

Documentation of Site Conditions

Overview

Purpose This Working Instruction presents standards for documenting site conditions.

Topics This Working Instruction is composed of the following topics.

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Background

Definition

Site conditions are the physical conditions of the construction site, adjacent property, and all access roads in and around the site. The Authority has adopted a policy of observing and documenting the physical conditions of the site during all phases of a project, in both written and photographic records.

This documentation is valuable for assisting the Authority in restoring the site to its original condition including physical features and topography at the close of the project, determining damages and settling claims, and in communicating the progress of the project to the public, Authority management, and the Authority Board of Directors.

Authority responsibility

Typically, Field Inspection staff on the Construction Management (CM) team document site conditions, and the Construction Manager bears overall responsibility to ensure that all required site documentation is generated through the end of construction. For projects without a Construction Manager, the Project Manager fills the Construction Manager role and bears this responsibility.

Once the warranty period has begun, the Project Manager bears overall responsibility for ensuring that any remaining documentation requirements are met.

Contractor responsibility

The Contractor is responsible for preparing a Pre-Construction video, illustrating all areas and facilities that may be disrupted by construction, such as: Authority patrol roads and rights-of-way, construction access roads, staging areas, public and private streets to be used for access to and from the work site, environmentally sensitive areas, and other areas the Authority feels may be disturbed or are to be protected from the Contractor's operations. (General Conditions and Standard Specifications [GCSS] Section 01530, 1.10B.)

Documentation Requirements for each Project Phase

Design phase At 90 percent design review and upon availability of the proposed plans, the Design Engineer and Construction Manager conduct a constructability review of the site. The Construction Manager coordinates with the Right of Way (ROW) Department to determine how to make the site accessible and ready for construction; identifying items to be removed or restored following construction.

Bid phase During the bid phase and prior to the opening of the bids, Field Inspection staff document site conditions on 35-mm photographs, to document the pre-construction conditions of the site.

Pre-Construction phase Following the bid phase and Notice of Acceptance, Field Inspection staff videotape the access roads on and around the site that may be used by construction traffic. The video is shot at a speed that allows the viewer to see road surface conditions, all existing structures and improvements, landscaping, curbs and gutters, and other incidental facilities. The videographer stops at 50-100-foot increments and pans the area. If the video camera has audio capability, a spoken description of the locations and facilities should be recorded. If the camera does not have this capability, the videographer documents the locations and facilities being recorded in writing on hard copy. Additionally, the Field Inspection staff takes 35-mm photographs of all existing facilities on all sides.

Concurrently, the Contractor, in accordance with GCSS Section 01530, 1.10, takes a pre-construction video of the site and surrounding access roads. The Contractor notifies the Construction Manager prior to making the video so that the Construction Manager or a delegated CM Team member may accompany the Contractor as the video is made. The Contractor submits the video to the Construction Manager at the Pre-Construction meeting. This video is a submittal item, reviewed by the CM Team. If the video is not satisfactory, the Contractor must make the applicable corrections and re-submit the video.

If at any time during construction, either the Field Inspection staff or the Contractor find there are other contractors or personnel using the project-approved access roads, they are to report this finding to the Construction Manager.

Construction phase	<p>During the Construction phase, CM personnel, including Field Inspection staff, generate photo and video documentation to record a variety of items:</p> <ul style="list-style-type: none">• Progress of the work—generated weekly or monthly, depending on the ongoing construction activities and rapidity of the progress• Significant events—recorded at time of occurrence• Potential change order items—recorded as issues are raised• Equipment and installation techniques or work processes—recorded as required for training purposes• Changed site conditions, environmental, safety, residential/commercial access, and other issues—recorded when issues arise <p>In addition to project documentation, videos or photographs may be used for presentations to the Authority Board of Directors, Authority staff, or in situations where a web site is created, for web sites showing project progress.</p> <hr/>
Post-Construction phase	<p>Field Inspection staff typically take few videos or photographs of the site following construction. However, they should generally document the Authority rights-of-way and access roads with improvements, such as culverts, Arizona crossings, and marker posts. This is important because shortly after construction is complete, right-of-way encroachments from the public may begin to occur. Post-Construction videos or photographs assist the ROW staff in property management.</p> <p>Additionally, the CM team documents revegetation areas and obtains approval from Water Resources.</p> <hr/>
Warranty period	<p>On as-needed basis, during the warranty period, Field Inspection staff may document deficiencies through videos or photography. This documentation is helpful in establishing the validity of the deficiency and in communicating with the Contractor on warranty issues.</p> <hr/>

Generating, Storing, Labeling, Logging, and Filing Documentation

Generating documentation

Many of the photographs are typically taken using digital cameras and video recorders. Videotapes are typically taken in 8-mm tape and VHS formats. However, any recordings taken in association with the pre-construction, potential change orders, or warranty items are taken by traditional 35 mm film cameras or analog (non-digital) video only so there can be no dispute as to the authenticity of a given photograph or video.

Storage and labeling: 35 mm film photographs

Negatives and photographs are stored in plastic sleeves, and placed in a project binder. Each roll of photograph negatives is assigned a roll number, and each negative and corresponding photograph is assigned a photograph number. For 35-mm photographs, the Authority has adopted a standard label to be placed on the back of each photograph. A standard template is available, and the file name is PhotoLabels.dot

Storage and labeling: digital photographs

Digital photographs are transferred to a Compact Disk (CD) ROM. The Authority has adopted a standard label to be placed on the CD. A standard template is available, and the file name is PhotoDisKLbl.dot. Copies of each photograph are electronically imported into a worksheet in Excel, and basic data is entered for each photograph. This worksheet is available as part of a standard Inspection template Excel workbook. The file name is inspectionformsV10.xls, and the worksheet name is DIGITALPHOTO. CD ROMs are not stored on any network drive.

Photo Logs

The Authority has adopted a standard Project Photo Log, to be used for each roll or disk of photographs produced. This worksheet is part of the standard Inspection template referenced above, inspectionformsV10.xls, and the worksheet name is PHOTOLOG.

Videotapes

Videotapes are stored in plastic video cassettes, and each video is assigned a video number. The Authority has adopted a standard videotape label and spine. Templates are available, and the file names are Photolblvidfront.dot and Photolblvidspine.dot, respectively.

Reference documents

Detailed procedures are outlined in Engineering Department Policies, Procedures, and Practices.

Project files

All site documentation is filed in the project files at the 0.404 file division.
