

2013

FHWA Process Review

Local Program Assistance Project Review

By legislation, State DOTs have been given authority to transfer Federal aid Highway Program funds to Local Public Agencies to perform work. This shift requires a new understanding of the federal aid rules and regulations; and of the new roles and responsibilities of each party involved. This review is a limited attempt to evaluate the performance of the localities in their delivery of federal aid projects and the stewardship provided by VDOT.



Contract Administration, Quality Assurance and Right of Way Teams
Federal Highway Administration
Virginia Division



Executive Summary

By legislation, State DOTs have been given authority to transfer Federal-aid Highway Program funds to Local Public Agencies to perform work. Under this authority, the Virginia Department of Transportation (VDOT) may enter into an agreement with a local public agency to administer phases or portions of VDOT Oversight Projects, FHWA Oversight Projects, or for programmatic administration of VDOT and FHWA Oversight projects. In each case, the agreement requires the third party to perform work under the appropriate Federal requirements. Because of that, the roles and relationships have shifted from the Federal Highway Administration (FHWA) to VDOT and from VDOT to local governments. This shift demands a new understanding of the roles and responsibilities of each party as well as a new level of understanding of federal-aid rules and regulations.

As part of our identification of locally-administered projects as a potential high risk area, the Virginia Division conducted a limited review of the performance of the localities in their delivery of federal-aid projects and the stewardship provided by VDOT.

Purpose

The purpose of this report is to document the findings from a review of locally-administered projects throughout the Commonwealth of Virginia conducted by an interdisciplinary team from the FHWA Virginia Division Office. The review focused on three specific areas: Contract Administration, Quality Assurance and Right of Way. In addition, the review focused on VDOT's role in providing oversight of the delivery of the federal-aid program where project delivery has been delegated to local governments.

The Virginia Division interdisciplinary team consisted of Barbara Middleton, Lorenzo Casanova, Iris Rodriguez and Jose Granado. The group was assisted by Marshall Wainright from the Resource Center.

Problem Statement

With the recent increase in the amount of federal funds being made available to localities to deliver projects, there has been a corresponding increase in the number of issues, concerns and problems that

have arisen on locally-administered projects nationwide. Although that picture may not necessarily be representative of the Commonwealth of Virginia, these issues, concerns and problems raise questions about the effectiveness of VDOT's oversight role in the execution of its stewardship responsibilities. For this reason, the Virginia Division Office has rated the LPA program as the highest potential risk area in Virginia for the Performance Year 2014 (PY2014).

Background

A broad process review on the locally-administered federally-funded program was conducted in October 2008 and focused on those districts and localities with the most experience coordinating and administering federal-aid highway projects. The conclusions of that review likely represented a "best-case" scenario, and it follows that districts and localities with less experience and knowledge of the Federal-aid program would have more difficulties administering federal-aid projects. Since very little is known about the latter group, it was decided that the review would focus on several districts and localities covering the range from the most experienced to the least experienced.

For any locally-administered project, VDOT assigns a project coordinator to work with the locality and to provide guidance, as needed, for all aspects of project development. The project coordinator is the LPA's liaison with VDOT staff having an approval, review, or advisory role for the project. In order for the project to progress smoothly, it is essential that adequate communication and coordination between the LPA and the project coordinator is maintained.

Methodology

The Team selected sample projects based on geography, funding source, estimated cost for construction and status of construction (i.e. on-going or completed within the last three years). Even though not all projects had a right-of-way component, some projects were selected precisely because they included a right-of-way phase. In total, twelve localities were visited in six of VDOT's nine districts and thirteen projects were reviewed.

The review consisted of interviews with personnel actively involved in current projects or personnel who had worked on completed projects. In addition, documentation from file records were obtained and

examined during the review. Prior to the field visits, each locality was notified of the documentation to have available for the review. Some examples of the documentation requested included bid contract packages, daily inspection records, individual property files, etc. The interviews were conducted using the same list of questions, which was similar to the list used by other review teams such as the National Review Team (NRT). For a list of the questions asked, please see the end of this document.

The Virginia Department of Transportation's Local Assistance Division (LAD) served as a liaison between the Virginia Division and local governments and was instrumental in coordinating the meetings with the various localities. At least one representative from the Central Office LAD and a District Project Coordinator was present at every interview.

Findings

The review Team characterized the findings and observations into two major categories: “good practices” and “observations.”

Good Practices:

Most localities made an effort to use the VDOT Locally Administered Projects (LAP) Manual as a guide as well as other VDOT specifications and standards. The Manual is currently undergoing a substantive revision which will include the incorporation of the project delivery elements of the UCI Manual and the Transportation Enhancement guidance; thus, consolidating all project management guidance into one document.

Some localities kept the same project managers from preliminary engineering through construction which helped to provide continuity and consistency.

Most work orders proposed by contractors were compared to the estimates developed by their consultants using historic bid information maintained by the locality or by VDOT, or were compared to the estimates developed by the locality itself.

Sometimes, just before a condemnation case is to be tried, an agreed upon design change can settle the case. At this point, the property has been condemned and both parties have incurred legal expenses and experienced delays and uncertainty of settlement. One of the localities has a policy of reviewing proposed design changes that could minimize this occurrence. If a design change is requested by a property owner in order to reach an agreement, the local staff gets all parties together (e.g., the project manager, right of way agent, and engineer) to discuss the request. If the request cannot be granted, the decision would be written up and signed by the engineer indicating that the request would not be feasible. This policy ensures that the proposed design change has been given thorough consideration and condemnation is a result of

not being able to reach a settlement after careful negotiation, rather than to meet an advertisement schedule.

Most Daily Inspection Records (DIR) were very detailed and useful for documenting work done, including comprehensive use of pictures documenting daily activities.

Most localities provided an adequate number of project inspectors.

The local government right-of-way staff appears to be making sincere efforts to follow the Uniform Act and adhere to State requirements. They also appear to be committed to delivering quality service to property owners and individuals who are impacted by their projects.

In addition to VDOT's LAP Manual, the localities use the VDOT Right-of-Way Manual and frequently consult the FHWA Office of Real Estate Services web site for information.

Observations:

Most of the localities did not have an easily available method to account for the frequency of the testing performed (e.g. strength of concrete, compaction density, etc.).

Some localities were unaware of the designated VDOT contacts that are available to provide support for the different disciplines/stages of project development.

Some localities were unaware of Buy-America requirements (although not applicable in several projects reviewed).

Localities used a wide variety of record keeping techniques ranging from hard copies to electronic files. The majority of localities which used electronic forms of record-keeping did not use off-the-shelf project management computer programs such as Site Manager®. Instead, they used conventional spreadsheets and databases to track their projects.

Some of the localities use VDOT's Right-of-Way and Utilities Management System (RUMS), while others do not.

Some localities did not require the contractor to submit a baseline project schedule prior to starting work.

Most of the localities did not have a complete understanding of the relationship between FHWA, VDOT and the localities.

Some of the right-of-way staff interviewed at the localities indicated that they had no direct contact with a VDOT right-of-way coordinator but in some cases, they had been provided the name of a person to contact for assistance with right-of-way related issues.

Some localities did not follow the appropriate QC/QA testing procedures.

VDOT oversight varies depending on locality and functional area.

A few localities did not appear to have enforced the requirements for contractors to display the posters at the construction site with information on EEO, minimum wages, non-discrimination act, etc.

A few daily inspection diaries did not contain minimum information needed to be used as a basis for calculating payments to contractors or for the purposes of dispute resolutions/claims.

A few localities had incomplete or poor documentation supporting work orders.

Most localities appeared to be understaffed, compelling them to rely on consultants for construction services and right-of-way work.

In some instances, no strength testing was performed on miscellaneous concrete (concrete other than for pavements or structural), such as sidewalk, curb and gutters, etc.

Suggestions and Recommendations:

To improve the delivery of the program by the localities, the following suggestions and recommendations (in no specific order) are offered:

1. VDOT should continue to promote the use of the LAP manual to meet state and federal requirements, particularly in the areas of PS&E, construction administration, and property acquisition. This would provide for more consistency in project development among localities throughout the State. As mentioned before, the Manual is currently undergoing a substantive revision which will include the incorporation of project delivery elements for UCI and Enhancement/Transportation Alternatives. Both currently rely on standalone project delivery manuals, which may lead to some confusion.
2. Localities should provide periodic status reports to VDOT regarding construction activities.
3. VDOT should continue to provide information to the localities of training opportunities offered through FHWA webinars, NHI, and the UVA Transportation Training Academy that address issues such as right-of-way requirements, National Environmental Policy Act, contract administration, quality assurance, etc.
4. The use of RUMS, which is available to local governments at no charge, may allow an expedient way for VDOT to provide oversight of right-of-way activities on the project; however, some localities have chosen not to use it because of a \$35 fee for a background check required for users. This is a Virginia Information Technologies Agency (VITA) requirement and not really within VDOT's control. For those localities that are not using RUMS, a monthly status report of the right-of-way activities should be made available to the project coordinator at the VDOT District Office.
5. VDOT should encourage localities to develop a method for documenting the frequency of the testing being performed in the field, such as concrete strength, densities, etc.

6. VDOT should consider promoting the use of existing checklists for PS&E, R/W, etc. found in the LPA manual. The required actions can be documented in the project file and integrated Project Manager (iPM) tool. In addition, we also suggest that VDOT develops a short status report form to monitor progress during right-of-way and construction.
7. At the beginning of every project, VDOT and the Locality should ensure that all pertinent contact information contained in the Project Administration Agreement reaches the project-level personnel; however, it should remain the responsibility of the VDOT project coordinator to contact the different program area experts when the localities need assistance.
8. VDOT and/or FHWA should provide training to the localities on topics such as Buy-America, Proprietary Equipment procurement, etc.
9. To assist the localities in gaining a better understanding of the federal-state-local roles and responsibilities, VDOT should continue to reinforce the relationship among all parties at project-related meetings, such as the kick-off meeting.
10. FHWA personnel should continue promoting the use of the FHWA Federal-Aid Essentials library of videos designed to assist governmental agencies administering federally-funded projects.

Note: Even though this was not part of the scope of this review, it was mentioned by several localities that the environmental process was cumbersome and time-consuming, which translated into project delays. It was suggested by them that we look for opportunities to streamline the NEPA process.

Conclusions:

In general, the federal project level requirements are being met or at least trying to be met on locally-administered projects because local governments are acting in good faith and are trying to adhere to the guidance provided by LAD resources and VDOT District Project Coordinators.

The adequacy of VDOT's stewardship and oversight of LPAs is evaluated, in part, by annual assessments conducted by the LAD and frequent Quality Assurance Reviews conducted by the Right-of-Way Division which verified that VDOT, in general, is adhering to federal and state requirements at an acceptable level. The Team, however, observed that the level of VDOT's stewardship and oversight is somewhat inconsistent across the districts we reviewed.

Generally, most localities are understaffed and depend on consultants to successfully develop their projects. As it is in most cases with right-of-way activities, this could be a positive thing because consultants typically provide a higher level of expertise, knowledge and understanding of Federal regulations and requirements than the localities possess. On the other hand, as is the case with construction engineering services, consultants were hired because the localities were understaffed, but

there were some instances where the consultants lacked the necessary knowledge of Federal requirements and regulations, such as the frequency of testing of materials for the project.

To aid the localities, working with available resources, the LAD has done an excellent job in offering training to them such as the multiple offerings of the Contract Administration course, construction good practices, right-of-way acquisition process, Introduction to NEPA and the LAP Workshops. The LAD, however, has indicated that if additional resources were available more local and regional training could be offered when needed. Many localities consistently expressed a desire for more training in the federal-aid process. Also, most localities were not aware of FHWA's Federal-Aid essentials library of videos or training available through the National Highway Institute. Localities also expressed the need to have training offered locally to minimize travel expenses.

VDOT District Project Coordinators often possess a strong L&D background and have extensive engineering experience, but not necessarily right-of-way experience, which prevents them from being as effective as they could be in providing guidance for the localities related to federal and state requirement for right-of-way activities. However, VDOT has a qualified right-of-way staff to assist the project coordinators, when needed.

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Sample Questions

CONTRACT ADMINISTRATION

PROJECT LEVEL

Required Contract Provisions

1. Is Form FHWA-1273 incorporated into the Contract?
2. Have all required [job site posters](#) been posted on the project site for every worker to see?
3. Are Buy America provisions included within the Proposal or in the Standard Specifications?
4. Have any Buy America waivers been pursued/granted for the project?
5. What is the contract DBE Goal? What is the contractor's DBE Goal? Is there a "good faith effort" statement in the project files?
6. What contract work is being performed by DBEs? Are the DBEs managing their work, utilizing their own work force, equipment, and materials? Are the DBEs performing a commercially useful function?
7. Has the contractor's OJT Program been approved by the STA?
8. What OJT contract training goals have been assigned to the project? Are the goals being met?

Advertising, Bidding and Award

1. What methods were used to advertise the project (newspaper, trade journals, bulletins, mailed notices, Internet, email ...)?
2. What was the advertisement period?
3. Where there any addenda issued during the advertisement period? (Review addenda for scope, approval, and impact to letting date)
4. Was a bid analysis performed?
 - How many bids were submitted?

- Was the competition good?
 - How does the low bid compare with the engineer's estimate?
 - What is the distribution or range of bids received?
 - Did any unit bid prices differ significantly from the estimate?
 - Were any bids unbalanced?
 - Were there any errors in the engineer's estimate?
5. Was the appropriate concurrence in award received for the project?

Project Supervision and Staffing

1. Has a full-time engineer been assigned to be in responsible charge of the project?
 - What percentage of time does this individual spend on the project?
 - What role does the individual play in decisions regarding contract changes?
 - What role does the individual play regarding qualifications, assignments, and on-the-job performance of inspection staff?
2. Has the project been staffed adequately?
 - Are appropriate sampling and testing and inspections being performed in a timely manner?
 - Is project documentation complete and up-to-date?
 - Are problems, plan changes or contract changes resolved in a timely manner?
 - Are environmental commitments being met?

Documentation and Record Keeping

1. Are daily activities appropriately noted in the daily diary entries or inspection reports? Is compliance with the traffic control plans specifically noted?

2. Is the agency following procedures for documentation and payment of completed work pay quantities?

Project Schedule

1. Is the project on schedule?
2. How is progress being tracked (CPM, bar chart, % complete, etc.)?
3. Have there been any time extensions granted?
4. Are liquidated damages being collected?

Contract Changes

1. Are there different levels of delegation for the approval of contract changes?
2. How is non-participating work tracked by the LPA?
3. Review a sample of contract modifications:
 - Is the scope clearly defined?
 - Is the need adequately justified?
 - Are the costs adequately justified? Was an independent cost estimate developed?
 - Is force account used when appropriate?
 - Was the contract modification executed in a timely manner?
 - Are all appropriate approvals documented?
 - Has the time impact been addressed?
4. Are there any claims on the project?
5. Is partnering or any other dispute resolution process being implemented on the project?

QUALITY ASSURANCE: CONSTRUCTION / MATERIALS

PROJECT LEVEL

1. Staffing

- a) Is there a full time State Engineer in responsible charge of the construction work?
- b) For non-NHS LPA projects, is there a full time agency employee in responsible charge of the construction work?
- c) How involved is this person with the day-to-day activities of the project?
- d) How many projects does this person administer?
- e) What level of inspection is provided for oversight of the current work on the project? This could include numbers of inspectors as well as the depth of the inspection (Pavement, structures, excavation/embankment, drainage, safety, erosion control, etc.)
- f) If consultant inspection is used, what processes are used to manage work of the consultant inspectors?
- g) How much experience does the current consultant staff have in administering agency projects?
- h) Do the written knowledge, skills and abilities for the consultant match what is in the consultant engineering agreement?

2. Workmanship

- a) Are there requirements for the preparation and use of a quality control (QC) plan for this construction project?
- b) If yes, what processes does the agency use to monitor contractor quality control requirements as outlined in the approved project QC plan? Is the contractor undertaking the processes outlined in their approved QC plan?
- c) How does the agency handle non-specification work that is incorporated into the project?

- d) Is the construction work being conducted in accordance with OSHA requirements or approved agency safety procedures?
- e) Are the personnel that are performing inspection work qualified per the approved qualification program, or otherwise suitably experienced to perform successfully?

3. Documentation and Record Keeping

- a) Is the current work in reasonable conformance with approved plans and specifications?
- b) Is the project in compliance with the traffic control plans?
- c) Is the agency following procedures for documentation and payment of completed work pay quantities?
- d) Are the procedures for maintaining project diaries and inspection records being followed?
- e) Are agency policies being followed for documentation of change orders?

4. Status of Personnel Qualification

- a) Are the personnel that are performing testing qualified per the approved qualification program?

5. Quantity of Sampling and Testing Activities

- a) Is the frequency of sampling and testing conducted in accordance with the Sampling and Testing Frequency Table? (This would provide a judgment on whether the State/LPA has adequate staff on the projects)

6. Control of Verification Samples

- a) Are sample locations being determined according to the procedures?
- b) Are samples being taken at the correct location?
- c) Are verification samples taken into custody by the State/LPA?

7. Validation Process

- a) Are validation procedures being performed timely?

- b) Are validation procedures being performed properly?
- c) Are the contractors and State/LPA test results compared when contractor's tests results are utilized in the acceptance decision?

8. Dispute Resolution

- a) Are the dispute resolution procedures being used properly?
- b) How many times has materials dispute resolution been used?

9. Disposition of Failing Materials

- a) Are the procedures for the disposition of failing materials being followed?
- b) What is the frequency of failing materials?

10. Laboratory Qualifications

- a) Are procedures for qualifying field laboratories being followed?
- b) Are all field laboratories that are performing testing used in the acceptance decision qualified?
- c) Is all testing equipment calibrated?

RIGHT-OF-WAY

PROCESS REVIEW QUESTIONS FOR LOCALLY ADMINISTERED PROJECTS

1. What kind of guidance did VDOT provide on Federal & State regulations and requirements?
2. Do you use staff or consultants for right-of-way work?
3. Were you provided a right-of-way manual for use in administering your project?
4. Did VDOT provide the right-of-way brochure, forms and sample letters for your use?
5. Was there a designated coordinator to contact for assistance (provide information, interpret regulations)?
6. If you requested guidance or assistance, did you receive a response in a timely manner (within two business days)?
7. Did VDOT consider requests to support your receiving a voluntary conveyance from the landowner? (example - look at proposed design changes requested by the landowner)
8. Do you periodically provide a status report of the project to the VDOT project coordinator/manager?
9. Did VDOT provide technical assistance in the use of RUMS if you chose to use it?
10. Did VDOT offer to provide training, especially in acquisition and relocation?
11. Do you acquire property through donations?
12. Did VDOT discuss/explain to you the importance of documentation of your actions and decisions?
13. Do you have a quality control/review process?
14. What could/should VDOT and/or FHWA do to help you?