NOI, NPDES, NOT, SWPPP)

Material Documentation / Quality Control

Pay Estimates and Associated Daily Reports

Time Extension Requests (TER)

Potential Change Order (PCOs)

Authorizations to Proceed (ATP)

Change Orders and Extra Work Orders (CO / EWO)

Subcontractor Approval Request Review and Recommendation

Pavement Marking Log (PML)

Milestone Acceptance (MA)

Construction Documentation Audits (CDA)

Warranty Tracking (WT)

Project Closeout Documents

Weekly Project Status Report (WPSR)

CM personnel shall make themselves thoroughly familiar with WBPM documentation and those processes that may be added to the WBPM system throughout the term of the CM contract. The WBPM Documentation Matrix shall be used to show all parties how to properly name documents according to the Illinois Tollway naming convention and specify the placement of project documents in the WBPM system folders. The Documentation Matrix may be found on the WBPM system under project 16.

In order to provide maximum transparency and efficiency, the CM shall, wherever applicable, attach or link with processes all relevant documentation and related processes within the WBPM. For most contracts, the Contractor will establish broadband Internet connectivity in the Field Office for exclusive use of the Illinois Tollway and the CM personnel in accordance with the Illinois Tollway Supplemental Specifications Article 670.03 (Field Office). However, the CM will be responsible for establishing and furnishing high-speed internet connectivity to access their project websites from locations other than the field office.

The CM will be responsible for furnishing all hardware and software required to establish and maintain access to the project websites, including personal computers, peripheral software, virus protection software, and provision of any small or large format scanning hardware, plotter devices, printers, or means of obtaining scanned or plotted documents from a printing/plotting service, to support the electronic submittal review process via the websites.

4.4.2 Notice to Proceed (NTP)

The CM shall commence work upon receipt of a written Notice to Proceed (NTP). Should the CM receive NTP prior to the contractor receiving NTP, the Contractor may choose to begin administrative tasks, including shop drawing submittals, meetings, permitting and utility coordination. The CM shall review this administrative work completed by the Contractor. This administrative work will be done at the contractor's own risk. No field work shall commence until the contractor receives NTP.

4.4.3 Preconstruction and Progress Meetings

The meetings discussed below, along with their agendas and minutes, shall conform to the requirements of Capital Program Procedures P5000 – Pre-Construction Meetings Procedure and P1040 – Meeting Agendas and Minutes Procedure; as well as the Illinois Tollway Supplemental

Specifications, Articles 103.09 & 108.14. Sign-in sheets, along with other documents distributed in the meeting, shall be uploaded in the WBPM system as a single PDF file within five business days after the meeting date.

Preconstruction Meeting

A preconstruction meeting will be held at a time, place, and date established in the Notice of Award, and confirmed in writing by the Project Manager.

The purpose of this meeting is to discuss the prosecution of the project, as well as the starting and completion dates for construction. This meeting shall also outline project control, DBE/EEO requirements, sustainability expectations, as well as coordination, communications, reporting and documentation requirements, and other procedures necessary for compliance with contract documents, Illinois Tollway standards, and user requirements.

The following is a partial list of those individuals or entities that must be invited to, and may attend, this meeting: PM, CCM (if applicable), CM, DSE, contractor and representatives of the Illinois Tollway Fiber Optic Vendor, Illinois Tollway departments affected or impacted by the project, State Police, any public agencies, railroads and/or utilities whose facilities are interfaced or impacted by the project, as well as any parties which have entered into agreements associated with the project.

The Project Manager will prepare and distribute the agenda and will conduct this meeting, with assistance from the CM, in accordance with the Illinois Tollway supplied agenda and assistance of the Illinois Tollway's staff. The CM shall record, produce, and distribute minutes of the meeting to attendees and other contacts identified in the preconstruction notice through the WBPM system.

For projects that include ITS, the Project Manager shall review ITS requirements with the CM, DSE, Illinois Tollway ITS Operations Manager, and contractor. The review shall include construction and testing, submittal requirements, maintenance of both existing and new facilities, and the expected level of completion of ITS construction and testing prior to scheduling of the Pre-Final and Final Project Walkthroughs.

The contractor will be provided with the location to access a copy of the ITS Labeling Guide and site inspection criteria.

Preconstruction Materials QC/QA Meeting

Following the preconstruction meeting for all contracts requiring full-time or continual material production, the CM shall contact the Illinois Tollway's Materials Department, the Contractor, the Contractor's specific material suppliers and producers, and arrange a Preconstruction Materials QC/QA meeting to review the materials QC/QA requirements established by the contract. The Resident Engineer will conduct this meeting with assistance from the CM's quality control/quality assurance team and the Illinois Tollway's Materials Department.
For contracts which include an established or required Contractor's Quality Program (CQP), it will be necessary to conduct this meeting with attendance by representatives of the Illinois Tollway, the CM's quality control/quality assurance team, the Contractor Quality Representative, and the Contractor's QC Manager for PCC and HMA/WMA, if appropriate.

Where the contract work includes the production of off-site materials and/or mixtures, the representatives of the contractor's material suppliers or producers shall also be present. The CM's representatives shall include their staff members or testing subconsultant's personnel to conduct the specified quality assurance sampling and testing of materials.

For contracts that include the construction of complex structures, as defined by the IDOT Consultant Prequalification Requirements, a prefabrication meeting shall be conducted with attendance by representatives of the Illinois Tollway, the erection contractor, the Contractor, the fabricator's QC manager, the Illinois Tollway's QA inspector and the DSE. The schedule for submittals and review, construction-site and shop drawing inspections, and the phases of erection will be presented and discussed.

Meeting minutes shall be recorded, produced and distributed to attendees and other contacts identified in the preconstruction notice through the WBPM system within 5 business days of when the meeting was held.

Where required by contract or where deemed appropriate by the Engineer, the CM shall facilitate specific pre-task meetings to clarify requirements, verify that Contractor, QC, QA and Tollway expectations are aligned, plan for likely contingency needs, etc. Where standard meeting agendas exist within the WBPM, they should be utilized and modified as needed. The CM shall create a new agenda where necessary and file the agenda and minutes in the WBPM.

Preconstruction Sediment and Erosion Control Meeting

Prior to any land disturbance on the project, the CM shall schedule and hold a Preconstruction Sediment and Erosion Control Meeting in accordance with the requirements of the Illinois Tollway's Erosion Control and Landscape Manual (ECLM). Form A-40 provides a sample agenda. The CM shall also record, produce, and distribute minutes of the meeting to attendees, pursuant to Capital Program Procedure P1040. The A-40 form shall be included as an attachment to the meeting minutes.

Meeting minutes shall be recorded, produced and distributed to attendees and other contacts identified in the meeting notice through the WBPM system. The final meeting minutes, sign-in sheet and copies of any documents distributed at the meeting shall be uploaded in the WBPM System as a single PDF within 5 business days after the meeting.

Weekly Progress Meeting

Progress meetings, which conform to the Illinois Tollway Supplemental Specifications Article 108.14, will be held weekly. Agendas and minutes of the weekly meetings shall conform to Capital Program Procedure P1040 and follow the work instructions provided in the WBPM system. Meeting minutes are to be provided to all intended meeting attendees as soon as possible (3 business days maximum) after the meeting. Minutes shall incorporate comments received from meeting attendees and shall be published in the WBPM 3 business days after being sent to attendees. Sign-in sheets, RFI logs, and Submittal logs shall be distributed during each meeting and uploaded in the appropriate WBPM system folders as a single PDF file within five business days of the meeting date.

Monthly Progress Meetings

Construction Project Monthly Progress Meeting (GC Book Meeting) is to ensure that the project is on track from a construction standpoint, address any immediate issues, and align all stakeholders on the next steps. Each meeting agenda shall include the actual progress of the construction, project milestones, timelines, any potential delays, upcoming tasks, resource allocation, safety, quality checks, and coordination with contractors or suppliers.

Consultant Monthly Progress Meeting (CM Book Meeting) centers on reviewing the financial health of the project as it relates to the consultant and subconsultants' involved, tracking the budget, reviewing expenditures, and ensuring the project stays within financial limits. It could involve discussions on resource allocation, adjustments, and any unforeseen costs that may have emerged.

Meeting minutes for the Construction Project Monthly Progress Meeting, shall be recorded, prepared, and distributed through the WBPM system to all attendees and other contacts identified in each meeting within five (5) business days of the meeting date.

4.4.4 Working Drawings, Shop Drawings and ITS Equipment Submittals

The drawings discussed below shall conform to the requirements of the Illinois Tollway Supplemental Specifications Article 105.04

The CM shall process working drawing and/or shop drawings submittals in accordance with Capital Program Procedure P5030 Submittal Procedure.

The CM shall review each submittal for compliance and completeness. All working and/or Shop Drawings detailing the fabrication or erection of structural components that have been prepared by an Illinois Licensed Structural Engineer shall be reviewed by the CM by an Illinois Licensed Structural Engineer.

When the CM finds that the shop drawings do not adequately indicate compliance, or do not represent specified products or methods, they will promptly return the submitted items to the Contractor with appropriately detailed explanations and request resubmittal. .

When the plans or Special Provisions stipulate certain products or methods, the CM shall verify that the shop drawings and equipment submittals indicate full compliance with those requirements. A statement of the CM's findings as to equality or product compliance shall accompany these transmittals prior to forwarding to the DSE for review.

A submittal log may be generated from the WBPM System to track the status of shop drawings, working drawings, catalog cuts, etc.

Working Drawings: The Engineer may require that the Contractor prepare and submit for review working drawings depicting details of the construction whenever the Contractor must construct or erect temporary works or structures. The CM shall verify that all Working Drawings have been signed and sealed by a PE or SE as required. Erection and Demolition Plans are managed through the WBPM Bridge Erection/Demolition Plan Submittal (EDP) Process.

Shop Drawings: The contractor shall submit copies of detailed shop drawings for any part of the

work that is to be prepared or fabricated away from the site, or for which there are not complete fabrication details in the contract plans.

ITS Equipment Submittals: The Contractor shall submit copies of product specifications, cut-sheets, manuals, and other manufacturer references to the CM for any ITS equipment required in the contract plans.

The CM shall verify that all contractors provide ITS equipment submittals that are in compliance with the project Special Provisions. When the Contractor provides an ITS Equipment submittal that is a substitute for equipment within the Special Provisions, the CM shall require the DSE to review and provide a recommendation on approval or rejection of this substitute. The CM and DSE shall contact the Illinois Tollway's GEC ITS Manager to coordinate any changes from the original design intent.

Working Drawings, shop drawings, and ITS Equipment Submissions shall be prepared, submitted, administered, reviewed, and returned as specified in the Illinois Tollway Supplemental Specifications Article 105.04, except as modified by the Special Provisions.

In accordance with Illinois Tollway Supplemental Specification for Section 801, upon completion of the contract, the Contractor shall deliver a complete set of shop drawings in a format acceptable to the Illinois Tollway. The CM shall compile a complete set of shop drawings in a format acceptable to the Illinois Tollway into the Record Drawings.

4.4.5 Pollutant Control

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) program of the Federal Clean Water Act of 1972 (33 U.S.C. §1251 et seq.) imposes erosion and sediment control requirements on construction activities that involve the disturbance of one acre or more of total land area. The Illinois Environmental Protection Agency (IEPA) has issued a statewide General Permit (ILR10) that details the NPDES requirements for construction projects. The Illinois Tollway's Erosion Control and Landscape Manual (ECLM) requires the preparation, by the Designer of Record, of a Storm Water Pollution Prevention Plan (SWPPP) that includes an Erosion and Sediment Control Plan (ESCP) to meet the requirements of and allow construction of projects under the IEPA General Permit that meet the ILR10 permit applicability criteria.

As an operator of a small municipal separate storm sewer system (MS4) and ILR40 permittee from the IEPA, the Illinois Tollway is required to reduce the discharge of pollutants from their MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Illinois Pollution Control Board Rules and Regulations (35 Ill. Adm. Code, Subtitle C, Chapter 1) and the Clean Water Act. Accordingly, it is the policy of the Illinois Tollway that all construction operations be conducted in a manner that minimizes the potential to impact stormwater. To this end, the Illinois Tollway also requires a SWPPP for projects that require the use of erosion and sediment control BMPs (regardless of the area of disturbance) or otherwise have a reasonable potential to impact stormwater quality. Examples of activities that have a reasonable potential to impact stormwater and require a SWPPP include:

Bridge cleaning and painting operations

Bulk petroleum or chemical storage

Demolition activities

Bulk solid waste generation and storage

Regular on-site equipment fueling and maintenance operations

Storm sewer cleaning

Dewatering operations

Pavement grinding and saw cutting

Structural bridge repairs over water

Concrete pours (washout areas)

The following are examples of routine construction and maintenance operations that will not require a SWPPP:

Maintenance and installation of lighting fixtures, signage , traffic signals, and guardrail

Weed spraying

Pavement marking

Pavement crack sealing

Landscape maintenance (tree trimming, mowing)

Illinois Tollway projects that involve clearing and grubbing, excavation, stockpiling of soil and aggregate, borrow, construction of embankment, or otherwise require the use of temporary erosion and sediment control measures require the preparation of an ESCP by the Designer of Record.

For projects subject to ILR10 permit criteria, an Erosion Control Inspection Report (A-38) shall be completed by the CM every seven days and within 24 hours of a rainfall event of 0.5 inches or more. This requirement will be in effect from the time of initiation of earth disturbing activities until the establishment of final landscaping and submittal of the Notice of Termination.

For projects that do not meet the criteria for ILR10 permitting, an A-38 report shall also be completed by the CM every seven days and within 24 hours of a rainfall event of 0.5 inches or more. However, inspections and reporting can be discontinued once the earth disturbing work has been completed and final landscaping has been reestablished in the disturbed areas. The first and last A-38 forms submitted when inspections are required shall be indicated as such.

The ECLM also delineates the responsibilities and expectations of the Contractor, and the CM related to implementing, monitoring, and documenting the effectiveness and maintenance of sediment and erosion control measures installed and other temporary stormwater quality BMPs used on the construction projects they are managing.

For ESCSR training requirements, see Articles 4.1.2 & 6.3.

The CM Shall:

For projects that meet the criteria for ILR10 permitting, obtain the Notice of Intent (NOI) from the DSE, verify sections completed by the DSE, complete all remaining fields, and submit it with the contractor's SWPPP to the Illinois Tollway for processing prior to 30 days before the start of any

construction activities, if not sooner.

Schedule and hold a Preconstruction Sediment and Erosion Control Meeting in accordance with the requirements of the ECLM and the Special Provisions prior to any land disturbance on the project (see Form A-40).

Obtain all required signatures on the SWPPP, the materials inventory for the Pollution Prevention Plan, the names of the Spill Coordinator(s) and obtain credentials of the Contractor's Erosion and Sediment Control Manager (ESCM) at the Preconstruction Meeting, if not sooner.

Provide qualified personnel capable of checking and reporting on the installation and maintenance of the measures identified in the ESCP.

Determine whether the ESCP is installed in accordance with the requirements of the Contract Plans and Documents.

Determine if the ESCP needs to be adjusted or modified and consult with the Designer of Record, the Illinois Tollway, and/or its designated representatives to determine what adjustments or modifications are necessary.

Review any proposed changes to the ESCP against the ECLM and the Drainage Design Manual prior to approving any changes. The proposed changes must be consistent with the Illinois Tollway standards. The CM must not approve nor permit the leaving of temporary erosion control measures in place on a permanent basis, unless consistent with Drainage Design Manual standards. In no instance may riprap or ditch checks be left in place unless the CM gets written approval from the Illinois Tollway Environmental Unit.

Verify if changes require a revised SWPPP.

Check and document all installed ESCP measures for maintenance once every seven calendar days and within 24 hours of a precipitation event greater than 0.5 inches (including equivalent snowfall), in cooperation with the Contractor's Erosion and Sediment Control Manager, using Form A-38 (Erosion Control Inspection Report). During the winter months, if erosion is unlikely due to frozen ground, inspections shall be conducted at least once per month. However, if significant thawing or snowfall occurs, an inspection shall be performed within 24 hours.

Determine if concrete fines are discharging as a result of roadway reconstruction and ensure that the discharge does not exit the Illinois Tollway Right-of-Way. Additionally, immediately test the pH levels of the affected discharge runoff to determine the average pH levels. Where pH levels exceed 9.0, recommend a remediation strategy to reduce the alkalinity to acceptable levels before allowing it to exit the ROW or discharge to environmentally sensitive locations.

Prepare any required Incidence of Non-Compliance (ION) and Notice of Termination (NOT) Forms and forward to the Illinois Tollway for submittal to the IEPA.

Conduct and document weekly erosion and sediment control inspections with the Contractor.

Monitor and Enforce SWPPP and ESCP Compliance: The CM shall monitor and instruct the Contractor regarding SWPPP and ESCP compliance on the right of way. The Standard Specifications, Supplemental Specifications, Special Provisions and/or Contract plans and documents provide the requirements to ensure the Contractor's actions comply with the environmental permit requirements.

Discuss the status of the existing erosion and sediment control system including but not limited to (1) unresolved issues from previous inspections, (2) control measures that are to be installed, removed, modified, or maintained, and any associated SWPPP modifications, (3) problems that may have arisen in implementing the SWPPP or maintaining erosion control measures, and (4)

planned construction activities that may affect stormwater in order to proactively phase control measures.

Ensure that ESCP, SWPPP, ILR10 General NPDES permit, IEPA NPDES Permit Coverage Letter, Erosion and Sediment Control Schedule, signed Contractor Certification Statements, Erosion Control Inspection Report (A-38's), Erosion Control Preconstruction meeting minutes (A-40), ESCM qualifications, ESCSR qualifications, NOT, SWPPP Amendments, Erosion and Sediment Control Plan Amendment, and any IONs are filed in the Illinois Tollway WBPM system.

Verify approval of any required A-51 prior to submitting non-special waste certification for soil to Illinois Tollway Environmental Department.

Construction Air Quality – Dust Control

The CM shall obtain the Contractor's Dust Control Plan (DCP). The DCP shall be in accordance with Article 107.36 of the Illinois Tollway Supplemental Specifications. All construction activities shall be governed by the DCP. A copy of the DCP must be available on the project site at all times and a complete PDF copy of the DCP shall be uploaded in the WBPM System.

Undisclosed Underground Storage Tanks

The CM shall notify the PM within 24hours whenever a previously unknown underground storage tank is encountered during the work.

Construction Air Quality – Diesel Vehicle Emission Controls

Construction shall not proceed until the Contractor submits a certified list of the diesel-powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list shall be in accordance with Article 107.37 of the Illinois Tollway Supplemental Specifications. The contractor shall submit an updated list as retrofitted equipment changes or additions to the job site. If any diesel-powered off-road equipment is found to be in non-compliance with any portion of Article 107.37, the CM shall issue the Contractor a diesel retrofit deficiency.

4.4.6 Utility Coordination

Existing utility facilities located within or adjacent to the project may need to be abandoned, protected, adjusted, or relocated (utility facilities include the Illinois Tollway's electrical /facility utilities and fiber optic system). The Illinois Tollway is required to reimburse the utility for the cost of performing utility relocation work unless the utility facility was installed under a permit issued by the Illinois Tollway. In conjunction with the Illinois Tollway utility project manager, the CM shall review, monitor, document and perform other engineering services as described under this section.

For any utility work that occurs prior to the issuance of the NTP to the CM, the CCM (If applicable) or an Illinois Tollway designated consultant shall review, monitor, document and perform other engineering services as described under this section.

All work associated with the relocation of utilities shall be in accordance with Illinois State law, the utility agreements or permits, and the Illinois Tollway's policies and guidelines. The work shall also be in accordance with IDOT, county, and municipal requirements if applicable. The CM shall

assist the Illinois Tollway in carrying out the utility relocation process in accordance with the terms and conditions of the agreements and applicable documents and policies.

General Requirements

The CM shall:

Maintain a presence in the field at each utility relocation site to monitor the utility work.

Assist the utility in verifying horizontal and vertical control points and other survey information to facilitate the installation of proposed utility relocation work.

Verify that the utility work does not conflict with the Illinois Tollway's construction project and verify compliance with the Utility Work Order.

Verify, during the installation and as the work progresses, that the utility relocation work eliminates conflicts between the Illinois Tollway's projects and does not conflict with other utility facilities being relocated in the same general location. If needed, consult with and request the assistance of the designer of record and the Illinois Tollway utility project manager.

Maintain an As-Built record of the utility relocation.

Coordination of Utility Work

The CM shall:

- When this work is not being coordinated by the CCM or Tollway directly, schedule regular utility coordination meetings between utility representatives, the contractor, and the Illinois Tollway utility project manager to discuss the contractor's requirements, perform and coordinate utility work, and to resolve construction and scheduling conflicts on the project.

Damage to Utility Facilities

The CM shall:

Maintain a presence in the case of damage to a utility. The CM shall complete the Utility/Fiber Incident Report, which shall include basic information, such as the date, time, location etc., the contract contact information, personnel notified of the incident and an overall summary of the incident. This Utility/Fiber Incident Report shall be completed and uploaded to the WBPM system along with all associated documents that have been shared with the CM such as photos, A-36 form, J.U.L.I.E. form and other related correspondence. A copy of the Utility/Fiber Incident Report may be located on the WBPM system under project 16.

The Utility/Fiber Incident Report Overall Summary Section shall include a factual basis for:

- Identify the root cause of the incident. If this cannot be determined at the time of completion, if must be identified in follow-up meetings
- Identify steps to be taken to avoid future occurrences
- Identify cost and schedule risk to the Illinois Tollway
- Identify reimbursement due to the Illinois Tollway by Contractor
- Identify any necessary payment withholds to ensure Illinois Tollway receives any due reimbursements

Institute the Illinois Tollway's Emergency Communication Plan (refer to Article 4.7 Communications) immediately following damage to a regulated utility. It is the CM's responsibility to ensure that the Emergency Communication Plan is implemented and that the proper authorities are notified of the damage. This responsibility includes notifying the Illinois Tollway Project Manager.

Coordinate with the repair crews and keep an onsite presence during the repair process. Upon completion of the repair, the CM shall notify the Illinois Tollway Communications and the Illinois Tollway utility project manager that the repair has been completed. If possible, the CM should document the horizontal and vertical location of the exposed utility for inclusion in the record drawings.

Review of Reimbursable Costs for Utility Work (If Required)

The CM shall:

Review and make recommendations regarding approvals for the reimbursement of costs on all reimbursable utility relocation work on the project.

Review and verify utility reimbursement invoices by comparing the documentation recorded during the observations.

Cooperate with an independent auditing firm to certify documents on all utility work orders.

Assist the Illinois Tollway in negotiating, evaluating, and justifying the costs for field changes or extra work.

Documentation of Utility Work

The CM shall:

Create and maintain a Utility Relocation Log of all utility work performed on the Illinois Tollway's construction projects and any off-site utility work related to the project and upload them to the WBPM system. Maintain daily records of activities performed by the utility and the utility contractor in the WBPM Resident Engineer Daily Diary.

Observe and monitor the progress of the utility work and submit a report weekly to the WBPM system for inclusion with the Illinois Tollway's Utility Relocation Status Report. The form for this report will be provided by the Tollway Project Manager.

Forward all Work Orders to the Contractor using the WBPM system.

Monitor, quantify, and verify all inactivity or delinquency of a utility to relocate its facilities.

Identify and make known to the Illinois Tollway any change in the work or plans that may affect the contractor's construction schedule or the construction schedule of the utility. Changes and extra work shall be processed using Utility Field Change Authorization (Form A-28) and submitted to the PM.

Document and maintain a log of all communications and meetings between the utility, the utility's contractor, utility representatives, and the Illinois Tollway's contractor.

Record all relocated utility facilities and their utility conflict/utility job numbers on the record drawings.

Process a Certificate of Completion for Utility Work (Form A-23) for each completed utility relocation project within 48 hours of completion of all field work associated with the relocation and upload to WBPM system.

Fiber Optic Network Coordination

A variety of fiber optic cables (FOC) and associated infrastructure can be found within the boundaries of the Illinois Tollway Right-of-Way, including FOC (both aerial and underground), handholes, poles and high-density polyethylene innerduct packages.

The Illinois Tollway fiber network consists of the following components:

Illinois Tollway owned trunk transport cables for Illinois Tollway ITS traffic (Illinois Tollway ITS FOC)

Illinois Tollway owned toll collection & monitoring device cables (Tollway IT FOC), Illinois Tollway Owned Shared trunk transport cables (CONDO FOC)

Illinois Tollway Leased Customer trunk transport cables (3rd Party FOC)

Illinois Tollway Leased Customer's lateral FOC (3rd Party Tie-in)

The ILLINOIS TOLLWAY FIBER OPTIC Vendor (ITFOV) monitors & maintains Illinois Tollway Fiber Optic Facilities.

Protection of Fiber Optic Facilities

The CM and the contractor do not have approval to access any ISTHA fiber optic infrastructure (including opening and accessing handholes) without ITFOV representatives providing Watch & Protect. The Contractor shall follow the Tollway's A-36 locate process when a contract includes any work within tolerance zone (as specified by the Illinois Tollway A-36 process) of existing Tollway Fiber Optic Infrastructure.

The Contractor and CM shall comply with all Illinois Tollway policies regarding the submittal, implementation, and documentation of A-36 process and Watch & Protect requests.

Fiber Optic Splicing Coordination

The ITFOV is the designated work force with regard to maintaining and splicing the Illinois Tollway FOC. The CM shall assist in coordinating fiber optic related questions and concerns with the ITFOV. The CM shall identify and disseminate critical timelines to all parties involved to ensure cutover and turn-up delivery dates are completed on time and trouble free.

Splice work involving Illinois Tollway third-party user customer fiber cables require a 45 calendar day advance notice for coordination of the work with these users. This requirement applies to all fibers carrying third-party traffic, which include both third-party cables as well as Illinois Tollway CONDO cable. Splice work for the Illinois Tollway ITS Elements require 28 calendar day advance notice. Please note that the Illinois Tollway third-party user customer can enforce moratorium to splice their cables during the period of major holidays and/or other public events.

The CM shall assist in coordinating the submittal of the Splice Requests to the Tollway through the PM using the form ITS-03, "Splice Request Form" which is in the WBPM System under Project 16. The CM shall ensure request submitted by the Contractor has met the advance notice requirements prior to the actual splice date that is being requested.

Allocation of Costs to Third-Party Users

For all new installation of fiber optic facilities within the Contract, the CM must ensure the collection and recording of fiber cable sequential numbers entering and exiting each handhole as well as at each aerial pole attachment. Fiber Optic Cable placement documentation using the form "Sequential and Handhole / Manhole Documentation" form. (See WBPM system - Project 16, Templates and Forms, ITS Reference Documents)

The Illinois Tollway fiber optic system includes third-party users that lease conduit for fiber they own. The Illinois Tollway allocates cost of new installation and/or replacement of the conduit system and the fiber optic cables. To enable the collection of costs associated with such work involving multiple cables, the CM shall track individual cable quantities associated with such proposed Fiber Optic Facilities. CM shall coordinate closely with ITFOV for the quantity tracking format and details required. The Sequential and Handhole / Manhole Documentation form shall be utilized for such record keeping. (See WBPM system - Project 16, Templates and Form, ITS Reference Documents.)

Transfer of Ownership for Fiber Optic Facilities

Following the fiber cable splicing completion by ITFOV, the Illinois Tollway will request beneficial use of the active fiber and accept locating and maintenance responsibilities from the Contractor.

Prior to this acceptance, the CM shall coordinate a final walk-through with the Contractor, Illinois Tollway Fiber Optic Vendor, GEC Fiber Optic Manager and CM representative. Such walk through shall occur at least 5 days in advance of the scheduled splice and the As-Built drawing for fiber optic system completed within the Contract shall be provided along with necessary test results to Tollway Fiber Optic Vendor and GEC Fiber Optic Manager. As required, ITFOV provider shall perform necessary testing in the presence of CM and Contractor. During such walk through, if any discrepancy is found, Tollway Fiber Optic Vendor will create a punch list and provide it to CM and Contractor. CM shall ensure the Contractor resolves any issues identified during walk through and coordinate with the ITFOV provider for any changes to the existing splice schedule. Upon

successful completion of such walk-through and after completion of the splice, the Illinois Tollway will then accept ownership and maintenance responsibilities of the newly built FOC system.

Handhole Placement & Slack Requirements

The CM must inspect the proper installation of the handhole per Illinois Tollway Standards and verify using a checklist and acceptance of each installation. Note: This same information is also part of the Sequential and Handhole/Manhole Documentation and is not needed if that document is implemented.

The CM Inspector shall verify and document the length of slack installed as specified on contract documents and per Illinois Tollway Standards using the "Handhole Checklist" form. (See WBPM system - Project 16, Templates and Form, ITS Reference Documents.)

4.4.7 Documentation of ITS Removals or Relocation

This section discusses the removal, relocation, reconfiguration, and storage of ITS elements during the Construction phase, herein referred to as an "outage". The following procedures shall be adhered prior to ANY Construction phase removal, disconnection, relocation or alteration of any ITS element.

An ITS element "outage" may be defined as disconnected from the power source and/or from its communication source (whether wireless or wired) or caused to stop functioning. When an ITS element is relocated, the power source and communications source need to be reconnected. In some cases, there may be instances when a Fiber Optic cable or a power cable is required to be relocated but the ITS element connected to that Fiber Optic cable or power cable is not removed and relocated. These cases will be handled similarly as if the ITS element itself were removed and relocated.

In cases when a construction contract has been initiated and these procedures do not make it into the contract documents, then an Extra Work Order (EWO) will be required to execute the work described herein.

The CM shall coordinate with the Contractor to ensure the Contractor submits ITS Equipment Outage (ITS-01) form, ensuring the CM concurs with the outage request. Questions or concerns raised by the Illinois Tollway regarding the outage will be directed to the CM for resolution with the Contractor. The outage form is required for temporary outages, permanent removals, relocations, and storage. Only co-located equipment may be listed on a single form. The equipment IDs must be shown, as the form is incomplete without the IDs and may be cause for rejection of the request. If equipment IDs are unknown, the CM must coordinate with the Traffic Operations Center to determine the subject equipment IDs prior to the Contractor submitting form ITS-01. The CM shall submit the completed and coordinated form through the WBPM System.

When temporary locations are determined, the CM shall attach one or more of the following to ITS-01 form to assist in the approval process:

Plans

Schematics

Aerial View

The CM shall obtain from the Contractor and provide to the ITS Unit GPS locates of temporary locations. The GPS locations shall be in accordance with the ISO 6709 process.

The CM shall maintain a separate record from that of the Contractor for the temporary and final location of conduit as it is installed. The CM must submit a Comma Separated Values (CVS) file containing all mapping requirements per the contract documents to serve as the working "As-Built" for verification by the CCM (when available) or the GEC when there is not a CCM. Without this documentation, work related to this item shall not be paid to the CM or the Contractor.

When equipment is permanently removed, it must be given back to the Illinois Tollway utilizing an A-14 form (Inventory Control Form) available on the Illinois Tollway website. The CM and Contractor shall confer with the Illinois Tollway regarding the coordination of equipment transfer.

In cases when a construction contract has been initiated and these procedures do not make it into the contract documents, then an Extra Work Order (EWO) will be required to execute the work described herein.

The ITS-01 outage form shall be submitted to the Illinois Tollway TOC Manager at least 2 weeks prior to the work commencing. Outages during the hours of 5:00 AM – 9:00 AM and 3:00 PM to 7:00 PM are to be avoided. Any changes to the ITS-01 form shall be submitted via email and phone call at least two (2) days prior to work commencing. The CM must call the TOC Manager the day work begins, providing an approximate start time and duration of the outage in order to obtain final approval to proceed. The CM must call the TOC just prior to the outage to ensure the ITS element is not actively being utilized for incident management on the Illinois Tollway; if so, the device outage may be postponed by the Illinois Tollway until such time the incident is cleared. After relocation or reactivation of any ITS element, the TOC manager shall be contacted to confirm proper initial operation of the subject devices and all associated equipment. If additional burn-in testing requirements exist, they will be specified in the contract documents and should then be followed.

The ITS-02 (MVDS Stage Change) notification forms shall be submitted to the Illinois Tollway TOC manager prior to the 21-day MOT meeting. This form is required for any MVDS unit within construction limits and Maintenance of Traffic (MOT) stage change limits, which subsequently will require recalibration to pick up the new traffic lane configurations. The CM shall obtain from the Contractor stage change diagrams and lane configuration cross sections at each MVDS unit to provide at the 21-day meeting, providing these documents electronically to the Traffic Operations Manager and the TOC Manager prior to the 21-day meeting. Where included by contract, the CM shall coordinate with the Contractor to ensure the re-aiming and recalibration of MVDS units is performed. Where the re-aiming and recalibration is not included by contract, the CM shall coordinate with the ITS Unit to perform the re-aiming and recalibration by ITS Maintenance forces, or as extra work by the Contract upon resolution with the Project Manager and ITS Unit.

Unforeseen ITS Element Outage Details

The CM and Contractor shall use the ITS element details below when coordinating extra work related to ITS outages. The following recommendations outline the necessary steps to be coordinated with the Contractor, ITS Unit and the Project Manager. This material is provided for reference only, as the basis for formulating the subject extra work for the affected permanent ITS elements are detailed below.

CCTV (Closed Circuit TV) Camera

Any CCTV Camera(s) that require disconnection due to construction, shall be temporarily relocated until the construction phase is completed or the new camera(s) is installed. The disconnection and subsequent relocation shall be coordinated with the ITS Unit. The CM shall utilize Form ITS-01 accordingly. For outages lasting beyond the start of the next twice-daily peak travel period, prior to disconnection, the CM shall coordinate with the ITS unit to determine whether a temporary camera is required for the duration of the permanent camera outage.

Plaza / Control Building Equipment

Any equipment located in a plaza or control building that requires turning off, disconnecting, removal or relocation must be coordinated with the IT Data Communication Manager and the ITS Unit. This equipment may include (but is not limited to): cables, power supplies, video switches, video backhaul, network switches, fiber optic transceivers, etc. The CM shall utilize Form ITS-01 accordingly. The CM shall coordinate with the I.T. Data Communication Manager to determine whether temporary devices will be required.

MVDS (Microwave Vehicle Detection System)

Removal/Relocate/Storage – Any MVDS unit disconnection due to construction purposes must be coordinated with the ITS Unit. If it is necessary to relocate an MVDS unit, then every effort should be made to place the MVDS unit in its final location. Any single unit relocation required during the duration of the project shall be the responsibility of the Contractor. The goal is to remove and immediately relocate/recalibrate the MVDS unit. If construction conditions do not facilitate a removal and immediate relocation, then the Contractor shall remove and store the unit. Once the unit may be reinstalled then the Contractor shall complete the re-installation. The CM shall utilize Form ITS-01 accordingly.

DMS (Dynamic Message Sign)

DMS signs are critical elements of the Illinois Tollway traffic management system and are not to remain out of service for more than an 8 hours if at all possible. Any DMS unit disconnection due to construction purposes must be coordinated with the ITS Unit and the Illinois Tollway IT department (only if involving a tag reader). The temporary relocation of DMS is allowed when involving no more than a 2 working day outage, preferably over a weekend if required due to construction conflicts. Contractor to furnish and install a minimum of one (1) Illinois Tollway approved and pre-tested (with TIMS) Full Matrix Portable Changeable Message Sign (PCMS) during approved DMS out-of-service time beyond 24 hours. The PCMS will be utilized for incident and travel time messaging. The CM shall utilize Form ITS-01 accordingly.

RWIS (Road Weather Information System)

Coordinate with the ITS Unit to obtain an RWIS Pre-construction Test Report prior to commencing construction activity in the vicinity of an RWIS system. All affected RWIS roadway sensors are to be replaced with non-intrusive temperature sensors prior to commencing pavement grinding, stripping or resurfacing operations at a RWIS site. Any RWIS unit or roadway sensor disconnection due to construction purposes must be coordinated with ITS Unit. The CM shall utilize Form ITS-01 accordingly. The Contractor is responsible for restoring the RWIS to 100% functionality after construction unless the Pre-construction report shows a pre-existing failure.

Even if the construction period spans more than one year, the Contractor shall restore the RWIS to full operation during the snow season (December through March).

VWIM (Virtual Weigh in Motion)

All affected VWIM roadway sensors are to be disconnected and/or removed prior to commencing pavement grinding, stripping or resurfacing operations at a VWIM site. Any VWIM unit disconnection or in-pavement sensor disconnection due to construction purposes must be coordinated with the ITS Unit. All in-pavement VWIM sensors affected by roadway construction must be replaced with new sensors and the entire system must be recalibrated at the end of road construction. The CM shall utilize Form ITS-01 accordingly.

RQDS (Ramp Queue Detection System)

RQDS (queue/count system) elements are, for the most part, wireless and off-road, therefore not affected by road construction. The exceptions are the Access Point (connected to a camera system) and the in-pavement magnetic detection sensors. They should be removed and reinstalled in less than eight hours. This should be done prior to commencing any pavement grinding, stripping or resurfacing operations at an RQDS sensor location. Any RQDS element disconnection due to construction purposes must be coordinated with the ITS Unit. Planned removal of permanent RQDS must include temporary replacement. Testing of temporary equipment and its interface to the TIMS system must be conducted with the Traffic Operations Center. If it is necessary to relocate the RQDS unit, then every effort should be made to place the RQDS unit in its final location. Contractor must coordinate with the ITS Unit for the interface of the permanent system to the ITS network. Local site testing of the permanent system must be conducted by the Contractor and witnessed by the Engineer. If construction conditions do not facilitate immediate relocation, then the Contractor will remove and store the unit if approved by the Illinois Tollway. The CM shall utilize Form ITS-01 accordingly.

Power Service and Cable

Any power service or cable disconnection may affect ITS elements when these elements are powered from those sources. When these services or cables are disrupted due to construction purposes, then coordination must be handled through ITS Unit. Outages lasting beyond 8 hours are to be avoided. The CM shall utilize Form ITS-01 accordingly.

Fiber Optic Cable

Any disruptions shall be coordinated with the ITS Unit. Outages lasting beyond an 8 hours are to be avoided. The CM shall utilize Form ITS-01 accordingly.

Temporary Interruption of an ITS Element

Outages lasting beyond 8 hours are to be avoided. Final approval of all scheduled outages of ITS elements that will temporarily be disrupted will need to be obtained from the ITS Unit on the day of the outage prior to its commencement. The hours of 5:00 AM – 9:00 AM and 3:00 PM to 7:00 PM are to be avoided. The CM shall utilize Form ITS-01 accordingly.

4.4.8 Sustainability

Sustainability is an important goal of all Illinois Tollway projects. The project's design team has taken specific measures to incorporate sustainable features in the construction of the project, as well as requiring the Contractor to perform their work sustainably.

Illinois Tollway INVEST Program

Refer to the Illinois Tollway INVEST Manual for detailed information and guidance on CM responsibilities related to the Illinois Tollway INVEST Program.

The Illinois Tollway INVEST Program has included and embedded I-LAST's practices and, therefore, no specific actions related to I-LAST are required.

The CM shall:

Review the Illinois Tollway's sustainability expectations for the project by reviewing the Project Sustainability Tracking Form and the Project INVEST Scorecard (from 95% Design).

Include sustainability at the Pre-construction Meeting and review and update the Project Sustainability Tracking Form.

Verify that the work complies with the contract documents and review and monitor submittals, shop drawings, field changes and change orders to confirm that they are consistent with the Project Sustainability Tracking Form.

Perform INVEST Substantial Completion Sustainability Scoring and generate a copy of the Project INVEST Scorecard provided by the Illinois Tollway.

Illinois Tollway LEED (Leadership in Energy and Environmental Design) Certified Buildings

The Illinois Green Buildings Act (20 ILCS 3130) requires all construction and major renovations of state-funded buildings to seek Leadership in Energy and Environmental Design (LEED) (or an equivalent) certification to the highest level of practical certification. Refer to http://www.usgbc.org/leed for additional information on the LEED process.

The Illinois Tollway is using the LEED program to improve sustainability, score new vertical structures, and ensure compliance with Illinois statutes. Sustainability measures will be contained within the plans and specifications, with documentation required at Construction Substantial Completion.

The CM shall:

Review specifications and plans to determine design requirements for LEEDs certification.

Identify specific documentation that is required, such as how recycled materials were handled, waste management, environmental product declarations, or specified materials.

Confirm Contractor has complied with LEED requirements.

Obtain required documents from Contractor and ensure they are filed in WBPM system.

4.4.9 Pay Estimates and Computations

Progress Payments

The CM shall prepare an estimate of quantities completed and certify this for payment to the Contractor at regular intervals stipulated by the Illinois Tollway, but not less than once a month. The estimate shall be prepared as specified in the Illinois Tollway Supplemental Specifications, Article 109.07 Partial Payments or as modified by the Special Provisions.

For the CMs to generate Pay Estimates, the Illinois Tollway Contract Services shall provide a CEPS database to the CM once the NTP has been issued to the Contractor. The CM will discuss with contract services the current system requirements for the CEPS database. Quantities and unit prices shall be updated at the Illinois Tollway once change orders, extra work orders and prior pay estimates are approved and the revised CEPS file will be sent to the CM.

Incomplete pay estimates shall be returned unpaid with the deficiencies noted on a transmittal cover sheet.

Withholding partial payment for acceptably completed and measured quantities of work shall not be allowed. However, no payment shall be made for any item lacking the proper material certifications, including all required test results uploaded and acknowledged in I-MIRS, bill of ladings, original PCC and HMA/WMA tickets or valid e-tickets, disposal letters, etc., which must be documented on the Material Acceptance Log (Form A-5). The CM shall also withhold all accrued penalties to the Contractor on each partial payment, as well as payment for items found to be in nonconformance. If quantities are paid and later found deficient of the required material evidence, the quantity of this item is to be adjusted prior to the next pay estimate.

Final Quantity, Individual Pay Item

Immediately upon full completion of any work/pay item, including submittal of all required material certifications, including all required test results uploaded and acknowledged in I-MIRS, the CM shall perform final measurement(s) and/or calculation(s) for that item. As soon as the necessary measurements and computations may be made, the CM shall advise the Contractor of these calculated final quantities. If the Contractor disagrees with the CM's measured or computed quantities, the Contractor shall produce the required documentation (calculations, actual contractor measurements), showing the reason why the quantities cannot be agreed upon.

Any disagreement in final quantity between the CM and the Contractor shall be brought to the Illinois Tollway project manager's attention immediately.

Transmitting Pay Estimates

Contractor pay estimates shall be routed for approval by using the Contractor Pay Estimate (GCPE) WBPM System Process and accompanied by all associated documents. The CM is to ensure that the estimate has been checked for accuracy before submitting for payment. .

Stored Materials

Payment may be made for materials, before their use in the work may be included in partial pay estimates, if the material allowance can be adequately justified, and the materials are properly

insured, stored and documented. Refer to the Illinois Tollway Supplemental Specifications, Article 106.06.

The following items are typically acceptable for material allowance payment:

Fabricated structural steel

Complete bridge bearing assemblies

Precast structural units (e.g., beams, deck planks)

Fabricated sign trusses

Mast arms

Items impacted by a regional or statewide shortage

Groups of items are common except for type or size (e.g., pipe for culverts or storm sewers)

Semi-Final Pay Estimate

In the event the Illinois Tollway authorizes preparation of a Semi-Final Pay Estimate, the CM shall prepare said estimate in accordance with the provisions of the Illinois Tollway Supplemental Specifications, Article 109.07, and applicable Illinois Tollway procedures.

A Semi-Final Pay Estimate may be prepared only when all of the following conditions have been met:

- The Contractor has submitted a written request through the WBPM A-34 PRR process.
- The CM has reviewed and recommended approval.
- The Illinois Tollway has provided written authorization to proceed.

The Semi-Final Pay Estimate, accompanied by the fully executed and approved Request for Partial Release of Retainage Below 5% of the Adjusted Contract Amount (A-34) form, shall be submitted through the WBPM system to all required parties for review. The Illinois Tollway Executive Director is the final approver for any Reduction of Retainage.

Final Pay Estimate

Upon completion of the work, execution of the A-4 Form, and balancing of final quantities, a final pay estimate shall be submitted, together with a list of remaining required forms or certifications required, pursuant to the provisions of the Illinois Tollway Supplemental Specifications, Article 109.08.

Before the final pay estimate is prepared, the CM must finalize all contract quantities and shall update and advise the Illinois Tollway of all outstanding claims or requests for extensions of time by the Contractor, and where applicable, update and advise the Illinois Tollway of liquidated damages assessed to the Contractor, in accordance with the Illinois Tollway Supplemental Specifications, Article 108.09.

Final payment is normally made to the Contractor only after the following conditions have been met:

All physical work has been satisfactorily completed and accepted.

All required training has been satisfactorily completed and accepted.

Documentation of payment to all subcontractors.

All required submittals, including but not limited to: guarantee bond, warranties, special insurance bonds (such as roofing bonds, which the Illinois Tollway has agreed to accept in lieu of other indemnities), shop drawings, record drawings, O&M manuals, etc. All have been satisfactorily completed and accepted.

All documentation requirements have been satisfactorily completed.

All materials incorporated into the work have been certified.

A final documentation audit has been performed, and the results are satisfactory.

Failure to respond within 21 days after receiving the final pay estimate will be considered as acceptance by the Contractor, and the Illinois Tollway will proceed with the closure of the Contract.

The CM must advise the Illinois Tollway of all agreements between the Contractor and owners of private property, property adjacent to the job site, and off-site dumps. The Contractor must collect copies of releases from such owners and any other documentation required by the Illinois Tollway.

Signatures appearing on all pay estimates shall be in ink.

4.4.10 Initiation, Processing and Approval of Change Orders and Extra Work Orders

Understanding the Provisions of the Construction Contract

All CM personnel are directed to make themselves thoroughly and accurately conversant with the Illinois Tollway Supplemental Specifications. This familiarity shall include but not be limited to the following Articles:

104.02 ALTERATIONS, CANCELLATIONS, EXTENSIONS, DEDUCTIONS and EXTRA WORK

105.01 AUTHORITY OF THE ENGINEER

105.14 REMOVAL OF DEFECTIVE OR UNAUTHORIZED WORK

109.03 INCREASED OR DECREASED QUANTITIES

109.04 PAYMENT FOR EXTRA WORK

109.06 CANCELED ITEMS

Understanding Change Orders and Extra Work Orders

Refer to the definitions contained within Capital Program Procedures P3080 – Contract Change Order and Extra Work Order Procedure.

Authorization to Proceed (ATP)

Before identified changes to the contract may proceed, the CM must obtain permission from the Illinois Tollway via an approved Authorization to Proceed (ATP). The ATP is submitted through the WBPM E-ATP Process to the Illinois Tollway Project Manager for review by the Contract Cost Change Controls Committee (C5). The C5 Committee reviews submitted ATP and either recommends approval, returns it to the CM for revision or clarification, or rejects the request.

ATPs are to be submitted to the Illinois Tollway using the Authorization to Proceed (ATP) WBPM process. All information required by Exhibit A shall be entered into the CEPS database for the purpose of generating the ATP. Upon generation, the ATP shall be attached to the designated field within the WBPM process. ATP-Exhibit B is automatically generated and attached to the WBPM process based on the associated process field entries. All other documents required to support the ATP shall be attached to the WBPM process as PDFs with exhibit labels referenced in the appropriate process fields.

Upon their creation, ATPs are assigned the same number as the associated PCO if applicable, or the next available number that has not been previously assigned to an ATP or PCO if there is not an associated PCO. Supplements to previously submitted ATP's are assigned the number of the previously submitted ATP plus 0.1. For example, the first supplement to ATP 4 would be 4.1, and a second supplement to ATP 4 would be 4.2.

Events for which ATP's are to be prepared shall include but not be limited to:

Adjustments to contract quantities. This also includes adjustments to the "999" pay item numbers. Increases in contract quantities (other than nominal balancing adjustments) are to be processed before the work is performed.

Added work that will require an extra work order.

Significant changes in the scope of work (Additional lanes, design exceptions, etc.).

Any contract change that increases the cost of anticipated supplemental work listed in the detailed estimate

Any change in the specification, method of payment or material processing, such as type or quality of materials to be furnished, or proprietary material for which specific or blanket approval has not been previously given.

Increase to authorization limit set on a previously approved ATP before exceeding set limit.

Change Order (CO)

A change order is a written directive authorizing changes in quantities for items that are included in the original contract, or items created by a previously approved Extra Work Order.

The Change Order/Extra Work Order (COEWO) WBPM process is used to manage the review and approval of Change Orders.

All Change Orders shall include the following documentation:

CM and contractor signatures provided on the Change Order Cover Sheet (a PDF form is generated in CEPS, signed by CM and uploaded to the WBPM process. The contractor is to then download/upload signed copy as part of the WBPM Process).

Change Order Review Checklist (F3080.05, to be completed by the Illinois Tollway PM in the WBPM step process).

Approved ATP, which authorized the change, and all documentation supporting the ATP.

Description and Impact of Change (completed template) for each pay item (F3080.02- Change Order).

A signed Recommendation Letter from the CM to specifically "recommend" the Contract adjustment. It should include a review of the impact on DBE/VOSB goals along with the associated EWO if applicable, to ensure that the entire value of the ATP is properly addressed.

Final Change Orders

Upon completion of the Work, calculation of final quantities, and agreement to final quantities with the contractor, final Change Orders should be processed and approved prior to submitting the Final Pay Estimate.

Quantity changes are expected to be kept current through the submission of Change Orders for prior approval as detailed above. Every effort shall be made to confine the entries in a Final Change Order to those items which have been previously changed with prior approval and/or which require adjustment to actual quantities measured in place. Inclusion in a Final Change Order of initial quantity increases after their incorporation into the Work will be an unacceptable practice unless obvious time, and/or measurement constraints make this unavoidable.

Extra Work Order (EWO)

A written directive authorizing payment for pay items not yet established in the Contract Documents for work authorized in an approved ATP.

The Change Order/Extra Work Order (COEWO) process is used to manage the review and approval of changes and/or additions to the work content of a construction contract.

All Extra Work Orders shall include the following documentation:

CM and contractor signatures provided on the Extra Work Order Cover Sheet (a PDF form is generated in CEPS, signed by the CM and uploaded to the WBPM process. The contractor is to then download/upload a signed copy as part of the WBPM process).

Extra Work Order Review Checklist (F3080.06, to be completed by the Illinois Tollway PM in the WBPM step process).

Approved ATP, which authorized the change, and all documentation supporting the ATP.

Specification for and Impact of Change (completed template) for each added pay item (F3080.03- Extra Work Order).

A signed Recommendation Letter from the CM to specifically "recommend" the Work be added to the Contract. It should include review of impact on DBE/VOSB goals, along with the associated CO if applicable, to ensure that the entire value of the ATP is properly addressed.

A signed Recommendation Letter from the CM to specifically "recommend" acceptance of the contractor's proposed Agreed Unit Price, if applicable.

Other necessary supporting documentation.

For additional process guidance and associated workflow diagrams, links to the WBPM System User Manual are provided below. The user manual can be found in Project 0016 – WBPM Program Wide. (Note: All WBPM System users are advised to consult the most recent version available in the WBPM System).

0016 WBPM Program Wide \ Documents \ User Manual

- **ATP User Manual: UM_Tollway_XX_16-TrimbleUnityConstruct-Ch3-ATP-AuthorizationToProceed_10292025.pdf**
- **COEWO User Manual: UM_Tollway_XX_16-TrimbleUnityConstruct-Ch3-COEWO-ChangeOrderExtraWorkOrder_03252024.pdf**

Damage by Public Traffic

Payment shall be made to the Contractor for repair or replacement of any permanent element of the highway, whether existing or newly constructed within the contract construction limits, which is completed to the stage of serving its intended function and is subsequently damaged on accident by public traffic in accordance with Article 107.30(a) of the Illinois Tollway Supplemental Specifications due to no fault of the Contractor. The Illinois Tollway PM and CM shall obtain all documentation of the accident including photos, repair cost estimate, and any relevant documents from the Contractor before any payment is authorized. The work will be paid via original contract pay items or in accordance with Article 104.02. Upon confirmation from the Illinois Tollway PM, the CM shall obtain authorization to proceed with the work via the ATP process prior to the Contractor proceeding with the repair or replacement work.

If damages caused by public traffic involves an insurance related claim, the Illinois Tollway will submit a Property Damage Claim (PDC) process to the CM via the WBPM system. Upon receipt, the CM shall inform the Illinois Tollway Project Manager of the pending PDC and confirm inclusion of the work in the contract. To close the PDC process, the CM shall attach the following documentation:

Photos of damage prior to and following the repair or replacement work.

Audited force account invoices and any other payment related documentation pertaining to the repair or replacement work if paid for on a force account basis. Audited force account invoices shall not include hand-marked corrections or revisions when attached to the process. If corrections to the invoice are needed, they shall be addressed by the Contractor within the original invoice and resubmitted to the CM.

Summary of the quantity utilized in the repair or replacement work multiplied by the contract unit price if paid via original contract pay items. Additionally, the summary shall include the pay item number and description as well as the date and location where the work was completed.

Summary of the quantity utilized in the repair or replacement work multiplied by the agreed unit price if paid for on an agreed unit price basis, including supporting documentation for the agreed unit price (historical bid prices, force account estimate). Additionally, the summary shall include the pay item number and description as well as the date and location where the work was completed.

Summary of CM and DSE professional service fees for processing the claim, including but not limited to revisions or additions to contract documents, construction inspection, ATP preparation, auditing of force account invoices, and meetings pertaining to the repair or replacement work. Professional service fees shall be documented via Form A-35.

All other documentation as requested by the Illinois Tollway.

The CM shall document each incident separately and shall not combine original contract work or other damage caused by public traffic into a single PDC. The PDC process will remain open until the CM has provided all required information, moved the process to the Illinois Tollway's step, and the Illinois Tollway has accepted and closed the process. The CM shall add a comment to the PDC process quarterly, at a minimum, if completion of the repair or replacement work and submission of the above documentation requirements are anticipated to exceed 3 months beyond issuance of the PDC. The comments shall include the current status of PDC resolution as well as the anticipated completion date.

Damages to Contractor owned equipment or elements shall be the responsibility of the Contractor and shall be repaired or replaced by the Contractor at their cost.

Lump Sum Pay Items

Modifications to Lump Sum items should be handled by an Extra Work Order (EWO). Adjustments to Lump Sum items cannot be done by Change Order unless:

- The entire Lump Sum is being deleted on the Change Order.

OR

- The entire Lump Sum is being deleted on a Change Order and a new item is being created in its place on an Extra Work Order.

A Lump Sum Pay Item **cannot** be finalized by paying for only a portion of the item. The entire Lump Sum needs to be paid, or the steps above need to be followed.

Potential Change Order (PCO)

A placeholder cost estimate for any item greater than $50,000 or below $50,000 that has the potential to be executed as either a Change Order or an Extra Work Order. Each PCO should be entered in the WBPM PCO process and listed on the PCO Log (found in the WBPM system, ISO logs) with a title, description of the work, the date initiated, and the most recent cost estimate associated with this work. PCO's should be used as a planning tool for funding items, including pending or potential claims. PCO's with a value greater than or equal to $100,000 shall be discussed with the PM prior to being added to the PCO Log.

A number is assigned to a PCO upon its creation based on the next available number that has not been previously assigned to an ATP or PCO. If a PCO is needed for a supplemental ATP, the PCO is assigned the number that will be used for the supplemental ATP. For example, a PCO for a supplement to ATP 5 would be PCO 5.1.

Contract Change Order and Extra Work Order Procedure

Refer to Capital Program Procedures P3080 – Contract Change Order and Extra Work Order Procedure.

Anticipating the Need

The CM is directed to anticipate the need for extra work and/or Contract adjustments, and to process necessary ATPs in a timely manner, for the Illinois Tollway to authorize the changes prior to initiating work. In most cases, these needs will become apparent with sufficient lead time for orderly approval action through:

Continual scrutiny of the contract plans and Special Provisions and Designer of Record quantity calculations with respect to work in progress.

Daily updating of Quantity Records (A-6 forms).

Daily updating of the A-7 Log for force account work and comparing the estimated cost of work completed to date to the cost estimate for the approved extra work.

Alert and expeditious guidance through the complete approval process of shop drawings, working drawings and contractor requests for substitutions.

Alert and knowledgeable observation of work in progress.

Once a potential contract adjustment has been identified, the CM should gather and estimate the value of the adjustment and create a new entry on the PCO Log. This new entry should follow numerical sequence through the duration of the entire contract and this numerical identifier shall be shown on the corresponding ATP once formal authorization for the work is sought.

If an item is a continuation or cost adjustment of a previously authorized portion of work, the numerical sequence from the original authorization should be followed (e.g., PCO 4, PCO 4.1, and PCO 4.2 all for related work). The PCO number and the ATP number may differ, as the number of ATPs generally exceeds the number of PCO's; however, similar numbering should be followed for the ATP number.

For claims or items in dispute, a PCO entry should be created specifically noting the claim status so that funding may be accounted for and resolution discussions can be scheduled as early as possible. Should the claim be resolved such that the item does not require a contract adjustment, the PCO should be closed on the log.

Obtaining Prior Approval Authorization (C5 Committee Process)

If the review of the contract should conclude that the Contractor is required to alter the work, the CM shall prepare an Authorization to Proceed (ATP) (Form F3080.01) using the ATP-E WBPM Process, prior to preparing a Change Order (Form F3080.02) and/or an Extra Work Order (Form F3080.03), demonstrating the need to increase or decrease the Work. The Illinois Tollway Supplemental Specifications, Article 104.02, Alterations, Cancellations, Extensions, Deductions, and Extra Work and 109.04, Payment for Extra Work and the Illinois Tollway's administrative policies provide that Extra Work or quantity changes to the Contract, which have not been authorized in writing by the Engineer, will be rejected.

In exceptional cases, such as in an emergency, advance oral approval to proceed may be sought from the Chief Engineering Officer of the Illinois Tollway. The amount of funds involved will not be the governing factor. The first contact in seeking prior approval authorization shall, in all cases, be to the assigned Illinois Tollway Project Manager with notice to the Deputy Program Manager. To facilitate the prior approval authorization process, the Illinois Tollway has authorized the formation of the Contract Cost Change Controls Committee (C5 Committee). The intent of the C5 Committee and the prior approval authorization is to provide a timely review of all changes to the Work, recommend approval of those that are deemed valid, proceed with contingency and added/extra work if necessary, and expedite completion and payment of such authorized work.

The CM shall submit ATP's and all required supporting documentation using the Authorization to Proceed (ATP) process in the WBPM System for routing and approvals. (If the project has a CCM, the process instance advances to the CCM PM, otherwise, the process instance is advanced to the PM). The C5 Committee will review the Scope of Work and the independent cost estimate/estimated level of effort for the proposed changes. The C5 Committee will recommend approval, return the package for additional information and/or further clarification, or reject/disallow the ATP. This process is also known as the C5 Authorization.

An ATP that is recommended for approval by the C5 Committee is forwarded to the Chief Engineering Officer for review and signature. Based upon the net contract adjustment amount, the ATP will be forwarded to the proper signature authority as follows:

- Project Manager: up to $30,000.00
- Chief Engineering Officer: $30,000.01 - $100,000.00
- Executive Director: $100,000.01 - $150,000.00
- Board Chairman: $150,000.01 - $200,000.00
- Board of Directors (Board Resolution): greater than $200,000.00 Pursuant to Board Resolution 17250, for purposes of determining signature authority, Change Orders that are within a project line item or relate to work of a similar nature, as defined by the following categories may be netted and the net amount will be used in calculating the required signature authority:
    - Roadway (Earthwork, Sub-bases and Bases, and Pavements)
    - Structures
    - Drainage and Erosion Control
    - Roadway Appurtenances (Roadway Safety, Roadway Marking, Signing and Delineations and Traffic Control)
    - Roadway Lighting, ITS, and Electrical Work
    - Facilities

When approval is received from the Chief Engineering Officer and the proper signature authority, the approved ATP will be marked as finished and routed to the project team. Upon receipt of the finished ATP, the Contractor may begin the authorized work and the CM may begin to generate the associated Change Order and/or Extra Work Order so that the items may be included in a future Pay Estimate.

The CM is to note on the Authorization to Proceed if an approved DBE/VOSB Contractor/supplier will be impacted by the change in the Work and if there are any schedule impacts as a result of the change.

Signatures appearing on a Change Order (F3080.02) or an Extra Work Order (F3080.03) shall be in wet ink or verified by an Electronic Signature Certification for electronic all signatures.

Guidelines

Whenever possible, any change in scope should be identified and the price negotiated BEFORE any out-of-scope work is undertaken.

The full documentation of contract changes for Prior Approval Authorization, as presented above, shall, at a minimum, contain the following elements:

- A detailed factual narration of events that details the nature and circumstances that caused the CO/EWO.
- Describe the scope of the work. The C5 Authorization of an ATP is not necessarily for one pay item, but rather for the changed work as a whole. C5 Authorization of an ATP may include items to be included on both CO's and EWO's. Describe how the work changed was identified. Some examples are change in site conditions, revisions to plans, etc.
- Describe how the cost was determined (Contractor proposed price or CM estimate). The CM is to provide documentation to substantiate their cost estimate (use of bid tabs, sample force accounts, etc.).
- Describe how the work will affect the project schedule.
- The specific provisions of the contract or laws that support the CO/EWO and a statement of the reasons why such provisions support the CO/EWO.
- The identification and/or copies of all documents and the substance of any oral communication that support the CO/EWO. Manuals that are standard to the industry may be identified by reference.
- Include applicable correspondence from the Illinois Tollway or the DSE authorizing/recommending the work.
- A statement from the CM recommending Illinois Tollway approval of the CO/EWO at the price(s) provided.
- Proposed contract changes (field changes, value engineering proposal or performance-based design) may affect the Final Barrier Warrant Analysis. The CM should follow the amendment process outlined in the Illinois Tollway Traffic Barrier Guidelines.

The CM shall carefully examine the nature and magnitude of the changes proposed in each Change Order and/or Extra Work Order to determine if the accomplishment of any of the changed work will:

- Extend the contract time beyond the then current contract completion date or interim completion date as described in the Illinois Tollway Supplemental Specifications, Article 108.08, or

- Result in a delay as described in the Illinois Tollway Supplemental Specifications Article 108.08.

If an adjustment of time for the performance of the contract is sought, the following information needs to be submitted by the Contractor and recommended by the CM:

- The specific days and dates for which it is sought.
- The specific reasons the contractor believes a time adjustment should be granted.
- The specific provisions of the contract under which additional time is sought.
- The contractor's detailed analysis of their schedule demonstrates the justification for a time adjustment.

Only the Chief Engineering Officer may grant contractual time extensions. The time extension process shall be generated through the WBPM system.

The CM's complete and detailed analysis of the impact of the changes on the contract time shall be attached as part of the supporting documentation to the Change Order and/or Extra Work Order. Where a time adjustment has been addressed through a TER process, the CM shall ensure that the TER process is properly linked to the related CO/EWO process in the WBPM System.

4.4.11 Value Engineering Proposals

Administration, processing and evaluation of Value Engineering Proposals shall conform to the requirements of the Illinois Tollway Supplemental Specifications, Article 104.07, as well as to Capital Program Procedure P5150 – Construction Value Engineering Proposal Procedure.

- **Value Engineering Proposal (VEP):** A written proposal submitted by the Contractor to modify the contract documents to provide an innovative and alternative means of construction at a lower cost or improved value to the Illinois Tollway, without altering the end product of the work as defined in the contract. The proposal should be submitted using the Value Engineering Proposal (VEP) process in the WBPM system.

- **Concept Phase**: A brief summary of the proposal submitted for review and consideration prior to submission of VEP.

The CM shall review the contractor's written concept submittal for completeness and accuracy and provide the Illinois Tollway PM and, if related to structures or the roadway, Tollway Materials with their recommendation as to whether the concept qualifies for consideration as Value Engineering.

If the VEP Committee approves the Contractor's concept proposal, the VEP Committee will direct the CM to note such approval in the contractor's WBPM submittal for the concept proposal. Approval of the concept does not constitute or imply the approval of subsequent submittals or the final VEP. The CM will use Capital Program Procedure Form F5150.

If the Illinois Tollway approves the concept, and the Contractor elects to proceed with a complete Value Engineering Proposal, the CM shall provide a detailed review, and if necessary,

coordinate review by others (DSE, CCM). The CM shall provide the Illinois Tollway PM with the recommendations regarding the cost and time impacts of the VEP.

If the Illinois Tollway approves the complete Value Engineering Proposal the CM will receive authorization from the Illinois Tollway to proceed with the proposal and direction regarding the type of document to be prepared.

The CM shall submit documentation for initiating payment to the Contractor, i.e., Authorization to Proceed, Change Order, and/or Extra Work Order.

4.4.12 Claims for Extra Compensation

Contractor claims for extra time or compensation shall be governed by the Illinois Tollway Supplemental Specifications, Article 109.09.

Claims or potential claims shall be processed in accordance with the requirements of Capital Program Procedures P3120 – Contractor Dispute Resolution Procedure. All claims shall be submitted to the Illinois Tollway by the contractor and tracked through the WBPM system.

4.4.13 Record Drawings

Unless specifically stated to the contrary in the Agreement, the CM is responsible for the preparation of final Record Drawings.

The CM shall maintain one set of working record prints(i.e. mark-ups of the contract plans), which shall be kept up to date during construction. These mark-up prints shall be stored and maintained in the WBPM system and be available to representatives for review as the work progresses.

Preliminary Record Drawings shall be submitted through the WBPM system within 6 weeks of the Contract Completion Date. These drawings shall meet all of the requirements of this section, with the exception of Article 4.4.13 – Quantity Sheet.

Final Record Drawings meeting all of the requirements of this section shall be submitted through the WBPM system within 2 weeks of the Final Pay Estimate.

The final record drawings shall be prepared with computer-aided drafting software using the contract plans supplied to the CM by the Illinois Tollway and shall be delivered as well as uploaded to the WBPM system in both source and PDF formats. All line styles and level settings shall match those used for the as-bid plans. NOTE: Zip files are not allowed in the WBPM system. The Illinois Tollway may utilize these record drawings to update the asset management system.

- No erasures on the original drawings will be permitted.
- All data pertinent to changes, including final quantities (marked in red) shall be included.
- All changes shall be dated and description and the date shall be in the Revision Box at the bottom of the plan sheet.
- If the modifications to an Illinois Tollway supplied drawing be to such an extent that a new drawing must be made to replace it, only the new drawing shall be included in the record plan set.

- All added drawings including shop drawings shall be full size, numbered, and included in the record plan index drawing.
- The cover sheet shall be signed and sealed by the Construction Manager verifying the record plans are completed in full. The words RECORD DRAWINGS shall be added at the top of the cover sheet in one inch high letters.

The Record Drawings shall incorporate the "mark-ups" on the above prints along with the following:

- Copies of the RFI Log and ISU Log exported from the WBPM and the PCO/ATP/CO/EWO Log, indicating which drawings (if any) were revised by each RFI, ISU, and ATP/CO/EWO.
- Survey obtained throughout the construction process.
- Contractor supplied shop drawings in reproducible electronic format.

he record drawing files shall show alterations from the bid documents and include a record terrain model. These files shall be reviewed and approved by the Illinois Tollway Project Manager prior to submitting for close-out.

For projects utilizing Building Information Modeling, the CM shall comply with the guidance provided in the Illinois Tollway BIM Implementation Manual.

The following is a partial list of items that the CM should add to as necessary:

Storm Sewers

- Rim elevations
- Invert elevations
- Station locations & offset
- Pipe lengths, material, class, and etc.
- Structure type
- Restrictor size and invert
- Outfall station & offset
- Pipe culverts - length, size, type
- Paved ditches - location, slope, invert, type
- Permanent erosion control (rip-rap)
- Verify storm water detention volume provided

Electrical Systems

- Conduit - location, length, size
- Locate direct buried cables
- Locate cables in unit duct, streetlights, hand holes, pull boxes, and surveillance boxes

- Cable and wire gauge and number of conductors
- Changes to lighting under bridges and sign lighting
- Identify service (power source) location & type

Utilities

- Water mains - size, type, valves, hydrants, meters
- Sanitary sewers - same as storm sewers including force mains and lift stations
- Location of fiber optics, cable, gas (if encountered/known)
- Limits of pipe encasement and location of crossings

Traffic Signage

- The CM shall complete the Illinois Tollway Sign Data Sheet for each sign installed or relocated. The Sign Data Sheet shall be maintained throughout the contract duration and uploaded to the WBPM system at the end of the contract. A copy of the Sign Data Sheet may be located in the WBPM system under project 16.
- Location and offset / depth of the footing.
- Actual sign size and text on the sign.

Pavement

- Pavement elevation sheets and Cross sections, as shown on plans, including pavement elevation at PGL, all lane lines and edges of paved shoulders.
- Cross sections at P.C. /P.T. for super-elevation verification.

Roadway

- Undercut limits - unsuitable removal and PGE replacement
- Rock excavation limits

Fencing

- Any modifications - pull posts, corner posts, gates, stream crossing lengths, and locations

Bridges

- Actual Length, type, and location of piling
- Any foundation alterations
- Vertical clearance (minimum low beam)

Quantity Sheet

- Revisions to final quantities on quantity sheet (original quantities lined out with black ink and new numbers placed next to them in RED).
- Include any additional pay items added to the contract as a force account or new line item.

Location of Anything Abandoned In Place

- Light pole foundations
- Sign foundations
- Bridge footings
- Conduits/direct buried cables
- Temporary sheet piling - location and elevation
- All utilities/sewers

List of Permanent Benchmarks (post construction)

- One for each bridge structure
- One for each toll plaza
- One every ±2000 feet on mainline

Executed Maintenance of Traffic Plans

Maintenance of Traffic Plans showing the actual conditions implemented for construction.

4.4.14 Progress Schedules and Timely Completion of the Construction Contract

The CM shall review the qualifications of the contractor's proposed scheduler as submitted at the Preconstruction Meeting and recommend approval or rejection to the Illinois Tollway as appropriate. The contractor's proposed scheduler should have:

- At least 3 years' experience developing and updating Critical Path Method (CPM) schedules.

- Experience using and interpreting schedule analyzing software.
- Familiarity with delay claim analysis and how to capture schedule recovery.

Maintenance of construction schedules is vitally important to the Illinois Tollway and the CM is required to work to ensure the timely completion of construction and contract closeout. The CM shall include a risk analysis and description of management actions that will be taken to avoid or mitigate the effects of potential problems identified during the review of the contractor's monthly schedule updates (MSU's). Examples of potential project risks include, but are not limited to:

- **Restricted Project Access:** All areas that do not give the Contractor full and immediate access due to environmental permitting, property acquisition, late removal of utilities, etc., shall be identified.
- **Equipment and Material Deliveries:** All delivered items that could have a negative impact on project progress (i.e., precast concrete beams, bearings, expansion joints, piles, electrical equipment, etc.) shall be identified.
- **Structural Steel:** Special consideration shall be given to curved and heavily skewed bridges. The CM shall hold a coordination meeting with the fabricator and erector before erection plans and shop drawings are produced. This will ensure the fabrication, delivery and erection proceeds to the schedule. Issues that could have a negative impact on project progress shall be identified.
- **Land Acquisition** (temporary or permanent easements, etc.).
- **Utility Coordination and Relocation:** Any utility relocation to be performed by the contractor or others shall be identified.
- **Weather Sensitive Construction Activities:** Any activities that may only be performed at a specific time of year (i.e., landscaping, tree planting, painting, pavement marking, etc.) shall be identified.
- **Permits:** Acquisition of permits requiring access to the work shall be identified.
- **Coordination with other Contracts and agencies:** Potential conflicts of construction activities with adjacent contracts, either with the Illinois Tollway or with other agencies, shall be identified.
- **Contractor not meeting necessary production rates:** For any reason, should the contractor not perform the necessary amount of work to complete the necessary activities to meet the contractual milestones, the CM shall identify, through the review of the schedule submittals, when contractor production rates and project progress are insufficient to meet contract milestones.

The CM, with input from the designer of record, shall review, analyze, and provide comments/recommendations to the Illinois Tollway regarding the contractor's proposed Baseline Schedule, Revised Baseline Schedule (RBS), and monthly schedule updates, with consideration for project specific risk factors, such as are described above, for acceptance or rejection by the Illinois Tollway, in accordance with the requirements of the Illinois Tollway Supplemental Specifications Article 108.02. The schedule review, including the review by the CM, CCM, and PMO, must be completed and review comments provided to the contractor within 14 days of the schedule submission. The CM shall hold a Schedule Review Workshop attended by the CM, CCM, PM and PMO to review all baseline and revised schedule baseline schedules.

The CM shall be sufficiently familiar with the plans to determine that the contractor's Baseline Schedules and monthly schedule updates reflect the actual developing site conditions, optimize critical path durations, and make the most efficient use of the resources allotted for the work. Any schedule submittal must be reviewed using the approved scheduling software to verify logic, critical path, type of constraints, production rate, and potential use of lag. Lag of any type is not allowed in any schedule. Each schedule submittal must also be analyzed using the Schedule Analyzer Pro software.

The monthly schedule update shall be baselined against the approved Baseline Schedule to verify progress and based on controlling items and shall show the critical path of the contractor's activity, including the scheduled delivery dates for critical submittals and associated review periods, materials, etc.

It shall be the responsibility of the CM to review the monthly schedule updates to verify that progress on the controlling items is maintained. If progress falls 14 days behind schedule or if a significant number of items are approaching criticality, the CM will require that a Revised Baseline Schedule be submitted by the Contractor, pursuant to the Illinois Tollway Supplemental Specifications, Article 108.02 (c), Revised Baseline Schedule. The PDF Schedule submittal cannot solely be used to approve or reject any schedule submittal. Any schedule submittal must be opened and reviewed using the approved scheduling software and also checked with the Schedule Analyzer Pro software.

The CM shall monitor construction progress, particularly as it compares to the contractor's approved Baseline Schedule, Revised Baseline Schedules, monthly schedule updates, and Diversity performance (DBE/VOSB and EEO) as applicable. The CM is to advise the Illinois Tollway weekly, unless directed otherwise, of any of the following situations:

- The Contractor is on schedule and has agreed they will complete on time.
- The Contractor is on schedule but has submitted a Notice of Delay through the WBPM system.
- The Contractor is on schedule but has filed a time extension request through the WBPM system.
- The Contractor is on schedule, but an impending change in the work may/will cause a time extension claim by the contractor.
- The Contractor is behind schedule, and a request has been made of the contractor to revise the project schedule to achieve the assigned completion date.
- The Contractor is behind schedule and has submitted a Notice of Delay through the WBPM system.
- The Contractor is behind schedule, and no request has been made of the contractor to revise the project schedule to affect the assigned completion date.

The CM is also required to follow the Construction Schedule Review (CSR) WBPM system process to manage the review of all of the contractor's schedule submissions, including the Baseline, the Revised Baseline Schedule, and the monthly schedule updates.
The CM review of the Contractor's Baseline schedule submission shall:

- Verify Xer file is provided
- Open and analyze the schedule submittal using the approved scheduling software

- Analyze the schedule using schedule Analyzer Pro software
- Verify the schedule narrative is provided
- Verify a pdf copy is provided (pdf cannot solely be used to review a schedule submittal)
- Verify that there are no construction durations greater than 30 days
- Verify that the constraint type is correct for SP Milestones (Finish on or Before)
- Intended rate of production is shown for each activity
- Verify that SP Milestones coordinate with the contract requirements book
- Check for Negative Float (schedule is automatically rejected if it contains negative float)
- Verify the data date
- Verify work calendars
- Identify Lags. (Lags are typically not allowed)
- Verify each activity (except for Start and Finish) has at least one Predecessor or Successor (no open-ended activities)

The Baseline Progress Schedule must include the removal, relocation and new installation dates for all ITS equipment.

4.4.15 Project Status Reporting

Monthly Status Reports (MSR) processes are required through the WBPM system and are to be submitted by the CM. The Monthly Status Report shall include contract budget, approved contract adjustments, pending contract adjustments, schedule status, interim and completion milestone dates, and accrual cost projections by month through the end of the contract and project issues as well as other data requested by the Illinois Tollway. The schedule status shall document if a contract milestone is anticipated to be delayed beyond a contractual milestone and provide an explanation for the milestone delay.

4.4.16 Request for Extension of Time

All extension of time requests received from the Contractor shall be reviewed and evaluated by the CM. Refer to the Illinois Tollway Supplemental Specifications, Article 108.08, Request for Extension of Time, as well as the work instruction for required submission via the WBPM system.

The CM's evaluation should address the following questions:

- Is the Contractor complying with the requirements of the contract with respect to utilization of their forces, working hours, and working days?
- Does the delay affect the critical path? Is the critical path accurate or has it changed?
- Can the delay be mitigated by modifying a construction stage or re-sequencing work?
- Could the Contractor change their critical path to avoid delay or expedite to make up for it?
- Has the Contractor submitted a Notice of Delay for the impacted scope?

- If the delay is justified, does the CM concur with the number of days being requested?

Within five working days of receiving the request, the CM shall submit to the Illinois Tollway via the WBPM system process all pertinent facts regarding the Contractor's request, including information requested and required in the process, along with other pertinent documentation attached to the process.

The Illinois Tollway will review the request, and the Chief Engineering Officer will rule upon the merit of said request. The decision of the Chief Engineering Officer shall be final.

Based upon the Illinois Tollway's response to the time extension request, the contractor will be required to submit a revised Baseline Schedule or modified monthly schedule update.

4.4.17 Documentation

Refer to Article 4.10.

4.4.18 Correspondence with the Illinois Tollway

All project correspondences shall be transmitted through the WBPM system for all parties involved with the project.

4.4.19 Coordination with Public Agencies and Railroads

The CM shall:

- Contact all public agencies whose facilities are affected by the construction contract and coordinate relocation and rearrangements in order to avoid any delays in construction.
- Verify layout surveys required for reconstruction and/or relocations of public highways and railroads as provided in the contract documents.
- Record the actual location of all related work on the record drawings.
- Monitor and coordinate, as necessary, construction performed as part of public agency and railroad agreements and document the work so that billings may be checked and certified on a force account basis or per work order.
- Check and make recommendations on all public agency and railroad billings for the reimbursement of cost for facility relocations and rearrangements.
- Document time and materials expended by a public agency or railroad for items of safety, such as services of watchmen or flagmen, items required for protection of overhead electric lines or other items for safety as may be stipulated in the Agreements with railroads or other public agencies when the costs of such are to be reimbursed directly by the Illinois Tollway. This information should be documented in a field book and/or in the WBPM Daily Activity Report and recorded in the Resident Engineer Daily Diary WBPM system entry.
- Maintain records of the condition of properties and utilities abutting the project for use in the resolution of any damage claims arising from the prosecution of the work. (For documentation purposes – take photos of the properties before and after the project and upload in the WBPM system.)

Railroads

As a general rule, the railroads own the property over/under which the Illinois Tollway passes. Additionally, some railroads include separate rail operators. Railroad Flaggers are needed when work is being performed at these crossings that may impact railroad operations. A list of active railroads within the project limits will be included in the Special Provisions.
It is the contractor's responsibility to obtain a "Right of Entry" permit from the railroad. A copy of this permit should be uploaded to the WBPM system.

The railroad's engineer shall have jurisdiction as to safety measures, methods, and procedures used on railroad property.

The CM shall monitor & record the daily activities of railroad flaggers and other railroad personnel providing services to the project. The CM shall review invoices related to railroad flagging and/or railroad services and authorize payment as specified in the Contract Documents. Reference the Chicago Region Environmental and Transportation Efficiency Program (CREATE).

4.4.20 Staffing and Field Office Support

Upon Notice of Award of the CM contract, the Resident Engineer shall notify the Project Manager of any staffing modifications to the Contract Agreement Exhibit C using a Consultant Rate Form (found on the Illinois Tollway Website). After notification, all staffing modifications, including salary adjustment, will not be billable until revised Consultant Rate Forms are reviewed and approved by the Project Manager and the Deputy Program Manager accepting the additions or increases.

The CM must provide, at all times, qualified staff and field office support as required by the Illinois Tollway to satisfactorily perform all duties and responsibilities identified in this manual and in accordance with the CM's Agreement and Proposal.

The CM shall manage their staff based on the actual work being performed in the field.

4.4.21 CM Invoicing Requirements

The Illinois Tollway will provide detailed invoicing procedures to the CM upon start of work for any assigned project. Such requirements may be found on the Illinois Tollway Website, with appropriate instructions for completion. An Illinois Tollway A-2 Form(s) must be submitted with the invoice for each week of the Invoice billing period (Sunday to Saturday). The A-2 forms shall be generated through the WBPM system weekly and signed by the Resident Engineer. The signature provided by the Resident Engineer can either be handwritten or electronic. All invoices shall comply with the requirements of the CM's contract with the Illinois Tollway and shall be submitted for approval and payment through the Consultant Invoice Process managed by the WBPM System.

4.4.22 CM Project Status Evaluations

When the compensation due the CM approaches fifty percent of the total estimated fee, it shall be the CM's responsibility to review and evaluate the work accomplished to date, the work remaining and the project schedule. The CM shall then submit a report of this evaluation to the Illinois Tollway PM. If the Illinois Tollway deems that the progress is unsatisfactory, the CM may

be required to repeat the review and evaluation process prior to the time that the compensation due approaches seventy and ninety percent of the total estimated fee.

4.4.23 CM Project Closeout

The project closeout includes the administrative and procedural requirements for Contract closeout, including, but not limited to, completion of physical work, submission of records, completion of the Documentation Matrix for Construction, closeout meeting and financial Contract closeout. The Illinois Tollway's policies provide for the orderly and controlled closeout of all CM contracts to ensure that all work specified has been completed in accordance with the Contract, that all record documents have been received and that all financial aspects of the Contract are settled.

For Upon Request contracts, task closeout letters are required for each approved task order. These close out letters are typically initiated by the CM, but may be requested or initiated by the Illinois Tollway PM. The letter is the official notice from the Illinois Tollway that the task is complete and invoicing may no longer be accepted.

Any unused funds may be reallocated to other tasks within that consultant contract. Final payment may be released upon completion of all contract requirements, including resolution of all open technical matters.

4.4.24 Surveys

The CM shall use the Illinois Tollway's (CORS) Real-Time Kinematic (RTK) to verify previously set survey monuments by the Designer and establish any additional monuments outside the construction area, centerline, all improvements, and property corners. The CM will also verify that the coordinate systems in the plans are the same as the coordinate system set for the Contractor to use. In addition, the CM shall comply with the survey requirements of the Illinois Tollway Supplemental Specification, Article 105.09, Survey Control Points and the following:

- Locate in the field, with the help of the designer of record, if needed, all reference points, centerline control points, property corners and other survey data included as part of the contract plans.
- If the Illinois Tollway requires the Contractor to provide their own layout, the Contractor shall replace missing centerline stakes or points on stations prior to beginning construction. The CM will verify the new stakes.
- Check benchmarks set previously and establish any additional ones required for vertical control of the work.
- Perform all survey work necessary for establishing the locations of monuments and markers as specified in Right-of-Way Markers and Drainage Markers and Permanent Survey Markers; Sections 666 and 667 of the IDOT Standard Specifications. This work shall be performed by a Professional Land Surveyor licensed in the State of Illinois.
- Check the Contractor's stake-out of all structures and other construction surveys made by the Contractor to verify the accuracy of their layout work.
- Make all surveys and measurements necessary for the determination of final pay quantities and for preparing record drawings.

- Make all surveys necessary to determine if the Work has been done in accordance with the plans and specifications.
- Tie into surveys of adjacent projects and coordinate and make adjustments as necessary.

4.4.25 Constructability Review

The CM shall be responsible for the performance of constructability reviews in accordance with the requirements of Capital Program Procedure P 4100 - Constructability Review Procedure.

4.4.26 ITS Processes

The ITS Unit has developed process flow charts to outline the procedural steps for bringing ITS elements online. Refer to Appendix E for the following ITS process flow charts:

- Pre-Installation
- CCTV
- MVDS
- DMS
- VWIM
- RWIS
- Burn-in
- Removal/Relocation

4.4.27 Intergovernmental Agreement (IGA)

IGAs that include cost sharing or maintenance transfer to outside Agencies require detailed tracking and coordination for invoicing and/or acceptance as defined in the IGA. For these types of IGAs, the e-Builder Intergovernmental Agreement – Construction (IGAC) process is initiated by the IGA Coordinator and transmitted to the construction CM and CCM for monitoring during construction. The executed IGA and cost estimate (if applicable) are attached to the process.

As construction proceeds, the CM tracks the work accomplished and the actual costs for reimbursable work (if applicable) using the line items as detailed in the IGA cost estimate.

Costs associated with scope changes or additional work items must be documented and included in the final "As Built" IGA cost spreadsheet at project completion. Any costs associated with scope changes or additional work items that affect an outside agency must be approved by the outside agency prior to proceeding with the work. If any party to the IGA wishes to make changes to the agreed upon IGA scope, written correspondence must be used to describe the requested change in scope and detail the changes in the cost and time associated with completing the changed Work. Any change shall be agreed to by all parties to the IGA per the articles of the IGA, and the associated cost-sharing shall be detailed in writing.

Upon completion of the IGA work, the CM shall upload the following items to the IGAC process to close out and submit to the construction PM:

- Documentation of Agency inspection and acceptance
- Supporting documentation for any construction scope changes or additional work
- Final cost spreadsheet
- Record Drawings for any work for which maintenance is being transferred to the outside Agency.
- Any additional documentation required by the terms of the IGA.

4.4.28 Unmanned Aircraft Systems (UAS)

Unmanned Aircraft System (UAS) usage shall comply with Article 107.33 and 107.40 of the Illinois Tollway Supplemental Specifications.

The use of the Unmanned Aircraft System (UAS) shall be in accordance with all Illinois state law, federal law, applicable Federal Aviation Administration (FAA) rules and regulations, local laws and ordinances and the UAS manufacturer's guidelines. Operations over human beings (including vehicles) must comply with the regulations outlined in Title 14, Chapter 1, Subchapter F, Part 107, Subpart D of the Code of Federal Regulations. Guidance on UAS usage can be found: https://www.faa.gov/uas

4.4.29 Lessons Learned

The DSE, CM, or PM (or Program Manager in the case of Capital Program- wide lessons) review potential sources to identify Lessons Learned. Sources include, but are not limited to:

- Project Progress or Book Meetings
- Design Error and Omissions
- Change Orders/Extra Work Orders
- Nonconformance Reports
- Budgets and Schedules
- Constructability Issues
- Customer Satisfaction
- Specification or design conflicts
- Construction improvements or modifications
- Surety

Lessons Learned are discussed in meetings as they are identified with the project team led by the DSE or CM. The DSE or CM will prepare information and present to the Illinois Tollway the information relevant to the Lesson Learned. The Deputy Chief Engineer and the PM will determine the relevance of the Lessons Learned to the current project, other projects, and/or to the overall program.

Records of Lessons Learned are retained within the WBPM system.

4.5 CM Materials Inspection and Acceptance

4.5.1 Information Sourcing

The CM is to provide QA materials inspection for various items, materials acceptance review, and documentation. Material items are impacted by various agencies in order to meet the Illinois Tollway requirements. The following list of items and topics provides guidance identifying the agencies, but is not limited to:

- Aggregates. PCC and HMA/WMA, IDOT Quality Management Training Programs, Illinois Tollway Aggregates Certification Program.
- PCC precast & prestressed components, Precast Concrete Institute (PCI) and IDOT Quality Management Training Programs
- Soils QA Inspection and Compaction, IDOT Geotechnical Manual, and IDOT Subgrade Stability Manual.
- Miscellaneous Inspections, IDOT Manual of Test Procedures for Materials, ASTM Specifications, AASHTO Specifications.
- Qualified Laboratories, IDOT Bureau of Materials.
- IDOT Construction Manual topics including but not limited to: Materials Acceptance and Documentation Review, IDOT Project Procedure Guide and Documentation Guide, and IDOT Approved Lists of Materials.
- Material Documentation, Illinois Tollway forms; I-MIRS.

4.5.2 Capital Program Procedures

Below is a partial list of Capital Program Procedures that the CM may use:

- P5030 Submittals Procedure
- P5070 Nonconformance Reports Procedure
- P6000 Evaluation of Consultants' and Contractors' Quality Programs Procedure
- P6120 Quality Assurance, Quality Control during Construction Procedure

In addition to the ISO procedures in place, the CM should follow the work instructions provided for automated processes in the WBPM system that directly support the ISO procedures or represent additional process requirements.

4.5.3 Quality Assurance Documentation by the Construction Manager

Management and QA testing work performed by the CM and verification of field QC inspection and testing performed by the Contractor, as guided by Capital Program Procedure P6120, shall be thoroughly documented. All documentation shall be in compliance with the requirements of the contract documents, this manual and in accordance with generally accepted good engineering practices.

The Construction Manager shall:

- Check, verify and document the work as specified in the contract documents for general conformance with the construction contract. Keep daily records and measurements of the quantities involved. Proactively monitor and regularly report to the Illinois Tollway on the progress of the Contractor in achieving the established schedule and budget. Anticipate and provide suggested remedies to scheduling and budgeting problems should they arise.
- Effectively and efficiently process all documentation necessary to administer the construction contract and CM Agreement including but not limited to submittals, RFI's, correspondence, Diversity performance, etc. Consult with the Illinois Tollway or Corridor Construction Manager, if applicable, for proper routing of documentation.
- Keep logs, records and document all activities and proceedings relevant to the administration of the contract in accordance with all the various requirements of this manual.
- Documentation of work progress shall be timely, factual, concise and complete.
- Monitor the execution of all on-site and off-site testing of all construction materials performed by the Contractor as required in the contract documents. Monitor the Contractor's execution of the CQP for proper QC compliance. QA shall test a minimum of 20% of QC.
- Anticipate the need and prepare documentation for and perform any field work and negotiations required to construct items covered by extra work orders, change orders, and Supplemental Agreements (see section 0 on correct procedures).
- Monitor and verify that the Contractor has checked all pavements for thickness and surface tolerance as required by the Standard Specifications and Special Provisions (depth check requirements – see Article 4.10.6).
- Verify that the Contractor maintains HMA/WMA, PCC, and Aggregate Quality Control charts of all QC data to determine when test results appear marginal and to demonstrate conformance with the QC requirements of the contract documents.
- Verify that, where applicable, the Contractor has passing performance within the Independent Scale Checks program. Compliance data will be provided by the Tollway.
- On a QA basis, witness and document the calibration of all equipment the Contractor uses that directly affects the quantity of a respective pay item (e.g., mobile concrete mixers, liquid asphalt distributors, slurry seal machines, etc.).
- Inspect and record the contractor's construction equipment to determine whether it generally complies with the contract documents and can properly perform the work within the required time.
- Monitor the performance of all ITS site and system testing by the Contractor as required in the contract documents and verify the Contractor's test results.

4.5.4 Frequency of Sampling and Testing

The frequencies for the various types of acceptance sampling and testing for QA construction materials by CM are listed in the IDOT Project Procedure Guides on the IDOT website.

- Refer to the current applicable Special Provisions, Specifications, and stand-alone documents referenced therein for sampling and testing frequency requirements for QC/QA project-produced materials. QA shall maintain a consistent testing frequency at or above the minimum throughout the project. The minimum frequency shall be 20% of QC unless otherwise noted in the Contract documents (e.g., 10% QA for stockpile aggregate for PCC). All samples shall be obtained, and all tests performed in strict accordance with ASTM or AASHTO standard methods, or with any modified methods as established by IDOT Project Procedure Guide or Illinois Tollway Manual of Test Procedures for Materials. Good judgment on the part of CM personnel is essential for proper checking of the work.

- Onsite job conditions such as consistency, methods, equipment, and weather may result in a decision to increase the frequencies listed in these sampling schedules. Likewise, reliance should never be placed entirely on the numerical results of sampling and testing when determining the acceptability of the materials and construction work. Observation of the actual construction operations and processes is necessary to determine whether or not the materials incorporated and the construction procedures utilized are acceptable and in conformance with the requirements of the contract.

4.5.5 Materials Documentation on Illinois Tollway Forms

The Illinois Tollway's I-MIRS applies to Aggregate gradations; HMA/WMA & PCC plant and field-testing and all other applicable QC, QA and IA test reports for analysis by the Illinois Tollway. Record copies are kept in I-MIRS.

4.5.6 CM Materials Acceptance Responsibilities

General

The CM is responsible for checking that all materials are inspected and approved. The CM must check that all inspection, sampling, and testing are done in accordance with the instructions in this manual, the pertinent project specifications, and the record keeping listed in the Illinois Tollway CQP Manual, Capital Program Procedures and CQP. The source of material must be approved through a WBPM submittal process before material is delivered to the site. The Contractor shall generate a submittal package for approval in the WBPM system. The CM shall communicate with the Illinois Tollway when work is in progress to report whether or not all required testing is being accomplished.

Evidence of Material Inspection

All material shall be subject to inspection by the CM. The Contractor shall follow the requirements of the Illinois Tollway Supplemental Specifications Article 106.03, Sampling, Testing and Cited Specifications and Article 106.04, Inspection of Materials.
If material arrives on the job without any Evidence of Materials Inspection, the CM must contact the CCM and/or the PM immediately to determine the proper course of action. The material shall not be incorporated into the work before the Evidence of Materials Inspection is resolved.

If a CM accepts material that may not be in conformance with the pertinent contract requirements by using acceptance samples and tests, the CM must document the conditions in which the materials were accepted by the NCR process in the Tollway's WBPM system. A copy of this record must be sent to the Illinois Tollway Materials Engineer. The CM, as the duly authorized

agent of the Illinois Tollway, is delegated responsibility to question, sample, and/or reject any material arriving on the project.

If the material is rejected, the item needs to be noted in detail in the Resident Engineer Daily Diary WBPM system entry with the basis for rejection.

The CM shall not include any item of material on a payment estimate for which there is no inspection or approval of the material until it has been approved for incorporation into the work. This too shall include any material without approved test results for PCC/HMA/WMA/Aggregate in I-MIRS or without approved test results for Soils/Others required as per Evidence of Inspection in WBPM System. Refer to the Illinois Tollway Supplemental Specifications Article 106.04.

Force Account Work and Agreed Unit Price Pay Items – Material documentation shall be accompanied and supported by invoices for all material used. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from their stock, that the quantity was used, and that the price and transportation claimed represent the actual cost to the Contractor.

4.5.7 Material Acceptance Responsibilities of the Contractor

General

The Contractor is responsible for providing inspection and testing of materials to demonstrate that they meet the specification requirements and to producing work in conformance with the contract documents per the Illinois Tollway Supplemental Specifications, Article 105.05. All material certifications from the Manufacturer must include the Illinois Tollway contract number and the Illinois Tollway Specification number. All materials to be permanently incorporated into the work shall be new unless otherwise specifically prescribed in the contract documents.

Suggested Contractor's Responsibilities

The suggestions below identify common problem areas that may impact the amount of payment to the Contractor if materials certification is delayed. The CM should advise the Contractor as follows:

- As far in advance as possible, furnish the Illinois Tollway, through the CM, with information of the sources of materials that will be used on the project. This information should be submitted as a submittal package in the WBPM system.

- Order materials as early as possible, perform QC in conformance with approved CQP, and notify the CM so that proper arrangements may be made for QA inspection.

- Notify the supplier that the Illinois Tollway or State inspection is required and warn the supplier not to ship without inspection per the Supplemental Specifications.

- For products with source inspection, the Contractor must plan the work so that the CM or the Illinois Tollway has sufficient advance notice to perform the sampling and testing requirements per the Supplemental Specifications.

- Additional responsibilities may be required of the Contractor depending upon the governing contract documents.

4.5.8 Material Acceptance

General

Material not meeting the specifications as determined by the CM shall not be used in the work without written approval. Prior to incorporating such material into the Work, the Contractor shall submit a MASR to the CM in the WBPM system. The CM shall evaluate this request and shall make a recommendation to the Illinois Tollway. The Illinois Tollway will then rule on the request and will advise the CM of its decision.

Rejected material shall be disposed of by the Contractor to ensure that none are incorporated into the work. Re-tests of materials may be authorized whenever there is sufficient reason to question the accuracy of the original tests. If re-tests are conducted, at least two samples shall be tested for each sample that failed. Both re-test samples shall meet the Specifications before the material is reconsidered for acceptance.

With HMA/WMA and Portland Cement Concrete mixtures, the CM may reject materials, suspend mixture production, or take appropriate action if the Contractor does not control the quality of the mixture for acceptance in accordance with contract requirements. The acceptance will be based on the following:

- The contractor's compliance with required actions and documents for quality control per the approved CQP.
- Validation of the contractor's QC by the CM's QA process using split samples, to the extent described above.

Material Acceptance Overview

The following is a brief overview of the key steps involved in the materials acceptance process by the Contractor per the approved CQP.

The CM monitors the key steps as part of the QA process.

- Inspection of Materials – Physical testing or visual inspection of the materials for compliance with the Specifications.
- Evidence of Materials Inspection – The minimum proof that the Method of Acceptance sampling and testing has been performed.
- Documentation of Inspection – Documentation that the materials received on the job site were accompanied by adequate Evidence of Materials Inspection, e.g., delivery tickets, bill of ladings, certifications, etc. This documentation should be included as part of the project files.
- Compliance with Independent Scale Checks, where applicable.
- I-MIRS – The designated QA representative shall input all QA test data into I-MIRS within 3 days of test completion. The Material's Coordinator is responsible to review and acknowledge the QA data, contractor's QC data, and QC/QA comparisons weekly.

- Project Materials Certification Review – The CM, PM, and/or General Engineering Consultant compares the quantities on all pay estimates with the inspection reports on file with the CM.
- Project Acceptance – Upon completion of the materials certification review, the CM proceeds with the preparation of the final change order.

Method of Acceptance

Method of Acceptance refers to the means of determining whether material supplied conforms to the requirements of the Specifications. Method of Acceptance sampling and testing categories are listed below.

- Manufacturer's Certification (CERT) – When testing is not practical or small quantities are involved, a manufacturers or producer's certification may be used to accept material. The certification must represent the materials or items being accepted and must also indicate compliance with the applicable specifications. This method of accepting materials is used for items such as epoxy, grass seed, and steel frames and grates. The dimensions and/or appearance of the item must be visually examined to verify specification compliance.
- Approved Materials List (LIST) – Some manufactured products are placed on an IDOT approved materials list available on the IDOT website, see Article 6.3. This method of accepting material is used for items such as concrete admixtures, bridge seat sealers, and asphalt release agents. These materials are not under QC/QA or certification programs and may be used without additional plant or jobsite testing.
- Quality Control/Quality Assurance (QC/QA) – The material is produced under an Illinois Tollway QC/QA program as defined by a specific Illinois Tollway contract, where QC is performed by the producer or contractor and QA is performed by the CM. Material acceptance criteria are included in a specification or special provision in the contract, or IDOT Policy Memorandum, as referenced in the Illinois Tollway's CQP Special Provision. This method of accepting material is used for items such as aggregates, HMA/WMA, PCC and precast concrete products.
- Certified Source (QUAL) – A source that conducts an internal sampling and testing program in conjunction with IDOT or the Illinois Tollway source and random destination sampling and testing. Once a producer is certified to manufacture or produce specific products, such materials may be accepted for incorporation into the contract without additional jobsite testing. The CM is required to perform a visual examination at the jobsite. This method of accepting material is used for items such as PG asphalt binder, emulsified asphalt, PCC and steel reinforcement bars.
- Testing Program (TEST) – Materials are sampled at the source or jobsite by the contractor's QC personnel, the CM's QA personnel or contractual representatives of the Illinois Tollway and tested at the jobsite, or in a qualified private laboratory, at the discretion of the CM to verify specification compliance. This method of accepting material is used for items such as aggregates, paints, and fabrics. Jobsite sampling and testing are always a prerogative of the Illinois Tollway. Investigative samples may be taken to verify certain characteristics.
- Visual Acceptance (VIS) – Acceptance or rejection of material based on an assessment of its markings, physical dimensions, obvious defects or damage, and close conformity with contract specifications. No lab or field tests are required. Visual acceptance is used

when sampling is impractical, destructive tests are not practical or no test method is available for use. Visual acceptance applies to most small quantities. This method of accepting material is used for items such as copper water pipes and metal survey markers.

Evidence of Materials Inspection

In most cases, the material for use in the Work has been pre-inspected or may have been produced under an Illinois Tollway approved QC program. Evidence of Materials Inspection is the minimum proof that Method of Acceptance sampling and testing has been performed. Evidence of Materials Inspection categories are listed below.

- Bill of Lading (BOL) – A producer or supplier shipping ticket that accompanies a product to the job site and which identifies the product, source and lot.
- LA-15 (LA15) – This form is a supplier's certification indicating the material is from approved stock. The form is sometimes used as a Bill of Lading (as referenced above) to indicate prior approval. The form should include the supplier, proper contract/job designation, material description, manufacturer, specific approved material (test ID number, lots, or batches), and quantity.
- Certification (CERT) – Manufacturer's written certification that indicates the material complies with the specifications or contract.
- Daily Plant Reports (DPR) – For PCC and HMA/WMA, reports generated that provide mixture test results and other production data. For QC/QA projects, refer to the appropriate special provisions to determine responsibility for Daily Plant Reports. DPRs are created and submitted through I-MIRS.
- List (LIST) – The material appears on a current list of IDOT Approved Products or Sources found on the IDOT web site. Contact the inspecting district's materials office for information on aggregates.
- Mark (MARK) – A commercial label, tag, or other marking that indicates product specification compliance and/or an approved source or manufacturer. The MARK information verified onsite by the inspector shall be referenced in a project field book or Inspector Daily Report (A-1) when payment is made. It is also suggested to take photographs of the MARK to verify that the source/manufacturer coordinates with the approved submittal. If photographs are used as part of verifying the MARKs onsite, the information shall be referenced on the A-5 form in the Quantity Book. Photographs shall be uploaded in WBPM folder 03.12.05.
- Test (TEST) – Approved test result available from locally performed lab or field tests (e.g., soil density).
- Ticket (TICK) – A ticket from an approved source indicating the Illinois Tollway and/or IDOT material or aggregate gradation, job designation, purchaser, and weight (if applicable). E-tickets in the Illinois Tollway agency software portal are required for HMA, PCC and aggregate starting with the 2024 construction season.
- Beginning with the 2024 construction season, the Illinois Tollway requires the use of E-Ticketing for HMA, PCC and Aggregate. The E-Ticketing process is outlined below.
- Tollway Materials creates the construction contract in the Haul Hub DOTSlip.
- Tollway Materials creates employees and/or adds RE, MC, and inspectors to the contract

in DOT Slip. Employees without a DOT Slip log-in require the name, email and mobile phone number to create the ID.

- RE or MC creates and/or adds inspectors, etc., to their contract
- CM staff download the DOT Slip app to their mobile device, and, if new, finalize their user ID password in DOT slip. The DOT Slip portal can also be accessed via the website https://app.mydotportal.com
- New CM staff review Haul Hub University training videos to familiarize themselves with DOT Slip.
- The CM provides pay item information (item number, item description, quantity, unit of measure) to HaulHub customer service for uploading into DOTSlip.
- After the pay items are uploaded, the CM initiates the reconciliation (assigning E-Tickets to pay items) process in DOTSlip.
- As material is delivered, CM inspectors confirm tickets are shown in DOTSlip app. If not, use the Missing Ticket function in the DOTSlip and notify the contractor that the e-tickets are not being delivered.
- Upon material delivery, the inspector marks tickets "delivered" in the DOTSlip app, and assigns the pay item and delivery location to the ticket.
- MC / Inspectors subscribe to the DOTSlip Automatic Delivery Reports (the summary of the day's placements) to receive them at the end of each day. Or, the CM staff can create a Delivery Report using the manual function. This file is provided in a PDF.
- After receiving the Delivery Report, the CM edits the Delivery Report PDF to finalize the quantity for the tickets and pay item and confirms the quantity and pay item(s) shown on the Delivery Report. An example of a completed Delivery Report is in Appendix D of the CM manual.
- The CM staff uploads the Delivery Report to the WBPM System as shown in the Documentation Matrix.
- Remember, the Delivery Report simply replaces the paper tickets and adding machine tape summary. The remaining tasks involved with finalizing payment are not part of the e-ticketing function.
- Visual (VIS) – A record of visual inspection is required in the Material Acceptance Log using Form A-5. This method should be used sparingly. Use for small quantities, non-structural items; all Illinois Tollway materials should have documentation.

4.5.9 Small Quantities

Procedures

Field sampling, testing, or source inspection of small quantities may be waived by the CM with approval by Illinois Tollway Materials on the basis of one of the two following methods:

- Approval based on visual inspection, provided the producer or manufacturer has recently furnished similar material found to be satisfactory under the Illinois Tollway's normal sampling and testing procedures.

- Approval based on certification by the producer or manufacturer stating that the material meets the specification requirements. Vendor certifications are not acceptable.
- Under either of the above methods, the CM must record the acceptance on the Material Acceptance Log (A-5 form) detailing the acceptance method used. The producer and the quantity of material covered by the approval shall be indicated.
- The Illinois Tollway's CQP Special Provision suggests approximate quantities of material per contract that may be approved using this procedure. The CM must utilize other methods to approve quantities in excess of those listed in the small quantities documentation.

Small Quantities are addressed in the IDOT Project Procedures Guide (PPG).

Restrictions

These procedures are not permitted to be used for structurally critical items or features that could directly affect the safety of the traveling public. For examples of items for which small quantities are not allowed, see the IDOT PPG. Under no conditions are materials to be used from an unknown or unapproved producer.

4.5.10 Certification of Materials

Project Materials Certification

When an Illinois Tollway project is finalized, the CM is required to certify to the Illinois Tollway PM that all applicable materials certifications have been submitted by the Contractor through the WBPM system using the Illinois Tollway Documentation Matrix for Construction. The CM verifies all materials incorporated into the contract work conform to the approved plans and specifications. The project material certification must be submitted with references to non-conforming materials to be documented.

Project Materials Certification Review

When an Illinois Tollway project is finalized, a review of the project records of materials and inspection will be conducted by the Illinois Tollway representatives and the CM.

Project Records of Material Inspection must be reviewed to verify conformance to the applicable specifications, including aggregate gradations; HMA/WMA and PCC plant and field-testing; and all other applicable QC/QA reports in I-MIRS to support the project materials certification. Non-conforming materials shall be identified based on the following evidence:

- Project test records or project files indicate that one of the conditions for initial approval was not met.
- Project test records suggest that a significant portion of the mixture was not in substantial conformance with the specifications. This will require a review of all test data utilizing the HMA/WMA and PCC Reports. If a significant number or percentage of tests does not meet the specification requirements, the material should be listed as a non-conforming material and be accompanied by an explanation/documentation provided for its use on the project.

All mixture reports shall become a permanent part of the project test records, as well as supporting documents covering non-conforming materials. All information shall be included in the WBPM system.

4.6 Diversity Program

4.6.1 Construction Manager's Roles and Responsibilities

The Contract Compliance team will perform unannounced Site Visits to the Illinois Tollway's construction projects. The Construction Manager, prime contractors and their subcontractors shall support and cooperate with Contract Compliance staff during these visits.

4.7 Communication

Providing a high level of safety for the Illinois Tollway users requires that information about maintenance and construction activities be fully conveyed to the traveling public promptly. The Illinois Tollway's Communication and Marketing Department (hereinafter referred to as 'Communications') uses various means for these public communications, including press releases, emailed construction alerts, fact sheets, dynamic message signs (DMS), etc. Communications also works to ensure that the content of signage is clear and consistent with other messages being delivered to Illinois Tollway users.

To facilitate the link between Communications and CMs, a Project Communications Liaison (PCL) will be established. In most cases, the PCL will have already been established for an Illinois Tollway corridor or group of Illinois Tollway projects. In some cases, the PCL will be an employee of the CM or CCM. In all other cases the PM functions as the PCL.

It is the responsibility of the PCL to fully understand the scope and schedule of work to be performed on the Illinois Tollway and to transmit that information to Communications. A Construction Communication Coordinator (CCC) at the Illinois Tollway is responsible for developing various communications to inform the traveling public and news media.

CMs will be informed at, before, the Notice to Proceed of whether a PCL exists, who that person is, and contact information. If a PCL has not been identified, a CM representative will be designated to fulfill PCL responsibilities. The CM shall inform the PCL of all changes required to the Emergency Communication Plan and verify that the version in the WBPM is updated promptly.

The CM must keep the PCL informed of all project related developments planned, expected or otherwise, to allow communications to effectively develop and convey the Illinois Tollway's message to the public. Note that the damage to utility facilities may require the CM to implement the Illinois Tollway Emergency Communication Plan. Refer to Article 4.4.6.

All external communication must be reviewed by the Illinois Tollway Communications Department prior to release.

4.8 Traffic Control

Work Zone Traffic Control and Protection shall be governed by the Illinois Tollway Supplemental Specifications, Article 701.

4.8.1 CM Maintenance of Traffic Engineer

The CM shall designate a Maintenance of Traffic (MOT) Engineer if required by the applicable Professional Services Bulletin or CM's Proposal and Agreement or as directed by the Illinois Tollway. The MOT Engineer shall be responsible for the administration of all MOT requirements of this Manual and/or the Illinois Tollway's Roadway Traffic Control and Communications Manual. For contracts containing ITS elements, the CM shall also ensure that all outage requests are executed according to the Roadway Traffic Control and Communications Manual.

4.8.2 General

The MOT Engineer shall study the proposed Maintenance of Traffic (MOT) staging in advance to ensure there are sufficient intermediate stages and that the traffic control plan will work. Illinois Tollway PM shall be notified if the plan deviates from the original contract documents. Upon the identification of any potential conflicts, an action plan shall be developed that identifies required dates for interim or incremental completion to mitigate any delay and achieve scheduled progress. Identified risk items shall be discussed in the weekly progress meeting to define required outcomes, assign responsibility for performance and emphasize that required MOT items stay live until removed.

The CM shall check, verify and document that the MOT layout and traffic control devices used are in conformance with the contract documents the Illinois Tollway Specifications and the Illinois Tollway Standards and including the Illinois Tollway's Roadway Traffic Control and Communications Guidelines prior opening to traffic and/or prior shifting of traffic for each stage of construction.

For all issues related to Traffic Control and MOT, the CM shall communicate with the Illinois Tollway using the procedures included in the Illinois Tollway's Traffic Control and Communications Guidelines and utilize Traffic Control Inspection Report (Form A-1C) for inspections.

4.8.3 Coordination of Maintenance of Traffic Stage Changes

The procedure by which all project stakeholders should review and comment prior to planned MOT Stage Changes is detailed in Capital Program Procedure P5140 - Maintenance of Traffic Stage Change Approval Procedure, Roadway Traffic Control and Communication Manual (including Appendix D Checklist).

If a Microwave Vehicle Detection System (MVDS) is present within the limits of a lane shift, MVDS devices shall be recalibrated by the Contractor for all stage changes that modify the location of travel lanes. The CM shall coordinate this work with the Contractor and the Tollway through the PM. Form ITS-02 (MVDS Stage Change Coordination) is required to be submitted by the Contractor 3 days prior to the 21-day meeting, and a revised form (if necessary) be submitted prior to the 2-day meeting. ITS-02 is available on the WBPM system.

Where work impacts other agencies roadways, ROW, detector loops, etc. the CM shall coordinate with the local agencies at the 21 day and 2 day meetings.

The CM shall provide advance notice of stage change to the GEC Structural Manager prior to shifting traffic onto newly constructed or repaired bridge sections allowing time for the required

review and inspection of work under existing MOT.

4.8.4 Maintenance of Traffic Management

During each stage change or temporary lane closure, the CM shall make regular inspections of the traffic control devices on the project and complete a Traffic Control Inspection Report (Form A-1C). A copy of the report shall be sent to the Contractor for appropriate action. If deficiencies are noted, the CM shall notify the Contractor in writing. The CM shall verify that the deficiencies were corrected in a timely manner, document the corrections on the report, and again transmit copies to the Contractor.

The CM shall coordinate with the Illinois Tollway's Traffic Operations Center (TOC) supervisor to review and approve the implementation of Smart Work Zones (SWZ), as part of the overall project's Maintenance of Traffic.

Immediately prior to initiating and upon completion of a stage change or temporary lane closure, the CM shall notify the Illinois Tollway Dispatch by phone and designated Illinois Tollway personnel by email that the operation is beginning or is complete. Should the operation be cancelled for any reason, the same notification is required by the CM as soon as knowledge of the cancellation is available.

- At all other times, between stage changes, the CM shall monitor the contractor's MOT operations daily for conformance with the contract requirements.
- The CM's personnel shall be fully aware of their assigned project's MOT requirements, note observations, and report any deficiencies observed during job site travel or during performance of their regular duties on a Traffic Control Inspection Report (Form A-1C).
- A copy of the report noting observed deficiencies shall be sent to the Contractor for appropriate action and uploaded to the WBPM system. The CM shall verify that the deficiencies were corrected promptly and document the corrections on the following report. If the Contractor fails or refuses to address the deficiencies noted or does not complete the task in a timely manner, a NCR shall be issued through the WBPM system. If needed, consult with the Illinois Tollway to determine the proper course of action.
- "FINAL REPORT" shall be referenced on the last project A-1C report and uploaded to the WBPM system.

At a minimum, maintenance inspections shall be performed as follows:

- The beginning and end of each workday. If work is being performed on multiple shifts, additional traffic inspections will be required. (i.e., at the beginning and end of each shift).
- If no night work is being performed, a bi-weekly night-time inspection must be performed. If MOT devices are in place when there is no work on site, a daily traffic inspection shall be performed.

The CM shall confirm the re-establishment of traffic control devices as soon as possible after dislocation due to traffic accidents, weather, or any other means. Any time that traffic has struck temporary concrete barrier within the work, the CM shall complete the TCB Impact Report process with the WBPM including all available information.

CM shall note all changes to MOT configurations and devices for incorporation into the record drawings.

These provisions are not intended to relieve the Contractor of their complete and sole QC responsibility for conformance with the detailed terms of their Construction contract with respect Maintenance of Traffic requirements and to maintaining safety of both traffic and personnel.

The CM shall make entries in the Resident Engineer Daily Diary WBPM system entry regarding the following MOT items:

- Current traffic stage.
- Lane closures/stage changes for the day describing direction, duration and activity.
- Status of any traffic deficiencies noted: Contractor advised, corrected or none.
- Any accidents and/or injuries that occur in an Illinois Tollway construction zone shall be documented in the Resident Engineer Daily Diary WBPM system's entry and communicated to all CM, CCM (if applicable), Contractor and Illinois Tollway personnel, which include but not limited to, the Illinois Tollway Project Manager, Chief Engineering Officer and Illinois Tollway's legal department immediately after the occurrence. The CM is responsible for ensuring the Contractor is complying with Article 107.39 of the Illinois Tollway Supplemental Specifications to ensure the safety of all parties involved.

Payment for Traffic Control shall conform to the requirements of the Illinois Tollway Supplemental Specifications, Article 701.15.

4.8.5 Maintenance of the Illinois Tollway Intelligent Transportation System (ITS)

Existing ITS Equipment - Before performing any work, the Contractor (through the CM) shall request the ITS Asset Transfer Packet for the contract from the Illinois Tollway. The ITS Packet will include information regarding the locations and operational status of each ITS component that the Contractor will assume maintenance jurisdiction over for the duration of the contract. Prior to the formal transfer of assets from the Illinois Tollway to the Contractor, the CM shall supervise the Contractor's visit to each location for verification of the operability and condition of the equipment. The CM shall coordinate and resolve any discrepancy between the ITS Packet information and field verification results with Traffic Operations personnel, such that an agreed asset status shall be signed off on by the contractor and the Illinois Tollway. Any subsequent corrective actions determined to be necessary at an existing ITS equipment location will be delegated as noted in the contract documents or determined to qualify as Extra Work to remedy the field device(s).

Proposed ITS Equipment – The Contractor is responsible for maintaining all proposed ITS equipment until it is officially accepted in writing by the Illinois Tollway. The CM shall enforce maintenance of all proposed ITS equipment by the Contractor until final acceptance.
See the specific Contract Special Provision for additional instructions.

4.9 Nonconformance Reports

4.9.1 Nonconformances

Nonconformance occurs when a service, product, or action does not meet requirements. Nonconformance Reports (NCR) are generated through the WBPM system to document such non-conforming work and corrective action with concurrence from all concerned parties.

The handling of nonconformances, as described below, which occur on a project, shall conform to the requirements of Capital Program Procedures P5070 - Nonconformance Reports Procedure and P5050 – Corrective and Preventive Actions Procedure.

Nonconformances that will be issued TO the CM are:

- CM work and/or the submittal of CM deliverables are not in compliance with the requirements of the agreement, scope of work, or CM manual.
- CM work or service that does not meet the obligations of professional practice or standard of care.
- Upon discovery of a non-conforming condition, CM fails to submit a nonconformance to the Contractor in the course of administering the contract.
- Deviations from the requirements set forth in the CQP-CM or deficiencies observed during Illinois Tollway external audits.

Nonconformances that will be issued BY the CM include:

- Faulty Contractor execution of the work as specified in the construction contract documents.
- Inadequate or faulty Contractor quality control activities, including the inadequate documentation of those quality control activities.
- Inadequate or faulty Contractor management of their CQP, including quality control that cannot be supported by documentation and failure to submit QC test results into I-MIRS within the required time frame.

Guidance for processing nonconformance is included in the WBPM system under Project 16 User Manuals.

Additionally, the CQP-CM must include procedures that address nonconformances and close-out of nonconformances, issued to the CM as well as those issued against the Contractor, including the following:

- Identification of nonconformance
- Control of problem
- Root cause
- Corrective action
- Action to prevent recurrence

CM staff handling the disposition of nonconformances must have the necessary qualifications and authority to do so.

4.10 Construction Documentation

4.10.1 Web-Based Program Management System Usage for Documentation

The Illinois Tollway has implemented a WBPM system that will be used by project participants. This system will function as the project record and it is expected that all electronic project documentation is contained within the system, including data and forms generated through processes used to conduct business with the Illinois Tollway. Refer to Article 4.4.1.

4.10.2 Source Documentation

It is required that all field activities, tests and/or inspections be documented in a manner to include "original source documents". Daily Reports (A-1 Forms) are the Illinois Tollway's primary source of final documentation. The CM may use A-1 forms to directly record locations and field measurements, or may opt to use alternate forms of source documentation such as hardbound Field Books, or other forms specific to an activity or test being performed. If A-1 forms are not used as original source documents, copies of the field book pages or other original source documentation shall be attached to the A-1 form. The CM must keep source documentation current as work progresses throughout the day.

The CM shall not record observations, measurements, sketches, calculations, etc. on scrap pieces of paper or personal notebooks. All original source documentation shall include the date and contract number. Measured By, Calculated By, and Checked By initials shall be provided where applicable.

No erasures or whiteouts shall be allowed on the Daily Reports (A-1 Forms), field books, test reports, or any other source documentation. Any incorrect entry shall be crossed out with a single horizontal line and the correct entries shall be entered and initialed, directly above.
Original source documentation must be maintained for the duration of the project. Hard copies (A-1 forms) are not required in the project files if archived completely in the WBPM System. If not completely archived, the hard copy (A-1 forms) must be submitted to the Illinois Tollway at the completion of the work.

4.10.3 General Documentation

All project documentation shall be maintained in the WBPM system according to the most current Illinois Tollway Documentation Matrix. The Documentation Matrix also specifies what project documents need to be submitted in the job boxes at the end of the project. Any documentation that is required to be submitted in the job boxes shall be maintained in separate labeled files, kept up to date during the course of the contract, and available for review by an Illinois Tollway representative at any time.

4.10.4 Project Documentation

It shall be the responsibility of the CM to provide proper and up-to-date documentation, as described in this manual, including all quantities incorporated into the work. The various types of records and reports needed to determine and verify progress, as well as to establish interim and

final quantities and Diversity Utilization Plan goal progress and attainment, are contained herein in order to provide a standard record keeping system. Examples of payment documents and reporting forms are included on the Illinois Tollway website.

CM personnel responsible for the documentation on the project must meet the qualifications in the applicable Professional Services Bulletin and must be thoroughly familiar with IDOT documentation procedures as contained in the IDOT Construction Manual. Refer to Articles 4.2 & 4.5. The CM is responsible for implementing all procedures identified in the IDOT Documentation of Contract Quantities Manual, unless otherwise specified in the Illinois Tollway CM Manual.

Project documentation is audited by the Illinois Tollway through the Construction Documentation Audit process in the WBPM. The CM is required to cooperate with the audit team and is to respond to all CDA items within 10 calendar working days of issuance, unless otherwise expressed in contract documents.

Project Diary

The Resident Engineer Daily Diary (REDD) that is entered into the system will be considered sufficient to meet the requirements of a REDD. Therefore, it will not be necessary for the Resident Engineer to produce a hardbound "Project Diary".

A REDD entry is required every day, beginning when the Contractor receives NTP and continuing until contract completion, with "No Work" entered on days with no activity. Entries are not required during Project Suspension per Article 4.10.8. The REDD entries are a primary legal document and may become evidence in future litigations, claims, or disputes. Diary entries shall be entered into the WBPM within 2 business days of the subject date. Each REDD entry shall include the following:

1. Work completed by the Contractor and subcontractor(s) during each shift.
2. Important orders, discussions, or meetings with the Contractor.
3. Official visitors and inspections.
4. Work or materials rejected and reasons.
5. Time of shutting down or resuming work and explanations.
6. Account of any time spent by Contractor's workers or equipment on disputable items of work.
7. The presence of railroad flaggers and whether the Contractor is to be reimbursed for their services.
8. Length and cause of any delay.
9. Arrival and departure of major equipment.
10. Record of important faxes and telephone calls.
11. Unusual conditions, if any, such as high water, bridge failures, slides, accidents/injuries, etc.
12. Discussions regarding any specific safety related instruction given to field staff.
13. Traffic control inspection times from the A-1C Reports.
14. Opening or closing detours, lane closures, changes in lane closures, stage changes, etc.
15. Date of NTP issued.
16. Start and End date of the field office.

17. Project Milestones.

Daily Activity Reports

The Daily Activity Report (DAR) that is entered into the WBPM system will be considered sufficient to meet the requirements of a DAR. All DAR entries will be considered original source documentation.

All pertinent labor and equipment shall be provided in the DAR, specifically the counts of each trade and classification, along with the count of each equipment type by category.

Field Books

Field Books must be hard covered and bound books.

The inside cover of the Field Book shall include the following information:

- Contract Number
- Contract Name
- Location
- Name, permanent address, and telephone number of the CM
- Proper identification to assure return to the Illinois Tollway, if lost

The cover of each field book should be clearly identified with the contract number and contract description. If more than one field book is used on a project, the cover of each shall be uniquely identified for the purpose of cross-referencing the field book to other documentation. The Field Book Log (Form A-8) shall be used to keep record of all project field books.

All pages within the field book shall be sequentially numbered (including the field book number on each page) and an index of the contents for the field book shall be updated daily. The index should include the date of the work observed/performed, a brief description of the work observed/performed, and the page number the information is located on.

Daily field book entries shall include the date, work observed/performed, measurements taken, sketches or any other pertinent information regarding the activities observed.
Observed By or Measured By initials and dates are required on any field book page that documents measurements.

All equations that are documented in the field books must clearly identify a completed calculation that reveals a final answer. Calculated By and Checked By initials and dates are required on any field book page that documents calculations.

Any pages left blank upon daily entry shall be crossed out with a single line or marked "Intentionally Left Blank" before making subsequent entries. The field book index shall identify the last entry of each field book.

Field Books may be used to supplement the documentation of all field activities. However, field books are required for:

- Permanent survey records, layout records and cross-sections.
- Concrete Superstructure pour summary (e.g., bridge deck pours).
- Paving when NOT using IDOT Form BC 2529 (HMA/WMA paving summary) or Form BC 2531 (PC Concrete paving summary). Note: When choosing to use a field book to document paving summaries, all information that is required in order to complete the IDOT paving forms (BC259/BC2531) shall be documented as such in the field book.

Field Book Log (Form A-8)

The Field Book Log (Form A-8) will be used to document all project field books. The log shall include the contract number and contract description. The field book number(s), the date each field book was issued for use, and the field book description by activity or the inspector's name shall be recorded for each field book. The A-8 form is to be kept current throughout the project and shall be filed with the field books.

Quantity Book

The Quantity Book shall be a three-ring binder, provided by the CM, in which contract items and evidence of materials inspection shall be posted. The daily quantities posted shall be referred to when each pay estimate is prepared. The pages of the quantity book shall be arranged in the same pay item order as the pay estimate. The format and general instructions for the Quantity Book are as follows:

Cover Sheet (Form A-3)

The cover sheet information in the Quantity Book shall either be completed electronically or neatly printed in ink. The wet ink signature of the Resident Engineer is required at the bottom of this form. See an example in Appendix D.

Signature and Initials Log (Form A-3A)

The Signature and Initials log is a list of printed names, title, and wet ink signatures and initials of all project personnel on the contract. A copy of this log should be placed in the front of the Quantity Book. See an example in Appendix D.

Approved Concrete Mix Design Log (Form A-3B)

The Approved Concrete Mix Design log (Form A-3B) will be used to document all the approved concrete mix design(s) information for the project. The log includes the approved mix design numbers, Producer/Plant numbers, plant locations, concrete class, pay item number(s) assigned to the mix, and the approved WBPM System submittal number the mix was approved. The A-3B form shall be maintained throughout the duration of the project and filed in the front of the quantity book. See an example in Appendix D.

Approved Asphalt Mix Design Log (Form A-3C)

The Approved Asphalt Mix Design log (Form A-3C) will be used to document all the approved asphalt mix design(s) information for the project. The log includes the approved mix design

numbers, Producer/Source numbers, plant locations, mix type, pay item number(s) assigned to the mix, and the approved WBPM System submittal number the mix was approved. The A-3C form shall be maintained throughout the duration of the project and filed in the front of the quantity book. See an example in Appendix D.

Quantity Book- Table of Contents (Form A-4)

The quantity book table of contents shall be prepared in the same pay item order as the Pay Estimate. If additional line items are added during the contract, they too shall follow the order of the pay estimate. Final quantities shall be posted to the A-4 when items are agreed to and balanced. When the contractor and CM agree to final quantities, initials from both parties shall be provided in the appropriate columns located on the A-4 form. Page numbers shall also be referenced on this form. See example in Appendix D.

Material Acceptance Log (Form A-5)

This form shall be completed by the CM, as material tickets, e-tickets, certifications, bill of ladings, test reports, and approved submittal information are received. The A-5 form may be maintained electronically and upon completion of the work, the CM shall print each finalized A-5 form and include in the Quantity Book. The "A-5" box on each Daily Report (Form A-1) shall be checked after the required material documentation for each item has been correctly recorded on the A-5 form.

- Each time an entry is made on the Quantity Record (A-6 form), it should be verified that the A-5 form contains sufficient material documentation information to cover the quantity of the item that has been paid. If there is insufficient material evidence to support the quantity listed on the A-6 form, a holdback daily report (Form A-1) should be prepared to reduce the quantity to date on the A-6 form such that the quantity to date on the A-6 form matches the quantity to date on the A-5 form.
- When the quantity for any pay item is dependent upon a weight (Tonnage) determined on a platform scale (paid by the ton), the Department of Agriculture decal date and identification number shall be printed on this page. The Department of Agriculture information is renewed annually and must be kept current on the A-5 form.
- Each entry for asphalt and/or concrete items shall record the date, source, mix number, amount of material delivered, and unit of measure the material was delivered in, along with references to the I-MIRS records relating to the material.
- For all other items, the WBPM system submittal containing material acceptance information (e.g., Illinois Tollway, IDOT, approved shop drawings or catalog cuts, notarized manufacturer's certifications, etc.) shall be listed on the A-5 form.
- The CM is to record each source of material evidence on the A-5 form. All material evidence, except for concrete, asphalt, and aggregate paper tickets, is to be uploaded by the Contractor in the WBPM System (Electronic ticket summary reports are also to be filed in the WBPM System). Each A-5 entry shall include the date, Manufacturer, Product Name or material code, quantity of material with unit of measure, the WBPM file location for the material documentation. The date listed on the A-5 is to correlate with the date the information was uploaded into the WBPM system.

- IDOT approved source numbers are to be listed on the A-5 forms for all items accepted on the basis of an IDOT approved list.
- For all removal pay items, letters of consent from disposal sites and/or Inventory Control Forms (A-14) shall be recorded on the A-5 form. The WBPM location of Material Management Plans shall also be recorded on the A-5 form for applicable pay items.
- "Transferred to Other Item or Remarks" column is to be used when the material certification or quantity of material inspected/certified covers multiple pay items. This column should also be used for other pertinent information, such as referencing the ticket file location, WBPM file location, or, I-MIRS record, etc. where more detailed information may be found.
- Conversion factors are also required to be entered onto the A-5 form when pay items are measured and paid in a different unit of measurement than the unit of measurement listed on the material certification/delivery ticket. If the conversion factor is variable, a final yield calculation is to be performed when the item is finalized to confirm that sufficient material has been delivered and accepted in order to process the final quantity. Conversion factors or final yields are also required for all incidental materials listed on the A-5 form.
- The A-5 form shall be placed on the "right side" of the Quantity Book. See examples in Appendix D.

Material Inspection Report (Form A-5A)

The Material Inspection Form (A-5A) shall be completed by the inspector and/or Resident Engineer for lump sum pay items in order to document the inspection of various materials specified in the contract documents. A separate A-5A form should be used for each component of the work that requires material documentation. Prior to field inspection by the CM, the approved submittal(s) should be reviewed and summarized in the "WBPM Approved Submittal Summary" section of the report. The material incorporated into the project shall be inspected and the required material documentation shall be submitted prior to acceptance. Once the material has been inspected and accepted, the Resident Engineer shall sign this form and assign an A-5A number in numerical order. The assigned A-5A number shall also be referenced on the A-5 form. The A-5A form shall be uploaded in the WBPM system under folder 03.12.05. Photos, Bill of Ladings, LA-15 forms, and Certifications shall be uploaded in the appropriate WBPM folders. The original A-5A form, along with any attachments, shall be maintained in the project material files. See example in Appendix D.

Quantity Record (Form A-6)

The A-6 form is the official record of project quantities for all pay items. The information noted below shall be entered into the CEPS database provided to the CM and used to generate pay estimates. The CEPS database shall be updated daily to accurately reflect the approved quantities recorded on each Daily Report (Form A-1). The "A-6" box on each Daily Report (Form A-1) shall be checked after the quantity for each item has been recorded in the CEPS database.

The CM shall confirm that the information on the A-1 form is accurately entered into the CEPS database using one of the following methods.

- The CM may create and maintain A-6 forms on paper as outlined below. The A-6 form for each item is to be compared against the pay estimate to verify that the quantity to date for each item correlates with the quantity to date paid on the pay estimate prior to submitting

the pay estimate to the Illinois Tollway.

- The CM may maintain A-6 forms electronically through the CEPS database. For each daily quantity record, the CM shall generate a CEPS Daily Report Data Entry Verification Report, compare it to the corresponding A-1 form, and initial and date the report to confirm accuracy. All verified reports shall be uploaded to the WBPM System prior to submitting the associated pay estimate to the Illinois Tollway. After all the work for an item is complete, the A-6 form shall be printed from the CEPS database and finalized as noted below.
- The information from the A-1 form shall be entered as described below into CEPS and paper A-6 forms if applicable.
- For paper A-6 forms, the contract number, pay item number, pay item description, plan quantity and units, and the contract unit price shall either be filled in electronically or neatly printed in blue ink.
- Entries in the column titled "Date" should be the date the quantity was placed and should coordinate with the Daily Report (Form A-1) date.
- The entries in the "Station to Station, Location or Description" column shall describe the actual area where the quantity was placed or other unique identifier as structure number.
- For paper A-6 forms entries in the columns titled "Quantities Complete" will be both the daily entry and the running total of all work completed to date for this pay item. Only the daily quantity is entered in CEPS.
- For paper A-6 forms, the Column titled "Pay Estimate No." shall include entries that indicate which pay estimate the daily quantities have been paid on. Manual entry of this information in CEPS is not required.
- The "CM Observation Notes" column shall be completed on an as needed basis for any additional information that may be required regarding the quantity being paid.
- Each entry on the Quantity Record shall be cross-referenced to its supporting quantity documentation. The sequence number (assigned by CEPS) for the corresponding Daily Report (Form A-1) shall be listed in the column titled "Daily Report Number".
- If pay items are added to the contract by an approved Extra Work Order, an A-6 form shall be added to the quantity book for each pay item. The Extra Work Order information shall be posted to the "Authorization" box at the top of this form only when the approved documents are received. The date listed in the "Authorization" box should be the date the Extra Work Order is approved. Enter the approved extra work order number in the "EWO No" column. The quantity added in the "Authorization" box shall be the approved quantity shown on the Extra Work Order. The "Approved Adjusted Quantity" column shall be adjusted accordingly. The "Plan Quantity and Units" box for each extra work pay item shall be shown as "0" with the unit of measurement listed as shown on the Extra Work Order. See example in Appendix D
- Quantity adjustments to contract pay items and previously approved extra work pay items by an approved Change Order shall be posted to the "Authorization" box at the top of this form when the approved documents are received. The date listed in the "Authorization" box shall be the date the Change Order is approved. Enter the approved change order number in the "CO No" column. The quantity added/deducted in the "Authorization" box should be the approved quantity shown on the Change Order. The "Approved Adjusted Quantity" column shall be adjusted accordingly. See example in Appendix D

- "Max Pay" items: The last IDR entry on the A-6 form shall be for adjustments related to max pay.
- The A-6 form shall be placed on the "left side" of the quantity book and the A-6 forms shall be placed in the Quantity Book in the same pay item order as shown on the A-4 form.

When each pay item is complete, the quantity shall be marked "FINAL" after the last entry on the quantity book page. Typically, this is done when the CM and contractor agree to final quantities. Prior to submitting final documentation to the Illinois Tollway, the CM shall verify that balancing change orders have been approved and properly recorded in the "Authorization" box for each item and confirm that the final quantity for each item coordinates with the plan quantity or the approved adjusted quantity shown in each "Authorization" box.

Quantity Documentation

Quantity Computations

When a calculation file is used to document a progress payment for a pay item or a series of pay items, all quantities shall be kept in consecutive pages and files, with pay item numbers and cross-references clearly marked. This calculation file shall contain all math, units of measure, conversion factors, etc.; and each page of the calculations shall be initialed and dated by the person (CM) making the calculations and by the separate individual checking the calculations. Include creator's Consultant name on spreadsheets.

Daily Report (Form A-1)

In order to properly document the quantities shown in the quantity book and on the Pay Estimate, daily entries on Daily Reports (Form A-1) are required.

- Each Daily Report (Form A-1) shall include the contract number, contractor/subcontractor name, the date work was completed, the date of the CEPS entry, CEPS sequence number, page numbers, pay item number, pay item description, location (station to station, offset, etc.), measured or calculated quantity, the unit of measure for each pay item listed on the form, completed "Required Materials" box and checked "A-5" & "A-6" columns.
- Daily quantities may be based upon either estimates or final measurements. Any pay item numbers being paid for on the Daily Report shall be referenced in the "Estimated Progress Item #" and/or "Final Measurement #" fields on the front of the Daily Report.
- Any quantities being corrected or held back on the Daily Report shall also have the pay item numbers referenced in the "Corrected Item #" and/or "Holdback Item #" fields on the front of the Daily Report.
- The Daily Report must contain original source documentation either directly on or connected directly to the Daily Report to show how the quantities paid were measured, documented, and calculated. Required information includes all measurements, quantity calculations, yield calculations, depth checks, etc. Each IDR shall include copies of field book pages, plan sheets, calculation sheets, spreadsheets, computer printouts, etc. The field book number and page number for measurements or calculations recorded in field books shall be referenced on the front of the Daily Report (Form A-1).

- Overall yield calculations are required on the IDR for all pay items delivered in units that differ from the pay item unit of measure. Any yields under 100% require an explanation or recalculation.
- Any incorrect entry shall be crossed out with a single horizontal line and the correct entries shall be entered directly above. This correction shall be initialed by the individual making the change.
- Spaces for Measured by, Calculated by, and Checked by shall be either hand-written or electronic initials and dated. The Resident Engineer shall provide either a handwritten or electronic signature on the Daily Reports each day.
- The completed A-1 forms should be kept in chronological order and filed in a binder for review at any time. See example in Appendix D.
- All A-1 forms and their attachments shall be scanned and uploaded to the WBPM system within one week of the pay estimate on which they are posted.
- All items, except lump sum or each item, shall have their entries recorded to the proper decimal place, based on unit price in accordance with the Illinois Tollway Supplemental Specifications Article 109.01, Measurements of Quantities.

Guidelines for Determining In-Progress Quantities

The following guidelines may be used in establishing estimated in-progress quantities. Whenever possible, take accurate final measurements as the job progresses. Note: Quantities that are estimated must be labeled as such.

Excavation Pay Items - Cubic Yards

- Estimate percentages of Plan balance quantities
- Update quantities as balance volumes are completed
- Use load counts when available. Use 80% of the struck capacity

Concrete Items - All Classes - Cubic Yards

- Extract the daily volumes for your computation check file
- Use a reasonable percentage (typically 90%) of actual delivered concrete
- Update each completed structure with the plan Bill of Materials and "as-built" calculations
- Confirm payment quantities by performing yield against delivery quantities

Reinforcement Bars – Pounds

- Establish a pounds/cubic yard factor from plan quantities
- Use it as concrete volumes are placed for estimated quantity progress payment
- Update each completed structural item with the Plan Bill of Materials quantity. Actual bar counts and calculations are done to compare to the plan quantity, accounting for any modifications made during construction

Pipe Pay Items - Feet

- Count and record pipe sections as installed

- Update completed runs with measured quantities, as required
- Specification Method of Measurement or Special Provisions

Foot and Area Pay Items (Feet, Square Foot / Square Yard)

- Base computations on actual in-place measurements
- Station to Station staked dimensions
- Plan quantity schedules

Sodding

- Pay 25% of area placed upon placement of sod
- Pay 75% of area placed upon acceptance of sod

Each and Lump Sum Items

If payment is to be made when the item is partially completed, record station and/or location, date, the estimated percentage of completion and the basis of this estimate.

If progress payments are to be made against Lump Sum pay items, the Contractor must submit, and the CM must approve prior to work commencing, a breakdown equating progress to the percent complete/paid. This breakdown along with the CM's daily activity reports will be used as source documentation for these progress payments.

Payments for Work Zone Traffic Control and Protection Maintenance of Traffic (MOT) shall conform to the requirements of the Illinois Tollway Supplemental Specifications, Article 701.09. The quantities for certain pay items (e.g., removals) cannot be estimated, so final measurements must be made daily. Information needed to determine final quantities for such pay items must be obtained at the time work is done, or before, as it will be difficult or impractical to compute quantities with acceptable accuracy at a later date.

Examples of items that cannot be estimated are removal items, pilings, most weight ticket items, trench backfill, and similar items which, when installed, covered or removed, are impossible to measure.

Progress Photos

Baseline condition photos shall be taken off all project areas prior to the contractor commencing work in any given area. Progress photos shall be taken weekly and uploaded to the WBPM System under the Progress Photos folder and named in accordance with the Illinois Tollway file naming convention. All progress photos shall have their latitude and longitude embedded in the metadata of the file uploaded to the WBPM system. This can be accomplished using the location settings on most smart phones or by using a GPS-enabled camera. Suggestions of photos to be taken include but are not limited to, work that will be covered up by subsequent work, critical path items, stage completion etc. The CM shall also provide project completion photos.

Updated Contract Drawings

The CM shall create a set of Updated Contract Drawings by saving a copy of the As-Bid Contract drawing volumes provided in the WBPM. Any sheets revised by contract addenda shall replace the corresponding original drawing in the initial set. Subsequently, each time a Contract Drawing is revised, the revised sheet shall replace the previous version of the sheet in the updated set. The revision date and description shall be listed in the revision block of the updated drawing. Updated plan sets shall be uploaded to the WBPM at the time that changes are issued to the Contractor so that the files in the WBPM are always current. Revisions shall incorporate all changes resulting from RFIs, Issues, Construction Revisions, NCRs, Utility Conflicts, Value Engineering Proposals, or any other contract changes. Subsequent versions of these files shall use the same file name for each volume of the plans, with the WBPM System tracking their version histories. When uploading the files to the WBPM system, the CM shall use the "Description" field to list the revision block description of each new revision included in the subject drawing set.

Revision Log

The CM shall maintain a revision log to track all revised drawings issued to the Contractor. This log shall be a spreadsheet with columns for Sheet Number, Revision Date, Revision Description, and Date Uploaded to the WBPM System. A separate row shall be entered for each revised sheet that is included in the subject revision.

4.10.5 Use of Computers for Quantity Documentation

The use of computers to determine quantities is encouraged for excavation quantities, reinforcement bars, and area items. If computer printouts are used to support pay item quantities paid, the following information is required for proper documentation reference Article 5.3 (**Exhibit 3**), Coordination of Illinois Tollway Software Applications.

Compiled Calculation Programs Approved for Use by the Illinois Tollway

When results of the calculation are printed, the printout must show:

- Pay Item number and description
- Printout of the input data, initialed, and dated by the person(s) who input and checked the data.
- Hard copy of the results

Electronic Spreadsheets

When a spreadsheet is printed, the printout must show:

- Location
- Pay item number and description
- The input data
- Description of how the results are calculated (e.g., sample formulas)
- Calculation results (if applicable)

- Cross references to any other referenced documents
- Construction Manager's name
- The hard copy of the spreadsheet must be manually initialed and dated by: The person who prepared the spreadsheet and printout, and the person who checked the formulas embedded in the spreadsheet and calculated quantities.
- Units of calculations (i.e., LB/FT etc.) must be labeled.
- If a Standard is used to determine a conversion factor, note on spreadsheet the Standard.

Other Programs

For other programs not approved for use by the Illinois Tollway the following general rules apply:

- A record of the original field measurements (if applicable) must be included in the project files.
- The measurements, or a computer-interpolated version of the measurements, must be in the same format as would normally be required if the measurements had been recorded manually. In other words, the raw data must be in, or be put in, a format that could be understood by the reviewer.
- The program must be identified, including version numbers
- Input data, if entered manually, must be checked
- The preparer may be required to demonstrate that the results are correct. This should be accomplished by manually calculating a sample of the results – under the supervision of the PM or auditor
- All other documentation requirements shall apply

Supporting Documentation

The field documentation used to create the spreadsheet data for each item shall be kept on file and marked with the item number for easy cross reference.

Names or initials of persons measuring, calculating and/or checking quantities shall appear on the documentation, along with the dates each occurred.

4.10.6 Documentation Guidelines

The following are guidelines for most pay units showing the degree of accuracy for measuring each and information required for documenting each. All final quantities will be rounded in accordance with the Illinois Tollway Supplemental Specifications, Article 109.01. All daily quantities will be computed to one decimal place beyond that specified for final.

Illinois Tollway Documentation Guide by Pay Units

Table 4.10-A Illinois Tollway Documentation Guide by Pay Units

PAY UNIT	REQUIRED DOCUMENTATION
Acre Seeding	Field measurements used to calculate the final quantity Area (acre) = $\frac{\text{L (ft) x W (ft)}}{43{,}560 \text{ S.F.}}$
Calendar Day Traffic Control Surveillance	Monthly entries in the Quantity Book cross referenced to daily, summarized Traffic Control Surveillance Forms.
Calendar Month Engineers Field Office Engineers Lab	Project Diary entry on the date the office or lab is ready for use, and Monthly entries on A-1 forms. Project Diary entry on the date the Contractor was notified the office or lab would no longer be needed.
Cubic Yard Structure Excavation, Trench Backfill, Porous Granular Embankment, Concrete Structures, Concrete Super Structures Concrete Headwall, etc.	Field measurements used to calculate the final quantity of the statement "built to plan dimensions" when they are used to calculate the final quantity, and Calculations. or "Built according to Standard ___" statement. or Depth checks (where applicable)
Each or Lump Sum	Recorded by Station or location and date in the Quantity Book.
Gallon Prime Coat	Calculations based upon initialed weight tickets and Specific Gravity. The Specific Gravity is given on the shipping or storage ticket. l (gallon) = $\frac{\text{net wt. (lbs.)}}{8.328 \text{ x Sp. Gr.}}$ or Meter ticket, if the ticket contains proper information in accordance with the Specifications. Record of the D.O.A. decal date, I.D. number
Lineal Foot Elec. Cables, Pavement Marking Pipe Culvert, Piling	Field Measurements. Depth checks (where applicable)
Pound Rebar, Structural Steel, Fertilizer, Asphalt Prime Coat	Calculations based on the Bill-of-Materials. Use of the Weight table shown in Art. 508.07, or "Built according to Standard ___" statement. (Standard headwall bars, approach slab bars, etc.), or Weight tickets or bag counts, accompanied by conversion calculations (i.e., Fertilizer Nutrients) or calculations based on residual asphalt content (i.e. Asphalt Prime Coat)

PAY UNIT	REQUIRED DOCUMENTATION
	or Weights calculated using ANSI steel weights and as verified on Bill of Lading forms (i.e., Structural Steel)
Square Foot **or** **Square Yard** PCC Sidewalk, Patching, Base Course widening, Slopewall, etc.	Field measurements used to calculate the final quantity or the statement, "built to plan dimensions" when they are used to calculate the final quantity, and Calculations Depth checks (if applicable)
Ton Aggregate Ground Limestone, Aggregate Base Course, Hot Mix Asphalt, Stone Matrix Asphalt Warm Mix Asphalt	E-tickets, or Weight tickets showing the material, date and weight, and project name & contract number. Field inspectors must initial all tickets Daily tare weights on each truck recorded and retained. (See "Small Quantities" for information regarding small quantities.) and Verified E-ticket summary report or Daily adding machine tape showing: job designation, pay item, date, location, net weight and pay weight corrected for moisture and/or 4-year lime conversion factor, if required, with "Calc. By:" and "Checked By:" initials and dates, and Record of the Department of Agriculture decal date and identification number in the Quantity Book or a record of a DOA approved commercial scale company, and Scale check for asphalt batch plants or when automatic printer tickets are used in lieu of scale inspector, and Tickets should have the jobsite and scale inspectors' initials on them. Scale inspector's initials are not needed for small quantities (see "Small Quantities")
Unit **1000 gal.** **Suppl. Water, or** **Water**	Meter tickets or Weight tickets and calculations Volume (gallon) = net wt. (lbs.) 8.328 x Sp. Gr. (Sp. Gr. for water = 1.0) or volume measurements of conveyance and calculations or Record manufacturer rated capacity of truck tank when full loads are used.
Unit **100 ft**	Field measurements. Measure each side separately for Excavating and Grading Existing Shoulders or Record by Station (left or right) or location. or Calculations.

PAY UNIT	REQUIRED DOCUMENTATION
Unit **100 plants, or 100 seedlings, Seedlings**	Record by Station (left or right) or location. and Calculations.
Unit **Force Account items**	Completed and signed A-7 form with Force Account invoice.
Unit Diameter **Tree Removal**	If a tree tape was used, make a note of this with your field measurements. Calculations if a tree tape was not used, the actual field measurement must be shown along with calculations for the appropriate Unit Diameter. Unit Dia. = $\frac{\text{circumference (in.)}}{\pi}$ (where π = 3.1416)

Documentation Guide by Item of Work

Item of Work	Documentation
Removals	Form A-14 (Inventory Control) ONLY for salvaged material (guardrail, signs, grates, glare screen, right of way fence, handrail etc.). *1 A notarized letter of consent signed by the owner of the disposal site and/or recycling firm, with IEPA permit number and address of the facility. *1 Disposal/Dump letters referencing the disposal locations for aggregate, concrete, and asphalt removal pay items. *1
HMA/WMA Items	Contractor Quality Control Plan, Mix Designs, Plant Reports, Delivery Tickets or E-Tickets, Department of Agriculture scale decal date and identification number (Tonnage item), Field Tests, Cores.*1, *2, and *3
Concrete Items	Contractor Quality Control Plan, Mix Designs, Plant Reports, Delivery Tickets or E-Tickets, Cylinder Break Reports, Field Tests.*1, *2, and *3
Reinforcing Steel	Mill Certifications, Manufacturer Test Reports, Lab Test Reports (bending tests, coating test, or certification etc.). *1
Structural Steel	Shop Drawings, Mill Certifications, Lab Test Reports. *1
Bearings	Shop Drawings, Manufacturer Test Reports, Load Test Reports, Test Reports of samples requested by the Illinois Tollway. *1
PCC Beams	Shop Drawings, Mix Designs, Test Reports for materials, including concrete and reinforcing steel. *1
Aggregates	Source Observation or IDOT source reports (i.e., proctors, gradations, etc.), Delivery Tickets or E-Tickets, Department of Agriculture scale decal

	date and identification number, Field Tests. *1 and *3
Drainage	Shop Drawings, Material Certifications, Concrete Mix Structures and Structure Designs, Test Reports for materials, including concrete and reinforcing steel. *1
Drainage Pipes	Material Certifications (pipes and coatings). *1
Embankments	Field Tests. *1 Source Inspection (i.e., proctors, moisture, plasticity indexes, etc.)
Topsoil	Bioassay Tests from an approved lab, Salt Content Tests. *1
Electrical	Shop Drawings, Manufacturer Tests, Manufacturer Certifications. *1
Painting	Manufacturer tests, Manufacturer Certifications. *1
Guardrail	Mill Certifications, Galvanizing Certifications, Anchor Bolt Load Tests. Form A-14. *1
ITS	Shop drawings, Manufacturer Tests, Manufacturer Certifications, Product Data Sheets, Equipment Testing Plans, Asset Transfer Packet, ITS Element Removal/Relocation Form. *1
Pavement Markings	Manufacturer Certifications, Manufacturer Tests. *1
Sign Supports	Shop Drawings, Manufacturer Tests, Field & Trusses Confirmation. *1

*1 – Documentation criteria modified to meet Supplemental Specifications requirements.
*2 – Test reports for Concrete and HMA/WMA are recorded in the Illinois Tollway's I-MIRS system. The location and report numbers for these records should be cross referenced on the A-5 (Acceptance/Testing/Monitoring Certifications Log) form.
*3 – If copied tickets are provided, a memo shall be prepared explaining why original tickets were not obtained.

Blanket certifications from manufacturers, which do not identify the Illinois Tollway, the appropriate Contract number, and the applicable specification(s) are not acceptable.

If a pay item is encountered that does not conform to the categories included in the above list, the CM shall refer to Appendix C- Material Acceptance List.

4.10.7 Extra Work Documentation

Extra Work which results from any of the changes as specified in the Illinois Tollway Supplemental Specifications, Article 104.02 and for which no unit price is provided in the contract, shall not be started until receipt of an authorization or work order from the Illinois Tollway, which authorization shall state the items of work to be performed and the method of payment for each item. The contractor shall not be entitled to payment for work performed without such order. Refer also to Section 6 .

If it is practicable to pay for Extra Work on the unit price, or lump sum basis, a fair and equitable sum shall be fixed by agreement of the parties and shown in an Extra Work (EWO).

Agreed Unit Price Items

Establishment of a new unit price item will require a copy of the letter of proposal from the Contractor and an approved Extra Work Order from the Illinois Tollway.

The Agreed Unit Price (AUP) will be supported by a break-down of costs prepared by the Contractor showing labor, equipment, and mark-ups and will be supported by documentation which substantiates labor rates, which are verified by certified payrolls, benefits established by bargaining agreements, insurance and bond rates, etc. Sufficient details must be provided in order for proper evaluation of the price. Additionally, if the work is to be performed by a subcontractor, the subcontractor's breakdown shall be provided as outlined above.

When an Agreed Unit Price is established, the first two characters should be "XT" and the next three digits are to be the corresponding authorization number. Example "XT001000" identifies a new agreed unit price along with the Extra Work Order number, 001.

The CM shall then review the proposed unit price and shall make a recommendation to the Illinois Tollway. The CM may have to negotiate with the Contractor to arrive at an acceptable unit price. The Illinois Tollway will have final approval. Supporting data shall be submitted as an attachment to the Extra Work Order.

Force Account

When the Illinois Tollway deems it impracticable to handle any Extra Work on the unit price or lump sum basis, or if agreement of the parties cannot be reached, the Extra Work may be ordered to be performed and paid for on a force account basis. The CM shall reference the Illinois Tollway Supplemental Specifications, Article 109.04, and the IDOT Construction Memorandum pertaining to Force Account Billing, which may be found on the IDOT website, for direction with regard to reviewing contractor force account billings.

Initiating the Work

The CM must have copies of:

- The CM's brief explanation and the initial recommendation for the need to perform the force account work.
- The Illinois Tollway's letter or electronic approval (via the WBPM system) authorizing the work to be performed on a force account basis.

Progress Documentation for Force Account items

Illinois Tollway Form A-7 (Daily Report - Force Account Work or Disputed Work) shall be prepared jointly, signed by both the CM and the Contractor daily, with the original remaining in the field office, the Contractor receiving a copy, and uploaded into the WBPM system.

The CM shall create and maintain a log of A-7 forms for force account work completed on the project. The log is to include the date and description of the extra work, the approved ATP

Number, estimated costs of the force account work, and the associated force account invoice number. The CM shall assign estimated values to each A7 and monitor the value of the force account work as it occurs so that a supplemental ATP can be processed prior to exceeding the approved value of the extra work. If the extra work includes labor, equipment, or material costs that are not known by the CM at the time of construction, approximate values should be requested from the Contractor to be utilized in the estimated A7 values.

Labor - Show classification, first initial and last name of each person. Include the shift time worked and specify if the hours worked were straight time, over time, or double time hours. Copies of certified payroll shall also be provided with the force account bills. Information on the certified payroll shall include personnel names, dates, hours worked, pay rates, union deductions, taxes deductions, etc.. Once the CM has verified the invoiced labor costs, any attached certified payroll documentation shall be removed from invoices and printed copies shall be shredded. Under no circumstances is the CM to upload the contractor and/or subcontractor's certified payroll to the WBPM system.

Equipment - The Contractor will be paid in accordance with the latest revision of "EQUIPMENT WATCH RENTAL RATE BLUE BOOK (Blue Book)" show make, model, year, horsepower, gross vehicle weight, etc. This will enable the office technician to accurately check the equipment as shown in the Contractor's invoice. A copy of the Blue Book Equipment Rate sheets needs to be attached to the Contractor's invoice as backup.
Material - Attach copies of invoices, stone, asphalt, concrete or other material truck tickets, along with the appropriate materials inspection / certification to the backside of the Illinois Tollway Form A-7 (Daily Report - Force Account Work or Disputed Work).

Billing - The Contractor's billing shall follow the format established in Construction Memorandum pertaining to Force Account Billing, which may be found on IDOT's website.

Disputed Work – Explain in letter format, what work is disputed and why, and attach the explanation to an A-7 form. The CM and Contractor must both sign the letter, and the A-7 form.

For force account, the first three characters of the number should be "FRC". The next three digits are to correspond to the Extra Work Order number on which the item was first submitted.
Example "FRC00100" identifies a new Force Account along with the Extra Work Order number, 001. The unit of measure for force account items is UNITS, and the unit price is $1.00. The value of the force account is given in the quantity of the force account pay item.

4.10.8 Project Suspension Documentation

The CM shall be required to submit to the Illinois Tollway the following list of items no later than two (2) weeks after the Contractor has suspended or slowed operations for the winter months:

- An entry in the Resident Engineer Daily Diary stating the reason for the job suspension, the date the contractor stops work (winter shutdown etc.), and the date the work was resumed.
- A partial pay estimate with all final quantities to date checked and agreed to by the Contractor.
- A detailed list of remaining items to be completed, detailing item titles, and pay item numbers.

- A time estimate and manpower estimate necessary to complete the required CM services.
- Final documentation, as required, to the extent possible, including all material inspection.

4.10.9 Final Documentation

The final quantity for all items appearing in the Quantity Book shall be cross-referenced to a Daily Report (Form A-1) identified as a final measurement, which will serve as final documentation, and which will show measurements and calculations used in determining the final quantity. The Daily Report (Form A-1) shall have copies of one of the following sources of documentation attached:

- Copies of field measurement books (hardback only).
- Cross-section paper for cross-sections only.
- Reference to calculation file for such items as grading, concrete structures, and reinforcement bar.
- Copy of the fully audited Force Account invoice with initials of person that checked the invoice. The original force account invoice with A-7 forms (Daily Report – Force Account Work of Disputed Work) shall be maintained in a separate file with the location reference on the front of the A-1 form.
- Computer printout or spreadsheet (see Article 4.10.5).

The final quantities shall be posted on the A-4 forms (Quantity Book- Table of Contents) along with the CM and contractor initials agreeing to final quantities.

For items requiring depth checks, each A-1 form identified as a final measurement, shall include depth checks.

All calculations made to determine final pay quantities must be checked by someone other than the preparer.

Final Payment – Qualifications

Final payment is normally made to the Contractor after the following conditions have been met:

- All physical work has been satisfactorily completed and accepted by the Illinois Tollway.
- All documentation requirements have been satisfactorily completed.
- All materials incorporated into the work have been certified.
- The Contractor has agreed to final quantities.
- All warranty documents have been submitted.

Final Measurement and Rounding

The CM must complete and submit final measurements, calculations, and contract record documents to the Illinois Tollway no later than six (6) weeks after completion of the punch list for the project.

Pertinent information regarding measurement of progress and/or final quantities is provided in Measurement of Quantities, the Illinois Tollway Supplemental Specifications Article 109.01, and in the Measurement and Payment Sub-sections for the various construction items, all as contained in the IDOT Standard Specifications, the Illinois Tollway and IDOT Supplemental Specifications, and Contract Special Provisions.

Final Pay Estimate

Refer to Article 4.4.9

4.10.10 Distribution of Documents

Electronic copies of the following documents will be available via the WBPM System as they are uploaded.

Request for Acceptance and/or Approval of:

- Proposed Subcontractors
- DBE Subcontractor/Supplier Substitutions Requests
- Shop and Working Drawings
- Concrete and Asphalt Mix Designs
- Sources of Aggregates
- Submitted Substitutions

QC/QA Reports (I-MIRS):

- QC/QA HMA/WMA Plant, Lab and Field Test Reports
- QC/QA PCC Plant, Lab and Field Test Reports

Other Documents:

- Purchase Orders
- Force Account Work Daily Reports (A-7 forms)
- All correspondence with Contractor
- Accident records

The original signed copies of all Change Order, Extra Work Order, and Contractor Pay Estimates shall be submitted to the Illinois Tollway through their respective WBPM System processes.

4.11 Project Walk Through

The CM shall first confirm a walk-through date with the Illinois Tollway GEC prior to sending any official walk-through invite. This will apply to Pre-Final, Final, and any other walk through as needed. Whenever and wherever feasible, additional required walk throughs, such as required

structural inspection prior to opening to traffic, should be consolidated by the CM to provide efficiency and limit the extent of additional required traffic control.

4.11.1 Pre-Final Walk Through

After a date has been confirmed with the Illinois Tollway GEC, the CM shall schedule a pre-final walk through to perform a general overview and review of the project. The walk through shall be scheduled at a state of completion to allow for a beneficial review of the project and at a time prior to the substantial completion date. The scheduled time shall consider project completion, maintenance of traffic, ongoing contract work, among other factors. The CM and PM shall coordinate with the Tollway GEC to determine whether separate walkthroughs should be performed for the various types of work included in the contract. (i.e. Roadway, Structures, Lighting, ITS, Landscaping, Facilities, etc.). At least one week's notice should be provided to walk through attendees.

For projects that contain ITS devices, the ITS site construction (including proposed and relocated devices), and all testing should be completed with burn-in periods started per the Special Provisions prior to scheduling the Pre-Final Walk through. If the ITS work is not complete at the time of the Pre-Final Walk through, the CM shall provide a report of ITS construction status (including anticipated completion date) to the Illinois Tollway ITS Operations Manager, Traffic Operations Center supervisor, the Illinois Tollway network and communications leads, and the ITS GEC prior to the start of the Pre-Final Walk through.

The CM's punch list will be made available to walk through participants in advance of the scheduled walk through. This walk through is to establish supplemental items which need to be addressed prior to final completion. The CM shall be responsible for identifying whether items identified during the walk through are contract or extra work items.

Required Walk through attendees:

- CM
- Illinois Tollway Maintenance
- Illinois Tollway PM
- Illinois Tollway GEC
- Illinois Tollway User Departments (IT, ITS, Business Systems, Building Maintenance…)
- Contractor (Optional)
- Designer (Optional)

The CM is responsible for documenting (photos, notes, etc.) the walk through. The revised punch list shall be provided to walk through participants after the completion of the walk through.

When local agencies are involved, separate walk through(s) will be conducted to review and achieve approval of jurisdictional related items.

4.11.2 Final Walk Through

After a date has been confirmed with the Illinois Tollway GEC, the CM shall provide to the attendees the final punch list document. Final shall mean that the punch list items are closed which shall mean that they are either physically completed or that documentation has been provided to indicate why no further action was required by the Contractor. At least one week's notice should be provided to walk through attendees.

For projects that contain ITS devices, the CM shall verify that all testing and burn-in periods have been completed, as per the Special Provisions before scheduling the walkthrough.

Required Walk through attendees:

- CM
- Illinois Tollway Maintenance
- Illinois Tollway PM
- Illinois Tollway GEC
- Illinois Tollway User Departments (IT, ITS, Business Systems, Building Maintenance…)
- Contractor (Optional)

The CM is responsible for documenting (photos, notes…) the walk through. The revised punch list shall be provided to walk through participants after the completion of the walk through.

4.12 Construction Contract Close-Out and Consultant Evaluation

All contracts must be closed out in accordance with procedures established and included within the Manual. All contracts are to be closed out within 90 days of submitting the final pay estimate. The administrative and procedural requirements for contract closeout, including, but not limited to, completion of physical work, submission of records, closeout meeting, financial closeout, and contract closeout guarantees are identified in the Illinois Tollway Capital Program Procedures, P5130 - Construction Contract Closeout. The CM may request a copy of this procedure from the Illinois Tollway. The CM is responsible for maintaining the Illinois Tollway's 1-year guarantee against defective work throughout the life of the contract and shall work with the contractor and the Tollway to commence the proper WBPM processes to allow for Tollway/GEC monitoring. The start of the 1-year guarantee against defective work may not be separated from the MA process without approval of the Tollway and may never be backdated such that Tollway/GEC inspection is negated.

There are several basic steps to be taken by the CM in connection with the orderly close out of any construction contract.

- **Expected Completion Date Letter.** Written notification to the Illinois Tollway of the expected completion date or the date the work is expected to be substantially complete, if applicable.
- **Punch List.** A complete and thorough inspection of the project for the purpose of compiling a punch list of completions or corrections to be undertaken by the Contractor to bring the project to an acceptable condition. Punch list items should also be generated

based upon review by representatives of Villages, IDOT, railroads, utilities, all applicable Illinois Tollway departments; and all other departments or outside entities involved in the project. The punch list is tracked through the WBPM system process. All fields in the punch list must be completed on the A-45PL form and attached to the punch list WBPM process. These fields include:

- Date
- Description
- Location
- Responsibility (Optional)
- Projected Completion Date
- Date Complete by Contractor
- Date CM Concurred
- Inspector Initials
- Comments/Status (when applicable)

- **List of Permanent Benchmarks (after construction is completed).** List may include benchmarks for each structure, for each toll plaza, & for every ±2000 feet on mainline pavement. Place list of permanent benchmarks in a hardbound field book marked benchmarks/contract number. The CM is to provide benchmarks as specified in Article 4.4.13 Record Drawings
- **Traffic Signage.** Complete the Illinois Tollway "Sign Data Sheet" for each sign installed or relocated. Provide location and off-set/depth of the footing and actual sign size and text of the sign. Take a picture of each sign. The picture file name shall be identical to sign ID. Submit sign data sheets and pictures to the Illinois Tollway Project Manager at the conclusion of the contract via the WBPM system.
- **Contract Completion Date Letter.** Written notice to the Illinois Tollway certifying that the work under the contract is in all respects acceptable and the date thereof. This notice should be accompanied by any necessary releases from other agencies, local governing bodies, railroads, abutting property owners, utilities, manufacturers' warranties for installed equipment, waivers of lien, and by the final change order, final pay estimate, and any necessary attachments thereto.
- **Final Records Transmittal to the Illinois Tollway.** All completed documentation/records/files shall be indexed, boxed, and transmitted to the Illinois Tollway document control for processing as the archive project box(s). The CM is responsible for contacting the Illinois Tollway Document Controls Department with the number of job boxes being delivered 7 days ahead of their arrival.
- **Annual and Final CM Performance Evaluation.** Once annually and upon receipt from the CM of record drawings, field office files, and other required closing documents, the Illinois Tollway Project Manager will complete a CM Performance Evaluation through the WBPM system process. This CM Performance Evaluation identifies key consultant personnel, records, project costs, and separately evaluates the effectiveness of the CM's overall management and the performance of the Resident Engineer, inspectors, field office staff, and the materials technicians. The Illinois Tollway may refer to the completed evaluations for the selection process of future construction inspection services.

4.13 Management of Performance Based Specifications

This article describes the additional scope of work when a construction contract includes responsibility for performance-based specifications. At all times, the CM must be proactive and aware of key dates within the project schedule and take steps necessary to ensure that critical elements, such as drawing production and reviews, are completed such that the work proceeds as planned.

4.13.1 Pre-Bid Document Review

The Bid Documents will be given to the CM prior to the bid. The sections that are relevant to design and build shall be reviewed for completeness and accuracy to confirm that there is a full and complete scope such that the Illinois Tollway will be assured of an appropriate transfer of responsibilities to the Contractor.

4.13.2 Contractor Design Quality Management Plan

The Contractor is responsible for the professional quality, technical accuracy, and coordination of all surveys, designs, drawings, specifications, geotechnical, and other services furnished as part of the contract. Accordingly, the Contractor must provide a design Quality Management Plan (QMP), which includes a description of their QC and QA procedures to be utilized to verify, independently check, and review all drawings, specifications, and other documentation prepared as a part of the contract. The Contractor must describe how the checking and review processes are to be documented to verify that the required procedures are followed.

4.13.3 Review and Distribution of Contractor Produced Designs

It is not the CM's function to "approve" Contractor produced drawings as the Contractor must remain entirely responsible for their deliverables. The CM is expected, with the cooperation of the DSE, to study the drawings and point out errors and conflicts if they are apparent. The CM review and distribution process should ensure the Illinois Tollway of:

- Conformance with the Design QMP – The CM shall review the drawings and specifications submittal packages to ensure they are properly stamped by the contractor's designer, and there is evidence that the necessary QC / QA checks have been performed. The Illinois Tollway shall be informed immediately if the CM suspects that the design QMP is not being followed, and the CM may be instructed to perform an audit of the Contractor's design operations.

- Document Control – The CM must review the drawings used in the field. The CM must maintain an updated log of each document, with review status for each revision number, and the date of document issue. The CM shall audit the drawings actually being used by the Contractor. It should be noted that performance-based contracts typically proceed quickly and the CM shall have the drawing reviews processed as soon as possible. The process will be handled through the WBPM system.

- A complete submittal shall consist of the proposed plans in PDF format and evidence that the QA check has been performed. The CM will review the submittal; if it is confirmed that the submittal is complete, the plan sheets will be electronically stamped "Released for Construction" with the CM firm's name and the date. When the submittal is returned to the

Contractor it shall include a note that references the submittal number and the individual plan sheet numbers. In addition, the plan sheets are entered into the document log showing submittal number, revision date, and released date. Revisions to the already released plan sheets that are resubmitted should use the same numerical submittal number but add an "A" or the next available letter to show a revision. The file name and date will change to reflect the most recent "Issued for Construction" version and the log will be revised to reflect changes.

4.13.4 Working Drawings and Shop Drawings

Refer to Article 4.4.4.

4.13.5 Illinois Tollway and Other Agency Review

In some cases, the Contractor must submit design drawings for review and approval by the Illinois Tollway or local agency prior to being "Released for Construction". For scheduling purposes, the Contractor should allow no less than fourteen (14) calendar days for the reviews and/or verifications to be conducted by the Illinois Tollway and no less than fourteen (14) calendar days for the reviews and/or verifications to be conducted by local agencies. Additional time shall be provided for outside agency review if specified in the IGA applicable for the subject work. These time frames shall also apply to comments on the final plan submittals before receiving authorization to proceed with construction with "Released for Construction" drawings. In any case, final signed and sealed component plans and calculations will be delivered to the Illinois Tollway a minimum of twenty-one (21) calendar days prior to construction or procurement associated with the work contained in any design drawing submittal.

4.13.6 Lump Sum Breakdown and Progress Payments

Prior to any progress payments being made it will be necessary to agree to a lump sum breakdown of the work for the entire project or prescribed sections. It will be necessary for the CM to assess the Contractor's proposal to ensure that it is fair representation of the value of various elements of the work so that progress payments may be made efficiently and quickly at intervals described in the contract. After the CM has agreed that the contractor's proposal is acceptable it will be forwarded to the Illinois Tollway PM for approval. Once the Illinois Tollway approval has been given, the document will be used to control all progress payments to the Contractor. The breakdown is to be used only for the purpose of progress payments and not used as the basis of establishing the value of extra work.

4.13.7 As-Built Drawings

The Contractor is responsible for providing the as-built drawings for the performance-based elements. PDF and DGN files shall be uploaded in the appropriate WBPM system folders.

4.13.8 Warranties

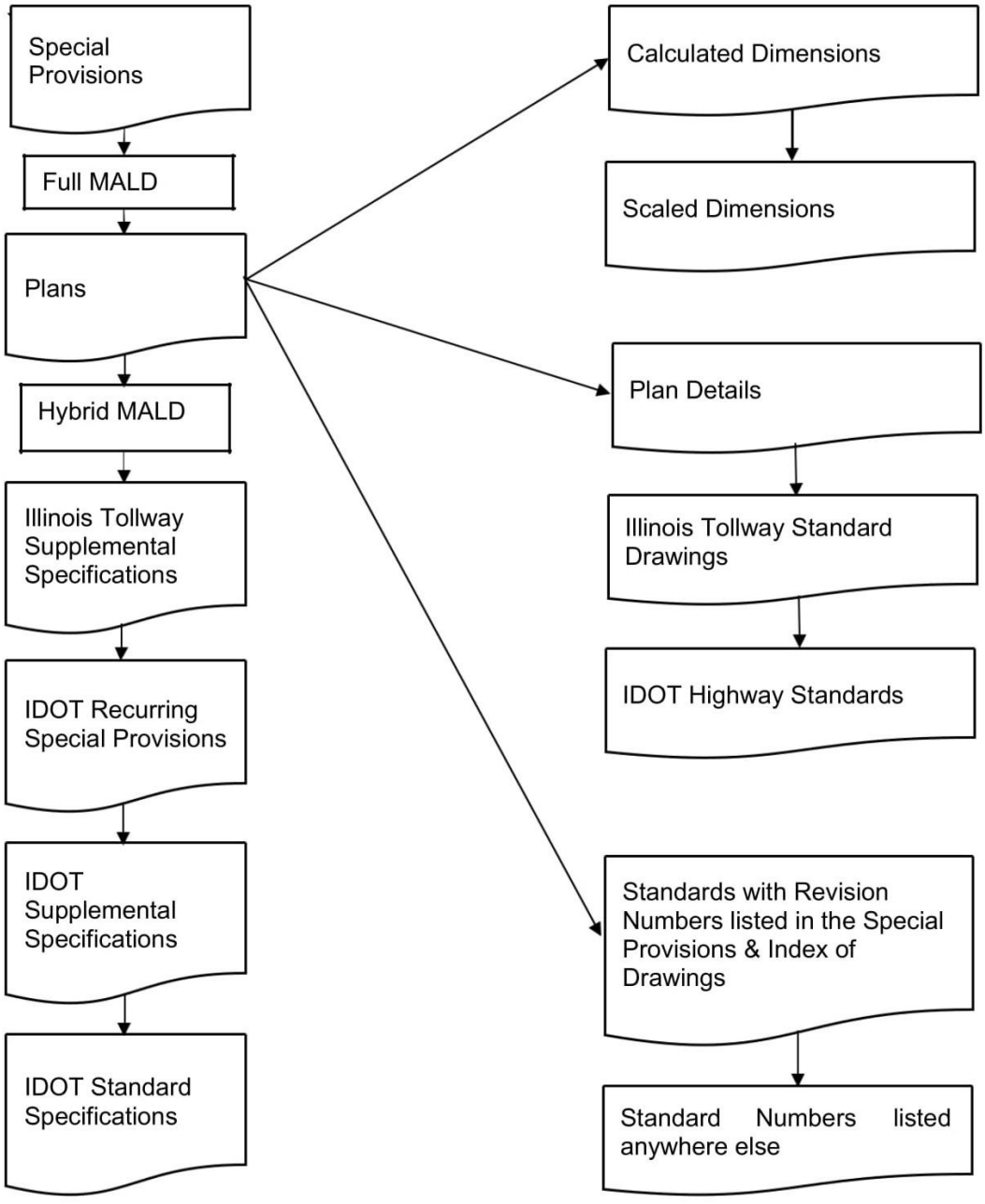
The submission and review of project Warranties shall be generated as a process through the WBPM system. The Warranty process is used to ensure the Illinois Tollway receives all completed Warranties on time by the Contractor. The Warranty reports shall be utilized by the Illinois Tollway Maintenance Department to ensure inspections are completed prior to Warranty expiration.

The Contractor initiates and submits the Warranty process in the WBPM system. A completed A-27 form (Warranty form) and all other items specified by Article 105.18 of the Tollway Supplemental Specifications shall be attached to the process. The CM is responsible for reviewing and accepting & closing the process. The CM can also return the process to the Contractor for revisions or additional information if necessary. For items with multiple warranty expiration dates, a separate process shall be submitted for each expiration date.

All Warranties are based on S.P. 103.1 (Contract Completion Date) unless otherwise stated in the Contract.

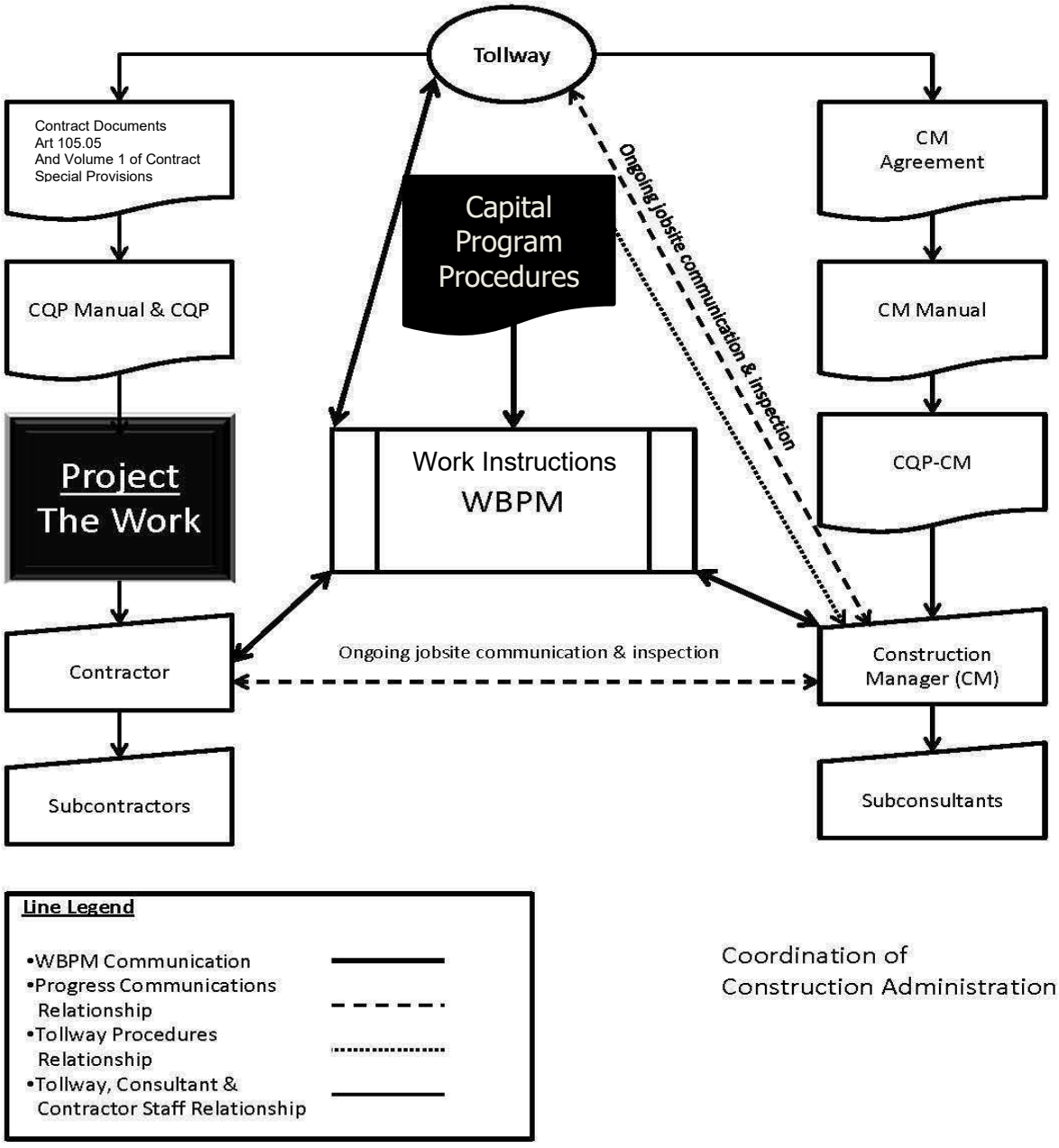
SECTION 5.0 GUIDELINES

5.1 Exhibit 1: Coordination of Contract Documents



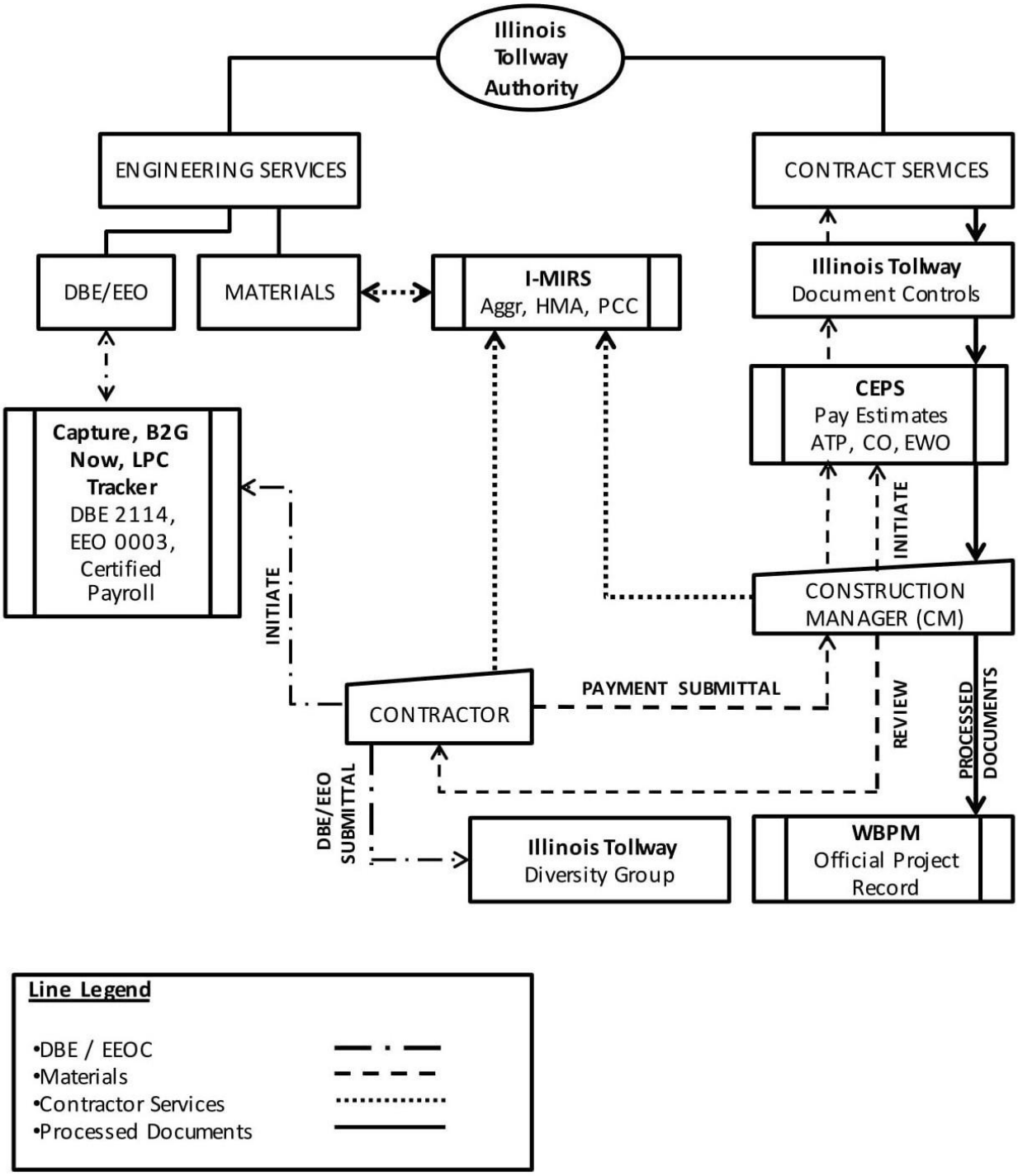
Note: This exhibit is shown to illustrate a typical contract structure. Refer to Illinois Tollway Supplemental Specification Article 105.05 and Contract Book 1 for individual specific contract requirements.

5.2 Exhibit 2: Coordination of Construction Administration

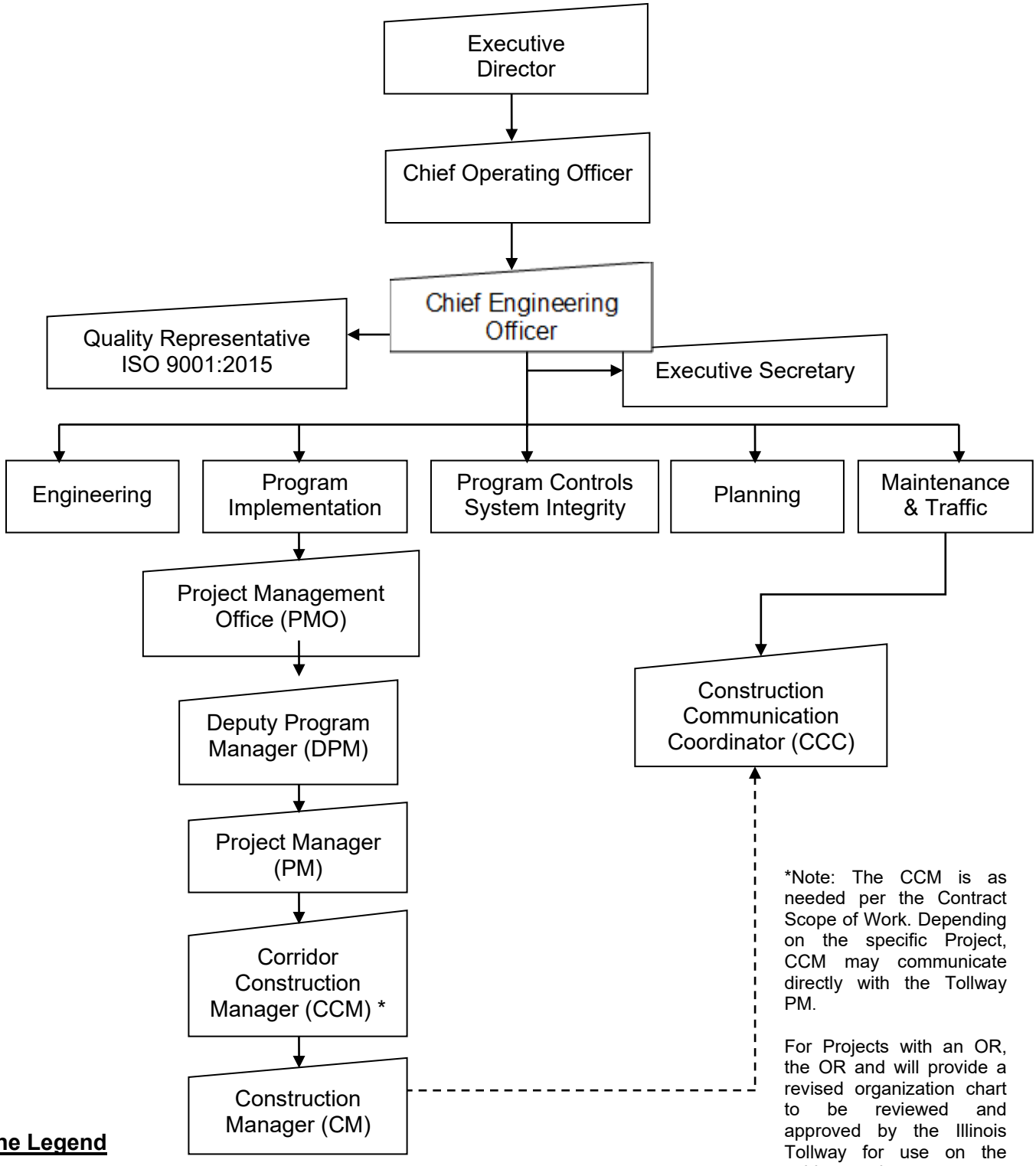


Coordination of Construction Administration

5.3 Exhibit 3: Coordination of Illinois Tollway Software Applications



5.4 Exhibit 4: Illinois Tollway Organization Chart



*Note: The CCM is as needed per the Contract Scope of Work. Depending on the specific Project, CCM may communicate directly with the Tollway PM.

For Projects with an OR, the OR and will provide a revised organization chart to be reviewed and approved by the Illinois Tollway for use on the subject projects.

Line Legend

- Department Relationship _____
- Communication On behalf of the PM --------

SECTION 6.0 REFERENCE DOCUMENTATION

6.1 Purpose

Reference documentation listed in the table below (Article 6.3) is the source manuals, guidelines, various Agency specifications, checklists, and forms used to create the content of the CM Manual. The CM needs to be familiar with the portions of the reference documentation that directly impact the CM's responsibilities to successfully administer the project's construction contract documentation and observation.

Capital Program Procedures, Illinois Tollway forms, and IDOT Material forms lists (Articles 6.4 through 6.8) are provided for reference. See Reference Documentation Table (Article 6.3) for the Illinois Tollway website location.

The Program Management Procedures and Forms are available from the Illinois Tollway's Project Manager. Article 6.4 provides an index and location for Capital Program Procedures ISO Forms.

6.2 Scope

The referenced documentation for the CM Manual is provided with websites and paths. Reference documentation sourced from the Illinois Tollway website takes precedence over the IDOT, WBPM system, and other website sources. Websites and paths maintained by others are subject to change without notice.

6.3 Reference Documentation

Illinois Tollway (ISTHA) CM Manual Reference Documentation

Table 6.3.1 Illinois Tollway Website Documents

Reference Documentation Name	***Website/ Path***
Illinois Tollway Website	Illinois Tollway https://www.illinoistollway.com
Illinois Tollway A & AC Forms (Inspector's Checklists)	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Joint Resources/A Forms and AC Forms
Illinois Tollway Construction Bulletins	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Consultant Resources/Bulletins
Illinois Tollway Construction Inspector's Checklists	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Joint Resources/A Forms and AC Forms

Reference Documentation Name	***Website/ Path***
Illinois Tollway CM Progress Reporting forms	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Consultant Resources/Invoicing Forms/ Consultant Forms/CM Monthly Progress Report Narrative (CM Inspection)
Illinois Tollway Contractor's Form	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Contractor Resources/Contractor Forms
Illinois Tollway Contractor's Quality Program Manual (CQP Manual)	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Contractor Resources/ Manuals/Contractor Manuals/Contractor's Quality Program Manual
Illinois Tollway Design Bulletins	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Manuals, Processes and Guidelines/Design Bulletins
Illinois Tollway Design Section Engineer's Manual	https://www.illinoistollway.com Illinois Tollway: Doing Business/Resources/Manuals/Roadway Design and Traffic Safety/Design Section Engineer's Manual
Illinois Tollway Diversity Program	https://www.illinoistollway.com Illinois Tollway: Doing Business/Resources/Diversity
Erosion Control and Landscape Manual (ECLM)	https://www.illinoistollway.com Illinois Tollway: Doing Business/Resources/Manuals/Environmental & Drainage/ECLM (manual)
Illinois Tollway Geotechnical Manual	https://www.illinoistollway.com Illinois Tollway: Doing Business/Resources/Manuals/Bridges and Structures/Geotechnical Manual
Illinois Tollway Intelligent Transportation System (ITS) Deployment Guide	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Consultant Resources/Manuals/Roadway Design and Traffic Manuals/Intelligent Transportation System (ITS) Deployment Guide
Illinois Tollway: Intelligent Transportation System (ITS) Labeling Guidelines	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Consultant Resources/Manuals/Contractor Manuals/Intelligent Transportation System (ITS) Labeling Guidelines

Reference Documentation Name	***Website/ Path***
Illinois Tollway Lane Closure Guide	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Consultant Resources/Manuals/Roadway Design & Traffic Safety/Illinois Tollway Lane Closure Reference Guide
Illinois Tollway Lane Closures Information and Help	https://laneclosure.illinoisvirtualtollway.com/LaneClosuresHelp/index.html Quick Start Guide for the Illinois Tollway Lane Closure Management Application
Illinois Tollway Materials Inspection List	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Consultant Resources/Manuals/Construction & Materials/Contractor Manuals/Contractor's Quality Program Manual
Illinois Tollway Professional Services Bulletin	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Joint Resources/Active Construction and Professional Service Contracts
Illinois Tollway Roadway Traffic Control & Communications Manual	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Consultant Resources/Manuals/Roadway Design & Traffic Safety/Roadway Traffic Control & Communications Manual
Illinois Tollway Standard Drawings	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Consultant Resources/Standard Drawings
Illinois Tollway Storm Water Prevention Plan (SWPPP)	http://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Consultant Resources/Manuals/Environmental & Drainage/ECLM Manual
Illinois Tollway Supplemental Specifications to the IDOT Standard Specifications for Road & Bridge Construction (Supplemental Specifications)	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Joint Resources/Standard Specifications & Special Provisions

Table 6.3.2 IDOT Documents

Reference Documentation Name	***Website/ Path***
IDOT Website	Illinois Department of Transportation https://www.idot.illinois.gov
IDOT Approved Lists for Materials	https://www.idot.illinois.gov IDOT: Doing Business/Material Approvals
IDOT BMPR Lab Inspection Policies IDOT BMPR Policy Memorandums IDOT BMPR Policy Memorandum for Certified Rein. Bar &/or Dowel Bar Producers IDOT BMPR Policy Memorandum for Certified Weld Wire Reinf. Producers	PDF information ONLY: https://idot.illinois.gov/search-results.html?q=IDOT+BMPR+Policy+Memo+Certified+Reinforcement+Bars&contentType=everything https://idot.illinois.gov/search-results.html?q=IDOT+BMPR+Policy+Memo+Certified+Reinforcement+Bars&contentType=everything
IDOT Construction Manual (Documentation)	https://www.idot.illinois.gov IDOT: Resources/Manuals and Guides/Construction Manual
IDOT Construction Manual: HMA & PCC forms (Documentation)	https://www.idot.illinois.gov IDOT: (HMA/WMA) Doing Business/Material Approval/Hot Mix Asphalt/Forms IDOT: (Concrete) Doing Business/Material Approval/Concrete/Forms
IDOT Construction Memorandum 08-09 (Equipment Watch's Blue Book for Documentation)	https://www.idot.illinois.gov IDOT: Doing Business/Procurement/Construction Services/Current Construction Memorandums
IDOT Geotechnical Manual	https://www.idot.illinois.gov IDOT: Resources/Manuals & Guides/Geotechnical Manual
IDOT Local Roads Training T2	https://www.idot.illinois.gov IDOT: Transportation System/Local Transportation Partners/County Engineers and Local Public Agencies
IDOT Manual for the Fabrication of Precast, Prestressed Conc. Products	https://www.idot.illinois.gov IDOT: Resources/Manuals and Guides/Manual for the Fabrication of Precast Prestressed Concrete Products
IDOT Manual of Test Procedures for Materials	https://www.idot.illinois.gov IDOT: Resources/Manuals and Guides/Manual of Test Procedures for Materials
IDOT Prequalified Consultant List	https://www.idot.illinois.gov IDOT: Doing Business/Procurements/Engineering, Architectural, and Professional Services

IDOT Project Procedure Guide	https://www.idot.illinois.gov IDOT: Resources/Manuals and Guides/Project Procedures Guide
IDOT Railroad Safety Training	https://www.idot.illinois.gov IDOT: Transportation System/Transportation Safety/Rail Safety
IDOT Specific Task Training (STTP)	https://www.idot.illinois.gov IDOT: Resources/Manuals and Guides
IDOT Standard Drawings	https://www.idot.illinois.gov IDOT: Resources/Standards
IDOT Standard Specifications, latest edition per Contract requirements	https://www.idot.illinois.gov IDOT: Resources/Manuals and Guides
IDOT Subgrade Stability Manual	https://www.idot.illinois.gov IDOT: Resources/Manuals and Guides/Subgrade Stability Manual
IDOT Supplemental Specifications & Recurring Special Provisions, latest edition per Contract requirements	https://www.idot.illinois.gov IDOT: Resources/Manuals and Guides/Supplemental Specifications & Recurring Special Provisions

Table 6.3.3 Other Websites & Software Applications

Reference Documentation Name	***Website/ Path***
Equipment Watch Rental Rate Blue Book (Documentation)	Equipment Watch https://www.equipmentwatch.com/
IDOT Erosion & Sediment Control Workshop	ICT: Outreach: Erosion Control Workshop https://ict.illinois.edu/outreach/erosion-control-workshop/
CEPS (Payment Software)	Received from the Illinois Tollway Document Control department
IDOT QC/QA Training Program	Lakeland College, Mattoon, IL, IDOT QCQA https://learn.lakelandcollege.edu/IDOT/index.jsp
I-MIRS (Materials Software)	Access received from the Illinois Tollway Materials department
Precast/ Prestressed Concrete Institute (PPCI)	https://www.pci.org/
Web-based Project Management (WBPM)	Trimble Unity Construct https://app.e-builder.net

Table 6.3.4 Contract Documents

Reference Documentation Name	***Website/ Path***
Agency Agreement applicable to the Construction Section	https://app.e-builder.net WBPM system: Proteotoxic/Documents/03 Construction
Program Procedures	Received from the Illinois Tollway PM
CM Agreement	Received from the Illinois Tollway https://app.e-builder.net WBPM system: ProjectXXXXCM /Documents/04 Construction Management/01 CM Contract
Contract Documents for specified project	https://app.e-builder.net WBPM system: Project XXXXC/Documents/03 Construction Contract
Guidelines & Checklists for CM's or DSE's Quality Program (ref. Capital Program Procedure P6000 5.2.2.2)	https://app.e-builder.net Guidelines & Checklists-Contract Documents; WBPM system: Project 0016/Documents/Templates and Forms/ISO Forms for Capital Program Procedures
Guidelines & Checklists for Contractor's Quality Program (ref. Capital Program Procedure P6000 5.2.2.1)	https://app.e-builder.net Guidelines & Checklists-Contract Documents; WBPM system: Project 0016/Documents /Templates and Forms/ISO Forms for Capital Program Procedures Procedures shall be obtained from the Illinois Tollway PM
Partnering Agreement	https://app.e-builder.net Contract Documents ; WBPM system: Project XXXXCM/ Documents/04 Construction Management/01 CM Contract/01 Agreements WBPM: Project XXXXD/Documents/02 Design/01 Contract Documents/01 Agreements
Railroad Agreement applicable to the Construction Section	https://app.e-builder.net Contract Documents ; WBPM system: Project XXXXCM/Documents/04 Construction Management/01 CM Contract/01 Agreements
Time Extension Requests	https://app.e-builder.net WBPM system Time Extension Process Project 16/User Manual/Time Extension Requests
Illinois Tollway CM Construction Administration Checklists, Program Procedures	Received from the Illinois Tollway PM

Table 6.3.5 Other Documents

Reference Documentation Name	***Website/ Path***
QA Qualified Laboratories list	AASHTO resource Website https://aashtoresource.org
List of Prequalified Engineering Consultant Firms	https://www.idot.illinois.gov IDOT: Doing Business/Procurements/Engineering, Architectural & Professional Services
Illinois Tollway Air Quality & Dust Control Specifications	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Joint Resources/Standard Specifications & Special Provisions: 107.36 Construction Air Quality - Dust Control
Illinois Tollway Right-of-way plats &/or strip maps-Construction Section	Received from the Illinois Tollway https://app.e-builder.net WBPM system: Project XXXXC/03 Construction/05 Coordination/02 Right-Of-Way
Illinois Tollway Roadway Soils Report by the Geotechnical Engineer	Received from the Illinois Tollway https://app.e-builder.net WBPM system: Project XXXXC/03 Construction/12 Earthwork Aggregates Steel Misc Material Control
Illinois Tollway Utility Work Order applicable to the Construction Section	https://app.e-builder.net WBPM system: Project 16/Documents/Templates and Forms/Utilities Agencies
Pay Estimate Checklist	https://www.illinoistollway.com Illinois Tollway: Doing Business/Construction & Engineering/Forms/Contractor Forms/CM Pay Estimate Checklist
WBPM system Manual	https://app.e-builder.net WBPM system: Project 0016/Documents/User Manuals
Illinois Tollway Diversity Program: DBE/EEO forms & instructions	https://app.e-builder.net WBPM system: Project 16/Documents/Templates and Forms/DDB-EEO Reports
Illinois Tollway Diversity Program: Training for Construction Managers	https://app.e-builder.net WBPM system: Project 16/Documents/Consultant Information/Videos/Diversity (Current year)
Illinois Tollway: Intelligent Transportation System (ITS), ITS-01 and ITS-02 forms	https://app.e-builder.net WBPM system: Project 16/Templates and Forms/ITS Reference Documents
ATP Form	https://app.e-builder.net WBPM system: Project 0016/Documents/Templates and Forms/ ISO Forms for Capital Program Procedures

Change Order Form	https://app.e-builder.net WBPM system: Project 0016/Documents/Templates and Forms/ISO Forms for Capital Program Procedures
Change Order Review Checklist	https://app.e-builder.net WBPM system: Project 0016/Documents/Templates and Forms/ISO Forms for Capital Program Procedures
Extra Work Order Form	https://app.e-builder.net WBPM system: Project 0016/Documents/Templates and Forms/ISO Forms for Capital Program Procedures
Extra Work Order Review Checklist	https://app.e-builder.net WBPM system: Project 0016/Documents/Templates and Forms/ISO Forms for Capital Program Procedures
IDOT Mistic Conversion	https://www.idot.illinois.gov PDF ONLY: https://idot.illinois.gov/content/dam/soi/en/web/idot/documents/doing-business/reports/highways/materials/mistic-pay-item-material.pdf
Illinois Department of Agriculture Scale Information	https://www.agr.state.il.us/weights-measures/

6.4 Capital Program Procedures ISO Forms List

ISO Forms are available in the WBPM System, Project 16

Hyperlink to Index: 0016 WBPM e-Builder Program Wide\Documents \ Templates and Forms \ ISO Forms for Capital Program Procedures

APPENDIX A Construction Manager's ITS Checklist

Preconstruction Phase

- Conduct an ITS Preconstruction meeting with the CM's ITS Inspector, Illinois Tollway Operations Manager, and ITS GEC. Provide and discuss the following topics:
    - Discuss schedule and critical path elements (submittals, approvals, fabrication, installation, commissioning, testing and walk throughs)
    - Provide testing requirement documentation and data validation requirements to Contractor
    - Provide "ITS Labeling Guide" to Contractor
    - Provide inspection criteria to Contractor
    - Review ITS Pre-Final Walk-through requirements
    - Review maintenance of ITS during construction requirements
    - Review ITS site grounding testing requirements
- Review ITS submittals and shop drawings for conformance (approve/reject)
    - Review ITS submittal utilizing the submittal checklist found in special provision
    - Request DSE support for approval of nonstandard ITS submittals
    - Request GEC support for additional clarification of nonstandard ITS submittals
- Review ITS shop drawings for compliance and approve

Construction Phase

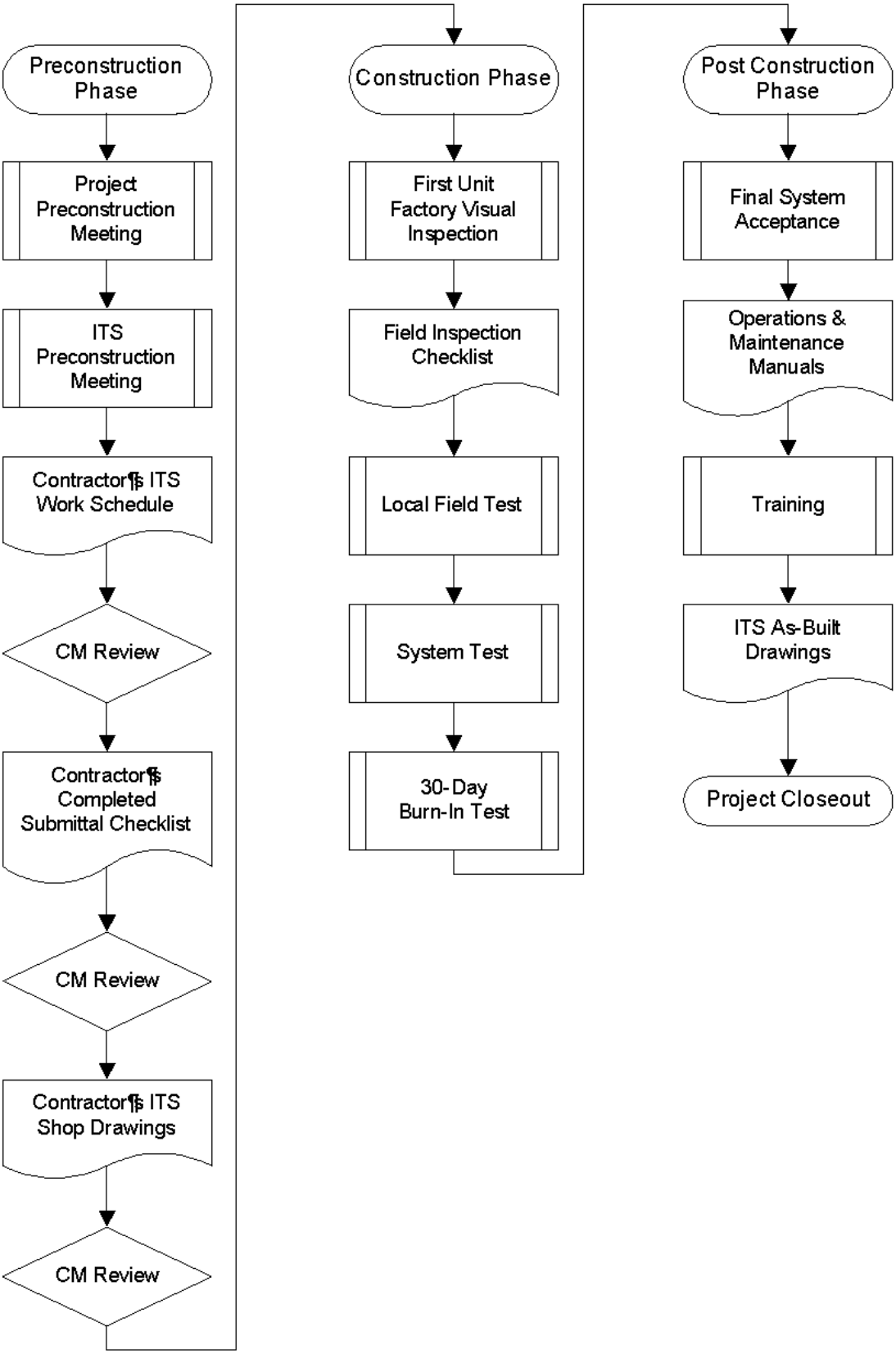
- Coordinating device configuration between the Contractor and the Illinois Tollway's communications and Traffic Operations Center (TOC) leads.
- Verify receipt of Asset Management documentation from Contractor to include:
    - ITS Device identification model and serial number of ITS devices
    - Latitude/Longitude of final installation of devices
    - IP addresses
    - Serial and Firmware version installed
    - Warranty Information
    - Site photographs including general site photo and equipment cabinet photos
- Electronic and PDF manuals delivered
- Verify that construction meets the intent of the project plans, specifications utilizing best practices and national, regional and local standards.
- Witness and verify device configuration and testing data
- Witness Contractor site and system testing

- Coordinating with the TOC supervisor on system and burning-In testing
- Conduct Pre-Final Walk through with GEC ITS and Illinois Tollway personnel
- Submit list of ITS devices that have successfully completed Contractor Local field test to TOC Manager for integration
- Notify Contractor when Burn-In test period begins
- Conduct Final Walk through with GEC ITS and Illinois Tollway

Post Construction Phase

- Include all as-built drawings, manuals and certificates, as per the special provisions, from the contractor in the WBPM system.
- Verify that training, if required, has been provided to the Illinois Tollway staff.

APPENDIX B ITS Workflow


Preconstruction Phase
Project Preconstruction Meeting
ITS Preconstruction Meeting
Contractor¶s ITS Work Schedule
CM Review
Contractor¶s Completed Submittal Checklist
CM Review
Contractor¶s ITS Shop Drawings
CM Review
Construction Phase
First Unit Factory Visual Inspection
Field Inspection Checklist
Local Field Test
System Test
30-Day Burn-In Test
Post Construction Phase
Final System Acceptance
Operations & Maintenance Manuals
Training
ITS As-Built Drawings
Project Closeout

APPENDIX C Material Acceptance List and Definitions

Evidence Of Material	Definition
Bill Of Lading	A shipping ticket that accompanies a product to the job site and which identifies the product, source, and lot.
CERT	Manufacturer's written certification that indicates material complies with the specifications or contract.
Daily Plant Reports	For PCC and HMA/WMA, reports generated that provide mixture test results and other production data. For QC/QA projects, refer to the appropriate special provisions to determine responsibility for Daily Plant Reports.
LIST	The material appears on a current list of IDOT-approved products or approved sources found at the IDOT's web site, http://www.idot.illinois.gov/ Contact the local district's Materials Office for information on aggregates.
Illinois Tollway LIST	The material appears on a current list of the Illinois Tollway-approved products or approved sources found at the Illinois Tollway's web site, http://www.illinoistollway.com.
MARK	A commercial label, tag, or other marking which indicates product specification compliance and/or an approved source/manufacturer.
Test	Approved test results available from locally performed lab or field tests (e.g., soil density).
TICK	A ticket from an approved source indicating IDOT material or aggregate gradation, job destination, purchaser, and weight (if applicable).E-tickets are acceptable when provided through Illinois Tollway software.
VIS	Engineer or Inspector's visual examination indicating that the material is found to be acceptable based on similar approved source or manufacture, certification of conformance and or previous test.

Note: See the Contractor's Quality Program Manual, Article 5.3.1, for the Evidence of Material Inspection Table.

APPENDIX D Illinois Tollway "A" Form and Project Documentation Examples

1. A-1 form (Daily Report)
2. A-1C form (Traffic Control Inspection Report)
3. A-3 form (Quantity Book Cover Page)
4. A-3A form (Signature and Initials Log)
5. A-3B form (Approved Concrete and Mix Design Log)
6. A-3C form (Approved Asphalt and Mix Design Log)
7. A-4 form (Quantity Book Table of Contents)
8. A-5 form (Material Acceptance Log) **Example 1: CONCRETE**
9. A-5 form (Material Acceptance Log) **Example 2: REINFORCED CONCRETE PIPE**
10. A-5 form (Material Acceptance Log) **Example 3: ASPHALT**
11. A-5A form (Material Inspection Report)
12. A-5 form showing how to document the A-5A information
13. A-6 form (Quantity Record) **Example 1: CONTRACT LINE ITEM**
14. A-6 form (Quantity Record) **Example 2: EXTRA WORK ORDER PAY ITEM**
15. A-8 form (Field Book Log)
16. A-13A form (Production Pile Driving Record)
17. Field Book contract information and Table of Contents example
18. Material ticket tape example and E-ticket summary example
19. Project Archive Box closeout label example
20. Project Archive Box index example
21. Project Archive Box Checklist for Construction Managers

ILLINOIS TOLLWAY

Daily Report

A-1

Contract No. I-24-0000 Daily Report Date 10/07/2025 Number 10

Contractor (Sub) Lukin Landscape CEPS Entry Date 10/08/2025 Page 1 of 4

Item No.	Item Description	Location	Quantity	Unit of Measure	Required Material	(√) A5	(√) A6
JS280050	SILT FENCE	Sta. 10+00, RT to	200.0	FOOT	CERT or LA-15	√	√
		Sta. 12+00, RT					

☐ Estimated Progress Item # _____

☐ Corrected Item # _____

☐ Holdback Item # _____

☒ Final Measurement # JS280050

☐ Depth Checks Required and Documented

☐ Yield Checks Required and Documented

☒ Field Book # 10 : Page 19 to Page 19

Attachments: Plan Sheet and copy of field book page

☒ Measured by DAB Date 10/07/2025

☒ Calculated by DAB Date 10/07/2025

☒ Checked by EJ Date 10/08/2025

Edward Jones
Resident Engineer Signature

October 2013
Revised October 2025

ILLINOIS TOLLWAY

A-1C

Traffic Control Inspection Report

Date 03/07/2025 Time 7:00 AM Weather Clear, 50's Contract I-25-0000 Report No. 110

Day Report ☒ Night Report ☐ Type of Work: Boring 6" Conduits Location: NB 294 Sta. 36.3 – 40.0

Type of Closure: Temporary ☒ Permanent ☐ If permanent, current MOT stage _____ N/A ☐ (Temp Signage Only)

CM/Resident Engineer: Carlisle Engineers Contractor: Energizer Electric

Traffic Control	*Evaluate: (A) Acceptable, (M) Marginal, (U) Unacceptable, (X) N/A*				Observation Comments
	Condition	Location / Placement	Night Visibility*	Overall Effectiveness	
Signs	A	A	X	A	
Sign Flashers	X	X	X	X	
Drums or Barricade Lights	A	A	X	A	
Drums, Barricades or Cones	M	A	A	M	(5) Cones down at Sta. 36.8
Pavement Markings	X	X	X	X	
Changeable Message signs	X	X	X	X	
Vertical Panels	X	X	X	X	
Arrow Board(s)	X	X	X	X	
Temporary Concrete Barrier Wall	X	X	X	X	
Attenuator(s)	X	X	X	X	

Do any discrepancies from the ***previous*** report still exist?

☐ Yes, List the discrepancies that still exist:

☐ No, When were the discrepancies noted resolved?

☒ N/A, No discrepancies observed **(From Report 109)*

Submitted By Signature: Ruby Sand **Reviewed By Signature:** Edward Jones

October 2013

Revised March 2017

ILLINOIS TOLLWAY

A-3

Quantity Book Cover Sheet

Contract No. I-25-0010

Description Roadway Reconstruction: Cicero Ave. to 95th Street

Route I-294 Tri-State Tollway

Mile Post 12.0 to 17.0

Construction Manager Information	
Company Name	Pj Engineering, Inc.
Address	10 S. Construction Drive, Chicago, IL 60608
Telephone No.	555-867-5309

Contractor Information	
Company Name	Lukin Landscape
Address	10 Baylock Road, Lockport, IL 60441
Telephone No.	815-555-1234

Resident Engineer Name and Signature Edward Jones

If found, please return to:
Illinois Tollway, Engineering Department
2700 Ogden Avenue
Downers Grove, Illinois, 60515-1703
(630) 241-6800

October 2013
Revised October 2025

ILLINOIS TOLLWAY A-3A

Signature and Initials Logs

Contract No. I-15-0001

Description Roadway Reconstruction: Cicero Ave. to 95th Street

Route I-294 Tri-State Tollway

Mile Post 12.0 to 17.0

Printed Name	Company/Title	Signature	Initials
Joe Eagleyes	CE Inc./ RE	Joe Eagleyes	JE
Brad Dockingson	CE Inc./ Doc Eng	Brad Dockingson	BD
Amy Revere	CE Inc./ Inspector	Amy Revere	AR
Pat Jennings	123 Eng./ Inspector	Pat Jennings	PJ

March 2015
Revised November 2015

ILLINOIS TOLLWAY A-3B

Approved Concrete Mix Design Log

MIX DESIGN NO.	PRODUCER/ PLANT NO.	PLANT LOCATION	CONCRETE CLASS	APPROVED FOR ITEM NO.	APPROVED WBPM SYSTEM SUBMITTAL NO.
71PCC339M	Prairie/ 14	Addison	SI, PV	JT637027	74-0
"	"	"	"	JS836001	"
"	"	"	"	73400100	"
"	"	"	"	JT601900	"
"	"	"	"	FRC00100	"
71PCC389P	Prairie/ 6	Romeoville	SI, PV	JI606000	87-0

November 2015
Revised October 2025

ILLINOIS TOLLWAY

A-3C

Approved Asphalt Mix Design Log

MIX DESIGN NO.	PRODUCER/ SOURCE NO.	PLANT LOCATION	MIX TYPE	APPROVED FOR ITEM NO.	APPROVED WBPM SYSTEM SUBMITTAL NO.
90BIT1226	Plote/54-12	West Chicago	HMA Surface N70 D	JI406405	56-0
90BIT1312	Plote/ 54-11	Franklin Park	HMA Surface N105D, 9.5 mm Rec	JI406406	56-0
90WMA2306	K-Five/4-03	Elmhurst	WMA Binder Course, IL-19.0 N50	JI482104, JI482128, JI485020, JI485030	115-0
90WMA2307	K-Five/4-03	Elmhurst	WMA Binder Course, IL-19.0 N70	JI482128, JI485030	115-0
90WMA2401	K-Five/4-24	Hodgkins	WMA Stabilized Subbase Binder Course, IL-19.0 N50	FRC00600	282-0

November 2015
Revised October 2025

ILLINOIS TOLLWAY

A-4

Quantity Book - Table of Contents

Contract No. I-25-0000 **Page** 1 of 1

Item	Description	Page Number	Final Quantity	CM initials	Contractor initials
21400100	GRADING & SHAP DITCH	1	170.00	BC	EV
30201500	LIME	2	2,188.00	BC	EV
31101200	SUB GRAN MAT B 4	3	256.00	BC	EV
35800100	PREPARATION OF BASE	4	5,683.00	BC	EV
35800200	AGG BASE REPAIR	5	1,202.00	BC	EV
40600275	BIT MATLS PR CT	6	2,905.00	BC	EV
42001300	PROTECTIVE COAT	7	50,841.00	BC	EV
66900400	SPL WAST GRD WAT DISP	8	10,000.00	BC	EV
66900530	SOIL DISPOSAL ANALY	9	2.00	BC	EV
70102630	TR CONT & PROT 701601	10	1.00	BC	EV
72000100	SIGN PANEL T1	11	15.00	BC	EV
72000200	SIGN PANEL T2	12	48.00	BC	EV
72500300	OBJECT MARKER T3	13	3.00	BC	EV
72700100	STR STL SIN SUP BA	14	1,151.00	BC	EV
72800100	TELES STL SIN SUPPORT	15	61.00	BC	EV
73000100	WOOD SIN SUPPORT	16	275.00	BC	EV
73400100	CONC FOUNDATION	17	3.40	BC	EV
81028200	UNDRGRD C GALVS 2	18	7,307.00	BC	EV
81028220	UNDRGRD C GALVS 3	19	130.00	BC	EV
81028240	UNDRGRD C GALVS 4	20	435.00	BC	EV
JT131526	PLAZA ELECTRICAL WORK	21	1.00	BC	EV
JT131641	PREFABRICATED CONTROL BUILDING, LOCATION 1	22	1.00	BC	EV
JT131651	CONTROL BUILDING FOUNDATION, LOCATION 1	23	1.00	BC	EV

October 2013
Revised November 2015

ILLINOIS TOLLWAY

A-5

Material Acceptance Log

ITEM NUMBER: 550A0050- Storm Sewer, CL A, TY 1, 12

Contract No.: I-15-0001

MATERIAL TYPE : Reinforced Concrete Pipe

Location of Material Approval Information: WBPM Submittal No 12 and IDOT Certified Precast Concrete List

Name of Approved Source/Manufacturer: ABC Precast

IDOT Source No(s): 9998-01, 9998-12

For Weighted (Tonnage) Items:
IL Department of Agriculture ID No.: N/A **Location of Scale** N/A

MATERIAL CONVERSION FACTOR =
(Unit Delivered/ Unit Paid) N/A **FINAL CONVERSION or OVERALL YIELD=** N/A

Date	Source or Manufacturer and Mix No. (if applicable)	Amount Unit (FT)	Total to Date Unit (FT)	WBPM File Folder Number	Date uploaded in WBPM	Transferred to Other Item or Remarks
1/13/2017	ABC Precast (9998-12)	196	196	03.16.01.02	1/15/2017	BOL
1/13/2017	ABC Precast (9998-01)	24	220	03.16.01.02	1/15/2017	BOL

ILLINOIS TOLLWAY

Material Acceptance Log

A-5

ITEM NUMBER: 40603340- HMA SC "D" N70

Contract No.: I-15-0001

MATERIAL TYPE : Asphalt

Location of Material Approval Information: See A-3C form for approved mix designs

Name of Approved Source/Manufacturer: XYZ Paving

IDOT Source No(s): 9999-07

For Weighted (Tonnage) Items:
IL Department of Agriculture ID No.: 6012 **Location of Scale:** XYZ Paving- West Chicago, IL

MATERIAL CONVERSION FACTOR =
(Unit Delivered/ Unit Paid) N/A **FINAL CONVERSION or OVERALL YIELD=** N/A

Date	Source or Manufacturer and Mix No. (if applicable)	Amount Unit (Tons)	Total to Date Unit (Tons)	WBPM File Folder Number	Date uploaded in WBPM	Transferred to Other Item or Remarks
1/13/2017	XYZ Paving 9999-45 (81BIT987A)	2045.01	2045.01	N/A	N/A	Tickets
1/14/2017	XYZ Paving 9999-45 (81BIT987A)	502.6	2546.61	N/A	N/A	Tickets
1/15/2017	BC 2529	N/A	N/A	03.10.10	1/17/2017	Paving Daily Report

ILLINOIS TOLLWAY

Material Inspection Report

A-5A

CONTRACT NO.	I-17-0003	CM FIRM	CE Inc.
PROJECT DESCRIPTION	HVAC Improvements	CM RE	Joe Eagleyes
LOCATION	Systemwide	MILEPOSTS	Systemwide

MATERIAL DESCRIPTION		REQUIRED QUANTITY	UNIT
Air Handling Units		2	Each
PAY ITEM NUMBER	PAY ITEM DESCRIPTION	INSPECTED QUANTITY	UNIT
JT131442	HVAC Removal and Replacement, Loc. 2	1	Each

WBPM APPROVED SUBMITTAL SUMMARY		
SUBMITTAL NO.	SUBMITTAL PACKAGE NO.	APPROVED SUBMITTAL DATE
22	20-0	11/18/16
MANUFACTURER	LOCATION	IDOT PRODUCER CODE (if applicable)
Continental Cooling	Chicago, IL	N/A
SUPPLIER	LOCATION	IDOT SUPPLIER CODE (if applicable)
N/A	N/A	N/A
SIGNIFICANT NOTATIONS (if applicable)		
None		

CM INSPECTION		
DATE OF INSPECTION	INSPECTED BY	SPECIFICATION & SECTION or PAGE NOS.
1/26/17	AR	Contract Requirements Book p. J-130-137
☒ MATERIAL MEETS SPECIFICATION AND IS ACCEPTED		☐ MATERIAL DOES **NOT** MEET SPECIFICATION
EVIDENCE OF INSPECTION: ☒ VISUAL INSPECTION ☐ PRODUCER CERTIFICATION ☐ ISTHA/IDOT INSPECTION ☒ MARK CC AHU-1 (With photographs) ☒ TICKETS or BILL OF LADING ☐ LA-15 ☐ IL-OK STAMP ☐ OTHER_____		COMMENTS:
DOCUMENTATION IN WBPM FOLDER	Photos uploaded in 03.12.05 & BOLs in 03.16.01.02	
ATTACHMENTS	☐ NONE ☐ TAG/LABEL ☒ PHOTO(s) ☐ SHOP DRAWING ☐ OTHER _____	

MIR APPROVAL (RE Signature): Joe Eagleyes DATE 2/1/17

March 2017

A-5A NO. 1 IDR NO. 3

ILLINOIS TOLLWAY **A-5**

Material Acceptance Log

ITEM NUMBER: JT131442

Contract No.: I-17-1321C

MATERIAL TYPE : HVAC Replacement

Location of Material Approval Information: Lump Sum pay item- See A-5A info listed below

Name of Approved Source/Manufacturer: N/A

IDOT Source No(s): N/A

For Weighted (Tonnage) Items:
IL Department of Agriculture ID No.: N/A Location of Scale: N/A

MATERIAL CONVERSION FACTOR =
(Unit Delivered/ Unit Paid) N/A FINAL CONVERSION or OVERALL YIELD= N/A

EXAMPLE: How to reference A-5A information on the A-5 form

Date	Source or Manufacturer and Mix No. (if applicable)	Amount Unit ( )	Total to Date Unit ( )	WBPM File Folder Number	Date uploaded in WBPM	Transferred to Other Item or Remarks
	Air Handling Units					
1/26/2016	Continental Cooling Inc.	2	1	03.12.05	1/28/2016	A-5A # 1
1/27/2016	"	3	4	03.12.05	1/28/2016	A-5A #5
	Refrigerant Piping & Fittings					
1/11/2016	Continental Cooling Inc.	200 feet	200 feet	03.12.05	1/12/2016	A-5A # 2
	Condensing Units					
1/18/2016	Clean Air Co.	2 each	2 each	03.12.05	1/20/2016	A-5A #3
	Cable					
1/15/2016	StraightWire Cable Co.	500 feet	500 feet	03.12.05	1/20/2016	A-5A #4
	Conduit					
1/20/2016	Metal Bros.	400 feet	400 feet	03.12.04	1/20/2016	A-5A #6
	Reports					
4/12/2016	Test and Balance Reports	N/A	N/A	03.12.01	4/12/2016	
	Salvage Items					
11/12/2016	A-14S- Cooling Units	4	4	03.12.04	11/12/2016	

Note: This page is provided for reference only and does not include all applicable materials. The material documentation for all major components of lump sum pay items are to be listed on the A-5 form.

ILLINOIS TOLLWAY

Quantity Record

A-6

Contract No. I-25-2415

Item No. 20100210

Item Name TREE REMOV OVER 15

Plan Quantity & Units 428.00 UNIT

Contract Unit Price $ $13.00

Authorization					
EWO No.	CO No.	Approval Date	Add	Deduct	Approved Adjusted Quantity
	3	4/25/2025	264.5		692.5
	7	7/12/2025		31.5	661.0

Date	Station to Station Location or Description	Quantities Complete		Pay Est. No.	CM Observation Notes	Daily Report Number
		This Date	To Date			
3/8/2025	WB Sta. 1015+00, Zone B	496.0	496.0	3	Lukin Landscape	DR # 78
3/9/2025	WB Sta. 1025+00, Zone C	165.0	661.0	4	Lukin Landscape	DR # 99
			Final			

October 2013
Revised November 2015

Illinois State Toll Highway Authority

Quantity Record

Contract No. I- 25 - CEPS

Item No. 20100110

Item Desc. TREE REMOV 6-15

Plan Quantity & Units 132.00 UNIT

Price $15.00

AUTHORIZATION					
EWO No.	CO No.	Date	Add	Deduct	Approved Adjusted Quantity
	11	8/18/2021	420.5		552.5
	145	10/23/2025	126.8		679.3

20100110 Usage

DATE	Station to Station Location or Description	Qty This Date	Qty To Date	Pay Est No.	CES Observation Notes	Source of Documentation
5/21/2021	WB I-294	353	353	5		DR# 103
5/22/2025	NB 294 Stage 3/4	219.3	572.3	103		DR# 3448
5/29/2025	NB 294 Stage 3/4	107	679.3	103		DR# 3464

Final

Example of A-6 Form generated from CEPS

11/10/2025 5:57:30 AM

ILLINOIS TOLLWAY A-8
Field Book Log

Contract No. I-15-0001

Contract Description I-294 Roadway Reconstruction: Cicero to 95th Street (MP 12.0 to 17.0)

Field Book #	Description/ Issued To	Date Issued
	For Field Books assigned by Activity type:	
1	Removals	12/15/15
2	Earth Excavation	12/15/15
3	PCC Paving	1/16/15
	For Field Books assigned to inspectors:	
1	Amy Revere	12/15/15
2	Brad Dockingson	12/15/15
3	Pat Jennings	1/16/15

ILLINOIS TOLLWAY

A-13A

Production Pile Driving Record

Structure Number (Enter #)
Date 7/1/2016 Sheet 1 of 1
Abutment/Pier No. East Abutment (Stage 1)
Contract I-15-0001
Pile Type & Size HP 14 x 73
Location I-294: Cicero to 95th
Nominal Required Bearing 434.5 Estimated Plan Length 50 ft
Milepost 12.0 to 17.0
Pile Cutoff Elevation 646 Authorized Furnished Length 36 ft
Driven Bearing Verification WSDOT
Ground Surface Elev. at Pile While Driving 647.89 Closest Boring(s) E-1 & E-2
Hammer Make & Model D30-32
Hammer Cushion Material & Thickness Plastic MC 904 & 2.0 inches
Max. Operating Energy 55138 Min. Operating Energy 23427
Pile Hammer Weight 6610

Pile No. 1

Tip Elevation (Feet)	Distance Below Cut Off	Blows Per (Foot)	Hammer Energy Developed	Nominal Driven Bearing
647.89	-1.89			
646.89	-.89			
645.89	.11			
644.89	1.11			
643.89	2.11			
642.89	3.11			
641.89	4.11			
640.89	5.11			
639.89	6.11			
638.89	7.11			
637.89	8.11			
636.89	9.11			
635.89	10.11			
634.89	11.11			
633.89	12.11	3	37772	107
632.89	13.11	3	37772	107
631.89	14.11	3	43130	123
630.89	15.11	3	43130	123
629.89	16.11	4	43130	161
628.89	17.11	5	43130	191
627.89	18.11	5	43130	191
626.89	19.11	5	45180	200
625.89	20.11	7	45180	247
624.89	21.11	9	45180	282
623.89	22.11	9	45180	282
622.89	23.11	9	45180	282
621.89	24.11	9	54838	343
620.89	25.11	9	54838	343
619.89	26.11	9	52126	326
618.89	27.11	9	52126	326
617.89	28.11	10	52126	343

Pile No. 1

Tip Elevation (Feet)	Distance Below Cut Off	Blows Per (Foot)	Hammer Energy Developed	Nominal Driven Bearing
616.89	29.11	16	47363	381
615.89	30.11	18	49679	417
614.89	31.11	18	52126	438
613.89	32.11	20	52126	455

Driving Observations and Comments: 395 Kips used for production
Furnished Length was: 60.3 feet
Cutoff Length was: 27.89 feet

Measured By PJ Calculated By PJ Checked By JE

FIELD BOOK 1: REMOVALS

IF FOUND PLEASE RETURN TO:

Name ILLINOIS STATE TOLL HIGHWAY
DEPARTMENT OF ENGINEERING
Address 2700 OGDEN AVENUE
DOWNERS GROVE, IL 60515-1703
Phone (630) 241-6800

CONTRACT# I-15-0001

I-294 TRI-STATE TOLLWAY ROADWAY RECONSTRUCTION:

CICERO TO 95th STREET (MP 12.0 to 17.0)

CM INFORMATION:
CE, Inc.
100 S. Construction Drive
Chicago, IL 60608
(312) 630-7089

This book is published on a fine 50% cotton-content ledger paper, specially treated for maximum archival service, and protected by a water resistant surface sizing.

Projects

INDEX

DELIVERY REPORT

I-21-9999

I-294 Roadway &
Bridge Reconstruction

June 27, 2025 00:01 AM CDT to
June 27, 2025 23:59 PM CDT

Agency Summary

Product Description	Delivered	Pending	Rejected	Waste
71PCC1P09 DS HWR RET SLAG | 6194162	6 | 53.5	0 | 0.0	0 | 0.0	0 | 0.0
71PCC855P PV SI 4.6 SLAG | 6177154	5 | 45.0	0 | 0.0	0 | 0.0	0 | 0.0

Sum of Quantities by Pay Code

Line #	Pay Code	Pay Description	Quantity	UOM
	52200900	CONCRETE STRUCTURES (RETAINING WALL)	34.0	
	X0327133	SOIL NAIL WALL	53.5	
	DNP	Do Not Pay	9.0	

06/27/2025
Contract No. I-21-9999
Pay Item No. X0327133 – Soil Nail Wall
Location: I-294 SB 31st St Bridge - Wall Pour #2

Delivered Quantity = 53.5 CY

CALC BY: BC 6/27/2025
CHECK BY: EV 6/30/2025

Example of eTicket Summary Report to be included with eTicket Tape

Delivery Report

I-21-9999 I-294 Roadway & Bridge Reconstruction

June 27, 2025 00:01 AM CDT to June 27, 2025 23:59 PM CDT

71PCC1P09 DS HWR RET SLAG | 6194162

Summary by Material **(Agency)**

Delivered 6 | 53.5 ✓	Pending 0 | 0.0	Rejected 0 | 0.0	Waste 0 | 0.0

Supplier	Ticket #	Plant	Location Of Activity	Ticketed Time	Truck #	Product Description	UOM	Load #	Primary Pay Code	Primary Pay Code Description	Primary Pay Code Quantity	Secondary Pay Code	Secondary Pay Code Description	Secondary Pay Code Quantity	Agency	Timestamp
✓PRAIRIE MATERIALS	14385084	ADDISON-014		6/27/25 6:59 AM CDT	8444	71PCC1P09 DS HWR RET SLAG	✓Cubic yard	1	X0327133	✓SOIL NAIL WALL	9.0 ✓				9.0	6/30/25 7:21 AM CDT
PRAIRIE MATERIALS	14385188	ADDISON-014		6/27/25 7:51 AM CDT	8448	71PCC1P09 DS HWR RET SLAG	✓Cubic yard	2	X0327133	✓SOIL NAIL WALL	9.0 ✓				9.0	6/30/25 7:21 AM CDT
PRAIRIE MATERIALS	14385262	ADDISON-014		6/27/25 8:24 AM CDT	8368	71PCC1P09 DS HWR RET SLAG	✓Cubic yard	3	X0327133	✓SOIL NAIL WALL	9.0 ✓				9.0	6/30/25 7:21 AM CDT
PRAIRIE MATERIALS	14385307	ADDISON-014		6/27/25 8:42 AM CDT	8358	71PCC1P09 DS HWR RET SLAG	✓Cubic yard	4	X0327133	✓SOIL NAIL WALL	9.0 ✓				9.0	6/30/25 7:21 AM CDT
PRAIRIE MATERIALS	14385398	ADDISON-014		6/27/25 9:25 AM CDT	8407	71PCC1P09 DS HWR RET SLAG	✓Cubic yard	5	X0327133	✓SOIL NAIL WALL	9.0 ✓				9.0	6/30/25 7:21 AM CDT
PRAIRIE MATERIALS	14385483	ADDISON-014		6/27/25 10:03 AM CDT	8311	71PCC1P09 DS HWR RET SLAG	✓Cubic yard	6	X0327133	✓SOIL NAIL WALL	8.5 ✓				8.5	6/30/25 7:21 AM CDT
71PCC1P09 DS HWR RET SLAG | 6194162 Totals:														53.5 ✓✓		

Check By: EV 6/27/2025

CONTRACT I-25-0000

ROADWAY RECONSTRUCTION
TRI-STATE TOLLWAY (I-294): MP 12.0 to 19.0
CM: PJ ENGINEERING GC: HOT MIX PAVING

BOX 1 of 1

FILES C-01 to C-19

Quantity Book, A-7s, Tickets

Contract No: *I-25-0000*
Description: *I-294 Roadway Reconstruction (MP 12.0 to 19.0)*
CM Firm: *PJ Engineering, Inc.*
Contractor Firm: *Hot Mix Paving*

Archive Box Index

Box No. 1 of 2

File ID	File Name	Notes
C-01	**01. Construction Contract**	
C-01-05	05 Sub- Contractor Approvals	See WBPM System Files
C-02	**02. Correspondence**	
C-02-01	01 Tollway-CCM-CM-DCM-DSE-GC	Original Letters Only
C-02-02	02 Tollway-CCM-DCM-DSE	Original Letters Only
C-02-03	03 Tollway-CCM-CM-GC	Original Letters Only
C-02-04	04 Tollway-CCM-CM	Original Letters Only
C-02-05	05 Tollway-CCM	Original Letters Only
C-03	**03 Payment**	
C-03-01	01 Pay Estimate & Related Back-Up	See WBPM System Files
C-03-03	03 Related Correspondence	Original Letters Only
C-06	**06 Construction Progress**	
C-06-01	01 Weekly Progress Reports (A-2)	See WBPM System Files
C-08	**08 Reports and Logs**	**Job Box**
C-08-03	03 ESC Inspection Reports (A-38)	See WBPM System Files
C-08-05	05 Sewer television Reports	See WBPM System Files
C-08-06	06 Force Account or Disputed Work	*Signed A-7s and original (Audited) Force Account Bills Filed by pay item*
C-08-07	07 Inspector Daily Reports (A-1)	See WBPM System Files
C-08-08	08 Field Books	Field Book Log (A-8) included
C-09	**09 Traffic Control**	
C-09-02	02 Daily MOT Inspection Report	See WBPM System Files
C-09-05	05 Related Correspondence	Original Letters Only
C-12	**12 Earthwork Aggrgates Steel Misc. Materials Control**	
C-12-04	04 Inventory Control (A-14)	Original Letters Only
C-16	**16 Submittals**	
C-16-01-02 C-16-04-02	01-02 Materials and Sources - Certifications 04-02 Materials and Sources - Certifications	*All original Material Tickets that is not in the WBPM System Files are filed by pay item in job box*
C-19	**19 Project Close-Out**	
C-19-02	02 Record Drawings and Specifications	Record Dwgs. & Contractor As-Builts are bunded in PDF Volumes - See WBPM System Files
C-19-02-01	02-01 CAD Drawings	Record Dwgs. in Microstation format have been uploaded to WBPM System and saved to a USB Flash Drive in the job box.
C-19	**19 Project Close-Out**	
Additional Close-Out Notes:	*A completed and fully assembled Project Quantity Book is included in this job box. For any other close-out documentation that is not listed here, See WBPM System Files*	

Project Archive Box Checklist for Construction Managers

This checklist must be completed before archive boxes can be turned over. The Tollway cannot hold boxes in a temporary storage location in order to wait for missing documentation to arrive. Please email this form to Tollway Document Control (DocumentControl@getipass.com) prior to box delivery.
Archive boxes should contain only documentation required below or as noted in the Documentation Matrix for Construction. ***DO NOT*** include documents already archived in the WBPM System, i.e., Contract Books / Plans, Change Orders, Extra Work Orders, ATPs, Subcontractor Approvals (A-15), Traffic Inspection Reports (A-1C), Daily Reports (A-1), and Weekly Contractor Progress Reports (A-2), etc.

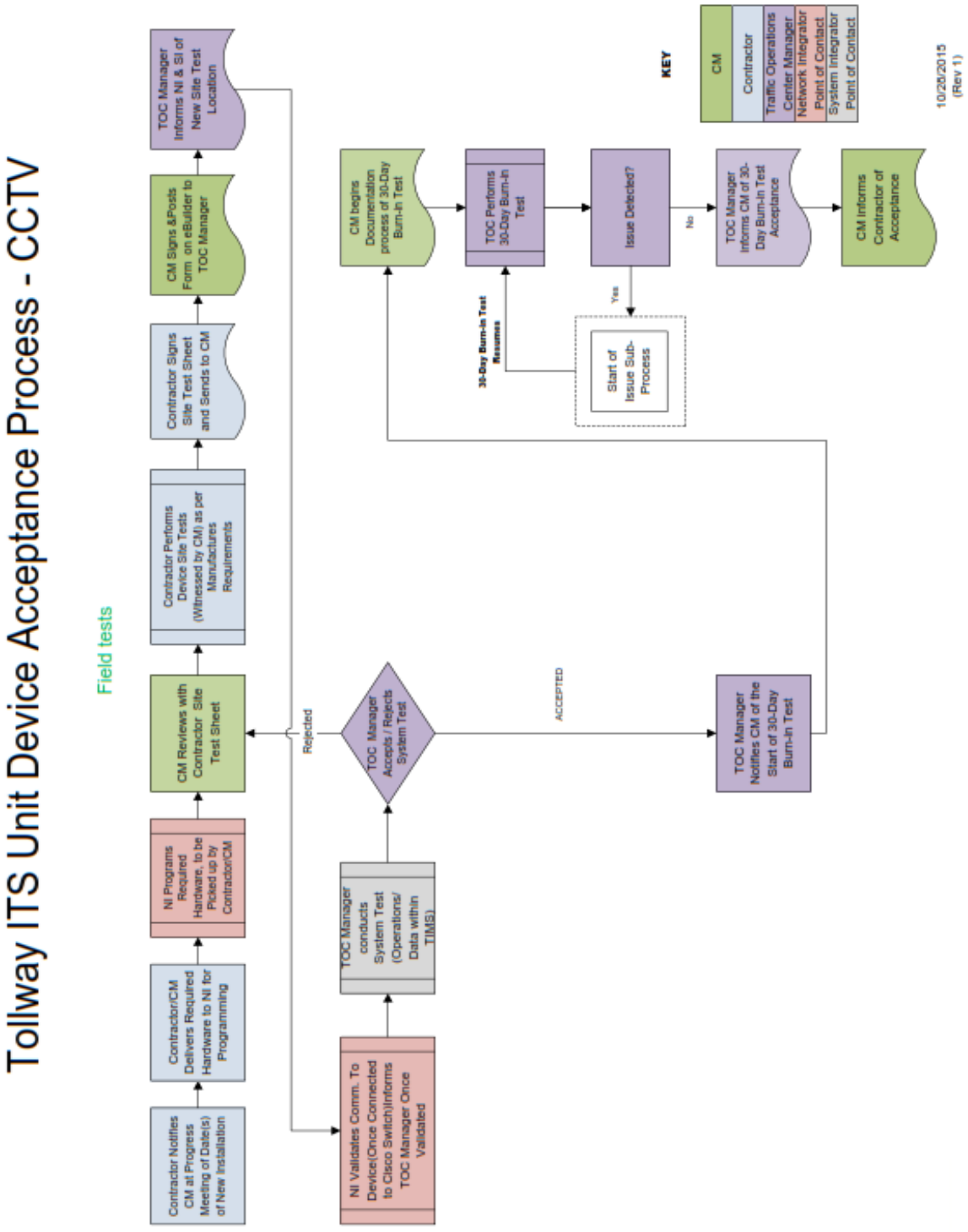
Yes	N/A	
☐		A Final Pay Estimate has been submitted in the WBPM System. Note: Approval is not required prior to box delivery.
☐	☐	Record Drawings have been uploaded to the WBPM System: [03 Construction \ 19 Project Closeout \ 02 Record Drawings and Specifications] in bundled PDF volumes.[1]
☐	☐	Record Drawings in MicroStation format have been uploaded to the WBPM System: [03 Construction \ 19 Project Closeout \ 02 Record Drawings and Specifications \ 01 CAD Drawings] AND saved to a USB Flash Drive included in the boxes. CDs/DVDs are no longer accepted.
☐	☐	O&M manuals have been submitted to final users with additional copies saved in the WBPM System.
☐		Smaller sized banker boxes have been used (approx. 10"H x 12"W x 15"D). R-Kive Box #7243 or Staples Box #33250 are appropriately sized boxes.
☐		An index has been prepared with box numbers and short descriptions of box contents.
☐		A detailed Table of Contents of each box has been taped to the underside of each box lid.
☐		Written on the outside, on both the front and back of each box is the following: Contract # Short Description of Contents Box #__of __
☐		Certified Payroll hard copies have NOT been included in the boxes if submitted via the B2GNow vendor payment management program. If payrolls were collected prior to B2GNow implementation, all payrolls should be sealed in tamper-proof envelopes (large UPS mailer bags work well), sorted by vendor, and compiled in the fewest possible number of boxes. All envelope labels should identify which company payrolls are contained in each envelope.
☐	☐	If necessary, the index identifies the box(es) that contain Certified Payroll documents, but there is no mention of 'certified payrolls' on the outside of the box.
☐		Document Control has been contacted at least 7 days prior to desired delivery date to coordinate archive box turn over.
☐		A Documentation Matrix for Construction completed and signed by the CM has been uploaded to the WBPM System: [Documents \ 03 Construction \ 19 Project Closeout \ 04 Related correspondence] (In the Comments column, note the location of any documents not archived in the folder location prescribed by the Matrix). The Matrix will be signed by the Tollway PM after Document Control review. The matrix can be found in the WBPM System: Project 16 → Documents \ Project Documentation Matrices.
☐		Boxes will be accompanied by a transmittal letter.

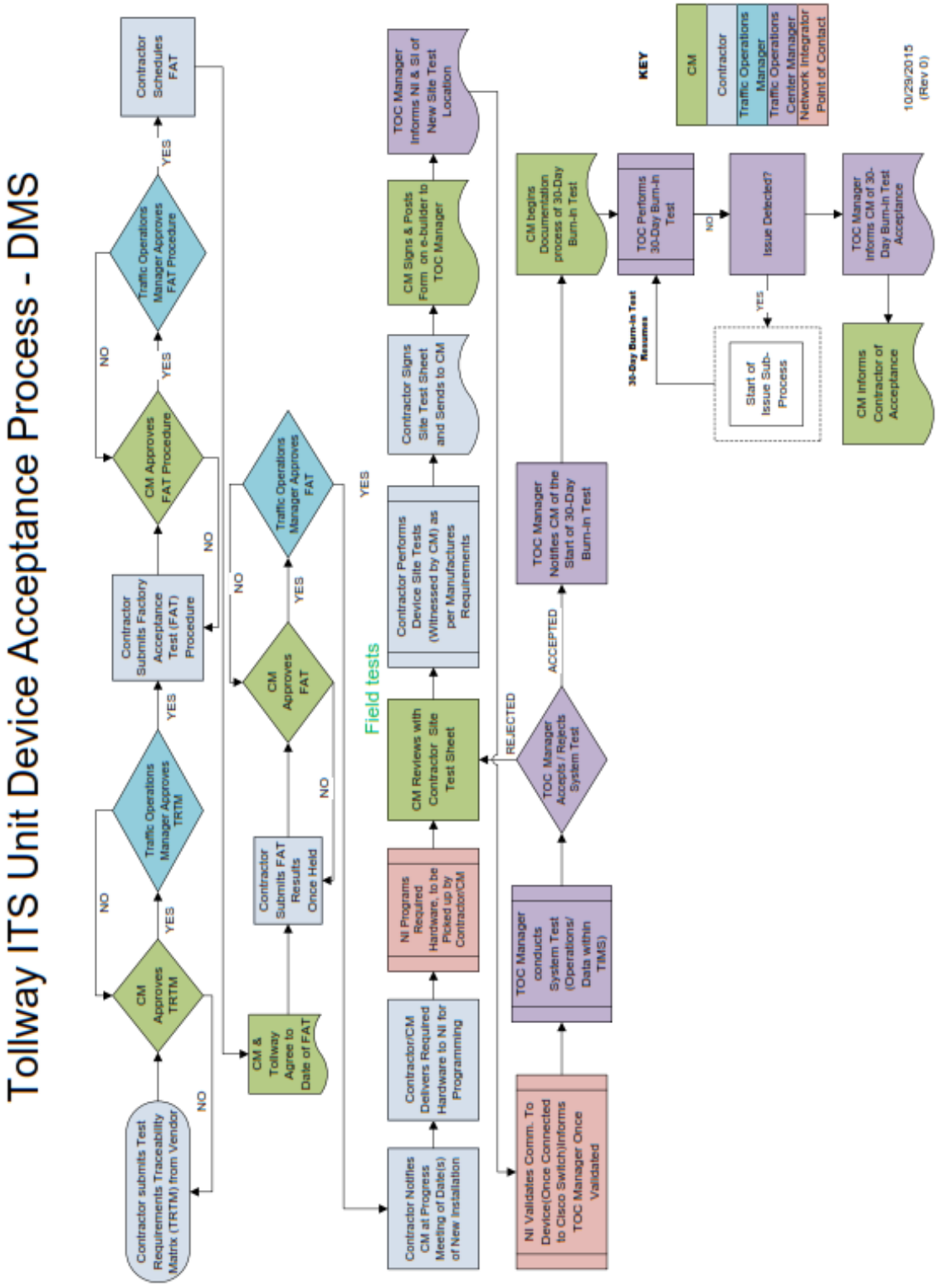
[1] For more information on Record Drawing requirements, refer to the Construction Manager's Manual on the Tollway's website: Doing Business → Construction and Engineering → Manuals, Processes and Guidelines → Manuals → Construction and Materials
Questions? Please contact Tollway Document Control at: tarawalsh@getipass.com

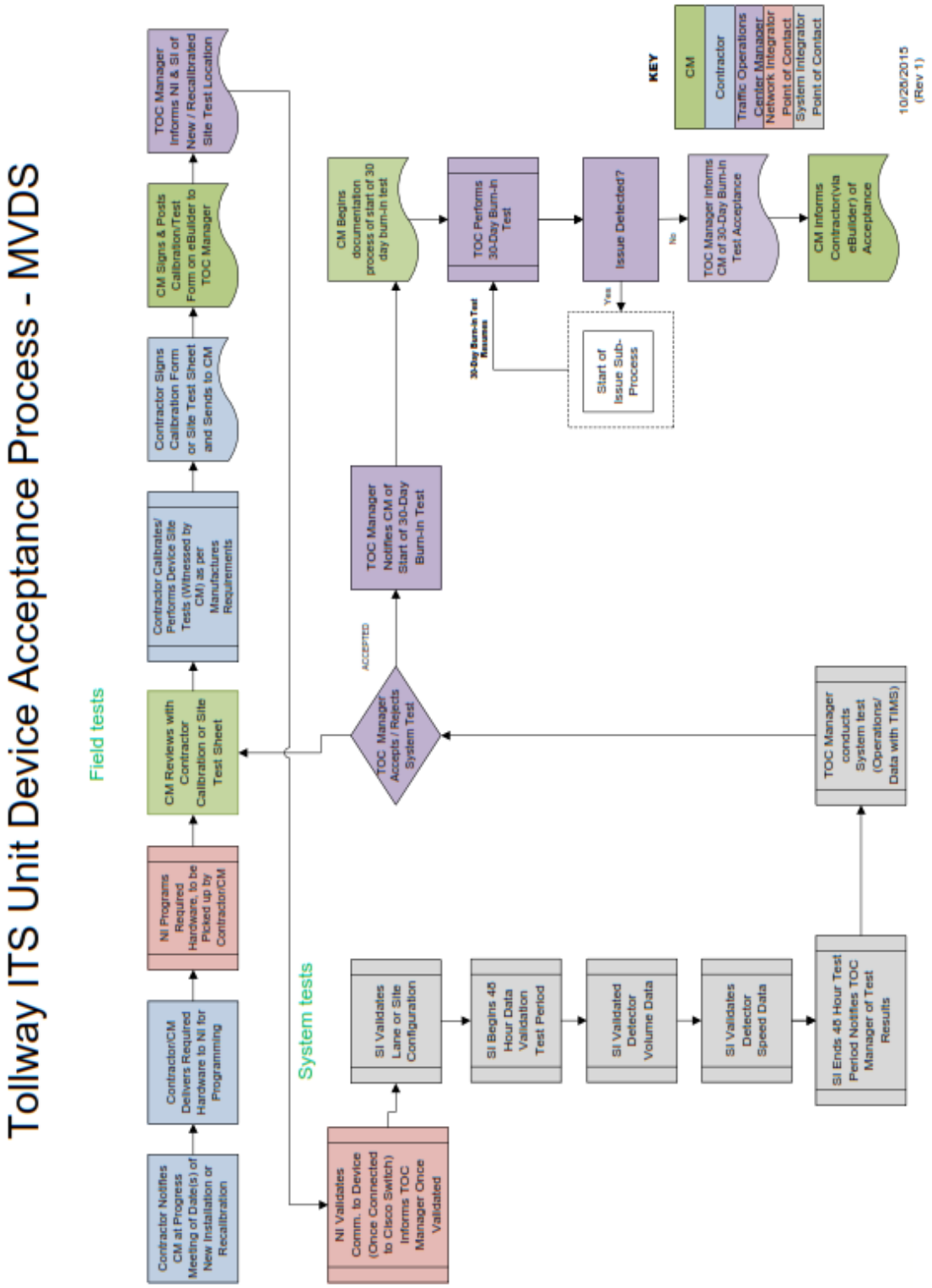
Rev. 1/2026

APPENDIX E ITS Flow Charts

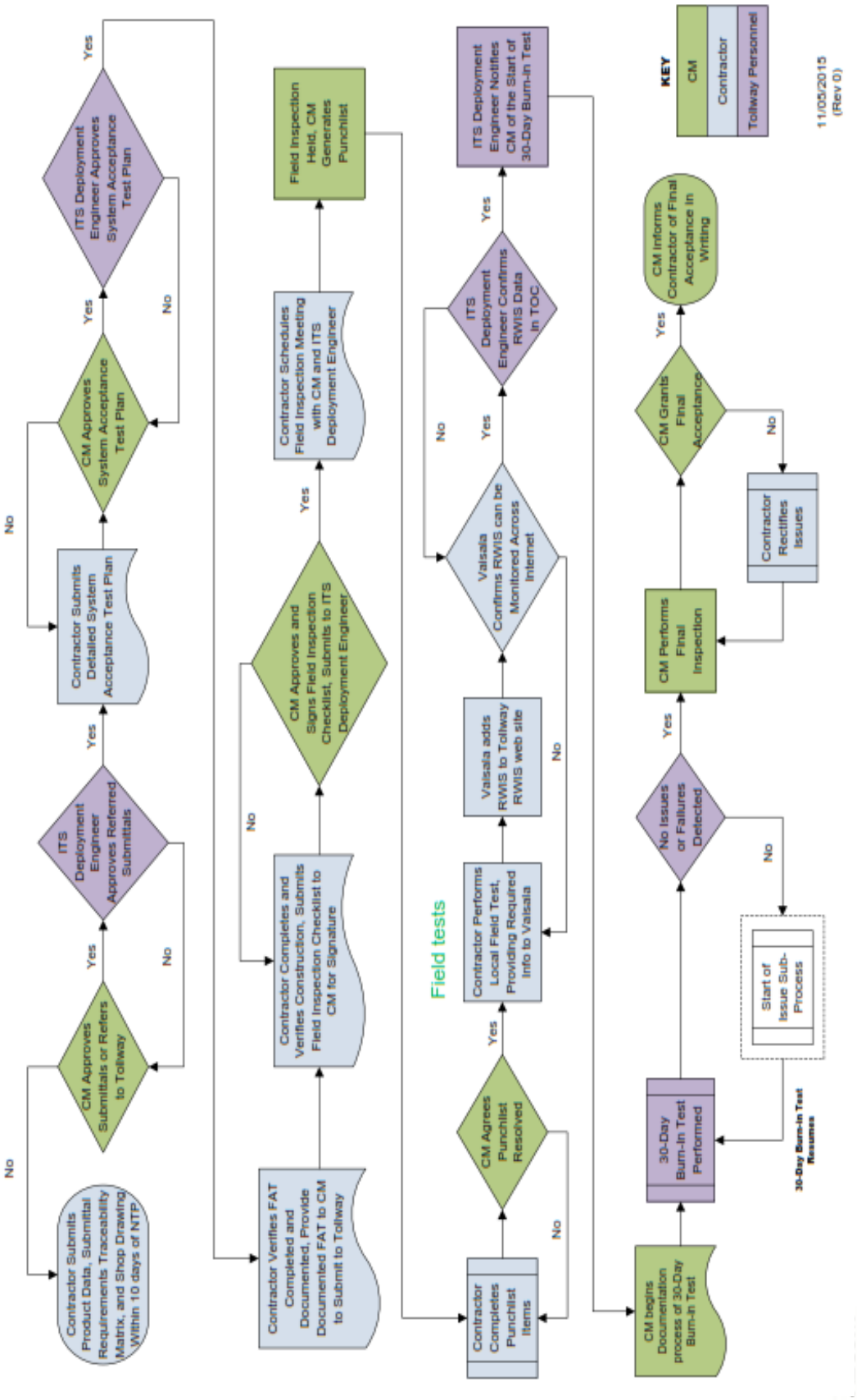
1. Illinois Tollway ITS Unit Device Acceptance Process- CCTV
2. Illinois Tollway ITS Unit Device Acceptance Process- DMS
3. Illinois Tollway ITS Unit Device Acceptance Process- MVDS
4. Illinois Tollway ITS Unit Device Acceptance Process- RWIS
5. Illinois Tollway ITS Unit Device Acceptance Process- VWIM
6. Illinois Tollway ITS Unit Device Pre-Installation Approval Process
7. Illinois Tollway ITS Device Removal/ Relocation Process
8. Illinois Tollway ITS Unit 30 Day Burn- In Issue Sub- Process

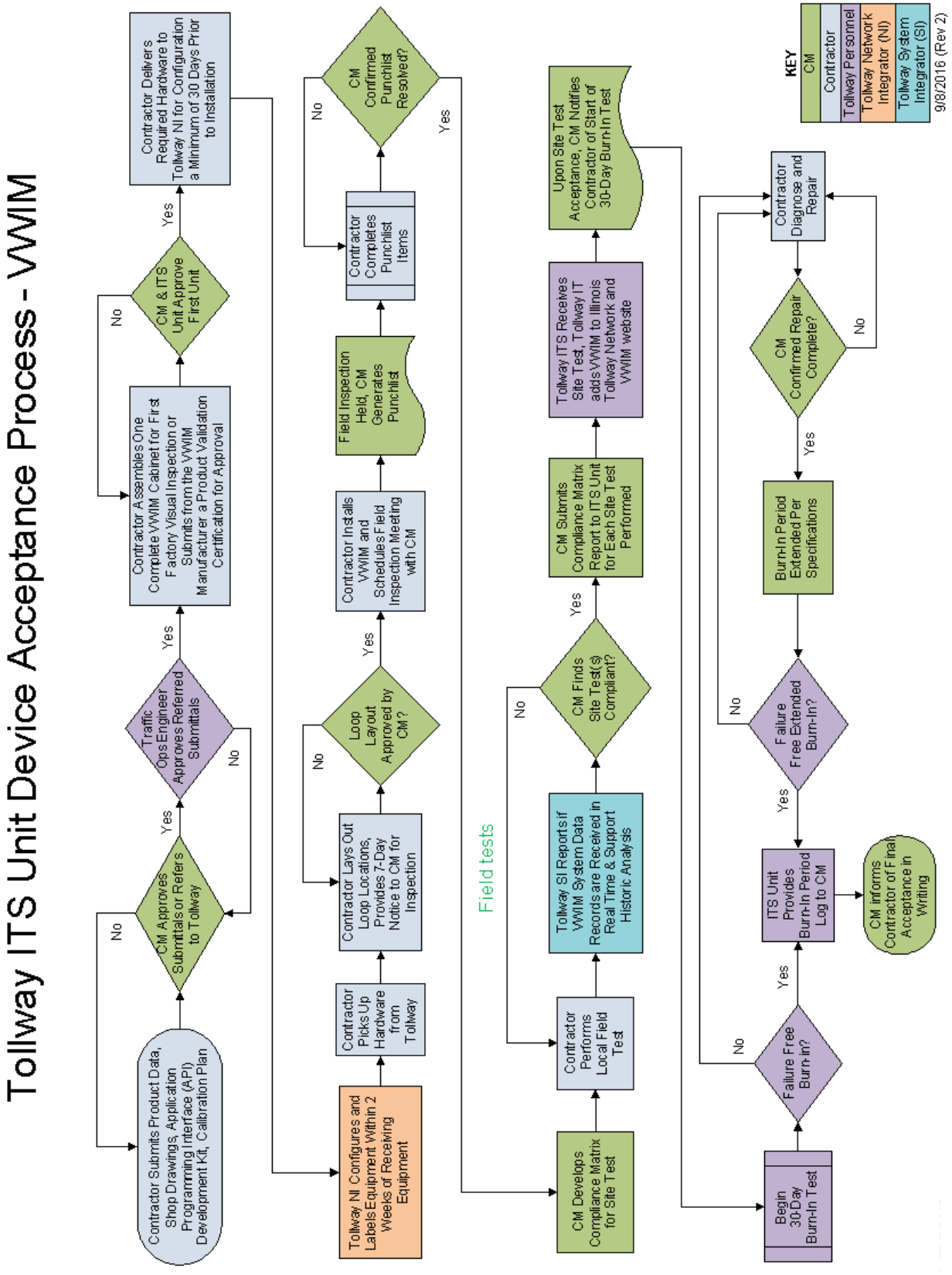

Tollway ITS Unit Device Acceptance Process - CCTV
Field tests
Contractor Notifies CM at Progress Meeting of Date(s) of New Installation
Contractor/CM Delivers Required Hardware to NI for Programming
NI Programs Required Hardware, to be Picked up by Contractor/CM
CM Reviews with Contractor Site Test Sheet
Contractor Performs Device Site Tests (Witnessed by CM) as per Manufacturers Requirements
Contractor Signs Site Test Sheet and Sends to CM
CM Signs &Posts Form on eBuilder to TOC Manager
TOC Manager Informs NI & SI of New Site Test Location
NI Validates Comm. To Device(Once Connected to Cisco Switch)Informs TOC Manager Once Validated
TOC Manager conducts System Test (Operations/ Data within TIMS)
TOC Manager Accepts / Rejects System Test
Rejected
ACCEPTED
TOC Manager Notifies CM of the Start of 30-Day Burn-In Test
CM begins Documentation process of 30-Day Burn-In Test
TOC Performs 30-Day Burn-In Test
Issue Detected?
Yes
No
Start of Issue Sub-Process
30-Day Burn-In Test Resumes
TOC Manager informs CM of 30-Day Burn-In Test Acceptance
CM informs Contractor of Acceptance
KEY
CM
Contractor
Traffic Operations Center Manager
Network Integrator Point of Contact
System Integrator Point of Contact
10/28/2015 (Rev 1)


Tollway ITS Unit Device Acceptance Process - DMS
Contractor submits Test Requirements Traceability Matrix (TRTM) from Vendor
CM Approves TRTM
NO
YES
Traffic Operations Manager Approves TRTM
NO
YES
Contractor Submits Factory Acceptance Test (FAT) Procedure
CM Approves FAT Procedure
NO
YES
Traffic Operations Manager Approves FAT Procedure
NO
YES
Contractor Schedules FAT
CM & Tollway Agree to Date of FAT
Contractor Submits FAT Results Once Held
CM Approves FAT
NO
YES
Traffic Operations Manager Approves FAT
NO
YES
Field tests
Contractor Notifies CM at Progress Meeting of Date(s) of New Installation
Contractor/CM Delivers Required Hardware to NI for Programming
NI Programs Required Hardware, to be Picked up by Contractor/CM
CM Reviews with Contractor Site Test Sheet
Contractor Performs Device Site Tests (Witnessed by CM) as per Manufactures Requirements
Contractor Signs Site Test Sheet and Sends to CM
CM Signs & Posts Form on e-builder to TOC Manager
TOC Manager Informs NI & SI of New Site Test Location
NI Validates Comm. To Device(Once Connected to Cisco Switch)Informs TOC Manager Once Validated
TOC Manager conducts System Test (Operations/ Data within TIMS)
TOC Manager Accepts / Rejects System Test
REJECTED
ACCEPTED
TOC Manager Notifies CM of the Start of 30-Day Burn-In Test
CM begins Documentation process of 30-Day Burn-In Test
TOC Performs 30-Day Burn-In Test
30-Day Burn-In Test Resumes
NO
Issue Detected?
YES
Start of Issue Sub-Process
TOC Manager Informs CM of 30-Day Burn-In Test Acceptance
CM Informs Contractor of Acceptance
KEY
CM
Contractor
Traffic Operations Manager
Traffic Operations Center Manager
Network Integrator Point of Contact
10/29/2015
(Rev 0)

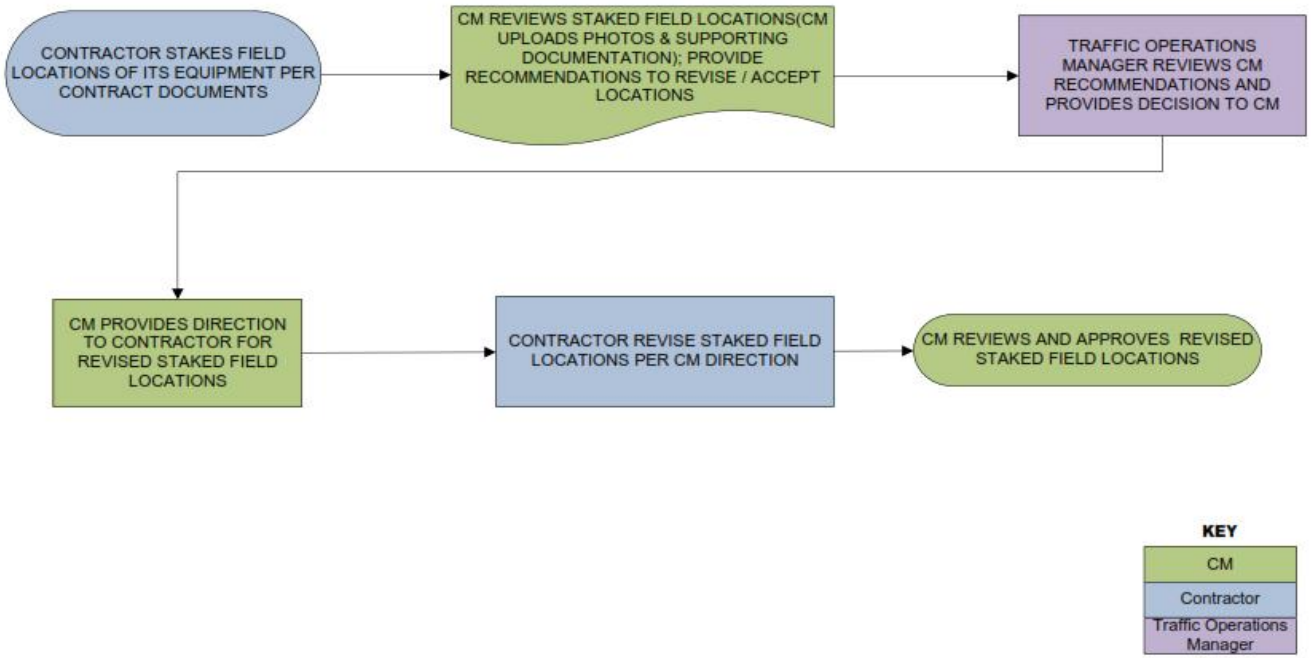

Tollway ITS Unit Device Acceptance Process - MVDS
Field tests
System tests
Contractor Notifies CM at Progress Meeting of Date(s) of New Installation or Recalibration
Contractor/CM Delivers Required Hardware to NI for Programming
NI Programs Required Hardware, to be Picked up by Contractor/CM
CM Reviews with Contractor Calibration or Site Test Sheet
Contractor Calibrates/ Performs Device Site Tests (Witnessed by CM) as per Manufactures Requirements
Contractor Signs Calibration Form or Site Test Sheet and Sends to CM
CM Signs & Posts Calibration/Test Form on eBuilder to TOC Manager
TOC Manager Informs NI & SI of New / Recalibrated Site Test Location
NI Validates Comm. to Device (Once Connected to Cisco Switch) Informs TOC Manager Once Validated
SI Validates Lane or Site Configuration
SI Begins 48 Hour Data Validation Test Period
SI Validated Detector Volume Data
SI Validates Detector Speed Data
SI Ends 48 Hour Test Period Notifies TOC Manager of Test Results
TOC Manager conducts System test (Operations/ Data with TIMS)
TOC Manager Accepts / Rejects System Test
ACCEPTED
TOC Manager Notifies CM of Start of 30-Day Burn-In Test
CM Begins documentation process of start of 30 day burn-in test
TOC Performs 30-Day Burn-In Test
Issue Detected?
Yes
No
Start of Issue Sub-Process
30-Day Burn-In Test Restarts
TOC Manager informs CM of 30-Day Burn-In Test Acceptance
CM informs Contractor(via eBuilder) of Acceptance
KEY
CM
Contractor
Traffic Operations Center Manager
Network Integrator Point of Contact
System Integrator Point of Contact
10/29/2015 (Rev 1)

Tollway ITS Unit Device Acceptance Process - RWIS

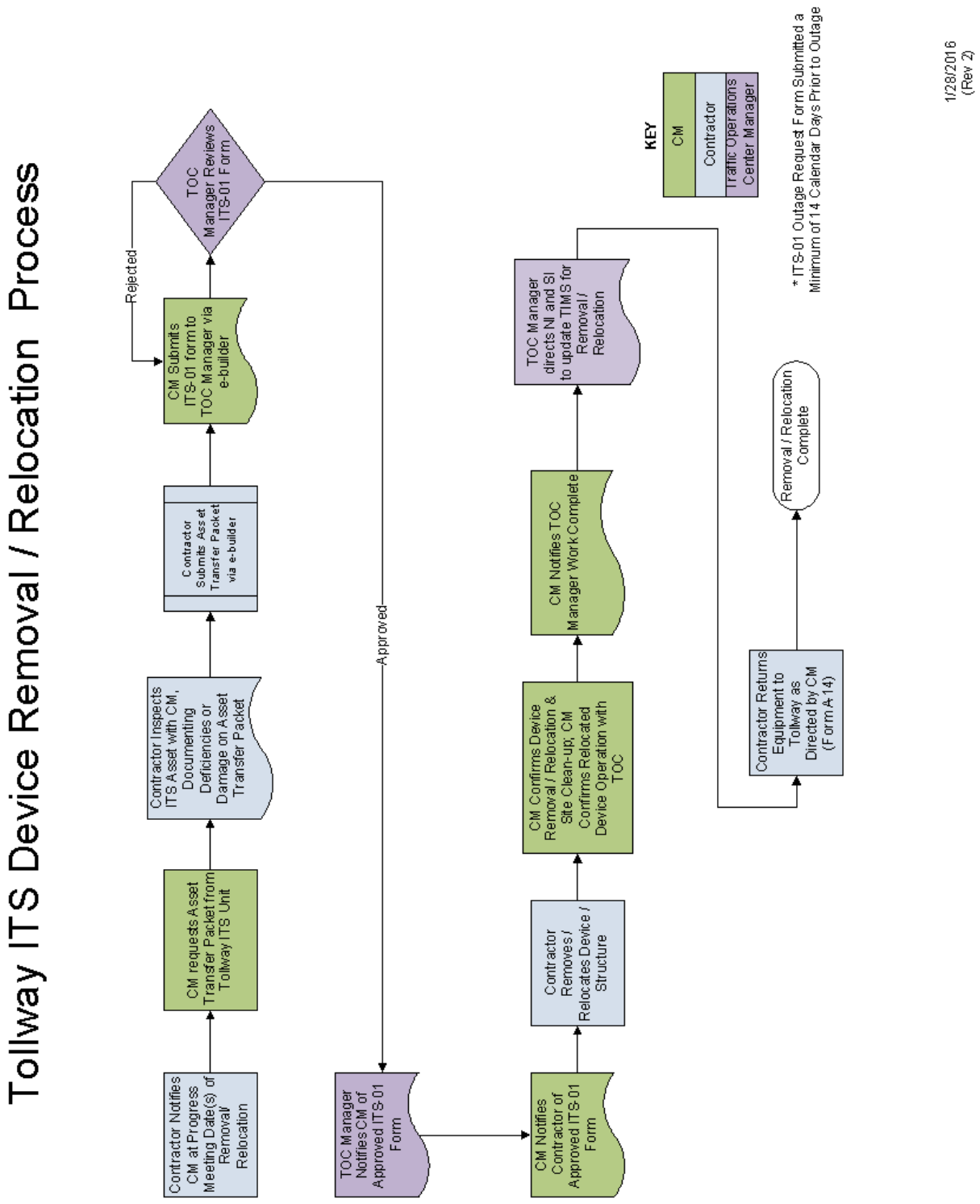



Tollway ITS Unit Device Acceptance Process - VWIM
Contractor Submits Product Data, Shop Drawings, Application Programming Interface (API) Development Kit, Calibration Plan
CM Approves Submittals or Refers to Tollway
No
Yes
Traffic Ops Engineer Approves Referred Submittals
No
Yes
Contractor Assembles One Complete VWIM Cabinet for First Factory Visual Inspection or Submits from the VWIM Manufacturer a Product Validation Certification for Approval
CM & ITS Unit Approve First Unit
No
Yes
Contractor Delivers Required Hardware to Tollway NI for Configuration a Minimum of 30 Days Prior to Installation
Tollway NI Configures and Labels Equipment Within 2 Weeks of Receiving Equipment
Contractor Picks Up Hardware from Tollway
Contractor Lays Out Loop Locations, Provides 7-Day Notice to CM for Inspection
Loop Layout Approved by CM?
No
Yes
Contractor Installs VWIM and Schedules Field Inspection Meeting with CM
Field Inspection Held, CM Generates Punchlist
Contractor Completes Punchlist Items
CM Confirmed Punchlist Resolved?
No
Yes
Field tests
CM Develops Compliance Matrix for Site Test
Contractor Performs Local Field Test
Tollway SI Reports if VWIM System Data Records are Received in Real Time & Support Historic Analysis
CM Finds Site Test(s) Compliant?
No
Yes
CM Submits Compliance Matrix Report to ITS Unit for Each Site Test Performed
Tollway ITS Receives Site Test, Tollway IT adds VWIM to Illinois Tollway Network and VWIM website
Upon Site Test Acceptance, CM Notifies Contractor of Start of 30-Day Burn-In Test
Begin 30-Day Burn-In Test
Failure Free Burn-in?
No
Yes
ITS Unit Provides Burn-In Period Log to CM
CM informs Contractor of Final Acceptance in Writing
Failure Free Extended Burn-In?
No
Yes
Burn-In Period Extended Per Specifications
CM Confirmed Repair Complete?
No
Yes
Contractor Diagnose and Repair
KEY
CM
Contractor
Tollway Personnel
Tollway Network Integrator (NI)
Tollway System Integrator (SI)
9/8/2016 (Rev 2)

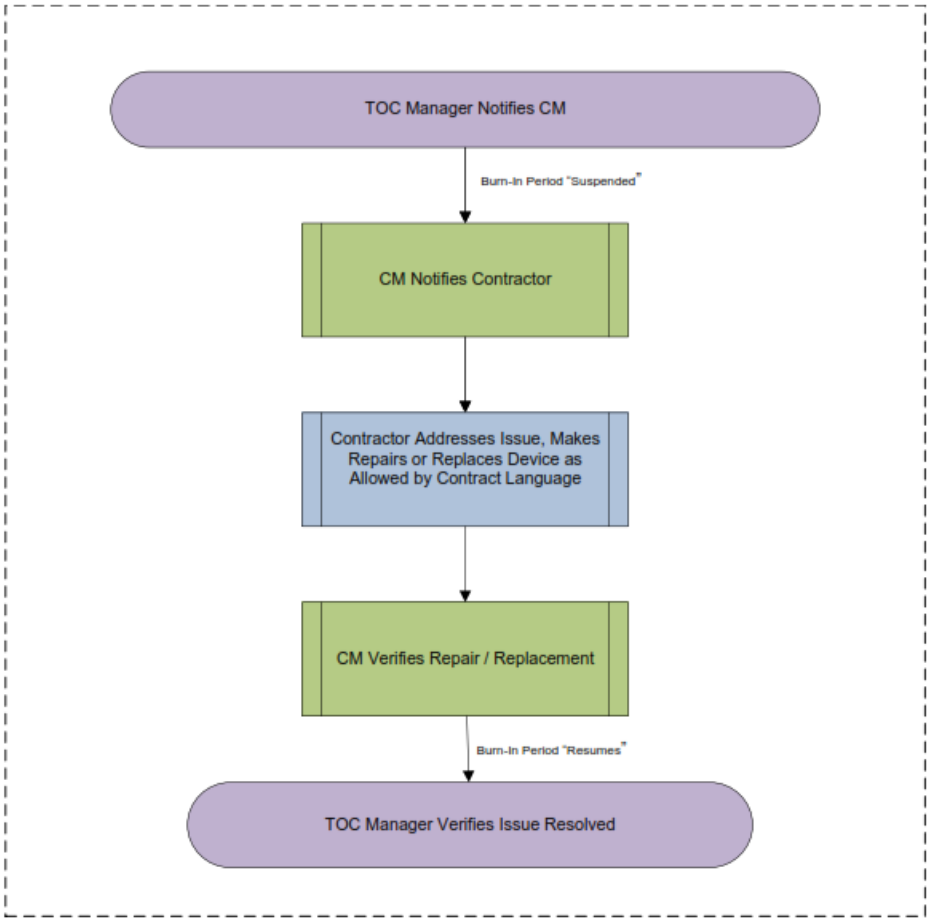
TOLLWAY ITS UNIT DEVICE PRE-INSTALLATION APPROVAL PROCESS



10/28/2015
(Rev 1)


Tollway ITS Device Removal / Relocation Process
Contractor Notifies CM at Progress Meeting Date(s) of Removal/ Relocation
CM requests Asset Transfer Packet from Tollway ITS Unit
Contractor Inspects ITS Asset with CM, Documenting Deficiencies or Damage on Asset Transfer Packet
Contractor Submits Asset Transfer Packet via e-builder
CM Submits ITS-01 form to TOC Manager via e-builder
TOC Manager Reviews ITS-01 Form
Rejected
Approved
TOC Manager Notifies CM of Approved ITS-01 Form
CM Notifies Contractor of Approved ITS-01 Form
Contractor Removes / Relocates Device / Structure
CM Confirms Device Removal / Relocation & Site Clean-up; CM Confirms Relocated Device Operation with TOC
CM Notifies TOC Manager Work Complete
TOC Manager directs NI and SI to update TIMS for Removal / Relocation
Contractor Returns Equipment to Tollway as Directed by CM (Form A-14)
Removal / Relocation Complete
KEY
CM
Contractor
Traffic Operations Center Manager
* ITS-01 Outage Request Form Submitted a Minimum of 14 Calendar Days Prior to Outage
1/28/2016
(Rev 2)

Tollway ITS Unit 30 Day Burn-In Issue Sub-Process



10/28/2015
(Rev 1)

APPENDIX F Construction Manager Building Checklist

Preconstruction Phase

The CM shall:

- Identify and coordinate with all pertinent Tollway stakeholders and local building officials as appropriate for preconstruction conference.
    - Including, but not limited to, Tollway stakeholders associated with MEP, HVAC, communications, public address system, security, etc.
- Conduct a dedicated Building/Facility Preconstruction Meeting to discuss specific construction operational and administrative project needs.
- Develop a thorough understanding of the building structural, architectural, site civil, MEP and communication systems.
- Coordinate with Tollway Roadway and Facilities user groups for site and yard and building/facility specific operational constraints.
- Discuss specialized systems, permits & inspection requirements, notify representatives who will need to be engaged in the construction process, testing, certification.
- Work with contractor on developing schedule of lump sum breakdowns.
- Confirm if there are any owner-furnished items required and identify if they are furnished.
- Discuss testing and inspection protocols, points of contact. Understand that Tollway materials may have a limited role with shop inspections, fabrications that are different from building-related testing requirements.
- Review/discuss any environmental provisions to ensure they are covered (soils, site containment).
- Check that new utility services are being ordered are coordinated and scheduled (gas, water, electrical, communications).
- Discuss emergency contact protocols.
- Discuss beneficial occupancy requirements, including warranty submittals.
- Discuss schedule and critical path elements (submittals, approvals, fabrication, installation, commissioning, testing and walk throughs).
- Assist with project site logistical coordination, contractor vs. M Yard operations, construction site perimeter security establishment.

Construction Phase

The CM shall:

- Ensure submittal reviews and coordination meetings involve relevant stakeholder's feedback.
- Review submittals for conformance to contract provisions.
- Chair progress meetings and ensure appropriate Tollway staff are participating and engaged in the project.
- Maintain updated set of contract documents, markup changes as they occur for incorporation into the Record Drawing set.
- Review long lead items with Contractor for compliance with project schedule needs.
- Confirm interim milestones, beneficial occupancy, start of warranty provisions for various building and system elements.
- Provide technical review and support of contractor-generated RFI's. Coordinate with DSE Tollway Facilities managers on Q&A and resolution.
- Coordinate any multi-discipline related RFI's, ISU's, problems and solutions to completion.

Post Construction Phase

The CM shall:

- Formalize procedures for functional testing, training delivery, documentation turnover, and system acceptance.
- Coordinate and witness start-up and final system testing.
- Coordinate and verify that appropriate Tollway staff receive specified equipment and systems training.
- Coordinate system inspections, pre-final and final inspections with subcontractors, appropriate Tollway staff and outside agencies.
- Prepare record drawings, review Contractor-prepared As-builts and O&M manuals for completeness and accuracy.
- Confirm that all required contract warranties and guarantees have been provided by the Contractor.
- Confirm that all required certificates of inspection have been obtained from public authorities, utility companies, and other public agencies.
- Confirm that all spare parts required by the Contract specifications have been received.
- Confirm that all As-Builts, O&M Manuals, Warranty information and Training Guides are uploaded to the WBPM System.

APPENDIX G Digital Surveys and Volumetric Documentation Requirements

Construction Manager Staff and Equipment Certification

An approved copy of the IDOT Region One G.P.S. Approval Request form shall be included in the Construction Manager's Quality Control Plan and also maintained in the construction project files. The form shall identify the software utilized, including version numbers and the consultant personnel authorized to obtain, calculate, draw and/or check digitally surveyed measurements & calculations.

Quantity Measurement and Documentation Requirements

The following shall be provided by the Construction Manager as supporting documentation of calculations developed and generated by electronic means:

- Certification that the survey data collected meets the accuracy requirements of Table 4.1 of the *IDOT Survey Manual (latest edition).*
- Completed *"Digital Survey Measurement & Calculation Check Sheet"*
- Measured & calculated elements must be divided into individual measured units of reasonable size that would allow for quantity verification without measuring the entire area or as required by the Specifications.
- The calculations must include the following information:
    - Construction Contract Number
    - Pay Item number and Description
    - Name and version of software utilized, including latest firmware updates
    - Measured length or area calculation shall include:
        - Software calculation results displayed
        - Legible scaled plot with station & offset references provided
    - Measured volume calculation shall include:
        - Volume report with file names of the surfaces used to calculate the volume
        - Legible scaled plot showing bounded area, surface models being compared, and computed cut and/or fill volumes
    - Identification of "Estimated" or "Final" measured quantity
    - Initials and Dates:
        - Measured by:
        - Drawn by (if applicable):
        - Calculated by:
        - Checked by:

- XYZ data for each surface created in .csv or .txt format stored in the WBPM System Folder 03.19.02.

- DTM, TIN or other surface model file type supported by Bentley Open Roads Designer (ORD), stored in the WBPM System Folder 03.19.02.

- For each pay item derived using digital methods, provide a *"Digital Survey Measurement & Calculation Check Sheet."*

Note: Although separate plots for each pay item are preferred, there may be times when multiple pay items are included in one GPS plot. It is the responsibility of the CM to ensure that it is clear which measurements are being used to support the individual quantity calculations. Documentation shall be clear as to which measurements are included in the final pay item quantity calculation.

Measurements acquired by the use of Airborne Technology

In addition to the above referenced requirements, the following shall be provided by the CM as supporting documentation when utilizing airborne LiDAR technology:

- Comply with applicable sections *of IDOT Construction Memorandum No. 93 – Use of Unmanned Aircraft Systems*.

- Provide a KMZ that contains flight plan and control layout.

- Complete & submit the UAS request through the Illinois Virtual Tollway portal https://accounts.illinoisvirtualtollway.com/TollwayAccounts/apprequest

- LiDAR acquisition report containing date, time, and weather conditions observed during data collection.

- Processed and classified point cloud in .LAS format with metadata.

- Georeferenced images in JPEG format.

- 2D/3D Planimetric, 3D DTM, and TIN in MicroStation Open Roads Designer (ORD).

- ASCII point file containing LiDAR ground-truthing control point locations.

- Confirmation that ground control checkpoints have been checked against project control monuments.

- RMSE report with statement of accuracy from LiDAR ground-truthing check shots.

Post Construction Phase

- Final surface model deliverables shall comply with applicable requirements of the *Illinois Tollway CADD Standards Manual and the Illinois Tollway BIM Implementation Manual (latest versions)* and shall be stored in the WBPM System Folder 03.19.02.

Digital Survey Measurement & Calculation Check Sheet

The following information shall be provided with all final quantity calculations derived using digital elevation modeling and/or digital surveys:

Project Number: _____

Pay Item Number: _____

Pay Item Description: _____

Final Measured Quantity: _____
(Show correct units as per contract

WBPM File Location: _____

	Initial(s)	Date
Measured by:	_____	_____
Calculated by:	_____	_____
Checked by:	_____	_____

CM personnel must initial under the appropriate column.

	Initials of Personnel who Performed Task		Initials of Checker	
	Yes	N/A	Yes	N/A
Have you reviewed the contract plans and specifications for this pay item?	_____	_____	_____	_____
Have the X, Y, and Z components been utilized properly to ensure that the measurements conform to applicable requirements of Section 109 of the Illinois Tollway Supplemental Specifications?	_____	_____	_____	_____
Do the measurements comply with the accuracy requirements of the *IDOT Survey Manual Table 4.1 (latest edition)*?	_____	_____	_____	_____
Were sufficient shots taken along all radii to ensure accurate calculations?	_____	_____	_____	_____
Have you discussed any field variations that impact the quantity with the Illinois Tollway Project Manager?	_____	_____	_____	_____

Illinois Department of Transportation

Region One G.P.S. Approval Request

It is the responsibility of the Consultant, _____, to ensure that the accuracy of measurements is in accordance with the ***Standard Specifications for Road and Bridge Construction*** *("Standard Specs")* and the ***Construction Manual.***

It is the responsibility of the Consultant to ensure that records produced on any computer-based document control system are maintained for a minimum of three (3) years after the final disbursement of funds (longer if any claims are involved); and the Consultant agrees to cooperate fully with any audit conducted by the State, Federal Highway Administration or any authorized representative of the federal government; and to provide full access to all relevant materials.

All measurements and plots shall be completed to the satisfaction of the Resident and/or the Department. Supporting information (such as printouts showing lengths, widths or area calculations based upon the G.P.S. data) may be requested by the Resident or the Department. The Resident and/or the Department may conduct random, independent checks or audits. The Consultant is responsible for providing any additional supporting information. The decision of the Department shall be final on all questions which may arise regarding the quality and acceptability of the measurements and plots.

It is also the responsibility of the Consultant to ensure that all of their assigned personnel (listed below) have been thoroughly trained, and apprised of their responsibilities to provide accurate measurements in accordance with the ***Standard Specs*** (specifically Article 109.01, *Measurement of Quantities*, and all applicable *Method of Measurement* specifications), and the ***Construction Manual*** (including, but not limited to, the *Documentation Section* of this manual).

Consultant Personnel

Please include all field and office personnel responsible for obtaining, calculating, drawing and/or checking G.P.S. measurements. (* designates crew leader). *(A minimum of one member of each crew must be certified in Documentation.)*

Name	Handwritten Initials	Responsibility	Doc Certificate # & Expiration Date
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

If additional crews are to be utilized, please attach additional personnel information to the back.

By my signature, I certify that there are sufficient internal quality controls within _____, to
(Name of Consultant Company)
ensure that the GPS measurements to be provided by our company are accurate and in accordance with the ***Standard Specifications for Road and Bridge Construction***, and the ***Construction Manual***.

Additionally, I consider the above personnel to be qualified to accurately provide GPS measurements. I certify that adequate training has been provided to these individuals concerning the requirements of the ***Standard Specs*** (specifically Article 109.01, *Measurement of Quantities*, and all applicable *Method of Measurement* specifications) and the ***Construction Manual*** (including, but not limited to, the *Documentation Section* of this manual). The above individuals have been instructed on the proper procedures for obtaining any necessary measurements. ("Proper procedures" include, but are not limited to: the correct method for obtaining longitudinal and transverse measurements for various pay items, the correct use of equipment and software, and the required procedures for limiting measurements to plan dimensions, where required by spec.)

_____ _____
Signature Date

_____ _____
Please print name Title *(Required: V.P. or above)*

Region One G.P.S. Approval Request

Equipment & Software Verification and Approval

Please list *all* equipment and software (including version number) to be utilized in obtaining measurements:

_____

_____

_____

_____

_____

Instructions for measuring test area: Using the personnel, equipment and software listed, please measure the designated area as per Article 109.01. For the purposes of this test, please assume that East-West measurements are the longitudinal measurements and that North-South measurements are transverse measurements. (X, Y, Z components should be utilized accordingly.)

(A.) Test area as taped = _____

(B.) Test area utilizing G.P.S. equipment noted above = _____ *(Attach test area printout)*

Tolerance (0.1 % maximum) = $\frac{A - B}{A}$ = _____

Was crew leader present? ____ Yes ____ No

Are personnel aware of the correct use of X, Y, and Z components? ____ Yes ____ No

Test results: ____ are acceptable. ____ are not acceptable.

Test area verified by: _____ on _____.

Approval expires: _____

Based upon the above information, it appears that the Consultant has adequate controls in place to ensure that the measurements will be reasonably accurate and in accordance with all contract documents. Region One, therefore, grants approval for the Consultant personnel and equipment (listed above) to provide G.P.S. measurements.

_____ _____

Deputy Director Division of Highways, Regional Engineer Date

ILLINOIS TOLLWAY

Daily Report

A-1

Contract No. I-25-0980 Daily Report Date 07/09/2025 Number 17

Contractor (Sub) Lukin Excavating CEPS Entry Date 07/10/2025 Page 1 of 3

Item No.	Item Description	Location	Quantity	Unit of Measure	Required Material	(√) A5	(√) A6
20200100	Earth Excavation	Sta. 2028+42 to	4222.2	CU YD	None	√	√
		Sta. 2031+24.26					

[X] Estimated Progress Item # 202000100

[ ] Corrected Item # _____

[ ] Holdback Item # _____

[ ] Final Measurement # _____

[NA] Depth Checks Required and Documented

[NA] Yield Checks Required and Documented

[NA] Field Book # ___ Page ___ to Page ___

Attachments:

- Elevations acquired using GPS
- Paying estimated payment for progress of excavation to date
- Final quantities will be calculated using before and after surface models
- See attached plot and survey point data
- Refer to CM Quality Plan for software and equipment used

[X] Measured by CPC Date 07/09/2025

[X] Calculated by CPC Date 07/09/2025

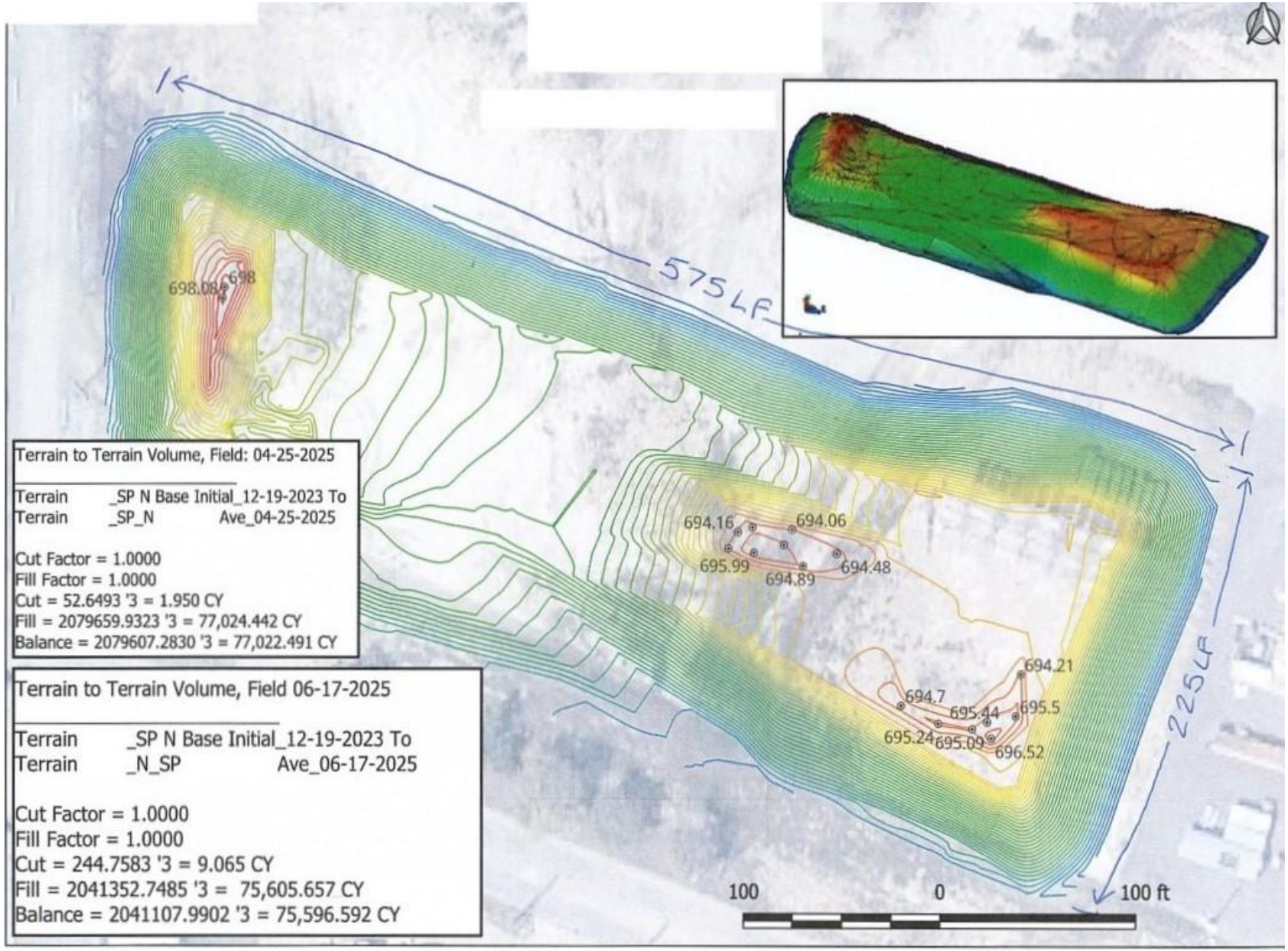
[X] Checked by BC Date 07/10/2025

Edward Jones

Resident Engineer Signature

Note: Initials for "Measured by" and "Calculated by" shall be those of the individuals identified on the IDOT Region One GPS Approval Request Form.

October 2013
Revised October 2025


575 LF
225 LF
698.08
698
694.16
694.06
695.99
694.89
694.48
694.21
694.7
695.44
695.5
695.24
695.09
696.52
100
0
100 ft
Terrain to Terrain Volume, Field: 04-25-2025
Terrain _SP N Base Initial_12-19-2023 To
Terrain _SP_N Ave_04-25-2025
Cut Factor = 1.0000
Fill Factor = 1.0000
Cut = 52.6493 '3 = 1.950 CY
Fill = 2079659.9323 '3 = 77,024.442 CY
Balance = 2079607.2830 '3 = 77,022.491 CY
Terrain to Terrain Volume, Field 06-17-2025
Terrain _SP N Base Initial_12-19-2023 To
Terrain _N_SP Ave_06-17-2025
Cut Factor = 1.0000
Fill Factor = 1.0000
Cut = 244.7583 '3 = 9.065 CY
Fill = 2041352.7485 '3 = 75,605.657 CY
Balance = 2041107.9902 '3 = 75,596.592 CY

600	1897493	1171185	593.714	KI	
601	1896617	1171223	593.472	KI	
602	1896659	1171494	593.747	KI	
5082	1897934	1168387	575.194		800
5083	1897933	1168355	575.968		800
5084	1897934	1168305	575.843		800
5085	1897940	1168255	575.588		800
5086	1897940	1168205	576.38		800
5087	1897941	1168157	576.373		800
5088	1897942	1168105	576.916		800
5089	1897942	1168057	577.025		800
5090	1897943	1168007	577.445		800
5091	1897943	1167954	577.463		800
5092	1897944	1167905	577.68		800
5093	1897943	1167855	577.964		800
5094	1897943	1167806	578.527		800
5095	1897943	1167758	578.057		800
5096	1897942	1167708	578.011		800
5097	1897942	1167658	577.492		800
5098	1897942	1167642	577.966		800
5101	1897831	1169561	592.312		862

Excerpt of raw survey data (in either .txt or .csv format) must include the following information:

- Construction contract number
- Pay item number & description
- Description of the survey data, including data collection date and surface model created
- File to be stored in WBPM folder 03 / 19 / 02

Include initials & dates:

- Measured by:
- Calculated by:
- Checked by: