SECTION 92 QUALITY ASSURANCE

I. CONTRACT RECORDKEEPING REVIEW

A. General.

The Contract Recordkeeping (MURK) Review is performed to assure that contract records are kept in accordance with this manual, MURK Part 1B *Construction Inspection Manual* (CIM), MURK Part 2A *Materials Inspection Manual* (MIM) and other pertinent Department policies and procedures. A standard minimum checklist was developed in order that reviews in every Region include specific checks. These minimum checks should assure that contract records are kept according to the above standards. The completed checklist will serve to document that these items were reviewed. The standard checklist is a minimum and a Region may add a supplemental checklist with other items which it believes to be important to contract recordkeeping.

B. Criteria.

The following are the guidelines for calculating the minimum review frequency per construction season. The review may occur anytime during the calendar year, and when the contract is between the 10% and 75% complete, based on payments. The Regional Construction Engineer and MURK Reviewer should schedule and conduct more frequent reviews for inexperienced EICs and Office Engineers, and for larger value contracts.

1. The Regional Construction Engineer will ensure that a minimum of: (a) All active contracts with a total contract value greater than $2M, OR (b) One third of all active contracts (including those with a total contract value of greater than $2M) whichever is greater, are reviewed annually.

2. In cases where deficiencies are identified by the review, the contract should be reviewed again later in the construction season, if possible, to determine if the deficiencies have been corrected.

C. Review Process.

Proper payment of contract pay items is one of the specific checks to be performed by a MURK Review. This check can be performed by reviewing a portion of the contract payments made to date. This can be accomplished by either one of two methods.

1. Detailed Daily Work Report (DWR) review. Under this method a minimum of 20 representative days of DWRs will be reviewed. A minimum of one DWR per day for the 20 selected days of DWRs will be examined. Representative samples of pay items included in these DWRs will be checked for proper payment, i.e. basis of payment, method of measurement, material acceptances etc.

2. Item History. Under this method two contract pay items will be reviewed. The items will be selected to represent significant work in the contract. The MURK Reviewer will assure that proper payment has been made for these two items from the beginning of the contract up to the time of the review, including verifying basis of payment, method of measurement and material acceptances.

D. Reporting.

A report, including the checklist used and any comments noted, will be made for each MURK review performed, and copies provided to the EIC and the Construction Supervisor.

The Reviewer will retain a file of all contract recordkeeping review reports for the current and previous years. At the end of the calendar year the Region will submit a MURK review report to the Office of Construction, including: a copy of the supplemental checklist used, if any; a copy of each individual MURK Report; a summary of reviews conducted including nature of findings and recommended actions. The Office of Construction will provide an electronic file(s) in which to summarize reviews.

II. PROJECT QUALITY ASSURANCE REPORT (PQAR)

A. General.

Communication and collaboration between Design and Construction is one key to a successful project. The PQAR is a formal means for the Regional Construction Group to provide written feedback on project designs as a result of the experience gained during construction. The intent is to improve project quality (future design procedures, contract documents and construction practices) by (1) identifying deficiencies in designs, specifications, standards, methods, procedures and practices so they may be corrected/improved, (2) identifying best practices for more widespread distribution, and (3) revising guidance for construction staff.

The PQAR is not a consensus report and intentionally represents the perspective of the Regional Construction Group. Providing this perspective gives other Regional and Main Office Groups the opportunity to determine if changes are needed in design methods, documents, etc. or, if Construction Groups simply need clarification and/or further instruction on certain issues. The PQAR is expected to be only one means of increased communication between design and construction.

The Office of Construction has overall responsibility for the PQAR program and prepares an Annual Summary identifying the key points of individual PQARs. This report is intended to identify strengths, weaknesses, opportunities, and threats in our contract documents, design methods and construction practices. A draft of the Annual Summary is distributed to other Main Office and Regional Groups for review and comment. Comments are incorporated and the report is re-distributed. Other Main Office and Regional groups may choose to establish their own procedures for making use of the information contained in the PQAR Annual Summary.

Individual PQAR reports and the annual summary are available at:

P:\Office of Operations\Construction\PQAR

B. Criteria.

At a minimum, one PQAR is required for all active projects greater than $2M in contract value, 80% or more complete, prior to Regional Recommendation for Contract Final Acceptance. More frequent (annual) PQARs are advisable for large and/or complex projects when useful information will be obtained from the additional reports. In addition, PQARs may be required on any project at any point in construction and at any frequency at the discretion of the Office of Construction or Regional Construction Engineer.

A PQAR form in fillable pdf format is available at:
www.nysdot.gov/main/business-center/contractors/construction-division/forms/pqr

C. Process.

1. The EIC completes and approves the PQAR form (by typing in his/her name) after the work is at least 80% complete and before the Regional Recommendation for Contract Final Acceptance. File name convention should be **PQAR_D######.pdf**

2. The EIC electronically forwards the completed PQAR to his/her Construction Area Supervisor for review. (NOTE: It is expected Regional Construction and Design staff will be communicating on a regular basis throughout the construction phase. The report should be documenting issues already known and discussed among both groups.)

3. The Construction Area Supervisor reviews and approves the PQAR (by typing in his/her name) and forwards electronically to the Office of Construction with a copy to Regional Design Group and the Regional Construction Engineer (see distribution list on last page of PQAR). The Regional Design Group is given 2 weeks to review and send comments on the report to Regional Construction Group and the Office of Construction.

4. Regional Construction Group reviews Regional Design Group responses and takes appropriate action including providing clarification to construction field personnel as necessary.

5. Office of Construction reviews all PQARs and associated comments from Regional Design Groups. Office of Construction makes PQARs available to Main Office and Regional groups by posting the reports on the P: drive.

6. The Office of Construction prepares an Annual Summary identifying lessons learned and opportunities for improvements. The Annual Summary is distributed with a request for comments to the Regional Construction Groups, Office of Design, Office of Structures, Office of Technical Services, Office of Environment, and other Main Office Groups as appropriate.

7. The Office of Construction will review responses/recommendations from the other Main Office Groups and revise construction guidance, if appropriate.

8. The Office of Construction will issue a revised report incorporating appropriate changes based on comments from other groups and track action items identified in the Annual Summary. A status of those items will be included in the subsequent Annual Summary.

EXHIBITS

A Sample Form MURK 40 *Construction Contract Recordkeeping Review Checklist*
B Sample PQAR Form *Project Quality Assurance Report*

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MURK 40
(06/07)

CONSTRUCTION CONTRACT RECORD KEEPING REVIEW CHECKLIST

JOB STAMP
Contract D123456
PIN 1234.56
Reconstruction on Rte 123 over Hudson
Village of Sulzfeld
Bldrs R Us

Visit #: 2
Date: May 28, 2008
Reviewer: MURK Reviewer
Supervisor: Super1
EIC: I.M. Incharge
OE: I.M. Counting

CONTRACT SUMMARY:

Contractor Bulletin Board Inspected?	☐ Yes ☒ No	State/Personal Property Listing Given to Contractor?	☒ Yes ☐ No
Field Office Bulletin Board Completed?	☒ Yes ☐ No	Emergency Phone Numbers Posted?	☒ Yes ☐ No
List of CSMIN Equipment to Contractor for Insurance?	☒ Yes ☐ No		

Comments / Deficiencies:
Told of need to inspect Contractors bulletin board, Field office has checklist of requirements for contractors Bulletin board, and will check.

ENGINEER'S DAILY DIARY (MURK 2):

First Entry Date: Jul 2, 2007 Last Entry Date: May 27, 2008

Pre-Numbered Pages Used?	☒ Yes ☐ No	Initial Entry onto ROW Recorded?	☒ Yes ☐ No ☐ N/A
Job Stamped?	☒ Yes ☐ No	Correct Continuation Procedure Used?	☒ Yes ☐ No
Weather Information Completed?	☒ Yes ☐ No	Contractor Work Hours Reported?	☒ Yes ☒ No
Signatures Completed?	☒ Yes ☒ No	Inspector/Operation/DWR# Completed?	☒ Yes ☐ No
Engineering Force Sign-In Sheet Current?	☒ Yes ☐ No	Closeout Wavy Line or Initials?	☒ Yes ☐ No
Contractor Started Within 10 Days of Award Letter Date?	☒ Yes ☐ No	First Day of Work Noted?	☒ Yes ☐ No
If NO, Date Started:		Discussions/Orders,Problems, Meetings Documented?	☒ Yes ☐ No
Official Visitors Logged?	☒ Yes ☐ No	Disputed Work/Lost Time Documented?	☐ Yes ☐ No ☒ N/A
First Day of Sub's Noted?	☒ Yes ☐ No	Utility Delay Log Maintained?	☐ Yes ☐ No ☒ N/A

Comments / Deficiencies:
Change in EIC 10/15/07, 2 sheets from first EIC unsigned, current EIC, all signed. Some Diary sheets list contractors work hours, most state to see IR's. Current EIC is very detailed in daily occurrences on the project. Information and discussions are clearly stated. All appears to be in good order.

SCHEDULE

CPM Schedule Required?	☐ Yes ☒ No	Baseline Schedule Approved?	☐ Yes ☐ No
Schedule Updates Received?	☐ Yes ☐ No ☒ N/A		

Comments / Deficiencies:
Contractor providing weekly schedules on a timely basis.

MURK 40
(06/07)

CONSTRUCTION CONTRACT RECORD KEEPING REVIEW CHECKLIST

WORK ZONE TRAFFIC CONTROL

Department's WZTC Person Identified?	☒ Yes ☒ No	M&PT Contains Detailed Information?	☒ Yes ☐ No
Daytime WZTC Review Completed?	☒ Yes ☐ No	Nighttime WZTC Review Completed?	☒ Yes ☐ No

Comments / Deficiencies:

. Project has no nighttime work... WZTC checks throughout day to assure conformance.

DAILY WORK REPORTS (MURK 1):

From DWR # 253 Date: Apr 7, 2008 To DWR # 273 Date: Apr 21, 2008

DWR Summary Sheet	☒ Yes ☐ No	Prime and Sub Labor & Equipment Reported?	☒ Yes ☐ No
Job Stamped?	☒ Yes ☐ No	Initial Confirmation of Approval for Sub?	☒ Yes ☐ No
Weather Information Completed?	☐ Yes ☒ No	Subcontractor First Day Listed?	☒ Yes ☐ No
Date/Day/DWR #/Sheet # Completed?	☒ Yes ☐ No	All Sheets Signed/ Initialed?	☒ Yes ☐ No
Contractor's Work Hours Reported?	☒ Yes ☐ No	EIC / RE Signature?	☒ Yes ☐ No

Comments / Deficiencies:

Most DWR state in the weather to see Diary. The total distance of this Project is under 2 miles, so weather in Diary would be same. Told EIC that in SM the weather would be a mandatory field in Site Manager. DWR's current to May 27th, 2008.

DESCRIPTION OF WORK:

Items Listed?	☒ Yes ☐ No	Location / Stations Identified?	☒ Yes ☐ No
Sketches / Drawings Used?	☒ Yes ☐ No	Approved Equipment Noted?	☒ Yes ☐ No
Tests & Measurements Reported?	☒ Yes ☐ No	Confirmation of Inspection?	☒ Yes ☐ No
Pay Calculations Shown?	☒ Yes ☐ No	Correct Method for Corrections Used?	☒ Yes ☐ No
Uncompleted Work Noted?	☒ Yes ☐ No	Audit Trail for Corrections Used?	☒ Yes ☐ No

Comments / Deficiencies:

Each DWR lists WZTC setup for operation. CADD is being used to further identify payment locations. These files will be used to develop As-Built Record Plans. Inspectors using fillable forms. Reports reviewed were detailed, and referred to contract documents for clarification. Inspectors reported on approved materials used. All corrections in reviewed DWR's are initialed.

PAY QUANTITIES:

Quantity Check Box Checked?	☒ Yes ☐ No	Computer Entries Verification Initialed?	☒ Yes ☐ No
Computer Entry Initialed?	☒ Yes ☐ No	Correct Use of Progress Payments?	☒ Yes ☐ No
FS / ES Reported?	☒ Yes ☐ No	Payment Box Closed Out if No Payments?	☒ Yes ☐ No

Comments / Deficiencies:

If no payments, items are listed with 0.00 for final quantity. Progress payments are reports as a positive in the final payment, and a negative amount in the interim quantity. When payment is made, OE or inspectors should go to original DWR and state DWR number where remaining payment is made (audit trail). NOTE: Confirmed that close out payments have been made to date.

MURK 40
(06/07)

CONSTRUCTION CONTRACT RECORD KEEPING REVIEW CHECKLIST

HOT MIX ASPHALT (MURK 4):

ALL THE ABOVE PLUS SPECIFIC INFORMATION AS REQUIRED ON PRE-PRINTED FORMS

MURK 4 Used?	☒ Yes ☐ No ☐ N/A	Mix / Type Code Box Completed?	☒ Yes ☐ No
No. of Tickets Box Completed?	☒ Yes ☐ No	Asphalt Temperature on Delivery Tickets?	☒ Yes ☒ No
Tickets Initialed by Inspector?	☒ Yes ☐ No	Yield Checks Performed?	☒ Yes ☐ No
Waste / Rejected Documented?	☒ Yes ☐ No	QAF Properly Calculated and Reported in CEES?	☒ Yes ☐ No
Test Strips Properly Recorded and Paid?	☒ Yes ☐ No		

Comments / Deficiencies:

Reviewer check for MURK4 outside of DWR listing above. Inspectors not filling in the "Quantity dispatched" field, this should be completed by OE once BR form is received. No QAF to report/ calculate at this time (checked DWR's with QAF's and calculations are correct). Test strips properly paid for. DWR #84, #134 states 5.0 MT waste, DWR shows no waste. Correct.

CONCRETE PAVEMENT (MURK 3) AND STRUCTURAL CONCRETE (MURK 5):

Correct MURK Form Used?	☐ Yes ☐ No ☒ N/A	Truck / Mixing Information Reported?	☐ Yes ☐ No
Material Usage Box Completed?	☐ Yes ☐ No	Concrete Specification Information Completed?	☐ Yes ☐ No
No. of Tickets Box Completed?	☐ Yes ☐ No	Concrete Cylinder Info?	☐ Yes ☒ No

Comments / Deficiencies:

DWR reviewed only included one load for concrete thrust blocks, included in price for fixtures. No MURK 5 used, pertinent information for concrete is on MURK 1

MATERIAL ACCEPTANCE RECORD:

"Not Needing Certification" Listing Correct?	☒ Yes ☐ No	Item / Material Received / Quantity on DWR?	☒ Yes ☐ No
Item # and Quantity Accepted on Acceptance Document?	☒ Yes ☐ No		

Comments / Deficiencies:

It may be a good idea when entering certifications to write the DWR # on the actual certification too as an additional reference.

LABOR AND EMPLOYMENT:

Subcontractor Approvals — CEES Report #28 Completed? ☒ Yes ☐ No If YES, Attach to Report

Wage Rate Interviews (Prime)	☒ Yes ☐ No	Number Performed 4	Labor Classifications: Laborer, Operator,
Wage Rate Interviews (Subs)	☐ Yes ☒ No	Number Performed	Labor Classifications:
Wage Interviews Filed Together	☒ Yes ☐ No		

Comments / Deficiencies:

Sub1 first day needs to be entering in the Subcontractor listing (according to OE calendar & payrolls FD=10/31/07. Take off all items under Sub2 because the entire item's amount will be associated to that sub, when the sub is only responsible for the trucking. I did not find any wage rate interviews for subs, please conduct when subs are working on the project.

CONSTRUCTION CONTRACT RECORD KEEPING REVIEW CHECKLIST

LABOR AND EMPLOYMENT (continued):

Certified Payrolls (Appropriate Form, Annotated With Race & Gender, Certified, Current For Time Worked)

			Last				Last
Prime to Date		☐ Yes ☐ No	Apr 24, 2008	Sub		☐ Yes ☐ No	
Sub	Sub1	☒ Yes ☐ No	Nov 10, 2007	Sub		☐ Yes ☐ No	
Sub	Sub2	☒ Yes ☐ No	Mar 30, 2008	Sub		☐ Yes ☐ No	
Sub	Sub3	☒ Yes ☐ No	Oct 13, 2007	Sub		☐ Yes ☐ No	
Sub	Sub4	☒ Yes ☐ No	Jun 15, 2007	Sub		☐ Yes ☐ No	
Sub	Sub5	☒ Yes ☐ No	Sep 9, 2007	Sub		☐ Yes ☐ No	
Sub	Sub6	☒ Yes ☐ No	Dec 2, 2007	Sub		☐ Yes ☐ No	

Comments / Deficiencies:

Contractor mails several payrolls at a time, and to date has not missed any.

HEALTH AND SAFETY:

MSDS Sheets on File? ☒ Yes ☐ No

Approved Contractor H&S Plan on File? ☒ Yes ☐ No

Contractor Tailgate Safety Meetings on File? ☒ Yes ☐ No

Department Tailgate Safety Meetings on File? ☒ Yes ☐ No

Comments / Deficiencies:

AGC "Toolbox safety Talk" on file with sign-in sheet of attendees attached (this includes NYSDOT staff)

ENVIRONMENTAL:

SPDES Stormwater Permit required? ☒ Yes ☒ No

SPDES Log Book / File? ☒ Yes ☐ No

Signed CONR 5 on File for Contractor/Subs? ☒ Yes ☐ No

CONR 7 Certifications Signed & on File? ☒ Yes ☐ No

Stormwater Inspections Conducted Weekly / After Event? ☒ Yes ☐ No

Monthly Summaries Posted? ☒ Yes ☐ No

Quarterly Summaries Posted? ☒ Yes ☐ No

Comments / Deficiencies:

With new requirements, regional environmental coordinator is working with EIC's to confirm compliance

PARTIAL PAYMENTS:

☒ N/A

Approved? ☐ Yes ☐ No

Documentation on File? ☐ Yes ☐ No

Withdrawals Made as Needed? ☐ Yes ☐ No

Comments / Deficiencies:

MURK 40
(06/07)

CONSTRUCTION CONTRACT RECORD KEEPING REVIEW CHECKLIST

CONTRACT PAYMENTS:

Data Entry Form?	☒ Yes ☐ No	CONR 22 from CEES?	☒ Yes ☐ No
CONR 22 from Main Office?	☒ Yes ☐ No	CONR 30b With MIR Date?	☒ Yes ☐ No
Confirmation of E-Mail for Transfer?	☒ Yes ☐ No		
F & A Payments Warranted?	☐ Yes ☒ No	Fuel and Asphalt Summary Report?	☒ Yes ☐ No
Correct Fuel / Asphalt Adjustment Factors Used?	☒ Yes ☐ No	Steel Price Adjustment Current?	☐ Yes ☒ No
AAP 21's for Subs?	☐ Yes ☐ No	AAP 33 Current?	☐ Yes ☐ No

Comments / Deficiencies:

Fuel Price Adj = 4,344.52, Asphalt Price Adj =1,839.56

Contractor has not provided any steel information to date. Near end of contract, will calculate weights for steel/iron items for months that the prices fall, and enter weights. All weights outside the +/- 5% will be entered. Estimates are being backed up via CD.

ORDERS-ON-CONTRACT:

☐ N/A

Over-Runs Being Addressed?	☒ Yes ☐ No	FCO / FCP Used?	☒ Yes ☐ No
Authorization of Extra Work (CONR 104) for Overages?	☒ Yes ☐ No	At / Over Threshold Notification Sent?	☒ Yes ☐ No ☐ N/A
Initial Force Account Records on File?	☒ Yes ☐ No ☐ N/A	Authorization of Extra Work Signed by RCE?	☒ Yes ☐ No
Initial FAW Paid Only to 90% ?	☐ Yes ☐ No ☒ N/A	FAW Payment Based Only on Submitted Records?	☒ Yes ☐ No ☐ N/A
Standard Labor Markup Used?	☐ Yes ☒ No ☐ N/A	Force Account Originals Reconciled?	☐ Yes ☐ No ☒ N/A
If NO, is YTD Gross Supplied for All FA Workers?	☐ Yes ☒ No		

Comments / Deficiencies:

Force account payments were only made upon completion, no initial payments made.

MISCELLANEOUS:

Initial Contract Condition Photos Taken?	☒ Yes ☐ No	Correspondence Files Logged?	☒ Yes ☐ No
Books Labeled with Return Labels?	☒ Yes ☐ No	Insurance Forms in Own Folder?	☒ Yes ☐ No
Geotechnical Test Results Recorded / Filed?	☒ Yes ☐ No	As-Built Information Being Tracked?	☒ Yes ☐ No
High Bid Items Idenified in CEES?	☒ Yes ☐ No	All Subs Associated to Pay Items in CEES?	☒ Yes ☐ No
CEES Version in Use:	4.16a	CEES Back-up (per Regional Procedure)?	☒ Yes ☐ No

OPTIONAL: Printouts from CEES: #2, #3, #8, #19, #20, #28, #29, #30, #32, #38 & #39 (For Review)

Comments / Deficiencies:

CONSTRUCTION CONTRACT RECORD KEEPING REVIEW CHECKLIST

ADDITIONAL COMMENTS:

Reviewer: _____ Date: _____

PQAR
(12/09)

REPORT NO:	Region	Year of PQAR	D Number
	1 - 2010 - D		123456

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

PROJECT QUALITY ASSURANCE REPORT

The purpose of the PQAR process is to collect, analyze and utilize feedback from Construction to improve project quality including: future designs, contract documents, and construction practices. This survey must be factual Opinions and judgement should be carefully expressed. The EIC should seek Contractor input. **It is encouraged that you provide additional details in the comment sections.** For additional comment space, see section 5 on page 9.

PROJECT INFORMATION

PIN: 1X43.21 Construction Contract Number: D123456

Project Description: Route 29 over the Hudson - Bridge Rehabilitation and Highway reconstruction

Type of Project:
- ☐ Highway Rehabilitation
- ☒ Bridge Rehabilitation
- ☐ Culvert
- ☒ Highway Reconstruction
- ☐ Bridge Replacement
- ☐ Other:

DESIGN INFORMATION (check all that apply)

- ☐ Regional Highway Design
- ☐ Regional Maintenance
- ☐ Main Office Design Bureau
- ☐ Regional Structures Design
- ☒ Consultant Design
- ☒ Main Office Structures

CONSTRUCTION INFORMATION

Engineer-in-Charge: Paul Smith Construction Supervisor: James Doe

Design Project Manager: Emma Willard

Design Consultant(s): ABC Engineers

Name of Contractor: Sure Construction Percent Complete: 84

1. PREPARATION

A. Did you receive a list of contacts, special situations, concerns and/or commitments made by Design or Real Estate by means of the Designer's memo to the EIC, input at the Preconstruction meeting and/or during the project site walk-through?

☒ Yes ☐ No ☐ N/A If No, explain.

Comments:

B. Did a representative from Design attend the Preconstruction meeting?

☒ Yes ☐ No

Comments:

C. Did the Designer visit the Project site for a walk-through with the EIC at the beginning of the project?

☒ Yes ☐ No If No, would it have been beneficial? ☐ Yes ☒ No

Comments:

Designer visited the site with EIC prior to contract award. Good communication prior to construction start

D. Were all necessary municipal and private utility relocations provided for in the plans?

☐ Yes ☒ No ☐ N/A If No, explain. (Be specific)

Comments:

Waterline relocation along west approach was missed

E. Did the utility companies relocate within the time frames as stated in the "Special Note" in the Contract Proposal or utility agreement(s)?

☐ Yes ☒ No ☐ N/A If No, did it cause delays or impact cost? ☒ Yes ☐ No

Comments:

Verizon delayed relocation. This resulted in a contractor delay claim and caused the project to be extended for one more season. Not the fault of the design

F. Were all necessary permits, resolutions, and/or agreements (i.e. maintenance, utility, railroad) obtained prior to award?

☐ Yes ☒ No ☐ N/A If No, did it cause delays? ☐ Yes ☒ No

Comments:

As noted in D. local waterline relocation was missed and agreement had to be rushed thru. Did not cause delays since the agreement was in place before construction began in the area.

G. Was sufficient Right of Way acquired to perform the work shown in the Contract documents?

☐ Yes ☒ No ☐ N/A If No, explain. (Be specific)

Comments:

Additional ROW was required at the East approach to accomodate grading required not clearly shown on the plans.

H. Were the GreenLITES scorecard and project environmental sustainability aspects provided to you prior to the Preconstruction meeting?

☐ Yes ☒ No ☐ N/A (Proposal only) If No, explain why not

Comments:

Project design preceeded Green Lites requirements

2. ACCURACY AND COMPLETENESS

A. Were the Contract documents understandable and easy to follow?

☒ Yes ☐ No If No, explain. (Be specific)

Comments:

B. Were the Contract documents essentially free from conflicting information?

☒ Yes ☐ No If No, explain. (Be specific)

Comments:

C. Was the Engineer's Estimate of Quantities accurate (aside from minor variations)?

☐ Yes ☒ No If No, explain. (Be specific)

Comments:

Earthwork calcs were low due to topo inaccuracies and the need for slope flattening on East Abutment. Concrete rehab work greater than detailed in plans due to higher level of deterioration. Had to add item for asbestos removal not identified in plans.

D. Were the Engineer's Estimate quantity workups understandable and complete?

☒ Yes ☐ No If No, explain. (Be specific)

Comments:

For the most part understandable and complete except for omissions noted in 2C. above

E. Were the pay items appropriate (both standard and special specification items)?

☒ Yes ☐ No If No, why not? (Be specific)

Comments:

See comments in 2C.

F. Did Design respond in a timely manner to inquiries and/or proposed changes to the Contract?

☒ Yes ☐ No If No, explain. (Be specific)

Comments:

G. Did the Design documents contain a sufficient level of detail (please note that Design documents include electronic data, special specifications, special notes, supplemental information to bidders, cross sections, plans, profiles, general notes, miscellaneous tables and details)? If an exceptional level of detail was provided, please also note that in the comment section.

☒ Yes ☐ No If No, explain. (Be specific)

Comments:

H. Could the details shown be constructed using the standard practices of the construction industry?

☒ Yes ☐ No If No, explain. (Be specific)

Comments:

I. Were Orders-on-Contract, due to Design errors or omissions in the Contract documents, insignificant?

☐ Yes ☒ No ☐ N/A If No, explain. (Be specific)

Comments:
Additional concrete removal and repair, Earthwork bust and waterline line relocation resulted in 18% contract cost increase.

3. ADAPTATION AND ECONOMY

A. Did the Contract Documents accurately portray the field conditions?

☒ Yes ☐ No If No, explain. (Be specific)

Comments:

B. Did the design H/V survey accurately represent the field conditions encountered?

☐ Yes ☒ No ☐ N/A If No, was it ☐ ground survey ☒ photogrammetric

Comments:
Topo was off resulting a Earthwork calculation bust

C. Was the proposed construction and/or utility sequencing appropriate and/or constructible?

☒ Yes ☐ No ☐ N/A If No, why not? (Be specific)

Comments:
Also see 1. F.

D. Was the time allowed for construction of the project and/or certain phases attainable?

☒ Yes ☐ No If No, why not? (Be specific)

Comments:
Verizon delayed construction but this was not due to the design

E. Were time-related provisions (i.e. I/D Clause, A+B, lane rentals, etc.) appropriate and/or reasonable?

☐ Yes ☐ No ☒ N/A If No, explain. (Be specific)

Comments:

F. If any construction was done at nighttime, did it proceed without related difficulties?

☐ Yes ☐ No ☒ N/A If No, explain. (Be specific)

Comments:

G. Was there adequate space for the Contractor's equipment to access the site and safely perform the work?

☐ Yes ☒ No If No, explain. (Be specific)

Comments:

Great difficulty locating staging area for contractor equipment.

H. Were sufficient studies or testing performed (ie. borings, test pits, cores) during design to accurately portray field conditions (ie. rock / ground water elevations, utility locations, concrete / pavement conditions)?

☐ Yes ☒ No If No, explain. (Be specific)

Comments:

Should have had more in-depth inspection of concrete condition.
Waterline location missed as noted in 2C.

I. Were the Standard Sheet details adequate and constructible?

☐ Yes ☒ No If No, explain. (Be specific)

Comments:

Standard sheet XYZ needs revisions to more clearly detail requirements and payment issues

J. Did the project use a Value Engineering Change Proposal (VECP)?

☐ Yes ☒ No If Yes, was it beneficial? ☒ Yes ☐ No Please explain.

Comments:

K. Did the Contractor complete all of the GreenLITES related specified designs?

☐ Yes ☒ No If No, explain why not.

Comments:

Not included in the design

4. GENERAL COMMENTS

A. Was the supplementary information to bidders adequate?

☒ Yes ☐ No If No, explain. (Be specific)

Comments:

B. Was the Regional Construction Group involved in the review of Contract Documents during design (ie. constructability review, mid-design review, ADP review) ?

☒ Yes ☐ No If Yes, were the comments incorporated? If No, why not?

Comments:

Constructibility Review. Comments were incorporated

C. Were changes to the Contract documents approved / stamped by Design?

☒ Yes ☐ No ☐ N/A If No, by whom?

Comments:

D. Were the Standard and/or Special Specifications clear and without problems?

☐ Yes ☒ No If No, list the specification item# and issue. (Be specific)

Comments:

spec. xxx.yy - Needs clarification on method of measurement

E. Were new or innovative details, procedures or construction methods utilized that should be considered on other projects?

☐ Yes ☒ No If Yes, explain. (Be specific)

Comments:

F. Do you (or the Contractor) have any suggestions to improve the Contract documents?

☒ Yes ☐ No If Yes, explain. (Be specific)

Comments:

More work in design on identifying concrete conditions, improving topographic survey, identifying utility locations and asbestos.

G. Were new or innovative environmental GreenLITES sustainability items, procedures, methods or techniques utilized that should be considered for other projects?

☐ Yes ☒ No If Yes, explain. (Be specific)

Comments:

5. ADDITIONAL COMMENTS

Please use this space to further clarify and/or explain. Please note section and question comment pertains to.

Comments:

PQAR
(12/09) Comments cont'd:

Report prepared and submitted by:

Name	01/06/10
Engineer-in-Charge (Print Name)	Date

Report reviewed and accepted by:

Name	01/07/10
Construction Supervisor (Print Name)	Date

Email Distribution:

RCE	Regional Construction Engineer, Region 1	RDE	Regional Design Engineer, Region 1

Erica Gundrum, Office of Construction

Chris Crachi, Office of Construction

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