



*Policies for Performing  
Quality Assurance,  
Contract Administration,  
and Independent  
Assurance*

# Construction Management Manual

Quality System Manual Series

Version 1.4

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Department of Public Works  
Construction Management Division  
Contract Administration Section



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## SECTION 1 OVERVIEW

### 1.01 PURPOSE

- A This manual establishes policies, procedures, and guidelines for the construction Contract Administration and Quality Construction phase of Clark County Public Works Construction Contract projects.
- B However, this manual is not a contract document. It imposes no obligations or requirements on contractors. Project Managers and their Owners Representatives who administer Clark County Public Works contracts must never attempt to use the manual as a substitute or supplement to the specifications or other contract requirements.
- C When applying Clark County Public Works policy to the administration of construction contracts, not only knowing how to interpret contract documents and plans, but also the proper application of engineering experience and judgment is extremely important. The Construction Manual cannot replace this valuable experience and judgment. Clark County Public Works intends this manual as a resource for all personnel engaged in contract management.
- D The Clark County Public Works, Construction Management Division has developed this Quality System Manual - Construction Management Manual, Policies for Performing Quality Assurance, Contract Administration and Independent Assurance to establish and document the Quality Systems requirements for construction of Contracts. This manual is the permanent reference detailing the program and defining policies, elements, activities, and guidelines to assure that the materials and workmanship in all construction projects conform reliably to the requirements of the approved plans and specifications. It has been developed in part using the criteria contained in Federal Regulation 23 CFR 637B-Quality Assurance Procedures for Construction as a guideline and other documents associated with the Departments of Transportation.
- E The Independent Assurance and Quality Assurance personnel must adhere to this manual, procedures and the intent.

### 1.02 SCOPE

- A The manual covers topics in three (3) general areas:
  - 1 Policies and procedures related to the duties of Construction Administration Section personnel and their representatives.
    - (a) This topic includes internal policies and procedures for the following areas:
      - (1) Safety
      - (2) Training
      - (3) Acquiring and using resources
      - (4) Public relations
      - (5) Coordinating with other Clark County Departments, Divisions, Sections, and outside agencies and organizations
  - 2 This manual also covers the specific policies, procedures, and guidelines for Construction Management Contract Administration. This topic includes the following areas:
    - (a) Ensuring and documenting the contractor's compliance with contract requirements.
    - (b) Resolving construction issues
    - (c) Quality Assurance
    - (d) Making timely and accurate contract payments
    - (e) Compliance with Federal regulations on Federally Funded projects
  - 3 Lastly, this manual covers the specific policies, procedures, and guidelines for Construction Management – Independent Assurance. This topic includes the following areas:
    - (a) Project Quality Conformance and Auditing
    - (b) Inter-Agency Quality Assurance Committee

- (c) Federally Funded project issues

### 1.03 KEY QUALITY SYSTEM COMPONENTS

A The Quality System is broken down into the following key components or categories:

1 Quality Control by the contractor:

- (a) Qualified Laboratories and Testing Personnel: The Contract Documents, specifically the Special Provisions, require that all quality control testing personnel on the Contract possess NAQTC and/or ACI Certification and that all Quality Control testing companies and/or contractor on the Contract are accredited by the AMRL/CCRL or CMEC Accreditation Program for AASHTO specifications R18, ASTM D 3666, D 3740, and C1077. In addition, the testing method accreditation is required for both field and laboratory testing.
- (b) The contractor must perform the Quality Control in accordance to the contract documents, primarily sections 111 through 117, but also see section 105.19 &20. These specifications include testing and inspection with required documentation.

B Quality Assurance by the Engineer

- 1 The Engineer performs oversight of the Contractor Quality Control by using Quality Assurance inspectors and testers. The testing is performed at a lower frequency than the contractor for verification of the Quality Control process testing.
- 2 Qualified Laboratories and Testing Personnel: The Consultant contract requires that all Quality Assurance testing personnel on the Contract possess NAQTC and/or ACI Certification and that all Quality Assurance testing companies and or contractors on the Contract are accredited by the AMRL/CCRL or CMEC Accreditation Program for AASHTO specifications R18, ASTM D 3666, D 3740, and C1077. In addition, the testing method accreditation is required for both field and laboratory testing.
- 3 Clark County Public Works further implements the Statement of Qualifications process pre-qualification of Service Providers for Construction Contract Administration and Quality Assurance Inspection and Testing. This process assures Clark County Public Works that all personnel and laboratories working as Quality Assurance on the Contracts meet the same requirements.
- 4 The Quality Control and Quality Assurance relationship is demonstrated in Figure 1.

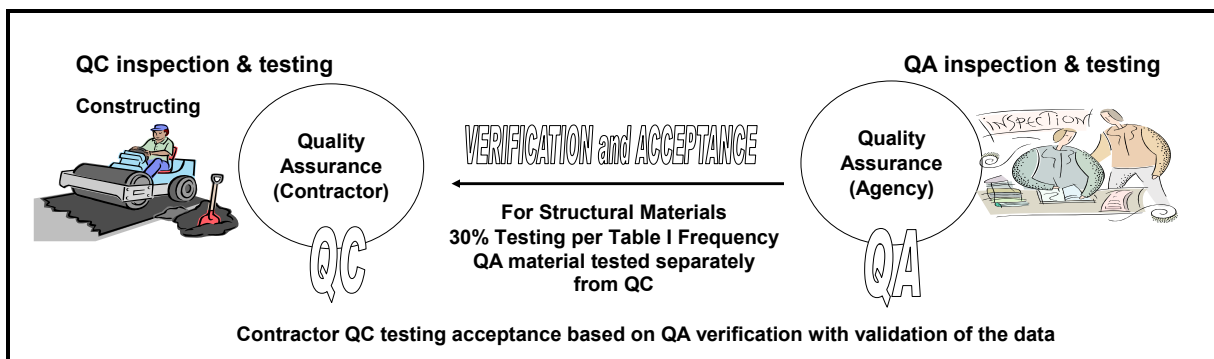


Figure 1- Quality Control and Quality Assurance Relationship

C Independent Assurance by the Engineer through an independent method

- 1 Qualified Laboratories and Testing Personnel: All Independent Assurance testing personnel must possess NAQTC and/or ACI Certification. If Independent Assurance testing is to be performed, that all companies be accredited by the AMRL/CCRL or CMEC Accreditation Program for AASHTO specifications R18, ASTM D 3666, D 3740, and C1077. the testing method accreditation is required for both field and laboratory testing.



- 2 This function is to ensure that both Quality Control and Quality Assurance technicians are using the correct methods and correlate using split-samples. Independent Assurance verifies that the laboratories and personnel are accredited and certified. There are also at least two documentation audits performed as well as site audit of inspectors.
- D Material Source Program
- 1 Clark County Public Works maintains this category of the Quality System to monitor material sources.
- 2 At the Contract Administration level, this category is important in determining the extent of Quality Control and Assurance involvement at the source of the materials. There are two (2) levels a material supplier may obtain:
- (a) Qualified Source: This assures the quality of the material through acceptance sampling, testing, and inspection performed by Quality Assurance or designated Representatives. This is performed annually and the source posted on the Interagency Quality Assurance Committee (IQAC) website for qualified sources. The Quality Control testing on the project and at the source does not change; these source names are used in order to obtain materials without the use of a long submittal process. Testing and inspection is required by the contractor.
- (b) Authorized Source: This level assures the quality of the material through inspection and verification of the qualified Material Source Quality Control Plan and its application and/or inspection of the source facility by the County. For Federally funded projects, these sources will be considered as qualified, not authorized. Testing and inspection at the facility by the contractor will be required.

#### 1.04 REFERENCES

- A The manual uses the Uniform Standard Specifications ("Blue Book") and some of the more frequently used special provisions as the basis for Contract Administration instructions and guidelines. Before attempting to apply these instructions and guidelines, the Representative must have a thorough understanding of all Contract Documents, including the Plans, Special Provisions, Uniform Standard Specifications, and other contract requirements.
- B The manual contains many references to other publications and documents, including other Clark County Public Works manuals and publications. However, The County has made a concerted effort to minimize any repetition of information found in other publications.

#### 1.05 FORMAT

- A The manual has been carefully organized to reflect, as much as possible, the general flow of a Project from beginning to end.

#### 1.06 CHANGES

- A The Construction Management Division issues Construction Procedure Memorandums to change policies and procedures. Construction Procedure Memorandums supersede any conflicting information, guideline, or instruction in the manual, but do not supersede Contract provisions to the contrary.
- B Be alert for new or revised specifications that may affect the current manual guidelines for Contract Administration. As specifications, practices, procedures, and policies change, Construction Procedure Memorandums will be issued. From time to time, subsequent revisions will be made to this manual.
- C If it is found that a policy contained in this manual is unclear or has been superseded and no Construction Procedure Memorandum has been issued covering the changed policy, use the following procedure to recommend a manual change:
- 1 Complete *Construction Manual Proposed Change Form*, and send it to the Construction Management - Assistant Manager. Explain the reason for the proposed change, and attach a draft of the proposed revision.

- 2**           The Construction Management Division will review the proposed change and make a decision regarding any future revision.

## SECTION 2 DEFINITIONS

### 2.01 TABLE OF DEFINITIONS

TERM	DEFINITION
Acceptance Inspection	Inspection to determine the compliance with the contract requirements.
Acceptance Test	Sampling and testing, to determine the degree of compliance with contract requirements.
Authorized Materials List	A list generated by the Owner, Engineer, Contracting Agency, Agency or their designated representative which contains materials that are Authorized for incorporation into the work with prior written submittal of product name and manufacture only. The period of Authorization is indefinite, contingent upon continued execution of the Quality Control Plan with the Engineer's review.
Bid Number	The bid number is the unique identifier, generated by the Finance/Purchasing Department, used to file all documents during the construction phase.
Conflict	In this manual, a conflict shall be defined to mean those construction interferences which directly affect the Contractor's ability to complete the work.
Consultant	An engineering firm hired to perform Construction Management/Administrative services for Clark County
Contract	The agreement between the Contractor and Clark County. All facets of the agreement under which the Contractor is performing. Synonymous with the Project.
Control Measures	All actions taken to assure that materials are in compliance with specifications including but not limited to submittal, testing, inspection, documentation, quantifying for testing and payment, As-Built drawings, material tracking, and similar. The Contractor, Owner, and/or Owners' representative will perform independent Control Measures to assure that all elements of the project are within specifications.
Control Procedures	All Control Measures shall be detailed in Control Procedures within the Quality Control Manual of the Contractor. Two types of Control Procedures are required in the Manual; Administrative Procedures and Activity Specific Procedures.
Critical Activities	A series of work activities on the Project, which according to the Schedule are the controlling or critical factor for completion of the Project. These activities are put in order of precedence to demonstrate their direct impact on other portions of the work. Only one item of work may be considered the Critical Activity at any point in time. Then, these points are used in series to develop the Critical Path Method (CPM) schedule.  Synonyms are Critical Item and Controlling Item
Critical Path Method	A method of Project Scheduling used on all Clark County Public Works Projects to document the sequence of work activities used by the Contractor specifically linked together showing interdependence.

TERM	DEFINITION
Hold Point	A stage of Construction which requires Quality Assurance Inspector(s) to verify the Contractor's workmanship as detailed on the CCPW Quality Control website.
Independent Assurance	Independent Assurance shall be considered all Control Measures taken by the Engineer, or their designated representative, to assure that Quality Assurance measures comply with Quality Assurance Program(s).
Inspection	A control measure utilizing visual and manual methods to determine the quality of workmanship, material, or finished products. Inspections shall determine if all verifiable parts, practices, and products are in compliance with the Contract Documents. All inspections shall be documented and any deviations from Contract Documents shall be noted therein.
Lot	<p>One day's production, regardless of quantity produced. One day's production shall be considered as one continuous production run within one working day by the Source or Contractor from which the finished product was produced.</p> <p>Examples of a Lot are as follows: one "heat" or one continuous pouring from a caldron for reinforcing steel, one day's production of a particular mix design of Asphalt Cement Concrete regardless of tonnage (quantity), one "batch" of Portland Cement, one day's production of a particular mix design of Portland Cement Concrete, or similar.</p> <p>Lots by the above definition may be divided into separate lots upon request from the Contractor and with the approval of the Engineer. Lots may be composed of several sub-lots as provided by specification.</p>
Material	A material is a raw or composite of several raw substances used in the Work, or Products.
Non-Contracted Construction	Work, which will be dedicated to the County upon successful completion, however, the County, is not the first party of the contract for the construction of the work. In example, developer built roadways would fit into this type of work.,
Oversight	All daily inspection, supervision, and normal worker performance verification checks conducted by the Contractor's supervisory personnel during production of the work. Oversight shall be documented as part of a functional Quality Control Plan.
Owners Representative	<p>Any of the following "In-House" individuals:  Assistant Manager – Construction  Project Manager  Senior Construction Management Inspector and/or  Construction Management Inspector</p> <p>As well as any of the Consultant Staff individuals:  Consultant Project Manager  Quality Assurance Inspector  Augmentation Inspector and/or  Quality Assurance Technician</p>

TERM	DEFINITION
Pre-Activity Meeting	A meeting to coordinate the quality control, quality assurance, work planning, scheduling, and other details for a specific activity prior to its start. This formal meeting is intended to resolve all outstanding issues regarding submittals, testing requirements, elevation controls, work plans, or similar.
Project	In this manual, Project shall be considered to be identical in meaning with the Contract. It shall reference the specific job-site of the Contract.
Project Manager	<p><b><i>When the words Project Manager stand alone within this manual it shall mean either the Consultant Project Manager or Clark County's Supervisory Construction Management Inspector position. In the event that the particular duty shall remain a Clark County only function, Clark County Project Manager will be used.</i></b></p> <p>Other "Project Managers" are referenced in this manual, and shall be specifically referred to as:            Consultant Project Manager,            Contractor Project Manager, or            Design Project Manager</p>
Project Number	This Number is issued for all construction projects by the Design Division of Clark County Public Works for internal cost accounting. Many Project Numbers have more than one Contract to complete. For the purposes of this manual, reference is made only to the specific Contract project and the relevant Project Number for that project.
Quality	Quality is obtained if the stated requirements are adequate and if the completed project conforms to the requirements. Quality in the constructed project is obtained by conscientious application of a thoroughly planned Quality Control System implemented through quality-control procedure.
Quality Assurance	<p>A) Quality Assurance is the planned and systematic actions, performed by the Owner, necessary to provide adequate confidence that the Quality Control Plan is performing satisfactorily and the results conform to project requirements.</p> <p>B) The governing agency responsible for assuring contract testing/inspecting compliance.</p> <p>C) All Control Measures taken by the Owner, Engineer, Contracting Agency, or their designated representative to verify that Quality Control measures, materials, workmanship, or similar, comply with Contract Documents and the related Quality Control Plan(s).</p>
Quality Control	<p>A) Quality Control is the planned and systematic actions, performed by the Contractor, necessary to provide adequate confidence that the construction of the project complies with the Contract Documents.</p> <p>B) Supervision of Quality Control staff is considered part of the Quality Control effort, to include action such as informing Quality Assurance and scheduling/verifying contract inspectors.</p> <p>C) Quality Control shall be all measures taken by the Contractor and/or the Source to assure that materials, workmanship, or similar, are in compliance with specifications.</p>

TERM	DEFINITION
Quality Control Plan	A Contractor's or Source's in-house procedures which detail all Control Measures taken to verify quality of products, workmanship, and the program itself are in compliance with specification.
Qualified Materials List	A list generated by the Engineer, or their designated representative, which contains materials requiring an abbreviated submittal prior to incorporation into the work. The period of Qualification will typically be one year.
Quality Systems Manual	A series of manuals, published by Clark County Public Works (the Engineer), which specify how Quality Control, Quality Assurance, Independent Assurance, Laboratory Quality Systems, Personnel Training, or other, shall be executed.
Responsible Person in Charge	The primary Owners Representative of the Contractor, generally the Superintendent. This individual has specific duties required by the Contractor Quality Control Plan.
Source Inspection	Acceptance testing of manufactured and prefabricated materials at locations other than the project site (generally at the manufactured location).
Submittal Coordinator	The individual who sends and receives Submittals for an organization. Generally this is the Senior Construction Management Inspector for CCPW and is often clerical staff within the Contractor's and Consultant organizations. This individual is not necessarily the Submittal approver from any organization; however, if qualified to do so, they may perform both functions.
Testable Quantity	The amount of work, material, construction, or similar. quantified by the units used for determination of testing frequency. Testing units and payment units may be different. For the purposes of this document all Quantities shall be Testable Quantities.
Unlisted Materials	Materials that have not been Qualified or Authorized for use in the work. These materials must be submitted with the Full Submittal package, and are subject to extended review periods.
Unlisted Source	Any material Supplier that does not have an Approved Quality Control Plan in place.
Work	The Work shall be defined as any work performed by the Contractor within the confines of the Contract Documents.

## 2.02 TABLE OF ACRONYMS

ACRONYM	DESCRIPTION
AAP	AASHTO Accreditation Program
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ACIA	American Construction Inspectors Association
AMRL	AASHTO Materials Reference Laboratory
ASTM	American Society for Testing and Materials
CCRL	Cement and Concrete Reference Laboratory
IQAC	Inter-Agency Quality Assurance Committee
MUTCD	Manual on Uniform Traffic Control Devices
NAQTC	Nevada Alliance for Quality Transportation Construction
NDOT	Nevada Department of Transportation
OSHA	Occupational Safety and Health Administration
RTC	Regional Transportation Commission of Southern Nevada
RFCD	Clark County Regional Flood Control District
SNTM	Southern Nevada Test Method
USACE	United States Army Corp of Engineers





## SECTION 3      MANUAL HIERARCHY

### 3.01      CLARK COUNTY “IN-HOUSE” HIERARCHY OF MANUALS AND GUIDELINES

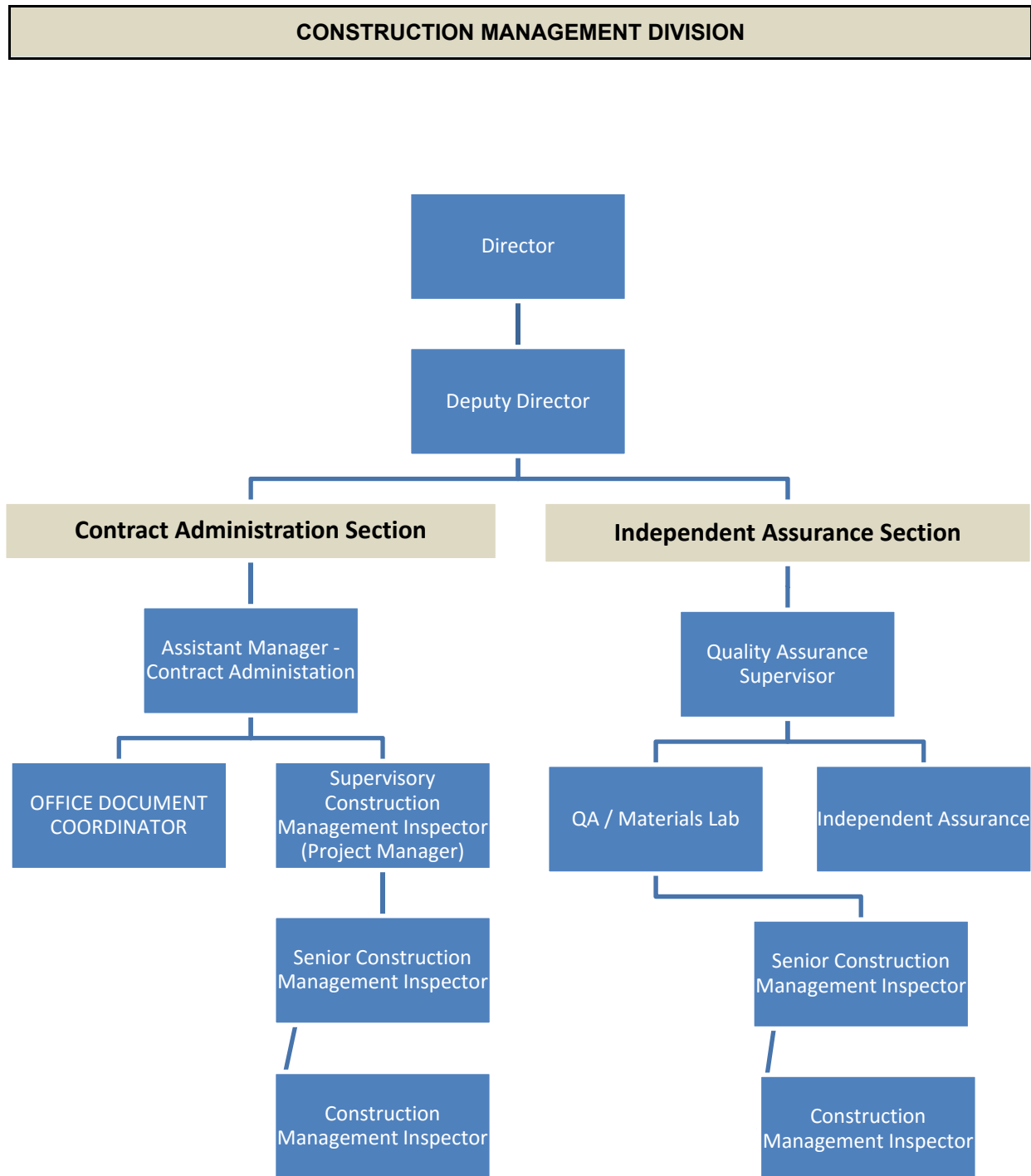
MANUAL OR DOCUMENT NAME	NOTE	JURISDICTIONAL GROUP
PERSONNEL POLICIES AND PROCEDURES		CLARK COUNTY
SAFETY AWARENESS MANUAL		CLARK COUNTY
ADMINISTRATIVE GUIDELINES		CLARK COUNTY
FISCAL DIRECTIVES		CLARK COUNTY
PUBLIC WORKS RULES AND REGULATIONS		DEPARTMENT OF PUBLIC WORKS
HUMAN RESOURCES ACTION GUIDE FOR DIVISION MANAGERS & SUPERVISORS		DEPARTMENT OF PUBLIC WORKS
EMERGENCY RESPONSE PLAN		DEPARTMENT OF PUBLIC WORKS
CONTRACT DOCUMENTS	PLANS AND SPECIAL PROVISIONS	CONSTRUCTION MANAGEMENT DIVISION - CONTRACT ADMIN
INDEPENDENT ASSURANCE MANUAL		CONSTRUCTION MANAGEMENT DIVISION - MATERIALS
CONSTRUCTION MANUAL	This Manual	CONSTRUCTION MANAGEMENT DIVISION - CONTRACT ADMIN
QUALITY CONTROL SPECIFICATIONS	SPECIAL PROVISIONS SECTIONS 105.19, 105.20, and 111-117	CONSTRUCTION MANAGEMENT DIVISION - MATERIALS
SOURCE MANUAL	When Available	CONSTRUCTION MANAGEMENT DIVISION - MATERIALS
INSPECTION MANUAL	When Available	CONSTRUCTION MANAGEMENT DIVISION - CONTRACT ADMIN
AASHTO, ASTM, and NDOT METHODS	SOUTHERN NEVADA TEST METHODS, As applicable	CONSTRUCTION MANAGEMENT DIVISION - MATERIALS

### 3.02 CONTRACT LEVEL HIERARCHY OF REFERENCE DOCUMENTS

NAME	NOTE
Contract Documents	Plans And Special Provisions
Construction Management Manual	(This Manual)
Quality Control Specifications	Special Provisions Section 105.19, 105.20, and 111-117
Best Practice And Inspection Forms	Inspection Manual (When Available)
AASTHO, ASTM, And NDOT METHODS	Southern Nevada Test Methods (As Applicable)
Best Practice And Inspection Forms	Source Manual (When Available)
RTC Uniform Standard Specifications	"Blue Book"
RTC Uniform Standard Drawings	"Blue Book"
NDOT Standard Specifications For Road And Bridge Construction	"Silver Bullet"
NDOT Standard Plans For Road And Bridge Construction	NDOT Standard Plans
<b><i>Contractually Bound Documents Are Shaded</i></b>	

## SECTION 4 ORGANIZATION

### 4.01 INTERNAL ORGANIZATIONAL CHART



## 4.02 CONTRACT LEVEL ORGANIZATION

CHAIN OF COMMAND					
Support Positions			Onsite Levels		
			Deputy Director		
			Assistant Manager		
Design Project Manager	Public Information Coordinator	Submittal Coordinator	Clark County Project Manager		
Special Submittal Reviewer	Pay Application Specialist		Senior Const. Mgmt. Inspector	Consultant Project Manager	
		Quality Assurance Inspector	Construction Management Inspector	Augmentation Inspector	Consultant Inspector
		Quality Assurance Supervisor			
		Quality Assurance Technician			
	Quality Assurance Laboratory Manager				
			Quality Assurance Laboratory Technician		

- A Peer-to-peer relationships exist between positions listed on the same horizontal level.
- B The Submittal Coordinator can be any one of the Onsite Level individuals listed in the box. Alternately, this may be a separate clerical position within Consultant organizations.
- C All individuals listed under the **Onsite Levels** heading are considered Owners Representatives within the context of this manual.

## 4.03 RESPONSIBILITIES

### 4.03.01 GENERAL

- A The Construction Management Division is responsible for the quality assurance and independent assurance of construction contracts assigned to the Department of Public Works which ensures compliance of the Contractor Quality Control.
- B The Construction Management Division provides for the quality construction through contract administration, and uniformity in construction project materials testing and inspection by the contractor. Responsibilities include, but not limited to, the following:
- 1 Managing Quality Assurance construction inspection and Quality Assurance testing
  - 2 Reviewing project documentation for completeness and accuracy
  - 3 Managing the Independent Assurance testing and inspection program
  - 4 Local laboratory and material source inspection
  - 5 Providing technical support regarding construction methods and techniques
  - 6 Training field personnel (informal on-the-job and formal)
  - 7 Developing construction specifications
  - 8 Participating in construction-related research
  - 9 Oversight of the field tester qualification program NAQTC
  - 10 Developing field test methods and revising as necessary
  - 11 Coordination of the Interagency Quality Assurance Committee

- 12 Literature search
- 13 Research new products
- 14 Vendor/Product review

#### **4.03.02 QUALITY ASSURANCE RESPONSIBILITIES ON THE CONTRACT**

- A Inspect, sample and test soils, aggregates, asphaltic concretes, Portland cement concretes, and other materials in accordance with the County Standard Specifications and Contract Documents. Provide the results of such sampling and testing and inspection reports to the Supervisor Construction Management Inspection.
- B Attend progress meetings, job conferences, and other meetings related to Project material testing when requested.
- C Acquire samples for laboratory testing and receive samples which are furnished at the Project site by Contractor.
- D Review Contractor's Quality Control daily testing results and inspection reports to ensure they are complete, timely and within the scope of the Contract specifications.
- E Report to the Supervisor Construction Management Inspection if it is believed that any work is unsatisfactory, faulty, and defective or does not conform with the Contract Documents, or does not meet the requirements of any material inspections. This includes tests or approvals required to be made, and advising the Project Manager when they believe any of the work needs to be corrected or rejected, needs to be uncovered for inspection, or requires special testing.
- F Keeps a daily diary or log book recording the quality assurance field testing and inspection on the project site and specific observations.
- G The Quality Assurance testing companies and/or contractor shall be AMRL/CCRL or CMEC accredited in AASHTO specifications R18, ASTM D 3666, D 3740, and C1077. In addition, the accreditation is required for both field and laboratory testing.
- H Receive, review, and analyze samples, catalogue data, laboratory tests of materials and other data which the Contractor submits as a joint sample in accordance with the Contract Documents. Maintain a Quality Assurance log of lab testing submittals and test results.
- I Prepare and provide a monthly Quality Assurance report that reflects the analyzing of all material tests performed and Quality Assurance/Quality Control ratios of required testing. The monthly Quality Assurance report shall be stamped by a Nevada Licensed Professional Engineer.
- J All testing technicians/inspectors performing Quality Assurance testing shall be NAQTC/ACI certified for the tests they perform.
- K Provide validation reports using the County provided spreadsheets.

### **4.04 POSITION DESCRIPTIONS**

#### **4.04.01 GENERAL**

- A Specific functions performed by each individual are contained throughout this manual and are all defined in the brief descriptions below. This portion of the manual is not intended to define all of the functions performed by a position, only position specific functions not included elsewhere and position generalizations are defined herein. Each individual shall be responsible for reading this manual and understanding all of the details of their assigned functions.

#### **4.04.02 DEPUTY DIRECTOR OF PUBLIC WORKS**

- A The Deputy Director leads the program to deliver quality infrastructure products and services. The Deputy Director does the following:
  - 1 Establishes the Division's and Section's direction, definition, policies, and objectives
  - 2 Develops and uses performance measures to determine program efficiency and effectiveness

- 3 Acts as a consultant to the Assistant Manager and Clark County Project Manager
- 4 Coordination with other Divisions, Departments, and Agencies
- 5 Must be a Nevada P.E.
- B Deputy Director, as a registered professional engineer, is in responsible charge of the work, and is to make any decisions and actions that constitute the practice of civil engineering for all Contracts within the Contract Administration Section. As defined by the Professional Engineer's Act, a registered professional engineer must be responsible for the engineering integrity of a construction Contract.

#### 4.04.03 ASSISTANT MANAGER

- A First and foremost, the Assistant Manager, under the general direction of the Deputy Director of Public Works, is the primary administrator for construction and administration of all Clark County Public Works contracts.
- B The Assistant Manager is the Clark County Project Manager's counselor on the intent and application of any portion of the contract. On complex or sensitive construction issues, the Clark County Project Manager and Assistant Manager should consult with the Deputy Director.
- C The Assistant Manager as primary administrator is charged with:
  - 1 Developing and improving program performance measures.
  - 2 Providing reviews to document the understanding and application of processes for administering contracts
  - 3 Providing expert assistance on complex and sensitive contract administration issues

#### 4.04.04 QUALITY ASSURANCE SUPERVISOR

- A The Quality Assurance Supervisor for Clark County Public Works reports directly to the Deputy Director and must be a registered Nevada Professional Engineer with experience in construction inspection and materials. The position has a number of equally weighted job functions within the organization.
  - 1 Management of the "in-house" Quality Assurance function for selected projects.
  - 2 Oversight of laboratory and field accreditation and test certifications.
  - 3 Plan review.
  - 4 Supervision of the Quality Assurance field and laboratory staff.
  - 5 Implementation and oversight of the Independent Assurance function related to all construction projects, including supervision of Independent Assurance consultants.
  - 6 Implementation and oversight of the IQAC Material Source program.
  - 7 Investigation and review of material testing conflicts.
  - 8 Aid in the pavement material section design, pavement management investigation and recommendations.
  - 9 Material forensic engineering for construction and development divisions
  - 10 New material/method research and recommendations.
  - 11 Author and review construction specifications.
  - 12 Membership of the following for industry relations
    - (a) RTC specification subcommittee.
    - (b) Board Member of the Construction Management Association of America (CMAA)
    - (c) Board Member of the Nevada Infrastructure Concrete Conference (NICC)
    - (d) Member of Southern Nevada Home Builders Association (SNHBA)
    - (e) Chairman of Interagency Quality Assurance Committee (IQAC)
    - (f) Board member of Nevada Association of Quality Transportation Construction (NAQTC)
    - (g) Member of the Regional Transportation Commission Specification Sub-committee

**4.04.05 SUPERVISORY CONSTRUCTION MANAGEMENT INSPECTOR (CLARK COUNTY PROJECT MANAGER)**

- A The Clark County Project Manager's primary responsibility is to administer assigned construction Contracts on a day-to-day basis. The Clark County Project Manager must thoroughly study the assigned Contracts, becoming familiar with all its facets. These duties include, but are not limited to:
- 1 Analyzing the plans, estimate, and preliminary quantity calculations, and determine if the estimated quantities cover all work items contemplated.
  - 2 Oversight and supervision of Quality Assurance Inspectors on Contracts
  - 3 Oversight and supervision of Consultant staff on Contracts
  - 4 Discovery of any major discrepancies, and taking appropriate action
  - 5 Thoroughly study the requirements of environmental commitments and permits, including pollution and erosion control plans
  - 6 When it becomes apparent at any time that the probable unobligated balance of funds, with due regard for the amount of work remaining, is not sufficient to complete the Contract, the Clark County Project Manager must bring the situation to the Assistant Manager's attention.
  - 7 Once assigned, the Clark County Project Manager should remain on the Contract until its completion, including the completion of all Contract documents and administrative matters.
  - 8 Secondary duties include supervision of Senior Construction Management Inspector(s) and Construction Management Inspector(s).
  - 9 Conduct annual and/or bi-annual Performance Evaluation for Inspectors
  - 10 Disciplinary actions as necessary
  - 11 Authorize and sign leave requests

**4.04.06 SENIOR CONSTRUCTION MANAGEMENT INSPECTOR**

- A The Senior Construction Management Inspector performs dual roles within the organization as defined below:
- 1 Senior Construction Management Inspector
    - (a) In this capacity, the Senior Construction Management Inspector shall perform Clark County Project Manager functions as assigned and directed by their Clark County Project Manager. The Senior Construction Management Inspector may be required to perform all functions of the Clark County Project Manager (under-fill) in their absence such as submittal review and coordination, process meeting minutes, and *Daily Inspection Report* review.
  - 2 Fill-in Construction Management Inspector
    - (a) In this capacity, the Senior Construction Management Inspector shall perform the routine functions of the Construction Management Inspector. Generally, this occurs when a Construction Management Inspector has taken leave and other Construction Management Inspectors are not available for Contract coverage.

**4.04.07 CONSULTANT PROJECT MANAGER**

- A The Consultant Project Manager is an employee of a Consultant firm contracted to perform Contract Administration services on a specific Contract. This position is the leader of the Consultant team and becomes the Primary Contact for the Contract.
- B The Consultant Project Manager will be assigned many of the tasks typically associated with the Clark County Project Manager. The instances when the Consultant Project Manager acts with this authority are specifically identified within this manual.
- C Normally, a peer-to-peer relationship exists between the Clark County Project Manager and the Consultant Project Manager. However, in the absence of the Clark County Project Manager, the Consultant Project Manager shall regard the Senior Construction Management Inspector as the Clark County Project Manager and shall contact them with Contract issues.

#### 4.04.08 QUALITY ASSURANCE INSPECTOR

- A This is a generic title used throughout this manual to label each of the three distinctions of Inspector, Construction Management, Augmentation, and Consultant Inspectors.
- B Generally, the Quality Assurance Inspector is the “first line of defense” within our organization. The Quality Assurance Inspector acts as the primary liaison between the Contractor, the public, and Clark County.
- C Under the supervision of the Project Manager, the Quality Assurance Inspectors are authorized to inspect and/or test all work performed and materials furnished for the assigned Contract(s). Such inspections may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. To that end, the Quality Assurance Inspector must thoroughly study the assigned Contracts, becoming familiar with all its facets.
- D Quality Assurance Inspectors are not authorized to alter or waive provisions of the Contract or to issue instructions contrary to the Contract.
- 1 Construction Management Inspector**
- (a) This distinction is used to define a Quality Assurance Inspector who is a Clark County employee performing the function of Quality Assurance Inspector.
- (b) Construction Management Inspectors may be tasked to perform their functions on more than one Contract concurrently.
- 2 Construction Management Inspector - List of Duties Table**

CATEGORY	TASK	FREQUENCY	NOTE
CM Duty	Owners Representative	Principal Duty	In this regard, the CMI is the Owner's eyes and ears on the project and as such should be aware of nearly every aspect of the project, relating this information back to the Project Manager and Assistant Project Manager.
CM Duty	Quality Assurance Inspector	Principal Duty	While this is “just another name” for CMI, it is distinct in that the role plays an important role within the Quality System.
CCPW Only	Plan Review		As a CMI, they are expected to review the plans and specifications for each project assigned for accuracy and constructability. Additionally, a CMI may be tasked with review of projects during the design review cycle in the same regard.
CM Duty	Daily Reports	Daily	The CMI is required to complete a Daily Report for each day they are onsite.
CM Duty	Verify Electricians and Plumbers	Whenever Present on Site	Special Provisions Instruction to Bidders Section 5 C 4 (also in Section 20 D) – Verify Electricians and Plumbers are ICC certified and carry a Development Services (Building Department) card.



CATEGORY	TASK	FREQUENCY	NOTE
CM Duty	Verify safety officer	Project Start	Special Provisions Instructions to Bidders Section 19 b – Verify that a safety officer has been identified and an active safety program is in place. Attend weekly meetings if possible.
DAQEM	SWPPP	Weekly	Verify that Contractor has performed their weekly inspection.
DAQEM	SWPPP	Rain Event	Review SWPP devices and complete report
DAQEM	SWPPP	Monthly (2 per project min.)	Review SWPP measures and complete report
CM Duty	Traffic Control	Initial Setup	Review and include in Daily Report
CM Duty	Traffic Control	Continuous	Review and include in Daily Report
CM Duty	Verify Traffic Control Technician Certification	Whenever Present on Site	
CM Duty	Verify Quality Control, Quality Assurance Technicians	Daily	
CM Duty	Verify Quality Control, Quality Assurance Technicians & testing/sampling methods	Daily	
CM Duty	Verify Activity Cards & other Quality Control documents	Daily	
CM Duty	Educate Quality Control in CCPW requirements for documentation	As Needed	
CM Duty	Verify work against project survey staking	Daily	
CM Duty	Validate survey requests	Daily	
CM Duty	Verify products used are those approved by Submittal	Daily	
CM Duty	Look for interferences (utilities) in the work areas & notify utilities when their facilities must be moved	Daily	
CM Duty	Quantify work completed for monthly pay applications	Daily	Track Quantity(ies) and record
CM Duty	Verify Federal ADA requirements are met and/or maintained	Daily	
CM Duty	Act as liaison between County & citizens for questions & complaints	Daily	
CM Duty	Verify construction methods meet minimum requirements	Daily	
CM Duty	Verify all required work items completed as prescribed in Specification, Special Provisions and plans to include other organization requirements (i.e. UDACTS, NDOT Silver Book)(Compute to verify) Quantities on some federal projects for reporting	Daily	
CM Duty	Investigates injury and damage claims against the County resulting from construction within public rights-of-way. Ensures compliance with County codes, ordinances, OSHA safety requirements, specifications, plans, and traffic diversion.	Daily	
DAQEM	Enforce Air Quality requirements	Daily	

CATEGORY	TASK	FREQUENCY	NOTE
CM Duty	Review "As built" drawings for accuracy & omission	Monthly	
CM Duty	Schedule & track Quality Assurance testing	Daily	
CM Duty	Review Quality Assurance test results & monthly reports/billings	Daily	
CM Duty	Check concrete delivery tickets for accurate ratios & batch times to verify within 90 minute window	Daily	
CM Duty	Watch for potential safety issues	Daily	
CM Duty	Create initial punch list	Daily	
CM Duty	Maintain Blue Books - update	Per Project	
OTHER	Keep time cards current	Daily	
OTHER	Truck maintenance/washes	Monthly	
CM Duty	Prepare, review and update a variety of reports including daily project reports, monthly pay tally sheets and project status reports; attend staff meetings as required.	Daily	
CM Duty	Establish and maintain working contact with project staff and contractors. Answer questions and provide information to the public, City staff, contractors and project staff regarding project progress and changes including testing, engineering, planning and established parameters. Participate in the collection of various utility information including current and proposed locations. Investigate complaints and recommend corrective action as necessary to resolve complaints.	Daily	
CM Duty	Coordinate completion of projects; insure completion of all project paperwork; coordinate and undertake one-year inspection with contractors and City representatives.	Daily	

### 3 Augmentation Inspector

- (a) This distinction is used to label a Quality Assurance Inspector who is an employee of a Consultant contracted to provide an individual to perform the Quality Assurance Inspector function. Augmentation Inspectors are utilized as an extension of Clark County staff and answer directly to the Clark County's Project Manager on a day-to-day basis.
- (b) The Augmentation Inspector may or may not be the Primary Contact in the field for the owner. An Augmentation Inspector is differentiated from Consultant Inspectors in that the Augmentation Inspector is NOT part of a Consultant team administering the Contract.

### 4 Consultant Inspector

- (a) This distinction is used to label a Quality Assurance Inspector who is employed by a Consultant contracted to administer a Contract. As part of the Consultants team, they perform the specific functions of Quality Assurance Inspector. Typically, they report directly to the Consultant Project Manager or another member of the Consultant team.

#### 4.04.09 CONSULTANT QUALITY ASSURANCE ENGINEER

- A The Quality Assurance Testing Engineer works for an AASHTO Accreditation Program Accredited Testing Laboratory contracted by Clark County to perform Quality Assurance

Testing for a Contract. As the Professional Engineer is over the Quality Assurance Testing Technician and the Quality Assurance Laboratory Technician, the Quality Assurance Testing Engineer is in responsible charge of this work. The Quality Assurance Testing Engineer oversees the proper conduct and reporting of all testing performed for Quality Assurance on the Contract.

**4.04.10 CONSULTANT QUALITY ASSURANCE TESTING TECHNICIAN**

A The Quality Assurance Testing Technician performs field and laboratory testing of materials incorporated into the work. The Quality Assurance Testing Technician is required to be NAQTC and/or ACI certified in the area in which they are performing testing.

**4.04.11 INDEPENDENT ASSURANCE INSPECTOR**

A The Independent Assurance Inspector is responsible for auditing by:

- 1 Performing testing and random visual laboratory audits as well as direct the 3-way splitting of the material samples.
- 2 Maintaining testing consistency throughout the Project by verifying that testing procedures, that are required per the contract, are utilized and performed correctly by Quality Assurance and Quality Control testing personnel
- 3 Verifying that all testing personnel possess the necessary NAQTC or WAQTC and ACI qualifications.
- 4 The NAQTC certifications may not be available for many of the AASHTO, ASTM or other methods. Thus it is permitted to review the AMRL/CCRL or CMEC AASHTO documentation and technician certifications, in those cases, waiving the requirement of NAQTC certification as an auditable item.
- 5 Performing inspections on Quality Assurance and Quality Control companies to verify that equipment meets the requirements of the test methods and are in good working condition.
- 6 To verify that the field testing company is AMRL/CCRL or CMEC AASHTO accredited including R-18 and that the test methods performed are listed on the accreditation. The field test equipment shall be added to the R-18 procedure.
- 7 To verify that the laboratories are accredited by the AMRL/CCRL or CMEC AASHTO Accreditation Program for specifications R18, ASTM D 3666, D 3740, and C1077. The accreditation is required for both field and laboratory testing.
- 8 Review project Quality Control and Quality Assurance contract documentation
- 9 Random inspection to verify that the Quality Control and Quality Assurance is functioning properly
- 10 Coordinate, review and post Interagency Quality Assurance Committee (IQAC) materials.
- 11 The Independent Assurance unit is responsible for checking all Clark County projects and material production facilities within the County unincorporated area.



## **SECTION 5 SAFETY**

### **5.01 COUNTY PERSONNEL**

- A The Clark County Safety Awareness Manual contains information regarding personal safety practices and protective equipment to be used for specific work conditions.

### **5.02 SAFETY EQUIPMENT**

- A Required personal protective equipment (e.g., hard hats, vests, and boots) will be made available to all Owners Representatives. Consultant and Augmentation staff are required to provide their employees with the appropriate safety equipment, and such will NOT be provided by Clark County.
- B Appropriate safety equipment will be utilized as required by the specific work conditions and current policy. At a minimum, Owners Representatives shall wear County issued reflective vests when in or near live traffic lanes, and shall wear hard hats when in trenches or near overhead equipment or operations. Acceptable dress includes as a minimum, long pants, shirts with sleeves, and non-open-toed shoes. Steel toe shoes when required by the contractors safety program and/or when employees utilize the Clark County Safety Shoe Program.

### **5.03 CONFINED SPACE ENTRY**

- A Confined spaces will only be entered in the OSHA-approved manner. The Contractor is required by Contract to provide the owner safe access to all areas of the work including Confined Space Entry. Should the Confined Space Entry be outside of the Contract requirements, the County's Maintenance Management Division is available to provide the necessary equipment. Owners Representatives shall contact the Clark County Project Manager to make arrangements with the Maintenance Management Division.

### **5.04 CONTRACTOR REQUIREMENTS**

#### **5.04.01 GENERAL**

- A By Contract (see Instructions to Bidders, Section 110.02 of the Uniform Standard Specifications and Special Provisions) and by law, the contractor is required to comply with all applicable local ordinances, State laws, and federal requirements. No action on the part of the County or our representatives should be construed as usurping this responsibility.

#### **5.04.02 SAFETY PLAN**

- A The preconstruction conference agenda includes a segment for submission and/or discussion of the Contractor's safety plan. When the Contractor provides a formal safety plan, the Owners Representatives will honor the plan by complying with all of its requirements.

#### **5.04.03 WEEKLY MEETINGS**

- A When the Contractor holds weekly Contract safety ("tailgate") meetings, the Owners Representative shall try to attend whenever possible.

#### **5.04.04 ACCIDENT REPORTING**

- A The weekly meeting agenda contains a portion for discussion of safety concerns and accidents. Copies of all available accident reports (both traffic and work place) shall be obtained from the contractor and retained in the Contract file.

### **5.05 UTILITY BREAKS**

#### **5.05.01 GENERAL**

- A Contractors should be made fully aware that the Owners Representative is to be immediately notified of all utility interruptions. In the event that a utility line is damaged, Owners Representatives have the following responsibilities:

**5.05.02 DETERMINE IF IT IS NATURAL GAS**

- A Call the Fire Department or 911 immediately, unless you can verify that the Contractor has already called.

**5.05.03 DETERMINE IF TRAFFIC IS IMPACTED**

- A Call the respective Police Department directly or 311, in the event of inoperative traffic signals, down lines, undermined pavement, or other situations that pose hazards to vehicular or pedestrian traffic.
- B Events that will disrupt traffic on major streets should also be called into the Public Information Coordinator, at 455-6000, as soon as identified.

**5.05.04 CONTACT THE UTILITY DIRECTLY**

- A Unless verification that the Contractor has already called can be established, Owners Representative will take the initiative for notification of the affected utility.
- B When in doubt as to what to do, remember that our primary charge is to protect the public and act so as to best fulfill that goal. When breaks result in significant damage or injury, are attended by the media or result in significant disruption to traffic, pass the information on the incident to the supervisory chain as rapidly as possible.

**5.06 ISSUE RESOLUTION**

**5.06.01 GENERAL**

- A Owners Representatives shall encourage work site safety by being alert to potential hazards and violations. When concerns are raised as to the safety of a Contractor's operations or work site, prompt resolution shall be pursued in an escalation process as defined in [Section 24.03 – Conflict Escalation](#).
- B If the concern cannot be resolved between the contractor and the Owners Representative, it is appropriate to further escalate the issue using the following steps:

**5.06.02 CONTACT THE CLARK COUNTY PROJECT MANAGER**

- A Inform the Clark County Project Manager of the circumstances.

**5.06.03 CONTACT THE APPROPRIATE REGULATORY AGENCY**

- A Contact for consultation and if directives are given by the regulatory agency, then take the following steps:
- 1 Directives that do not involve contractual issues shall be handled between the contractor and the regulatory agency. Owners Representatives should be "kept in the loop," but will take no further direct action.

**5.06.04 IMMINENT DANGER**

- A Imminent danger is any situation or condition on the Contract that could, in the opinion of the Clark County Project Manager, result in serious injury or death. In this event, the Clark County Project Manager will immediately issue, or direct to be issued, a verbal and written stop work order (*Non-Compliance Report*) to suspend all work in the immediate vicinity until the hazard is adequately addressed. Contact the Safety Officer in Risk Management, as needed, for assistance with questionable situations.

**5.06.05 NON-COMPLIANCE REPORT**

- A The Owners Representative shall immediately notify the Contractor in writing of a noncompliance. The notification shall provide a required date of response that provides a reasonable amount of time to correct the infraction. If the condition is not corrected within the time stated in the notice, contact the Safety Officer in the Risk Management for assistance.

## **5.07 EMERGENCIES**

### **5.07.01 GENERAL**

A In the case of an accident or serious incident, the Assistant Manager has established certain priorities. These priorities would include the following:

### **5.07.02 CONTACTING EMERGENCY RESPONSE (911 OR 311)**

A Sometimes the rescuer becomes a victim merely by attempting the rescue. Be certain that professional help is on the way prior to starting any rescue operations.

### **5.07.03 PREVENTION OF FURTHER LOSS OF LIFE OR INJURY**

A At the scene of an accident, access may be temporarily restricted to protect any evidence or to keep the public out of danger. The Contractor will normally secure the area as quickly as possible. Should the Contractor be unable or unwilling to provide site security, the Owners Representative on-scene will secure the site using Clark County or Contractor resources (i.e., flaggers, vehicles, or similar.).

### **5.07.04 PROTECTION OF PHYSICAL EVIDENCE**

A Preserve any physical evidence which may later help investigators determine the cause of the accident or incident.

B Responding news media will be permitted to enter an accident site only in a safe manner and when the controlling agency allows. Reporters and photographers may be asked to accept an escort to guide them through the area. As news media representatives commonly know, the release of names of individuals involved are specifically defined; names of casualties will not be released until next-of-kin has been notified. Sometimes the next-of-kin notification process is unavoidably delayed. It is imperative that family members of casualties are not cruelly and unnecessarily shocked by a premature release of names.

C Once determined, all facts pertaining to an accident will be released through the Public Information Coordinator.

## **5.08 REPORTING PROCEDURES**

### **5.08.01 GENERAL**

A Immediately report all accidents and major incidents to the Clark County Project Manager, or when the Clark County Project Manager is unavailable to the Public Information Coordinator.

B The following are descriptions of reportable accidents and construction incidents:

### **5.08.02 ACCIDENTS TO BE REPORTED**

A Report the following types of accidents:

- 1 Accidents resulting in serious injury or death to a contractor's employee
- 2 Accidents involving death or serious injury to a county or a consultant employee
- 3 Accidents involving damage to equipment owned by Clark County, by a consultant, or by the contractor
- 4 Accidents resulting in the serious injury or death of a member of the public within the construction zone or influenced in any manner by construction related activities, conditions, equipment, or personnel
- 5 All catastrophic types of accidents or accidents receiving wide media coverage
- 6 Accidents with no injuries but with a high potential for being fatal or disabling - These accidents include false-work or guying system failures, overturned cranes, high-voltage power line contacts, trench excavation or shoring failures, gas or fuel line fire or explosions, hazardous utility breaks, and collisions with structures under construction or their supporting false-work that cause displacement of a major member.

**5.08.03 UNUSUAL OR EXTRAORDINARY CONSTRUCTION OCCURRENCES TO BE REPORTED**

A Unusual or extraordinary construction occurrences are reportable incidents that may not be classified as accidents.

B Examples of these incidents include the following:

- 1 Disasters that result in major damage to a County facility or Contract work
- 2 Situations that result in the evacuation of the all or part of the Project
- 3 Any other events that affect the County facility or Contract work and may generate media coverage
- 4 Encounters of previously unknown hazardous waste on a construction Contract
- 5 A hazardous spill on a roadway within construction Contract limits
- 6 Any incident causing major traffic delays, requiring a Police, Fire, or Medical response



## SECTION 6 PRE-BID

### 6.01 GENERAL

#### 6.01.01 GENERAL

- A There are also various Contract listings from which information on future Contracts are gleaned. Generally, the first notification for an upcoming Contract is the transmittal of plans and specifications for review from the Design Engineering Division.

#### 6.01.02 PROJECT NUMBERS

- A Projects are assigned Project Numbers by the Administration and Programs Office of Public Works. Projects are generally larger in scope than the particular Contract that you may be assigned. Therefore, a Project may require several Contracts or Bids to be completed.

#### 6.01.03 BID NUMBERS

- A Bid Numbers are assigned by the Purchasing Division of the Finance Department in sequential order for all their Contracts. This includes Bids for Contracts not assigned to the Construction Management Division. The Bid Number is the unique identifier used by Clark County Public Works Construction Management Division to track all documentation related to the Contract. **It must be written on all documents regardless of origin (this includes emails).**

### 6.02 PLAN REVIEW

- A The Design Project Manager is responsible for distribution of the Plan Review or “check” sets. Plan Review will typically be performed at the 50%, 70% or 90% design stage. The Plan Review set shall include both the drawings and the special provisions.
- B The Assistant Manager and Quality Assurance Supervisor are both independently responsible for review of preliminary design plans and specifications. The Assistant Manager may delegate this task to the anticipated Clark County Project Manager to perform. Further, the Construction Management Inspector may be tasked with this review as well.

### 6.03 CONSTRUCTION MANAGEMENT SELECTION

#### 6.03.01 GENERAL

- A On or about the time of Advertisement, a Clark County Project Manager is designated and a determination made as to whether or not a Consultant will be retained to administer the contract. The Assistant Manager, in conjunction with the Deputy Director, will evaluate manpower and work load to make this determination.

#### 6.03.02 PROJECT MANAGER SELECTION

- A The Assistant Manager will assign a Clark County Project Manager to the Contract. This selection should happen prior to selection of a Consultant.

#### 6.03.03 CONSULTANT SELECTION

- A Once the Assistant Manager has determined that the Contract warrants a Construction Management Consultant, they will take the following steps:
- 1 Ask the SOQ Coordinator to determine which firms are next in line from the Statement of Qualifications listing.
  - 2 A panel will be selected; generally consisting of 3 to 4 members from within Clark County and/or industry.
  - 3 The Administrative Specialist will generate notification letters to each of the selectees; attaching current interview questions.
  - 4 The Administrative Specialist will coordinate schedules, select a conference room, and setup the Interviews.
  - 5 Interviews conducted.
  - 6 Consultant selected based on interview performance.

- 7 The Assistant Manager will then negotiate, draft, and have signed a Contract for Construction Management services.
- (a) The Administrative Specialist, at the direction of the Assistant Manager, will generate the draft and final documents for this process.
- (b) The **Agenda Item** will also be generated during the negotiation period.
- 8 The Contract will be sent to the Board of County Commissioners for approval.
- 9 Once approved, the Contract will be forwarded to the Department of Finance for generation of Purchase Order.

#### **6.03.04 AUGMENTATION SELECTION**

A Once the Assistant Manager has determined that a Contract warrants Augmentation, the following steps will be taken:

- 1 The process is identical to the process defined above in 5.03.02 Consultant Selection.

#### **6.03.05 QUALITY ASSURANCE TESTING SERVICES**

A Once the Assistant Manager has determined that a Contract warrants a Quality Assurance Service, the following steps will be taken:

- 1 Ask the SOQ Coordinator to determine which firm is next in line from the Statement of Qualifications listing.
- 2 The Administrative Specialist will generate a notification letter for the selectee.
- 3 The Assistant Manager will then negotiate, draft, and have signed a Contract for Construction Management services.
  - (a) The Administrative Specialist, at the direction of the Assistant Manager, will generate the draft and final documents for this process.
- 4 If the dollar value of the Contract exceeds \$49,000, the Board of County Commissioners approval will need to be received.
  - (a) The Agenda Item will also be generated during the negotiation period.
- 5 Once the Contract is approved, either by the Board or internally based on dollar value, the Contract will be forwarded to the Department of Finance for generation of Purchase Order.
- 6 Based on whether or not the Contract covers a single project or will be utilized for multiple projects, a Work Order process may be used in conjunction with the Purchase Order to request the Services be provided for a specific project. If multiple projects will be addressed, the following steps are to be taken:
  - (a) The Administrative Specialist, at the direction of the Assistant Manager, will generate a separate Work Order Request for each new project
  - (b) Once approved, the Work Order Request will be forwarded to the Department of Finance for generation of Purchase Order.

## **SECTION 7      BID PROCESS**

### **7.01      GENERAL**

- A      The Design Project Manager is generally responsible at this phase of the Contract. Construction Management personnel are in an advisory role.

### **7.02      ADVERTISEMENT**

- A      When design of a Contract is complete and funding is in place, the Contract is then advertised. Depending on size and complexity, Contracts are generally advertised for four weeks.

### **7.03      PRE-BID CONFERENCE**

- A      The Pre-Bid conference is usually held one week after an initial advertising date. The Assistant Manager will be notified of the conference and invited to attend. The Clark County Project Manager will be invited to attend and when available the Clark County Project Manager shall attend the Pre-Bid Conference.
- B      Recommendations for award are given by Clark County Public Works Design Engineering Division. A "Bid Tab" is generated by the Design Project Manager for reference during construction.

### **7.04      ADDENDA**

- A      The Design Project Manager is responsible for generation and distribution of the Addendums. Typically, addendums are generated in response to bidder's questions. Several factors apply to if and when an addendum is issued. Depending on those issues, one or more addendums may be issued throughout the Bidding process.
- B      The Assistant Manager and Clark County Project Manager may be asked to advise and consult in the addendum process when the addendum is related to constructability issues.

### **7.05      BID OPENING**

- A      At the time of Advertisement, a Bid Opening date is scheduled. Provided that the Opening date was not changed by Addendum, the Bids will be opened by Purchasing on the date and time specified.
- B      Bids are checked for completeness and mathematical accuracy and an apparent low bidder determined. Nevada has a bidder preference law which provides contractors who have paid taxes in the state for the last five years with a 5 percent advantage (see Nevada Revised Statute NRS 338.140).



## SECTION 8 CONTRACT STARTUP

### 8.01 AWARD

#### 8.01.01 NOTICE OF INTENT TO AWARD LETTER

- A Once the lowest responsive and responsible bidder is determined a Letter of Intent to Award is sent out to all bidders by the Department of Finance. This starts the protest period for the Contract.

#### 8.01.02 PROTEST PERIOD

- A Any protests would be handled during this period of time, by the Department of Finance.

#### 8.01.03 BOARD APPROVAL

- A Once the protest period is over, the Contract is scheduled for approval to award by the Board of County Commissioners at the next available meeting. If the Contract is funded by The Regional Transportation Commission or the Regional Flood Control District, their boards must also approve for award of the contract.

#### 8.01.04 BONDS AND INSURANCE REQUEST LETTER

- A After the approval for award of the contract by the Board of County Commissioners, Regional Transportation Commission, or similar, the Department of Finance sends the Bonds and Insurance Request Letter.
- B This letter informs the Contractor that the Contract has been awarded to them pending submission of proof of bonds and insurance and is required within seven (7) days per the terms of the Contract Documents. Should the Clark County Project Manager receive the Bonds and Insurance information directly from the Contractor, they will need to be forwarded to Department of Finance.

#### 8.01.05 AWARD LETTER

- A Once the Department of Finance - Purchasing Division receives and verifies the bonds and insurance they generate and issue the Award Letter. This letter notifies the Construction Management Division that a valid Contract exists.
- B The letter informs the Contractor that Public Works will contact them to schedule a Pre-Construction Conference. (Note – the *Pre-Quality Control Meeting* needs to be conducted at or near the same date, remember to coordinate this meeting as well).
- C Depending on the particular language used in the letter sent by Department of Finance, the Contractor may have been given the “Material Notice to Proceed.” Should the Notice to Contractor Letter not be specific and materials needed for the Contract require long lead times for delivery, the Clark County Project Manager may issue a separate *Materials Notice To Proceed Letter*.

### 8.02 STARTUP NOTIFICATION

#### 8.02.01 CONTRACT START CHECKLIST

- A The receipt of the Award Letter advises the Contractor to contact Public Works to schedule a Pre-Construction Conference with the contractor representative. Once this contact has been made, the Clark County Project Manager completes the *Contract Start Checklist* as follows:

- 1 Contract Statistics Page
  - (a) Date
  - (b) Clark County Project Managers Initials
  - (c) Bid Number
  - (d) Estimated Start Date
  - (e) Survey Supervisor
  - (f) Pre-Con Information

- (g) Desired Date
- (h) Time
- (i) Desired Conference Room
- (j) Number of Attendees

**2** Contact List "*Call List*"

- (a) A list of "stakeholders" is generated for Pre-Construction and during construction correspondence copies. This list shall include:
  - (1) Utilities (i.e., Southwest Gas, Nevada Energy, Cox Communications, or other.)
  - (2) Agencies (i.e., Regional Transportation Commission, Regional Flood Control District, Nevada Department of Transportation, USACE, or other)
  - (3) Other departmental personnel
  - (4) County personnel outside the Department
  - (5) Other Interested parties

B The Call List will be highlighted for the necessary contacts and will identify who needs to receive Utility Notices and forwarded to the Administrative Specialist.

**8.02.02 GENERATING NOTIFICATIONS**

A The Administration Specialist will receive a *Contract Start Checklist* from the Clark County Project Manager. The checklist will be notice to begin the process for a specific Contract and contain the general information necessary as follows:

**1** Determine if the Pre-Con has been scheduled.

- (a) If not, schedule the conference as requested by the Clark County Project Manager.
  - (1) If the conference Room or Time/Date is not available, determine what Time, Date, and/or Room are available.
  - (2) Contact the Clark County Project Manager and coordinate the next best Time, Date, and/or Room.
  - (3) Be sure to confirm the Room, Time, and Date with the scheduling representative.
  - (4) Note the confirmed information on the Contract Start Checklist.
- (b) Collect Additional Data  
Review the Special Provisions, find/identify the following items of data, and record on the Contract Start Checklist:

ITEM	DOCUMENT	WHERE TO FIND ITEM
Project Name	Cover	Middle of Page
Project Number(s)	Any of the last pages 100-700 Sections	Bottom Left
Contractor	Notice of Award Letter	First Page in Contract
Contractor Representative	Notice of Award Letter	First Page in Contract
Contract Amount	Clark County Board of Commissioners Agenda Item	Middle "Bid Amount"
Date of Award	Award Letter	Upper Left
Surety Company	Performance Bond	Right Hand Side Bottom
Surety Address	Performance Bond	Right Hand Side Bottom
Contract Scope of Work	Page 1-1	Item 1
Clark County Public Works Design Representative	Page 1-1	Item 2 – Top Line of Table
Consultant Design Company	Page 1-1	Item 2 – Third Line approx. of Table

ITEM	DOCUMENT	WHERE TO FIND ITEM
Consultant Design Contact	Page 1-1	Item 2 – Third Line approx. of Table
Contract Time	Page 2-1	Item 1.2 – Underlined calendar days

- (c) Review the Call List
- (1) Assure that all non-County contacts noted on Page 1-1 of the Special Provisions have been listed there.
  - (2) Generate a New Call List with just those individuals pertinent to the Contract.
  - (3) Generate a Contract specific Contact List.
  - (4) Return to the Clark County Project Manager for Review.
  - (5) Receive approved or corrected New Call List from Clark County Project Manager.
  - (6) Make changes as necessary to New Call List.
  - (7) Generate E-mail to all Contacts who have an E-mail address. (Be sure to Carbon Copy or send To the Clark County Project Manager on any E-mail(s) sent out)
  - (8) Call the Contacts that do not have E-mail addresses, noting their names below as they are contacted.
  - (9) E-Mail a note to Clark County Project Manager when all Contacts have been completed.
- (d) Open the boiler *Pre-Con Invite* document file
- (1) Revise the boiler with the Contract specific information from the Contract Start Checklist
  - (2) The Standard set of Contacts will already be filled, make changes as necessary to verify that all parties have been selected from the Call List and Clark County Project Manager Checklist.
  - (3) Review the Word Document
  - (4) Save the Letter in appropriate file
  - (5) Print
  - (6) Forward the Letter to the Clark County Project Manager for review/ initial.
  - (7) Receive the Letter once sent back from Clark County Project Manager.
  - (8) Make changes as necessary, beginning with the first step above.
  - (9) Make necessary copies and distribute.
- (e) Open the *Utility Notice Letter* file
- (1) Revise the boiler with the Contract specific information from the Contract Start Checklist.
  - (2) The Standard set of Contacts will already be filled, make changes as necessary to verify that all parties have been selected from the Call List and Clark County Project Manager Checklist.
  - (3) Save the Letter in appropriate file
  - (4) Print.
  - (5) Forward the Letter to the Clark County Project Manager for review/ initial.
  - (6) Receive the Letter once sent back from Clark County Project Manager.
  - (7) Make changes as necessary, beginning with the first step above.
- (f) Open the boiler *Pre-Con Agenda* file
- (1) The Standard Agenda will open in Word.

- (2) Revise the boiler with the Contract specific information from the Contract Start Checklist
- (3) Save the agenda in the appropriate file.
- (4) E-mail the Clark County Project Manager with a hyperlink to the file, and a note that the Agenda is ready to review.
- (5) Receive E-mail from Clark County Project Manager that the review has been completed.
- (6) Review the document for Grammar and Spelling, making changes as necessary.
- (7) Turn off the "Comments" inside the Word Document.
- (8) Save the agenda in the appropriate file.
- (9) Print.
- (10) Make necessary copies and forward to Clark County Project Manager.
- (g) Open the boiler *Pre-Con Attendance List* file
- (1) Revise the boiler with the Contract specific information from the Contract Start Checklist
- (2) Print
- (3) Make necessary copies and forward to Clark County Project Manager.
- (h) E-mail the Clark County Project Manager a confirmation that all Contract Start Notifications have been completed for the Contract.
- (i) File the Contract Start Checklist and file copies of all documents generated in the Administration Contract File.

### 8.03 CONFORMED PLANS AND SPECIFICATIONS

- A Prior to the Pre-Construction Conference the Clark County Project Manager shall request the Conformed or Issued for Construction sets of Contract Plans and Specifications from the Design Project Manager.
- B The Design Project Manager is responsible for compiling and delivering these sets to the Clark County Project Manager.
- C The Clark County Project Manager will distribute the sets no later than the Pre-Construction Conference.

WHOM	NUMBER OF COPIES (LARGE)	NUMBER OF COPIES (SMALL)	NUMBER OF SPECIAL PROVISIONS
Contractor	4	0	4
Survey Division	2	2	2
Independent Assurance Section	1	0	1
Utility Companies	Varies (6)	Varies	Varies (6)

### 8.04 CONTRACT RECORD SETUP

#### 8.04.01 CONTRACT RECORDS (HARD COPY FILES)

- A The Contract Administration Section is the custodian of records for all Contracts from the bid phase forward. Per Nevada Revised Statutes, all documents are to be kept in perpetuity. **The file system is required to meet the File Folder System outline in [Section 36 – Files in Perpetuity](#).**
- B The Project Manager is responsible for maintaining a complete file of all Contract documents during the active life of each Contract. These files shall be maintained in the office of the Project Manager until the Contract Close-Out ([Section 34 - Contract Closeout](#)) has been completed.



- C Complete and accurate records are important for proper administration of all construction Contracts. Document all information related to the performance of the work. Any correspondence concerning the Contract may become significant at a later date and should be documented.
  - D Records fulfill many functions. They enable the Project Manager to continually review work progress and quality as well as the material quantity and quality. Records provide work history for a new Quality Assurance Inspector on the job. They also permit auditing of the Contract.
  - E Records that provide documentation of contractor delays, quantity variations, unacceptable work, quality of materials, surveying problems, and other points of contention should be complete, clear and accurate. Complete documentation will support the department's position if a formal dispute or claim is made.
- 1 In-House Filing
    - (a) The Project Manager shall use the *File Setup Form* to generate labels for the Contract Records.
  - 2 Consultant Project Manager Filing
    - (a) For Consultant Contracts, the Consultant Project Manager will be responsible for on-site records maintenance. The structure of the filing system shall mirror the file setup for In-House Filing system.

#### 8.04.02 ELECTRONIC RECORDS

- A The goal of the Department is to require Contractors to provide all contract documents to the Project Managers in an electronic format. Specific document format and requirements will be addressed in the Contractors Quality Control Plan.
  - B The collection and retention of construction records electronically must be acceptable from an engineering, auditing, and legal standpoint. Any records system shall allow for the reconstruction of the chain of events that occur on a Contract. In order for records to be admitted as legal evidence, they should meet the following requirements.
- 1 Records must be made at or near the time of the events.
  - 2 Records must be made by or from a person with direct knowledge of the event.
  - 3 Records must be kept during the course of business.
  - 4 Records are required for legal purposes.
  - 5 Records must be entered only by authorized personnel.
  - 6 Records must provide for adequate backup and recovery of records to protect against information loss. Protection procedures should be in place to prevent both human errors and system failures.
  - 7 Records must be protected to prevent unauthorized alteration or erasure.
  - 8 Records must provide a method for all authorized users of the system to retrieve desired information.
  - 9 Records systems should include adequate documentation of software programs and hardware dependency.
  - 10 Record reliability will be enhanced if an accurate audit trail is provided to indicate the steps followed in processing the data and the methods used to prevent loss of data.
  - 11 Records should be stored on an appropriate media throughout their life cycle.

#### 8.04.03 DOCUMENT CONTROL

- A Document Control and tracking will be achieved for all Contracts using an approved Contract Tracking Software whether administered In-House or by Consultant.
- B Clark County has accepted several Contract Tracking Software solutions to date. Consult with the Assistant Manager prior to establishing any software system, to assure that the software chosen complies with the current standard.

**8.04.04 CONTRACT TRACKING SOFTWARE SET-UP**

- A The outline given below is intended to show a general listing of the information being tracked inside the system. The detailed processes of tracking are outlined in particular relevant portions of this Manual.
- B The Clark County Project Manager shall request, via email to the Pay Application Specialist, establishment of the current Contract inside the system. At a minimum, the Project Manager finishes the process by providing the following information inside the Contract Tracking Software:
- 1 Contract Information
    - (a) Bid Number
    - (b) Contract Number
    - (c) Contract Name
    - (d) Contractor Name
  - 2 Contract Contacts
    - (a) Pre-fill as many contacts as possible prior to Contract starting. Additional contacts will need to be listed as construction progresses.
  - 3 *In-Coming and Sent Correspondence Logs*
    - (a) Status and Tracking Log
    - (b) Sequential and Outstanding Status Reporting
  - 4 *Submittal Log*
    - (a) Submittal Package
    - (b) Individual Submittal data
    - (c) Status and Tracking Log
    - (d) Sequential and Approval Status Reporting
  - 5 *Transmittal Log*
    - (a) Transmittal Contents
  - 6 Survey Request
    - (a) Status and Tracking Log
    - (b) Sequential and Outstanding Status Reporting
  - 7 *Request for Information*
    - (a) Individual Request for Information data
    - (b) Individual Request for Information Answer data
    - (c) Status and Tracking Log
    - (d) Sequential and Status Reporting
  - 8 Daily Inspection Reports
  - 9 *Photograph Logs*

**8.04.05 PAY APPLICATION SOFTWARE SET-UP**

- A The Clark County Project Manager shall generate a request for Pay Application via email to the Pay Application Specialist.
- B The following information shall be included:
- 1 Contract Statistics
  - 2 "Bid Tab" Sheet or Bound Contract Special Provisions
  - 3 Name of Consultant (if Applicable)
  - 4 Name of Owners Representative
  - 5 Anticipated Notice To Proceed Date

#### 8.04.06 CONFLICT AND CHANGE LOG SET-UP

A The Construction Change Authorization Log, Contract Change Order Log, and the Conflict Tracking/Issues Log are all part of a single Excel file. The file, located in the Boilers folder, shall be reviewed and updated with the project stats at this time.

**1** *Construction Change Authorization*

- (a) Status and Tracking Log
- (b) Sequential and Status Reporting

**2** *Contract Change Order*

- (a) Status and Tracking Log
- (b) Sequential and Status Reporting

**3** Conflict Tracking/Issues Log

- (a) Individual Issue or Conflict data
- (b) Potential Costs
- (c) Date of origination
- (d) Current Status
- (e) Final Resolution

**4** Individual Request for Information data

- (a) Individual Issue data
- (b) Resolution data
- (c) Current Status
- (d) Sequential and Status Reporting

#### 8.05 PRECONSTRUCTION CONFERENCE

##### 8.05.01 GENERAL

A The Project Manager is responsible for conducting a Pre-Construction Conference. The following steps shall be taken:

##### 8.05.02 PREPARE AN AGENDA

A The Project Manager shall complete the Pre-Construction Conference Agenda Form. The form is self-explanatory containing the necessary discussion topics and is periodically updated. Print copies of the agenda to hand out during the conference.

##### 8.05.03 PREPARE AN ATTENDEES "SIGN-IN" SHEET

A The Project Manager shall complete the Pre-Construction Conference Attendees Form.

##### 8.05.04 CONDUCT CONFERENCE

A The Project Manager shall conduct the conference utilizing the Agenda to guide the discussions.

##### 8.05.05 CONFERENCE MINUTES

- A The Project Manager shall preserve the recorded minutes in the electronic project folder.
- B The Project Manager shall give notice to the Administrative Specialist to distribute the minutes.

#### 8.06 NOTICE TO PROCEED

A The Clark County Project Manager will generate a *Notice To Proceed Letter* using the Notice To Proceed Letter. The specific date of Notice To Proceed will be stipulated on the letter.

B The Assistant Manager will review the status of the Contract at this time and once assured of all parties' readiness, sign and issue the letter.



## SECTION 9 DOCUMENT TRACKING

### 9.01 GENERAL

- A The Project Manager is responsible for tracking of all Contract Document Tracking. All Contract documentation (i.e., Submittals, Letters, Requests for Information, **Construction Change Authorizations**, or similar) including internal County Documents related to the Contract, will be required to be tracked in and/or out of the office using the Contract Tracking Software.
- B The table below defines Logging locations for Items NOT tracked as a Submittal. See [Section 10 - Submittal Procedure](#) for details on those items which are listed and tracked as submittals.

ITEM TYPE	LOG WHEN RECEIVED ON	LOG RESPONSE ON	LOG WHEN ITEM IS SENT ON
Construction Change Authorization	CCA Log	CCA Log	Transmittal Log
Contract Change Order	CCO Log	CCO Log	Transmittal Log
Daily Reports	Daily Report Log	N/A	N/A
Plan Revisions	N/A	N/A	Transmittal Log
Misc. Correspondence (Letters, Memos)	Correspondence. Received Log	N/A	Correspondence. Sent Log
Meeting Minutes	N/A	N/A	Transmittal Log
Non-Compliance Report	NCR Log	N/A	N/A
Punch List	N/A	N/A	Transmittal Log
Proposals and Value Engineering Proposals	Request for Information Log	Request for Information Log	Transmittal Log
Request for Survey	Survey Request Log	N/A	Survey Request Log
Request for Information	Request for Information Log	Request for Information Log	Transmittal Log

### 9.02 DOCUMENT RECEIVED – PROCEDURE

#### 9.02.01 GENERAL

- A As Incoming Documents are received, the Project Manager shall determine the type of correspondence it is and log it into the appropriate Log.
- B The Incoming Correspondence Log is generally for letters only. If the item is NOT tracked through some other log, it shall be recorded here.
- C Field documents are received into the office from the field personnel. Due to these documents being sent in the field as well, they are logged again as outgoing.

#### 9.02.02 DOCUMENT RECEIVED LOG INFORMATION

- A Once the incoming correspondence type has been identified and the appropriate Log found, the following information is recorded being received within that Log.
- 1 Log Number (Sequential and Automated except submittals)
  - 2 Date of Correspondence
  - 3 Date Received
  - 4 Sent To
  - 5 Sent By
  - 6 Subject or Letter Name
  - 7 Attachments List

## **9.03 CORRESPONDENCE SENT PROCEDURE**

### **9.03.01 GENERAL**

- A As Outgoing correspondence is prepared for distribution, the Project Manager shall determine the type of correspondence it is and log it into the appropriate Log. For the purposes of Contract Administration, correspondence shall be divided into one of the two types defined below.

### **9.03.02 CONTRACT TRACKING SOFTWARE GENERATED ITEMS**

- A Any item of correspondence that is generated within the Contract Tracking Software should automatically be logged. These items shall use the Transmittal Log Procedure defined below to provide tracking of the document.

### **9.03.03 ITEMS NOT GENERATED IN THE CONTRACT TRACKING SOFTWARE**

- A Generally, these documents are correspondence which has the address of the Receiving Party printed directly on the document, and sent via United States Postal Service. In some instances, the correspondence may be "hand-delivered." These items shall be logged and tracked using the Correspondence Log in the Contract Tracking Software. Further, they do not have a separate "Cover Sheet" or Transmittal.

### **9.03.04 CORRESPONDENCE SENT LOG INFORMATION**

- A Regardless of type, the following information shall be recorded in the Contract Tracking Software in the appropriate Log.

- 1 Log Number
- 2 Date of Correspondence
- 3 Date Sent
- 4 Sent To
- 5 Send By
- 6 Subject or Letter Name
- 7 Attachments List
- 8 Remarks

### **9.03.05 ADDITIONAL INFORMATION REQUIRED FOR TRANSMITTALS**

- A Generally, the Contract Tracking Software will automatically generate the Transmittal. However, additional information is required that may not be automatically provided.
- B Verify the following items have been recorded on the *Transmittal Sheet* inside the Contract Tracking Software:
- 1 Submittal Package Number
  - 2 Submittal Number
  - 3 Number of Copies
  - 4 Print the Document and review to assure accuracy

## SECTION 10 SUBMITTAL PROCEDURE

### 10.01 GENERAL

- A The entire Submittal procedure shall be tracked inside the Contract Tracking Software.
- B The Clark County Project Manager has overall responsibility for compliance in this area. However, the Consultant Project Manager is routinely tasked to perform the tracking, review and approval process as well. In order to simplify this procedure, the person(s) performing Submittal coordination (Logging and Tracking) shall be identified as Submittal Coordinator.

### 10.02 CONTRACTOR REQUIREMENTS

#### 10.02.01 GENERAL

- A The Contractor is required to submit many different materials, permits, or similar directly to Submittal Coordinator for review, approval, proof of compliance, or similar.

#### 10.02.02 ACCURACY OF CONTENT

- A The Responsible Person in Charge shall attest to the content of the submitted materials having been reviewed against the Contract Documents and that the materials are in compliance thereto. Review submitted materials that are to be evaluated as "Or Equal" or "Substitution" for accuracy and sufficiency of back-up materials to enable the Clark County Project Manager and/or Design Project Manager to make the determination.

#### 10.02.03 CONTENT OF SUBMITTALS

- A Each individual material, permit, or similar being submitted to the Submittal Coordinator shall be accompanied by a *Submittal Cover Sheet*. The contents of the Submittal Cover Sheet shall include the following:

- 1 Contractor's Name and Address, including Phone and Fax numbers
- 2 Contract Name
- 3 Bid Number
- 4 Package Number (Numbering shall be per [Section 10.03 - Submittal Package Protocol](#))
- 5 Submittal Number (Numbering shall be per [Section 10.04 - Initial Review](#))
- 6 Revision Number (Sequential number for each resubmit)
- 7 Intended Use (description of the specific use or uses of the material on the Contract)
- 8 Indication of "Or Equal" or "Substitution" as appropriate
- 9 Date
- 10 Number of Copies Sent (attached behind the Cover Sheet)
- 11 Printed Name and Signature of Submitting individual
- 12 Printed Name and Signature of Responsible Person in Charge (RPC)

- B NOTE: Minimum of one (1) Original and six (6) additional copies must be attached. Clark County will retain the Original and two (2) copies. If Contractor requests additional copies to be returned, Clark County will accommodate two (2) additional copies, up to a maximum total of six (6) documents returned to the Contractor.

- C Each individual material shall have an individual Cover Sheet.

#### 10.02.04 SUBMISSION OF MULTIPLE ITEMS CONCURRENTLY

- A A "Transmittal" accompanies any submittal. The Transmittal shall include the following information:
- 1 Contracting company name and address, including phone and fax numbers
  - 2 Contract name
  - 3 Bid number
  - 4 Listing of submitted materials attached including package and Submittal numbers

5 Date

6 Printed name and signature of RESPONSIBLE PERSON IN CHARGE.

### 10.03 SUBMITTAL PACKAGE PROTOCOL

- A Standard filing of submittals allows for consistency between Contracts and quick access throughout the duration of the Contract and perpetual filing. To that end, all personnel shall package all submittals using Package Numbers identified by the following system.
- B Those specific submittals not attached to a single "BID LINE ITEM" are given in the table below. All other submittals will be packaged using the bid line item as the Package Number (i.e. 623.01, 702.05, 502.02, or similar). In the table below, the column titled, SECTION, is to assist in locating the reference Uniform Standard Specifications only and is not to be used as a Package Number.

<b>SELECTED PREDEFINED PACKAGE NUMBERS</b>		
<b>SECTION</b>	<b>PACKAGE NUMBER</b>	<b>DESCRIPTION</b>
<b>100</b>	<b>General Items</b>	
	100.01	SWPPP Permit
	100.02	NDPES Permit
	100.03	Air Quality Permit
	100.04	Rolling Stock Permit
	100.05	Emergency Contact List
<b>103</b>	<b>Awards and Execution of Contract</b>	
	103.01	Bonds
	103.02	Insurance
<b>105</b>	<b>Control of Work</b>	
	105.01	Quality Control Plan and Amendments
	105.02	Quality Control Monthly Reports
	105.03	Quality Assurance Monthly Reports
	105.04	Quality Deficiency Resolutions
<b>107</b>	<b>Legal Relations and Responsibility to the Public</b>	
	107.01	Property Owner Permission Letters
<b>108</b>	<b>Prosecution &amp; Progress</b>	
	108.01	Schedules
<b>109</b>	<b>Measurement and Payment</b>	
	109.01	Pay Applications
	109.02	Force Account
<b>624</b>	<b>Accommodations for Public Traffic</b>	
	624.01	Traffic Control
<b>637</b>	<b>Pollution Control</b>	
	637.01	Dust Control
<b>900</b>	<b>Contract Closeout</b>	
	900.01	Quality Control File Turnover
	900.02	Punch List Completion
	900.03	Quality Control/Quality Assurance Personnel Data Sheets
	900.04	Road Data Sheets
	900.05	Box Up All Files

### 10.04 INITIAL REVIEW

#### 10.04.01 GENERAL

- A The Submittal Coordinator shall quickly review the Cover Page to determine if a Package and Submittal Number have been given. If the Package and/or Submittal Number are not given, write them on the upper right hand corner of the cover page. While submittals without proper



identification are generally not accepted, the Submittal Coordinator must track the Submittal for being submitted regardless of the final status. To that end, the Submittal Coordinator shall identify the Package and Submittal Numbers.

- B This is important to log into the system, so that the errors of the Contractor can be recorded. All erroneous submittals still have to be “logged in” using the incorrect package/submittal numbers that were provided by the Contractor. Then the submittal will be re-logged using the correct package/submittal numbers.

#### **10.04.02 CONTRACT MANAGER LOGIN**

- A The procedure written here uses Primavera Contract Manager Tracking Software system. When other Contract Tracking Software is used, review the instruction manual provided with the software for the specific instructions.

- B Generally, this function is performed by the Submittal Coordinator. However, Administrative Support staff may be utilized to perform the initial login.

- C The following steps shall be taken:

- 1** Date Stamp
- 2** Log-In to Contract Manager
  - (a) Click the “+” next to the Bid Number and/or Contract Name in the list on the left
  - (b) Click the “+” next to the Folder named Logs
  - (c) Double-click the Submittals Heading in the Logs folder
  - (d) The Submittals Window will be displayed on the right
  - (e) Click the “ADD” button on the bottom left side of the Submittals Window
  - (f) A Submittal dialog box will be pop-up on the screen
  - (g) In this dialog box input the following items

<b>TITLE IN CONTRACT MANAGER</b>	<b>INPUT DATA</b>	<b>LOCATION OF ITEM</b>
Package	Package Number or Bid Item Number (3-digit number)	Should be in the listed items area on the Contractors Submittal cover page. Sometimes the Package number may be hand written on the top of this page.
Submittal	Submittal Number	Should be in the listed items area on the Contractors Submittal cover page
Title	Description or Title	Should be in the listed items area on the Contractors Submittal cover page
Number	NONE	Will be automatically filled by Contract Manager
Received From	Contractor Company Initials	Top of the Submittal
	Contractor Contact Initials	Near signature typically on bottom of Submittal cover page
Sent To	Clark County Public Works Construction Management	This will always be the same
	Project Managers Initials	On the Submittal cover page it will be in the To: or addressee. Use the Project Manager even if the Senior is named on the cover page.

- (h) Select the Review Cycles Tab about half way down the dialog box.
- (i) Click the “ADD” button on the bottom left of the Submittal window
- (j) A new line item will show up in the white box above
- (k) In this dialog box input the following items:

TITLE IN CONTRACT MANAGER	INPUT DATA	LOCATION OF ITEM
Description	Copy description exactly as on Submittal	Contract Manager will pre-fill this item.
Received	Date	Input the Date which you stamped on the Submittal upon receipt
Sent	Date	Input today's date
Status	NEW	Make sure it says "NEW"

(l) Click the OK button on the Submittal window to close the dialog box

(m) Click the OK button on the Submittals window to close the window

**3** Make a note directly on the Submittal, lower right-hand corner of cover sheet, stating "Input" with your initials and date.

**4** The Administrative support staff will forward the Submittal to the Submittal Coordinator. The Submittal Coordinator would continue with the Standard Submittal Review.

## 10.05 STANDARD SUBMITTAL REVIEW

A The entire Submittal procedure shall be tracked inside the Contract Tracking Software.

B The procedure written here uses Primavera Contract Manager Contract Tracking Software system. When other Contract Tracking Software is used, review the instruction manual provided with the software for the specific instructions.

C When other Agencies or persons outside the Contract chain-of-command are involved in the review process use the additional steps outlined in [Section 10.06 - Third Party Review](#). Additionally, be sure to address the specific details for reviewing some submittals which are given in [Section 11 - Submittal Review Details](#).

D These submittals usually go through the following steps:

**1** Review the Submittal for content and applicability.

**2** Review the Contract Documents paying close attention to additional requirements placed on the Submittal therein.

**3** Make notes directly onto each Submittal if minor items need clarification.

**4** Stamp each Submittal with the Review Stamp; This process may be performed electronically.

**5** Complete the Stamp for Bid No., Package-Submittal Numbers, Status, Sign and Date.

**6** Log-In to Contract Manager.

**7** Click the "+" next to the Bid Number and/or Contract Name in the list on the left.

**8** Click the "+" next to the Folder named Logs.

**9** Double-click the Submittals Heading in the Logs folder.

**10** The Submittals Window will be displayed on the right.

**11** Double-click the Submittal being reviewed.

**12** Double-click the Review Cycles Item about half way down the dialog box.

**13** In this dialog box input the following items:

TITLE IN CONTRACT MANAGER	INPUT DATA	LOCATION OF ITEM
Forwarded	Date	Input the Date the Review took place
Returned	Date	Input the Date
Status	A, B, C, or D	Input the Status of the Review A = NO Exceptions Taken B = Make Corrections Noted C = Amend and Resubmit D = Rejected – Resubmit
Remarks	As necessary	Input any notes from the Submittal Review, or explanation of why C or D status was given

- 14 Print - Follow instructions on screen.
- 15 Click the OK button on the Submittal window to close the dialog box.
- 16 Click the OK button on the Submittals window to close the window.
- 17 A dialog box titled Transmittal Creation Queue will appear.
- 18 Assure that the check box, "Combine Transmittals To Same Contact" and "Print Transmittals During Create" are selected as appropriate.
- 19 Highlight the Item(s) being forwarded to the Special Submittal Reviewer, and then click the Create button.
- 20 If you printed the Transmittal during Create, review the Transmittal Print for accuracy. Else, follow the Transmittal Procedure outlined in [Section 9.03 - Correspondence Sent Procedure](#).
- 21 Transmit two (2) set to each secondary Special Submittal Reviewer and the balance of the sets to the Primary Special Submittal Reviewer.
- 22 Each Special Submittal Reviewer will review and mark the shop drawings "Approved," "Approved as Noted," or "Resubmit," as appropriate. They will retain one set and return the remaining set(s) to the Submittal Coordinator.
- 23 The Submittal Coordinator will review the results from the Special Submittal Reviewer(s) and "Markup" the distribution sets to conform to all issues addressed. BE SURE TO KEEP ONE (1) OF EACH OF THE ORIGINAL Special Submittal Reviewer SETS INTACT AS RETURNED.
- 24 Should conflicts between Special Submittal Reviewers arise, the Submittal Coordinator shall communicate with the Special Submittal Reviewers as appropriate to resolve the issue. Be sure to include the Project Manager in the process.

## 10.06 THIRD PARTY REVIEW

- A The Submittal Coordinator will use the services of other Divisions, Agencies, or other to process Special Submittals (i.e. shop drawings, traffic signal systems, substitutions, specialty mix designs, or other). The individual(s) tasked to review the Submittal is identified as the Special Submittal Reviewer herein.
- B Concurrent review by all necessary parties should be the primary way to keep Submittal turnaround time to a minimum. To accomplish this goal, the Submittal Coordinator shall distribute copies to all parties and then be responsible for compiling the Special Submittal Reviewer(s) responses into one coherent response.
- C The Submittal Coordinator will retain one (1) set for informational purposes.
- D These submittals usually go through the following additional steps:
  - 1 Determine who is the Primary Special Submittal Reviewer and if additional Special Submittal Reviewers are in the loop. Generally the Primary Special Submittal Reviewer is the Professional Engineer
  - 2 Log-In to Contract Manager

- 3 Select the Review Cycles Tab about half way down the dialog box.
- 4 Check the Multiple Reviewer box in the appropriate Revision.
- 5 A Document Icon will show up to the left of the Revision Number
- 6 Double-Click this Icon.
- 7 A dialog box Name Submittal Item Revision 1 will appear.
- 8 In this dialog box input the following items:

TITLE IN CONTRACT MANAGER	INPUT DATA	LOCATION OF ITEM
Description	Copy description exactly as on submittal	Contract Manager will pre-fill this item.
Received	Date	Input the Date which you stamped on the submittal upon receipt
Sent	Date	Input today's date
Status	NEW	Make sure it says "NEW"

- 9 Click the OK button on the Submittal window to close the dialog box.
- 10 Click the OK button on the Submittals window to close the window.
- 11 A dialog box titled Transmittal Creation Queue will appear.
- 12 Assure that the check box, Combine Transmittals to same contact and Print Transmittals during create, are selected as appropriate.
- 13 Highlight the Item(s) being forwarded to the Special Submittal Reviewer and then click the Create button.
- 14 If you printed the Transmittal during Create, review the Transmittal Print for accuracy. Else, follow the Transmittal Procedure outlined in [Section 9.03 - Correspondence Sent Procedure](#).
- 15 Transmit two (2) sets to each secondary Special Submittal Reviewer and the balance of the sets to the Primary Special Submittal Reviewer.
- 16 Each Special Submittal Reviewer will review and mark the shop drawings "Approved," "Approved as Noted," or "Resubmit" as appropriate. They will retain one set and return the remaining set(s) to the Submittal Coordinator.
- 17 The Submittal Coordinator will review the results from the Special Submittal Reviewer(s) and "Markup" the distribution sets to conform to all issues addressed. BE SURE TO KEEP ONE (1) OF EACH OF THE ORIGINAL Special Submittal Reviewer SETS INTACT AS RETURNED.
- 18 Should conflicts between Special Submittal Reviewers arise, the Submittal Coordinator shall communicate with the Special Submittal Reviewers as appropriate to resolve the issue. Be sure to include the Clark County Project Manager in the process.

E Remember to complete the [Section 10.05 - Standard Submittal Review](#) steps for tracking in the Contract Tracking Software.

## 10.07 RETURNING SUBMITTALS

A All submittals shall be returned using the Transmittal Procedure under [Section 9.03 - Correspondence Sent Procedure](#).

## SECTION 11 SUBMITTAL REVIEW DETAILS

### 11.01 PROOF OF COMPLIANCE

A One copy of these particular submittals is all that is required. Review the Submittal to assure that the item is for the specific Contract. If it is for the Contract, log into the Contract Tracking Software and respond with a "Received" status.

- 1 NDPES Permit
- 2 SWPPP Permit
- 3 Air Quality Permit
- 4 Rolling Stock Permit
- 5 Property Use Permission Letters

### 11.02 SCHEDULE

#### 11.02.01 GENERAL

A It is essential to ensure Submittal and acceptance of the Initial, Contract, and Progress schedules to evaluate potential delay claims and determine availability of "float time." See Section 108.03 - Prosecution and Progress of the Special Provisions for specific schedule information for the Contract.

B By the typical Special Provision requirements, all schedules must use the Critical Path Method. If a bar chart schedule is desired, the Project Manager must ensure that the appropriate Contract Special Provision is included in the Contract.

#### 11.02.02 PART I - PRELIMINARY SCHEDULE

A The Contractor shall submit and the Project Manager accepts in writing the Initial Schedule prior to or at the Preconstruction Conference. This Schedule does not have a Notice To Proceed date specified, but is a general work flow schedule. The Project Manager shall utilize this schedule to determine if the Contractor grasps of the Contract and applicable milestones.

#### 11.02.03 PART II - CONTRACT SCHEDULE

A Once the Notice To Proceed date has been set, but not greater than 15 calendar days after the Project Manager's acceptance of the Part I - Preliminary Schedule, the Contractor shall submit the Part II - Contract Schedule.

B This schedule shall be the "Bench Mark" for all later schedules. It shall include manpower and equipment loading, "float time," milestones, or other as required by Special Provisions.

#### 11.02.04 UPDATE SCHEDULE

A Subsection 108.03 of the Uniform Standard Specifications requires the Contractor to submit a method statement and Update Schedule monthly.

B Update Schedules shall be updated as of the cutoff date for the monthly progress pay estimate and submitted to the Project Manager with the Payment Application. Withholding of payment may apply should the Update Schedule not be submitted within the appropriate time frame.

#### 11.02.05 RECOVERY SCHEDULE

A In some instances, the Contractors Progress Schedule will reflect completion beyond the Contract Time. If the Project Manager receives an adequate Recovery Schedule that will complete the Contract within Contract Time, the Clark County Project Manager may elect to not assess additional withholdings per Special Provision Section 108.03 ([See Section 33.05 - Liquidated Damages](#)) pending that submission.

B Clearly identify a date for submission of the Recovery Schedule, allowing adequate time for review prior to the next Pay Application. The Recovery Schedule, if acceptable, may be viewed as the next Progress Schedule at the discretion of the Clark County Project Manager.

### **11.03 QUALITY CONTROL MANUAL**

- A Every construction Contract within the Department's jurisdiction will have an approved Quality Control Plan. The Contractor's organization is responsible for the development and execution of its Quality Control Plan in accordance with all requirements of Contract Documents Special Provisions Sections 105 and 111 through 117. .
- B The quality of the finished product is the responsibility of the Prime Contractor. The Quality Control Plan is the instrument the Contractor will use to ensure (1) the final product meets the requirements of the plans and specifications and (2) all documentation associated with the construction of the product are maintained in a specified manner to safeguard them from damage prior to releasing them to the Department at the conclusion of the Contract.
- C The Project Manager has responsibility to review the Quality Control Submittals. The outline, given in specified Contract Documents, is the only format that will be acceptable to the Department. Failure to follow the requirements of this format in its entirety will be grounds for rejection of the Contractor's Program.
- D The Contractor is required to submit an organizational chart and individual position sheets with resume at the beginning of the Contract for review and approval. This normally takes place at the Pre-Construction Meeting. The review will also include the resumes and qualifications of the Contractor's personnel to ensure those individuals meet or exceed the requirements of the positions they will hold for the Contract. The minimum requirements for each position of Quality Control authority are listed in the Special Provisions. Failure to meet minimum requirements for a position will be grounds for rejection of that individual in the position assigned.

### **11.04 QUALITY CONTROL MONTHLY REPORTS**

- A Use the current Quality Control Specifications, the Quality Control Plan, and all Guidelines posted on the CCPW Website.
- B At a minimum it shall include:
- 1 Summaries of all test results
  - 2 Number of Tests taken by Bid Item and Material Type.
  - 3 The Quantity of Material being represented by each Bid Item and Material Type.
  - 4 Frequency of Testing for that Bid Item and Material Type.
  - 5 Engineer's Stamp from the Responsible Engineer in Charge of the work therein.
  - 6 A list of any exceptions reported on the results represented.
  - 7 May or may not include Deficiency Resolution(s).
  - 8 Copy of Deficiency Log.

### **11.05 QUALITY ASSURANCE MONTHLY REPORTS**

- A In general, the detail of the report shall be similar to that of the Quality Control Monthly Report. However, Federal participation on the project will require "validation" of all Quality Control data. Please review the manual for details.
- 1 Number of Tests taken by Bid Item and Material Type.
  - 2 The Quantity of Material being represented by each Bid Item and Material Type.
  - 3 Frequency of Testing for that Bid Item and Material Type.
  - 4 Ratio of Quality Control to Quality Assurance testing.
  - 5 Engineer's Stamp from the Responsible Engineer in Charge of the work therein.
  - 6 A list of any exceptions reported on the results represented.

### **11.06 MATERIALS**

#### **11.06.01 GENERAL**

- A There are three (3) basic categories of Materials that may be utilized. Defined below are the general description of the category and the minimum Submittal content. Determine which

category the Contractor is submitting and use the appropriate details. The Contractor shall clearly state on the Submittal if the Material(s) is currently listed on the Authorized Source List or the Qualified Products List. If the Submittal DOES NOT states this, it shall be treated as a Certification Material.

#### 11.06.02 AUTHORIZED SOURCE LIST MATERIALS

- A This category of Material comes from a Source which has proven to Clark County Public Works that they can maintain an "in-house" Source Quality Control Plan. This Quality Control Plan is similar to that being performed by the Contractor on the Contract. Clark County Public Works is responsible for continuous review of the Material for compliance.
- B The Submittal for this type of Material may be a simple listing of one or more Authorized Materials. The Submittal shall include copies of Mix Designs, if applicable, for field use.
- C The Submittal Coordinator shall assure that the Special Provisions for the Contract do not place additional requirements on the Material prior to approval for Contract use. Utilize the current Authorized Source List, available on the CCPW Website, to determine if the Source is still Authorized and the Material is specifically listed therein.
- D Review [Section 17 - Quality System Interaction](#) for Quality Assurance and Quality Control requirements as they will differ for this type of Material.

#### 11.06.03 QUALIFIED PRODUCTS LIST MATERIALS

- A This category of Material comes from a Source which has demonstrated to the Inter-Agency Quality Assurance Committee (IQAC) that the Material meets the minimum "Blue Book" specifications. The Inter-Agency Quality Assurance Committee is responsible to periodically review the Material for continued compliance. Please review which materials meet these criterion on the CCPW Website.
- B Assure that the Special Provisions for the Contract do not place additional requirements on the Material prior to approval for Contract use. The Submittal shall include copies of the most recent test data approved by the Inter-Agency Quality Assurance Committee.
- C These materials DO NOT receive special treatment in regard to Quality Assurance and Quality Control.
- D The submittal for this material type must include the most recent test data approved by the Inter-Agency Quality Assurance Committee.
- E Clark County uses the NDOT Qualified Products List with exception of those listed in the contract special provisions or on the Clark County Quality Assurance/Quality Control website.

#### 11.06.04 CERTIFICATION MATERIALS

- A This category of material may come from any Source. Two subcategories of this type of material are Field-Tested and Non-Field-Tested. Review the Quality Control Special Provisions and Table 1 to determine under which subcategory the material falls. **The certification must include the tests for the lot.**
- B In general, a Certificate of Compliance will be acceptable as a Submittal for any given material provided that all Materials Properties are addressed therein and that the certification is less than one (1) year old.
  - 1 Non-Field-Tested Materials
    - (a) Materials which do NOT require field testing still have specific requirements for the content of the Submittal and Certificate of Compliance. The details of these requirements are shown in the Contract. Use this guide as the basis of acceptance for these materials.
  - 2 Field-Tested Materials
    - (a) Materials that are tested in the field during construction. The Submittal shall include recent test results for each Material Property defined in the "Blue Book." A Certification of Compliance would be acceptable provided that all Materials Properties are addressed and that the certification is less than one (1) year old.



C Following is a partial list of construction materials that may be accepted based on Certificates of Compliance. This list is not all-inclusive and is subject to change:

- 1 Traffic Control Items
- 2 Sign Materials
- 3 Striping
- 4 Guideposts/Object Markers
- 5 Signal and Lighting
- 6 Irrigation Systems
- 7 Landscaping
- 8 Water Line Systems
- 9 Pipes and Drains
- 10 Engineering Fabrics
- 11 Polymer Concrete
- 12 Precast Concrete
- 13 Cattle-guards
- 14 Guardrail
- 15 Barrier Systems
- 16 Structural Steel
- 17 Paint, Stain and Graffiti Coating
- 18 Miscellaneous Metals
- 19 Fencing

## **11.07 TRAFFIC CONTROL PLANS**

### **11.07.01 GENERAL**

- A In order to review Traffic Control Plans, the Submittal Coordinator or Special Submittal Reviewer must possess a current Traffic Control Supervisor certification from American Traffic Safety Services Association.
- B The Project Manager or selected designee shall review the submittal for general compliance to the Special Provisions. Pay particular attention to lane closures, hours of work, or similar when performing this initial review.
- C Often, Traffic Control Plans fail to address the basic geometry of the roadway, the entrances/exits for retail facilities, and blind spots in general. The Quality Assurance Inspector assigned to the project has much more intimate knowledge of particular situations and should be consulted in this initial review.
- D Once the basic functionality of the plan has been reviewed and accepted, the plan can then be forwarded to the Special Submittal Reviewer.

## **11.08 SPECIALTY PERMITS AND LETTERS**

A Each of the listed permits and letters may apply to specific situations on a Contract. The Project Manager shall assure that each necessary document has been submitted for record. Review shall be limited to applicability to the Contract and Approval from the governing body.

- 1 SWPPP Permit
- 2 NDPES Permit
- 3 Air Quality Permit
- 4 Rolling Stock Permit
- 5 Property Owner Permission Letters
- 6 NDOT (or other entity) Permits
- 7 FAA Permit



## SECTION 12 PUBLIC RELATIONS

### 12.01 GENERAL

- A All members of the Clark County Department of Public Works (and our representatives) diligently strive to provide maximum disclosure whenever media interests/requests, or when community member questions center around Public Works construction Contracts, resources and/or personnel. As much as physically possible, the disclosure of this information is made with minimal delay.
- B When dealing with media interests, it is standard policy to utilize the services of the County's Public Information Coordinator whenever possible. Should you be approached for an interview, contact the Clark County Project Manager or Assistant Manager for assistance prior to conducting the interview.

### 12.02 PUBLIC INFORMATION COORDINATOR

- A The County has a Public Information Coordinator whose primary duties and responsibilities are to coordinate information regarding the Department, various Contracts with local media representatives, and inquiring community members. The timely and accurate release of such information can only be accomplished when Project Managers provide this individual with the necessary information.
- B When a Contract's disruptive activities (i.e., lane restrictions, detours, temporary roadway closures, accidents, utility outages, or similar) are planned or occur, the information shall be shared with the Public Information Coordinator. This individual can then provide the information to local media representatives or interested community members. By sharing this information, every effort can be made to ensure the widest possible dissemination of information to community members, who may be or are impacted by such activities.
- C Information regarding routine activities should be given to the County's Public Information Coordinator in writing, generally via Email, as soon as Contract details are established. By submitting the information in writing, the County's Public Information Coordinator can better guarantee the accuracy of release information. Contract information can be shared via a telephone call, but accuracy of released information cannot be assured.
- D As much as possible, the County's Public Information Coordinator will release all information regarding Clark County Public Works activities. However, there will be times when technical information will be needed. In those situations, division members will be asked to provide such information, and may even be asked to participate in the interview.

### 12.03 INTERDEPARTMENTAL RELATIONS

#### 12.03.01 GENERAL

- A Development and maintenance of good relations between Clark County personnel is largely a matter of adequate communication and a clear division of responsibility. Employees must know precisely what their responsibilities are, and they must be given the authority to handle these responsibilities.
- B Within Clark County, public relations can be divided into two subcategories:

#### 12.03.02 BETWEEN THE PROJECT MANAGER AND STAFF

- A The most important communications are between Contract personnel and the Clark County Project Manager. It is recommended strongly that Clark County Project Managers hold short staff meetings each workweek. At these meetings the Clark County Project Manager shall brief the Assistant and Consultant Project Managers on the week's operations, announce any changes or new assignments of responsibility, and discuss any other pertinent subjects.
- B Clark County Project Managers shall provide personnel with an opportunity to demonstrate their strongest capabilities and highest capacity for responsibility. The Clark County Project Manager should ensure that Quality Assurance Inspectors and Senior Construction Management Inspectors have an opportunity to gain experience in the various construction phases.

- C Assignment rotation is encouraged as long as the effectiveness of the overall operation does not suffer. Similarly, if feasible, assign personnel to operations different from those handled on previous Contracts. Newly assigned personnel shall study the application portions of the Uniform Standard Specifications, special provisions, the plans, this Construction Manual, and any other applicable publications of Clark County. An individual shall not be required to perform new duties until the Clark County Project Manager is assured that the person is capable of performing them correctly and effectively.

### **12.03.03 THE CLARK COUNTY PROJECT MANAGER AND ASSISTANT MANAGER**

- A Communication is a two-way responsibility. Assistant Manager shall adequately inform their supervisors of facts so the supervisors do not learn about Contract events from outside sources. Conversely, good management practice requires that supervisors keep their personnel informed of decisions affecting an employee's area of responsibility. Communication has failed whenever a Clark County Project Manager first hears about a Contract Administration Section decision from outside sources.
- B An important phase of internal relations is the necessity for working with other functional units within the organization. People in other units do their work with information available to them, just as construction forces do. They, too, have problems in their work. When there is a difference of opinion on some part of the Contract, whether it is about design, traffic handling, or some other feature, the Clark County Project Manager shall approach the other party with an open mind to discuss the problem.

## **12.04 CONTRACT RELATIONS**

### **12.04.01 RELATIONS WITH THE CONTRACTOR**

- A In communicating with the contractor and the contractor's personnel, it is important that the Project Manager take a clear position. It is far better to start on a basis of administering the contract firmly in accordance with the plans and specifications than it is to correct a situation caused by laxity later in the Contract's life.
- B The employees assigned to construction must have a thorough knowledge of the plans and specifications governing the contract. Clear evidence of possession of this knowledge will go a long way in promoting smooth relations with the contractor's personnel. If the Clark County Project Manager, Senior Construction Management Inspector, and Consultant Project Manager know the plans and specifications thoroughly, the contractor's personnel will respect the Project Manager's judgment in cases where interpretation becomes necessary. A satisfactory relationship between Clark County and the contractor at all levels is an important result of smooth relations between the Project Manager and the Contractor's staff.
- C Numerous collateral duties are also included in contract administration. These duties, which are equally as important as good engineering, include the following: competent record keeping, well-monitored personnel activities, enforcement of labor laws, and oversight of safety just to name a few. The primary responsibility, however, is to ensure that the rights of both Clark County and the contractor are equally and impartially enforced. The taxpayers are entitled to what they pay for, and the contractor is entitled to payment for constructing the work as defined by the contract.
- D In general, there are two types of specifications: "end-result" and "method." For work governed by end-result specifications, the engineer determines "what" and the contractor decides "how." Method specifications are more restrictive as to the contractor's options. Deviations from specified methods require **Contract Change Orders**. Deviations must also provide equal or better results while preserving the contract's integrity. Finally, the rights of unsuccessful bidders must be protected. If any doubt exists about a contractual matter, the Clark County Project Manager has an obligation to clarify in writing the Clark County position for the contractor.

### **12.04.02 QUALITY CONTROL RELATIONS**

- A Contract as a Joint Effort

- 1 Every construction Contract is a joint effort between the Contract Administration Section and the Contractor. Owners Representatives and the Contractor's personnel should make every effort to work together to expedite the prosecution of the Contract. The work is to be done without violating the terms and conditions of the contract or sacrificing the quality of work or materials.
- B Responsibilities of Owners Representatives
- 1 Owners Representatives should be congenial and professional when dealing with Contractors. Limit direction to the Contractor to only those items within the scope of the plans and specifications, such as interpretations of plans and specification requirements. Resolve misunderstandings with the Contractor's employees promptly. Remember, it is the Contractor's responsibility to provide the Agency with a quality product. To that end, it is up to the Quality Control personnel to give instruction to the Contractor or the Contractor's personnel and provide acceptable solutions when there is a question about the quality of materials, method of construction, or workmanship on the Contract.
- C Differences of opinion may occur between the Contractor's employees and those of the Owners Representative about the contract, interpretation of the specifications, quality of work, and measurement and payment of items, or similar. The Owners Representative will try to resolve these differences promptly and fairly within the scope of the Contract documents. If disagreements cannot be satisfactorily resolved, the Owners Representative will refer the matter to an immediate supervisor. ([See Section 24.03 – Conflict Escalation](#))

#### **12.04.03 RELATIONS WITH UTILITY COMPANIES AND OTHER PUBLIC AGENCIES**

- A Good public relations will have a beneficial effect in dealing with the personnel of utility companies and other public agencies. To make it easier to work with such personnel during the contract's life, the Project Manager shall make early personal contact with the appropriate person at the utility company, governmental agency, or department with which Clark County will be dealing.
- B The Project Manager should establish a good working relationship with local school districts, the Highway Patrol, and local police organizations. Personal contact with the personnel from these agencies, with the Project Manager acquainting them with the operations before actual construction, will enable them to schedule their work or services to the best advantage of all concerned.

#### **12.04.04 RELATIONS WITH PROPERTY OWNERS**

- A Another important part of public relations is courteously dealing with the property owners near the Contract. The owners are the ones most affected by construction operations. By courteously listening to the property owner's problem, request, or question and by taking the time to explain or answer, the Project Manager can generate faith that Clark County is not an impersonal organization running roughshod over the general public or the individual. Sometimes this human approach will reduce unreasonable demands and complaints by the property owner.
- B Construction operations (for example, temporary closures of streets and driveways and construction noise, especially at night) may have an adverse effect on nearby residents and businesses adjacent to the Contract. Informing business owners and residents near the Contract about the reason for, and the duration of, the activity will go a long way toward a higher degree of acceptance and tolerance.
- C Timely notice is important. Also consider rescheduling construction activity around major business or public events.
- D Start public relations early. The fullest possible cooperation of the contractor's organization shall be solicited to achieve good public relations most effectively. By calling on property owners together, the Project Representative and the Superintendent can assure owners that inconvenience and the nuisance of noise and dust will be kept to a minimum. For some Contracts on metropolitan freeways, contractors have distributed their own informational folders to property owners. This practice should be encouraged.

## **12.05 RELATIONS WITH THE GENERAL PUBLIC**

- A The main differences in public relations toward the property owners and the general public occur in the scope of coverage and the degree of personal contact. When roadway construction information must be conveyed to large numbers of roadway users (including those who commute regularly over a particular route and those who use the route only occasionally), contact the Public Information Coordinator early in the Contract. The most satisfactory method is for the Clark County Project Manager to make full use of the press, radio, internet, and television to publicize the upcoming work. Another proven method of promoting good public relations is to use departmental personnel as speakers at meetings of the local chamber of commerce, township advisory board, and service clubs. Clark County Project Managers so inclined might consider joining a service organization. Frequent notices and progress reports in the local press are also very common and effective methods of keeping the public informed of changing Contract conditions.

## SECTION 13 THIRD PARTY

### 13.01 GENERAL

- A The purpose of this portion is to minimize third party impacts to our Contract in order to reduce inconvenience to the traveling public and reduce the incidence of contractor claims for time extensions or monetary compensation.
- B Instrumental persons involved during the design phase include:
  - 1 Engineers working for a private developer, or
  - 2 Property owner, or
  - 3 Any individuals who expressed special needs during the design phase or during the preconstruction conference.

### 13.02 RESPONSIBLE PARTIES

- A The Design Project Manager shall inform the Clark County Project Manager of any issues that may impact the Contract during construction. They shall forward copies of any and all correspondence, purchase orders, easements, right of entries, or agreements that may be pertinent.
- B The Project Manager is responsible for maintaining open communication between the Contract personnel and third parties who may come in contact with, or be impacted by the Contract. The Project Manager shall also document conversations with third parties by writing letters to the impacted parties and copying others involved. The Project Manager shall be responsible for reviewing third party issues to determine interference with critical path schedule. The Project Manager shall maintain the Contract Contact List to include such third parties.
- C The Owners Representative shall document the field conditions as they relate to third parties, keeping the Project Manager informed if changes in conditions occur. The Owners Representative may be required to include photos and video as part of the documentation.
- D The Contractor shall cooperate and coordinate his efforts to minimize impacts with third parties.

### 13.03 COMMUNICATION

- A Third parties affected by the Contract shall be given reasonable notification of scheduled work that may affect them by the Project Manager. The Project Manager may require the Contractor to notify third parties directly in some cases. The decision of Contractor or Project Manager notification is at the discretion of the Clark County Project Manager.

### 13.04 FOLLOW-UP

- A At the completion of the Contract, the Project Manager shall review third party issues to ensure that all concerns were addressed during construction. If items were not corrected or appropriate action taken, they shall make every effort to remedy the situation prior to closing of the Contract.



## **SECTION 14 UTILITY COORDINATION**

### **14.01 GENERAL**

- A The purpose of these procedures is to protect existing utilities and minimize utility relocation impacts to Contracts, which will reduce the occurrence of Contractor Claims for time extensions or monetary compensation through improved communications. This will also reduce inconvenience to the traveling public. Consideration must be given to continuing service of utilities to the public.

### **14.02 PARTIAL LIST OF AFFECTED UTILITIES**

#### **14.02.01 WITHIN THE LAS VEGAS VALLEY**

- A Nevada Energy  
B Southwest Gas  
C Las Vegas Valley Water District (LWWD)  
D Century Link  
E Southern Nevada Water Authority (SNWA)  
F Clark County Traffic  
G Level 4, E-Spire, Zayo and other Communication organizations  
H Cox Communication  
I Clark County Water Reclamation District (CCWRD)  
J City of Las Vegas - Department of Sanitation  
K City of North Las Vegas – Utilities Department (Sewer and Water)

#### **14.02.02 MOAPA, LOGANDALE, AND OVERTON AREA**

- A Power  
B Water  
C Irrigation  
D Telephone

#### **14.02.03 LAUGHLIN**

- A Big Bend Power District  
B Nevada Energy  
C Cox Communication  
D CMA Communications

### **14.03 DESIGN CONSIDERATIONS**

- A The responsibility of the utility is to provide record plans and copies of existing easements within the right-of-way to the Design Project Manager.

### **14.04 CALL BEFORE YOU DIG**

- A Per Nevada Revised Statute NRS 455, the Contractor is required to Call Before You Dig, which is the request for Utilities to locate their infrastructure within the Contract limits. The associated Utilities are required to mark their infrastructure within the Contract Limits as requested.
- B The Project Manager shall ensure that "Call Before You Dig" and Clark County Public Works Traffic Management have been notified to mark their services. This notification should be discussed at all preconstruction and pre-activity meetings.

### **14.05 WEEKLY PROGRESS MEETINGS**

- A Each utility is encouraged to send a representative to the Contract weekly progress meetings. Conflicts identified can be discussed and coordination of the work expedited. The Project

Manager shall invite representatives to attend the preconstruction conference and the weekly Contract progress meetings as needed.

#### **14.06 POT-HOLING**

- A The location and depth of all suspected interferences must be determined and information on the same furnished to the Owner no later than fifteen (15) working days following the Notice to Proceed date (working day number one).
- B The Contractor shall pothole, ahead of his operations according to contract specifications, and give proper notification of potholing schedule to the Project Manager. After an interference is identified and a utility sends crews to move the line, the contractor shall coordinate his efforts as much as possible with the utility or its contractor.
- C Uniform Standard Specifications presently require that the Contractor shall determine the location and depth of suspected utility interferences and shall furnish location of the same to the Owner, not less than ten (10) days prior to the anticipated impact of these suspected interferences on Contractors work.
- D REFERENCE: SPECIAL PROVISIONS 105.06 COOPERATION WITH UTILITIES

#### **14.07 CONFLICTS**

- A The Owners Representative shall maintain complete and clear reports of daily activity relating to utilities. The Owners Representative is also responsible for making sketches or takes videos or photos as needed to document each conflict and keeping them organized with accurate descriptions, dates, and times.
- B The Project Manager shall keep themselves informed as to the status of all conflicts and maintain open communication among all parties so that progress of an issue does not impact the Contract schedule. They shall request schedule updates from the contractor and track the impact of each conflict.
- C Review of schedule to determine interference with the critical path is the responsibility of the Project Manager. They shall request Design Project Manager to verify existing active easement agreements that a utility may claim or provide.

#### **14.08 CONFLICT RESOLUTION**

- A *Construction Change Orders* and *Construction Change Authorizations* are the only means of extending Contract duration when a conflict is found to impact the Contractor's progress. Any Construction Change Order shall be written by the Project Manager and approved by the Public Works Director and/or Board of County Commissioners (see [Section 31 - Construction Change Authorization](#) and [Section 32 – Contract Change Order](#) for details).



## SECTION 15 SURVEY

### 15.01 GENERAL

- A Clark County Public Works Survey will make the determination as to whether or not a Contract will have Construction Staking provided directly by the County or be Contracted to a third party surveyor. This determination will be made prior to the Pre-Construction Conference.

### 15.02 PLANS FORWARDING

- A The Design Plan Manager is responsible for forwarding one or more copies of the "Conformed" or "Issued for Construction" plan sets to Clark County Public Works Survey Division. Contact the Surveyor Division directly to establish who their Representative for the Contract is and what their specific needs are for quantities of plan sets.

### 15.03 TIMELINESS OF SUBMISSION

- A All Requests for Survey must be submitted to Clark County Public Works Survey Division two (2) full working days prior to start of work by the surveyor. This is the standard required procedure set by that Division.
- B Exceptions, under extenuating circumstances as noted below, may be accommodated by the Survey Division if availability and workload allow. However, Clark County Public Works Survey and/or Third Party surveyors are under NO OBLIGATION to honor such requests prior to two (2) working days later.
- C Only when extenuating circumstances govern, the Owners Representative may allow the Contractor to request, a "Desired Start Date" with less than 2 working days' notice is sent to Clark County Public Works Survey for, consideration. The Owners Representative must make additional remarks on the Request for Survey that specifically state the circumstances and need for the exception. Even when approved by the Owners Representative, the Desired Start Date may not be accommodated by the Clark County Public Works Survey Representative at their own discretion.

### 15.04 STANDARD REQUEST FOR SURVEY

#### 15.04.01 GENERAL

- A The following steps shall be taken to process Request for Survey:

#### 15.04.02 SURVEY LOG

- A The Contractor shall maintain a Survey Request Log. The Log shall contain the following items:
- 1 Sequential Request Number
  - 2 Date of Request
  - 3 Abbreviated description of work to be staked
- B The Owners Representative shall be responsible for verifying weekly that the Log is up to date and thorough. The Owners Representative shall document these actions in their *Daily Inspection Report* on the day the review was performed.
- C The Project Manager shall verify weekly that the Owners Representative has reviewed the *Survey Request Log*.

#### 15.04.03 REQUEST VERIFICATION

- A Contractor completes a *Survey Request Form* and presents to Owners Representative for review.
- B Owners Representative reviews form for accuracy, including the following items:
- 1 Contract Statistics
  - 2 Sequential Request Number
  - 3 Date of Request
  - 4 Desired Start Date, minimum of two (2) working days past the present date

- 5 Desired Completion Date, allowing sufficient time to complete the work
- 6 Description of work to be staked, including stationing, offsets, specific elevations, or similar.
- 7 Check box for Contract, Extra or Special Services filled
- 8 Signature of Requesting party
- 9 Verify Offset and Stationing information for accuracy
- C If the Request for Survey is incomplete, the Owners Representative shall return to the Contractor for correction with notes as to missing information.
- D If the Request for Survey is complete and accurate, the Owners Representative will sign the Request for Survey and return it to the Contractor for submission to Survey.
- E When the Request for Survey is for an Extra or Special Services, complete the additional steps below.

#### 15.04.04 REQUEST SUBMISSION

- A The Contractor is required to fax the Request for Survey directly to the Clark County Public Works Survey for all requests.

#### 15.05 EXTRAS AND SPECIAL SERVICES

- A The distinction between Extras (Additional Work) and a Special Service is in who is “paying the bill.” In the case of Extras (i.e. re-staking of all or part of a request, more staking than is specified by Special Provision, or other), the Contractor is required to make payment for this work. Under certain circumstances, a request is sent to Survey for work that is not specifically called out in the Special Provisions, but in the mind of the Project Manager, is also not within the scope of the Contractors requirements; it would be paid for by the County as Special Services.
- B Extras will always be requested by the Contractor. Special Services, may start as a Request for Information, but generally are requested by the Owners Representative and must receive approval by the Clark County Project Manager.

#### 15.05.02 ADDITIONAL WORK

- A For those items which are requested by the Contractor that are not specifically covered in Section 105.08 - Construction Stakes, Lines, and Grades of the Special Provisions, the Request for Survey must be submitted as an “Extra.” The Contractor will be required to make payment for the Additional Work received.
  - 1 For each day of Additional Work provided, the Owners Representative shall generate a *Non-Compliance Report / Overtime* slip for Surveyors time.
  - 2 The Owners Representative shall obtain the authorized parties signature on a Correction Notice on the Surveyor's behalf.

#### 15.06 THIRD PARTY

- A Additional steps may necessary when processing Request for Survey on Contracts with a Third Party Surveyor; please review this process at the Pre-Construction Conference.
- B When a Third Party Surveyor is being utilized, the request must also be faxed to the office of that surveyor.

## SECTION 16 TRAFFIC CONTROL

### 16.01 GENERAL

- A Proper Traffic Control is one of the most important aspects of public safety on our Contracts. The objective of this portion is to provide for worker protection and the safe passage of public traffic through and around construction with as little inconvenience and delay as possible. This includes vehicular and pedestrian traffic, bus stops and construction work zones.
- B The Project Manager has the responsibility and authority for administering the traffic control plan on construction Contracts. The Project Manager may delegate the administration of traffic control to another person assigned to the Contract.

### 16.02 CONTRACTOR'S ROLE

- A Providing for worker safety and the safe movement of traffic through construction zones starts with planning. A traffic control plan must be submitted prior to commencing work that will impact traffic.
- B The Contractor must submit each Traffic Control Plan to Clark County initially even when other authorities have jurisdiction. Clark County personnel will take the appropriate steps to acquire the approval of other authorities (see [Section 10 - Submittal Procedure](#)). Submittals approved by other jurisdictions or permitting agencies are not applicable until such approval has been concurred with by Clark County. Approval will be required prior to the start of work and before each modification to the current approved plan.
- C The plan must be adequate for conditions that will be encountered during construction. The reviewer should determine that the plan can be implemented and that it adequately facilitates the movement of traffic. Any comments or suggestions regarding traffic control should be discussed with Department design and traffic units during the Contract's planning and design phase.

### 16.03 PLANS REVIEW

- A The Deputy Director shall be responsible for assuring that a minimum of one (1) person is carrying the ATSSA Supervisor Certification within the Contract Administration Section at all times.
- B Explanation about Plan review can also be found in [Section 11.07 – Traffic Control Plans](#).

### 16.04 PRE-ACTIVITY MEETING

- A A pre-activity meeting shall be held by the Contractor prior to the initial set-up and any time there is a significant change in traffic control. The pre-activity meeting is the time to make sure everything is ready to go, all the key players know their roles, there is an approved traffic control plan, the time of the set-up is established, sufficient resources are available for the planned set-up, safety issues are reviewed for the set-up and anything else the members of the pre-activity meeting feel need to be discussed.

### 16.05 INSPECTION REPORTS

- A The Contractor is responsible for preparing an Inspection Report and Quality Control record for the initial set-up and in each instance where there is a change in traffic control. Upon completion of the traffic control set-up, the Contractor shall have his responsible person initial the Inspection Report that the set-up is per the approved traffic control plan and that it is ready for Quality Assurance Inspector verification.
- B Further, the Contractor is required to record all maintenance events on the Quality Control *Activity Card* every time maintenance or review is performed.
- C The Owners Representative shall record all Traffic Control observations in their *Daily Inspection Report*.

## 16.06 MAINTENANCE

- A Once a traffic control plan has been set-up, it is the Contractor's responsibility to maintain the set-up for as long as it is in effect. In order for the Contractor to accomplish this, there shall be frequent observations through the set-up to observe if devices have been knocked down, moved or stolen. Traffic control maintenance is the responsibility of the Contractor.
- B Once assigned to the Contract, the Project Manager should perform the following administrative duties:
- 1 Compare the plan for traffic handling to the conditions found at the site. Note any unusual local traffic movements and the movements of emergency vehicles. Include in the preconstruction conference a discussion of the traffic control plan. For details related to preconstruction conferences, see [Section 8.05 – Pre-construction Conference](#) of this manual.
  - 2 Modifications of the traffic-handling plan may be considered at this point. Given the specifics of a contractor's needs, it may be possible to provide improved traffic service over the service originally contemplated. Changes requested by the contractor must provide at least equal traffic service to receive favorable consideration.
  - 3 Some unpredictable, immediate situations of a minor nature or short duration will arise during the work and will require good judgment to obtain optimum results. In these instances, formally approved plans are not required, but delineate or specify what is to be done and record in writing actions taken and orders given.
  - 4 To establish the geometry, markings, devices, and signs that existed at any time during the Contract, maintain in sufficient detail a record of the placement into service, changes, and discontinuance of roadways and detours. The form of the record may vary according to the magnitude and complexity of the subject. Dated notations or revisions to plans may be helpful. Dated photographic or video tape records, particularly of points of transition or difficult situations, may be very valuable.
  - 5 If the contractor's operations interfere with or cause potential safety problems with vehicular or pedestrian traffic, contact the contractor immediately and request correction of the deficiency. If necessary, direct the contractor in writing to act at once to remedy the unsatisfactory situation. Clark County work forces should be called upon only when necessary, because of a physical inability of the contractor or a refusal by the contractor to act. A contractor's failure to perform is cause to order the cessation of the operations.

## 16.07 FAILURE TO MAINTAIN

- A When the traffic control plan is not maintained properly the following procedure should be followed:
- 1 Verbally inform the Contractor of the noncompliance items with the traffic control plan. Issue a Non-Compliance Notice identifying the discrepancies. Shortly after, the Contractor shall prepare an Inspection Report noting the deficiencies.
  - 2 The contract specifications will define the time frame, typically two (2) hours, in which the Contractor has to correct the deficiencies before a day's value of traffic control will be deducted from the traffic control bid item in the contract, for that day.
  - 3 If deficiencies were not corrected from the previous day by the start of normal work hours the next day, the Contractor will have another day value of traffic control deducted. THE DEDUCTIONS will continue until the deficiencies are corrected. If the traffic control deficiency is considered a life threatening situation (i.e., STOP sign missing), Clark County forces may be used to CORRECT the situation with the Contractor charged for any resulting cost. If deficiencies occur over a weekend or holiday, the Contractor has the option of calling the Project Manager to come out and inspect the traffic control set-up for compliance during other than normal work hours. This would result in the Contractor paying for at least the minimum overtime call out (3 hours) for this inspection.

- B Whenever the deficiencies or noncompliance are corrected, the Owners Representative shall annotate such on the Quality Control Activity Card and/or the Contractor correction notice by date and time of the correction and sign it.



## SECTION 17 QUALITY SYSTEM INTERACTION

### 17.01 OVERVIEW OF QUALITY SYSTEM

- A All efforts by Clark County, Consultant, and Augmentation personnel shall be considered Quality Assurance. Everything the County does is to assure that the Contractor performs their duties diligently, documents their efforts, and produces a quality product for the tax paying public.
- B In general, the Quality Assurance shall use the documentation format of the project contract sections 111 thru 117 and this CM Manual section 17.
- C Likewise, all efforts by the Contractor's personnel to execute the Contract are to be considered Quality Control. However, the Contractor is only required to document those efforts specifically named in the Contract Documents. Many of the Contractor's Quality Control efforts will go undocumented, I.E. personnel selection, supervisory direction, or similar.
- D It is the responsibility of the Owners Representative to oversee Quality Control performance, documentation, and effectiveness. Clark County Public Works' Quality System, a series of specifications, manuals, and guidelines, is the tool that the Owners Representative will use to assure and document compliance to Contract Documents.

#### 17.01.02 KEY QUALITY SYSTEM COMPONENTS

- A The Quality System can be broken down into the following key components or categories:
  - 1 Qualified Laboratories and Testing Personnel
    - (a) The Contract Documents, more specifically the Special Provisions require that all Quality Control testing personnel on the Contract possess Certification and that all Quality Control testing laboratories on the Contract are accredited.
    - (b) Clark County Public Works further implements the Statement of Qualifications process for pre-qualification of Service Providers for Construction Contract Administration and Quality Assurance Testing. This process assures Clark County Public Works that all personnel and laboratories working as Quality Assurance on our Contracts meet the same requirements.
  - 2 Contract Inspection and Testing
    - (a) This category of the Quality System assures the workmanship of materials incorporated into the Clark County Public Works Contract through inspection and testing.
      - (1) Quality Control
        - I All of the functions of the Contractor to assure, test, and document that the work is in compliance with the Contract Documents. Ultimately, the Contractor has responsibility for the quality of all materials and workmanship on any Contract, including but not limited to all aspects of testing, inspection, and Submittal. The contractor and material source must conform to format of the Quality Control Specifications version indicated in the contract documents.
      - (2) Quality Assurance
        - I The Contract Administration Section or their representative performs Quality Assurance in the form of oversight, testing and inspection to verify the effectiveness and accuracy of the Contractors Quality Control. Additionally, the Quality Assurance performs analysis on Quality Control data and assesses compliance with the materials and workmanship.
        - II The key elements of Quality Assurance by the County are qualified inspectors, timeliness and documentation. The County Quality Assurance shall verify that all items have been submitted, tested, inspected, and accepted. and that each step listed was conducted in the appropriate time frame to control work as it progresses. Further, the Quality Assurance shall verify tracking the usage of all materials on the Contract. Retention of all Quality Assurance Documentation shall be as required until completion of the Contract, at which time the original

documentation shall be prepared for imaging. See [Section 36 – Files In Perpetuity](#).

**3** Source Authorization Program

- (a) One function of the Clark County Public Works Quality System is to monitor material sources. At the Contract Administration level, this function is important in determining the extent of Quality Assurance involvement at the source of the materials. There are two (2) levels a material supplier may obtain:

**(1)** Qualified Source

- I This assures the quality of the material through verification and validation sampling, testing, and inspection performed by Quality Control and Quality Assurance or designated Representatives.

**(2)** Authorized Source

- I This level assures the quality of the material through inspection and verification of the Material Source Quality Control Plan and its application and/or inspection of the source facility itself.
- II Once a Source establishes, executes, submits, and receives Clark County's approval for a Quality Control Plan, the materials that are addressed will be "Authorized" for use within Clark County. Once a material has been authorized, the scope of the Source quality control and the related Contractor quality control for that material can be reduced.
- III It should be noted that a Contractor wanting to use materials that do not have "Authorized" Source, will be required to provide a "full" Submittal package which addresses the Source testing, and inspection. Any Contractor submitting to use "Non-Authorized" materials, will have to establish, submit, receive approval, and execute a Quality Control Procedure for all aspects of testing and inspection for the Source or Production of such material and incorporate into their own Quality Control Plan.
- IV The Quality Assurance Inspector is responsible for the verification of the Contractor Quality Control only. It is the responsibility of the Materials Quality Assurance Section to verify Source Organization for Quality Control compliance either via the contractor or in the case of Authorized facilities, the Source or Production Quality Control System.
- V Any Organizations that desire to have their products on Clark County's "Authorized Materials List" shall have all testing performed by an accredited laboratory. Included in this accreditation is participation in AMRL / CCRL or CMEC proficiency sample programs related to the materials addressed by the Quality Control Plan. In addition, Clark County may periodically distribute proficiency samples and require their participation.

**4** Independent Assurance

- (a) This category of the System assures that the Quality Assurance functions of the Contract Administration Section conforms to this manual through independent auditing and third party testing. Independent Assurance is conducted through the use of the Construction Quality Program, another set of guidelines which is part of the Quality System.
- (b) Additionally, the Independent Assurance is responsible for the verification of the qualification/certification of testing personnel and accreditation of laboratories used in the Quality System and that these testing personnel continue to perform the tests properly and that the equipment is functioning properly.

**17.02 PRE-QUALITY CONTROL MEETING**

- A The Contractor is required by Specification, see Section 105.19 Contractor Quality Control Program of the Special Provisions, to attend a Pre-Quality Control meeting with the Engineer.



- This meeting is generally held by the Clark County Project Manager immediately following the Pre-Construction Conference, however it may be scheduled at any date prior to Notice to Proceed.
- B This meeting will be digitally recorded and preserved for the record. Distribution of the meeting recording is available to any attendee upon request.
- C The general content topics and available forms are called out later in this section. While the format of this particular meeting is not specifically identified, the intent is that each individual will leave the meeting with an understanding of their specific Quality Control role on the project. Each Clark County Project Manager is given the latitude to present this information to the Contractor's Quality Control staff in a manner in which they can best accomplish the goal noted above. This open forum type meeting is intended to allow for those instances when Contractors, who have successfully completed numerous projects and who have recently attended the same meeting on another project, only need a "refresher course" on new changes to the program. The discretion to have a "short refresher" or a fully involved meeting falls entirely in the hands of the Clark County Project Manager.

#### **17.02.02 REQUIRED ATTENDANCE**

- A The following individuals are required to attend the meeting:
- 1 Clark County Project Manager
  - 2 Contractor's Responsible Person in Charge
  - 3 Contractor's Quality Control Coordinator
  - 4 All Contractor's and Subcontractor's Quality Control Inspectors
  - 5 All Contractor's and Subcontractor's Quality Control Testing Technicians
  - 6 Consultant Project Manager
  - 7 All Consultant Quality Assurance Inspectors
  - 8 All Augmentation Quality Assurance Inspectors
  - 9 All County Quality Assurance Inspectors

#### **17.02.03 RECOMMENDED ATTENDANCE**

- A The following individuals are recommended to attend the meeting:
- 1 Independent Assurance Auditor (Required attendance on Federal Aid Projects)
  - 2 Quality Assurance Supervisor
  - 3 Senior Construction Management Inspector

#### **17.02.04 MEETING CONTENT**

- A Quality Control Submittal Requirements
- B Pre-Activity Meetings
- C Pre-Activity Meeting Log
- D Advance Notification Cards
- E Advance Notification Card Log
- F Activity Card
- 1 Samples
  - 2 Sample Log and Files
  - 3 Materials Tracking
  - 4 Materials Tracking Log and Files
  - 5 Deficiencies
  - 6 Deficiency Log
  - 7 Plant Inspections
  - 8 Plant Inspection Log and Files

- 9 Test Results
- 10 Placement Records
- 11 Inspection Forms
- 12 Laboratory Test Results
- G Activity Card Log
- H Hold Points
- I "Up to the Minute Activity Cards" Process
- J Stop Work Authority

#### 17.02.05 PRE-QUALITY CONTROL FORMS

- A The following forms shall be used while conducting the Pre-Quality Control Meeting:
  - 1 *Program Paperwork and Responsibility Flow Form*
  - 2 *Division Training Seminar – "Up to the Minute Activity Cards"*
  - 3 *Quality Assurance – Materials Section Memorandum of April 27, 2000*
  - 4 *"Hold Point" Detail Sheets*
  - 5 Misc example Forms for *Pre-Activity Meeting, Materials Log, Placement Log* and *Inspection Forms*

#### 17.03 CONTRACTOR'S QUALITY CONTROL PLAN

- A The Quality Control Plan is a compiled set of Special Provision Section 111-117 in conjunction with the submittals these Special Provision sections require.
- B Familiarity with the Contractor's Quality Control Specifications is fundamental to performing Quality Assurance functions. The Contractor has some degree of flexibility within the Quality Control Plan to assign duties to varying individuals and report information in varying manners. The Contractor must receive approval for the required submittal in the Quality Control Specifications.
- C All Owners Representatives shall read and understand the Contractor's Quality Control Specifications for their particular Contract.

#### 17.04 OVERSIGHT OF QUALITY CONTROL

- A Oversight of Quality Control is the primary function of the Contract Administration Owners Representatives. While Oversight is generalized as meaning Inspection, it actually covers all aspects on Contract Administration. When Quality Control is correctly performing their full function, Oversight, through witnessing, verification, and the documentation thereof, would be the only necessary function of the Owners Representative.
- B During the course of construction the Quality Assurance Inspector is to perform routine oversight of the work operations and Quality Control functions. It shall be considered appropriate and normal for the Quality Assurance Inspector to "point out" potential issues that may or may not jeopardize the quality of the work, issues that may affect the productivity of the work, or any other related issues that affect the effective execution of the Contract. The Quality Assurance Inspector shall interact directly with the Quality Control Inspector, Superintendent, and Foreman in this regard.
- C If the Contractor does not correct the issues prior to Quality Control acceptance, the Quality Assurance Inspector shall document the issue as a Deficiency on the appropriate *Activity Card* ( See Quality Control Inspection Deficiencies below) and/or issue an *Non-Compliance Report* for those issues not covered by an Activity Card.
- D If it appears the Quality Control inspector is using the Quality Assurance inspector as a resource for a work list, the Quality Assurance inspector must stop the inspection and write a Deficiency with demerits to the Contractor for non-inspection.

## 17.05 PRE-ACTIVITY MEETINGS

### 17.05.01 WHEN TO CONDUCT PRE-ACTIVITY MEETINGS

- A A pre-activity meeting is conducted by the contractor in order to get all persons that are involved in a construction activity to communicate the actions that will occur. This aids in the coordination of the inspection, testing, equipment allocation, and other pertinent activities.
- B Quality Control is required to conduct Pre-Activity Meetings for each of the following scenarios:
- 1 The first time a crew (Contractor and/or Subcontractor) begins work on any item
  - 2 When the Contractor elects to change Quality Control Inspectors
  - 3 When the Contractor elects to change Foreman
  - 4 When the crew has not conducted this activity for a significant period of time
  - 5 Or at the Project Managers discretion

### 17.05.02 PLANNING PRE-ACTIVITY MEETINGS

- A The Quality Control Manager is responsible for planning each Pre-Activity Meeting. They must coordinate with the Quality Assurance Inspector to assure that all items being inspected and tested by Quality Control have been addressed. Further, the Quality Control Manager will need to address any work operation which may impact the progress and quality of the work.
- B Examples of work operations, which may adversely affect quality, could be any of the following:
- 1 No plan for a back-up generator
    - (a) The only generator on the job-site malfunctions, concrete has been placed and no vibrators are working, thus the quality of the placement is in jeopardy.
  - 2 Back-up concrete mix design
    - (a) On the day of placement the batch plant is down, the Contractor scrambles to find a supplier, and the only available mix has not received Submittal approval; thus the quality of the placement is in jeopardy.
- C The two examples above are typical of when planning could help avoid potentially detrimental effects to the quality of the work. The Quality Control Manager, with the coordination of the Quality Assurance Inspector, shall foresee as many such instances as possible and greatly reduce the chances of poor quality work.
- D The Quality Control Manager is required to generate a *Pre-Activity Meeting Agenda* in written form.

### 17.05.03 PRE-ACTIVITY MEETING ATTENDEES

- A Generally, the Pre-Activity Meeting shall be open to any interested party or as required by the Contract. Attendance is required for each of the following Contract personnel:
- 1 Quality Control Inspector
  - 2 Quality Control Field Testing Technician
  - 3 Quality Assurance Inspector
- (a) Attendance is recommended for the following Contract personnel:
- 4 Foreman
  - 5 Superintendent
  - 6 Quality Control Manager
  - 7 Effected utility representatives

### 17.05.04 CONDUCTING PRE-ACTIVITY MEETINGS

- A The Quality Control Manager is responsible for assuring that the Pre-Activity Meeting is conducted. The meeting itself must be conducted in advance of work being performed. Generally, the meeting shall be conducted no later than the day before start of work. For routine items, the meeting may be conducted immediately prior to work commencing. To

maintain the effectiveness of the meeting, it is advised not to conduct the meeting more than 2 days in advance.

- B During the Pre-Activity Meeting, Quality Control shall address all items affecting the quality of the work. The Owners Representative shall be allowed to contribute during the meeting, adding additional discussion points that may be necessary.

#### 17.05.05 PRE-ACTIVITY MEETING MINUTES

- A The Quality Control Manager is responsible for generating minutes to each Pre-Activity Meeting. The Owners Representative shall have the responsibility to review the Meeting Minutes and commenting as necessary. At a minimum, distribution shall be all those in attendance as well as a copy to file.

#### 17.06 ADVANCE NOTIFICATION

- A Contract Documents required that Quality Control give notification to Quality Assurance a minimum of twenty-four (24) hours in advance of work being performed. The Advance Notification allows the Owners Representative time to schedule all necessary Quality Assurance inspection and testing. By specification, this requirement is met through the use of Section One (1) of the Activity Card.

- B Due to Contractor requests, Clark County has allowed a deviation from the use of the Activity Card for Advance Notification. The Contractor is allowed to use a separate *Advance Notification Card*. The card must include at a minimum, the following:

- 1 Project Name
- 2 Project Bid Number
- 3 Date of Activities
- 4 Activity – Actual Description of the work being performed
- 5 Location – Station is preferred
- 6 Time – must be accurate within 30 minutes plus or minus

- C Regardless of the method used, either Activity Card or Advance Notification Card, the Quality Assurance Inspector shall initial directly on the Advance Notification Card that the notification was received.

#### 17.06.02 SHORT NOTICE ACTIVITIES

- A Circumstances sometimes dictate that work be performed with less than twenty-four (24) hours Advance Notice. It is Clark County's position to allow such activities when possible. The primary factor limiting such an allowance would be the availability of Quality Assurance Inspectors or Technicians. When Inspection and/or testing cannot be accommodated within the short time frame, the activity would not be allowed.

- B Quality Control personnel are required to note Short Notice activities on the Advance Notification Card. Quality Assurance personnel are required to assure that it has been noted, or they note it themselves. When Short Notice was given, include the date and time notification was presented.

- C It is the intent, in allowing short notice, to accommodate those unforeseen circumstances that can happen on the job. It is NOT the intent to allow the Contractor to habitually violate the twenty-four (24) hour requirement. Should the Contractor habitually give short notice, contact the Clark County Project Manager to resolve the issue.

#### 17.07 ACTIVITY CARDS

- A The Contractor is required to document all Control Measures taken by their Quality Control staff. The *Activity Card* has been developed to simplify and standardize this documentation.

- B Quality Assurance Inspectors must interact with the Activity Cards to assure that Quality Control has properly documented their efforts, noted all deficient work, and agree to Quality Control quantities.

- C The following Section-by-Section descriptions of Activity Card interaction are based on the original Activity Card Form. Deviations have been allowed as the Quality System has evolved. Review the Contractor's Quality Control Plan for the Contract for the particular variations on your Contract. The Section Names and Numbers may vary, but the intent as defined below will remain consistent.

**17.07.02 TOP OF FORM**

- A The top of the Form has Contract Statistics including Project Name, Contract Day, and Report No. The Contractor is required to complete this information.

**17.07.03 SECTION 1 - ACTIVITY IDENTIFICATION**

- A Generally, this Section is the Notification portion of the Activity Card. Additional Project Statistics are included, as well as the Bid Item Number with which the Activity Card is associated. It is anticipated that the Quality Assurance Inspector initial the Notification area of this Section when originally presented for Advance Notification requirement compliance.
- B Most current variations of the Activity Card utilize this Section to Document the Actual Work Performed. Notification is being achieved through the Advance Notification Card. In this scenario, this Section of the Card would need to be completed at the time the work is completed and the Inspection performed.

**17.07.04 SECTION 2 - DEFICIENCY CHECK**

- A The Quality Control Manager or Coordinator will perform a routine check of outstanding Deficiencies to verify if any exist for the Activity covered by this card. If a Deficiency is outstanding, a remark as to the Type of Deficiency Description would be included. If no Deficiencies are outstanding, the Quality Control Representative would have Initialed and Dated that portion of this Section.
- B The Quality Control Inspector shall be required to verify that any outstanding Deficiencies are addressed.

**17.07.05 SECTION 3 - ITEM/MATERIAL FOR INSPECTION**

- A Several inspection related issues are addressed in this Section and are broken down into the two (2) categories as follows:

**1 Onsite Inspections**

- (a) Upon completion of the work, the Quality Control Inspector shall perform inspection(s) of the relevant portion of the work in accordance with the applicable section of the Contract Documents (and the Quality System Manual 2 - Inspection Manual, as available). Details of the specific inspection(s) to be performed are given therein.
- (b) Generally, individual line items shall be written for each separation of the work. (i.e. forms, reinforcement, and placement.) Specifically when Hold Points demand review of the work at a specific point in time. However, the Contractor may elect to lump some items together for a single inspection point, (i.e. forms and reinforcement inspection concurrently.) Discussions about Inspection points, Hold Points, and line items for Inspection should have been discussed at the Pre-Activity Meeting. If disputes arise, conduct another Pre-Activity Meeting for resolution.
- (c) *Checklists* and/or *Quality Control Inspection Reports* have been included on the Clark County Public Works website and may be a requirement for the Contract; review the Contract Special Provisions.
- (d) When an Inspection is completed and the work found to be acceptable, the Quality Control Inspector will Initial and Date the appropriate line item and present to the Quality Assurance Inspector for concurrence. The Quality Assurance Inspector shall Initial and date Section 3 - Item/Material for Inspection portion of the Activity Card adjacent to the Inspection item for the work being reviewed.

**2 Offsite Inspection**

- (a) Offsite or Batch Plant Inspection shall also be recorded in this section of the Activity Card. The Contractor is required to perform the Inspection and assure that documentation is tracked. Generally, this line item is a prompt for the Quality Control Manager or Coordinator to log the Offsite Inspection and track the documentation from the appropriate Quality Control Inspector.
- (b) In order to facilitate daily closeout of Activity Cards, it is not necessary for the Quality Assurance Inspector to Initial and Date this particular line item. However, the Quality Assurance Inspector shall review the Contract Quality Control Files on a weekly basis to assure that the Offsite Inspection documentation has been tracked, recorded, and filed.

#### 17.07.06 SECTION 4 - TESTING REQUIREMENTS

- A The Contractor is required to test specific materials onsite and offsite. Which materials are to be tested and which are not is defined in Table I and III.
- B The Quality Assurance Inspector shall review the testing results individually to assure "pass/fail" criteria have been met. The Quality Assurance Technician is required to report test results to the Quality Assurance Inspector prior to leaving the Contract site for each testing event. Typically this reporting will be conducted in person, however, once a level of trust has been achieved, the Quality Assurance Technician may be allowed to report verbally. The allowance of verbal reporting is solely at the discretion of the Owners Representatives.
- 1 Field Testing
  - (a) Field Testing is further broken down into the following two (2) categories:
    - (1) Onsite Testing
      - I Documentation of onsite testing is accomplished through the Activity Card Section 4 - Testing Requirements and attachment of test results. Each item being tested will have one (1) line item in Section 4. The Testable Quantity associated with the testing, as addressed above, will also be documented here.
      - II The Quality Assurance Inspector is required to verify that Quality Control Representatives have completed this Section of the Activity Card. Generally, documentation of testing is performed by the Quality Control Technician. However, the Quality Control Inspector or Manager may take responsibility for this item. Review the Contractor's Quality Control Manual, to assure who is responsible.
    - (2) Offsite Testing
      - I When sampling is performed in conjunction with an Offsite Inspection, Quality Control must document the samples in Section 4 - Testing Requirements of the Activity Card. This line item is a tracking mechanism to assure that the samples taken during Offsite Inspections are logged, tracked and filed in accordance with the Quality Control Plan.
      - II The Quality Assurance Inspector shall review Contract Quality Control Files on a weekly basis weekly to assure that all Offsite Testing is being tracked properly. Particular attention must be paid to Offsite Testing by the Quality Control and Quality Assurance Representatives. The Inspection report generated at the Offsite Inspection will probably need to be reviewed closely to assure that sampling was or was not conducted.
- 2 Sampling for Laboratory Testing
  - (a) Whenever materials are sampled onsite for Laboratory Testing, a line item shall be added by Quality Control to this Section. The purpose of the sample line item is to log and track these samples until the testing results are returned from the laboratory. The Quality Assurance Inspector shall review Contract Quality Control Files on a weekly basis weekly to assure that all samples are being tracked properly.
- 3 Testable Quantities



- (a) In addition to having the individual tests recorded, it is essential that Testable Quantities be documented. Traditionally, construction materials were quantified for payment only. Under this manual, determinations of quantities of materials as Testable Quantities are instrumental to maintaining a Contractor's Quality Control Plan.
- (b) The Contractor shall be required to measure, the Owners Representative required to verify, and both to reach agreement on Testable Quantities daily. "Partial" quantities and "Completed" quantities for payment purposes only, shall be conducted in accordance with [Section 33 - Pay Applications](#), and shall not include in part or in whole any materials which will require subsequent testing prior to acceptance.
- (c) The Contractor is required to document Testable Quantities on the Activity Card. Although the specifications do not require that the calculations be shown, some sort of verification needs to be performed. Independent measurement or witnessing of the measurements and calculations may be used for verification. Additionally, both the Planned and Actual number of tests taken shall be completed in Section 4 - Testing Requirements. The Actual number of tests to be performed is the sum of the Testable Quantity divided by the Testing Frequency (See Table I or III).

#### 17.07.07 SECTION 5 - ACTUAL WORK PERFORMED

- A Depending on the Quality Control Plan for the Contract, Clark County has often allowed the incorporation of Section 5 into Section 1. This deviation was allowed since the onset of the Advance Notification Card.
- B For those Contracts utilizing the original Activity Card, Section 5 shall be completed to show all work performed for the Activity on that day. The Quality Assurance Inspector shall verify that the Activity locations are correct.
- C The second portion of Section 5 deals with Deficient work. As new Deficiencies are noted or existing Deficiencies cleared, Quality Control shall record such in the portion.
  - 1 **Quality Control Inspection Deficiencies**
    - (a) When Quality Control fails to identify Deficiencies but has performed and documented a successful inspection in the work, the following steps shall be taken.
      - (1) **Document the Deficient work on the Activity Card.**
        - I A note is made in Section 2 - Deficiency Items on the Activity Card. Identify the material, type, and description the work with the Deficiency.
      - (2) **Document Quality Control's failure to identify the Deficient work.**
        - I If the failure will take more than a brief description to define, a note is made in Section 5 - Remarks of the Activity Card, as well. Clearly describe Quality Controls failure to perform. The Quality Control Inspector is required to track this Deficiency through the balance of the system (logging and resolution).
- D Small items of Deficiency may be resolved by the Contractor after the formal Inspection. The small item can be reviewed upon correction. A Remark, indicating that a minor item was found and corrected, will suffice without having to record and track a Deficiency. This action is solely at the discretion of the Quality Assurance Inspector due to the myriad of circumstances that could be in effect. However, noting even small items will assist in the process should removal become necessary for a repeat offender.
- E It shall not be the intent of this portion of the Manual to forego Quality Control Oversight. Waiting until the Quality Control Inspection has been performed to generate Deficiencies can adversely affect relationships between Quality Assurance and Quality Control. Verbal notification at the earliest possible time is the general approach to be taken. Further, the Contractor shall always be allowed the opportunity to correct any Deficiency. At the point in time when the work progresses past achieving correction, Deficiencies shall definitely be noted.
- F Additionally, Deficiencies need be to noted whenever the deficient work is not corrected on the same day. Even if the Contractor plans to work the deficient area the following day, circumstances may change the plan and the work may not be completed until some future date.

If the Deficiency was not noted on the day it was discovered, it is more than likely would have been forgotten or overlooked at the future date.

**17.07.08 SECTION 6 - DAILY MANPOWER AND EQUIPMENT USAGE RECORD**

A The requirement for completion of this Section of the Activity Card has been waived. However, manpower and equipment are still required as part of the Contractor's Daily Report.

**17.07.09 SECTION 7 - REMARKS**

A Use as applicable to document remarks or notes related to the Activities performed on this Card.

**17.07.10 SECTION 8 - QUALITY ASSURANCE SIGN OFF**

A The Quality Assurance Inspector is required to initial and date this Section of the Activity Card once the Contractor has completed the event. Quality Assurance "sign off" is limited in scope by one of the two following statements which appear on the Activity Card:

B This "Sign off" does not represent acceptance of the work performed, but is a verification that Quality Control Testing/ Inspection was performed, Testable Quantities are representative of the work, and Equipment and Manpower are recorded correctly for the day.

C These statements have been incorporated on the form to facilitate daily close-out of Activity Cards. It is the Quality Assurance Inspectors responsibility to verify those items addressed in the statement daily.

D Should the Quality Assurance Inspector be in disagreement with the statement for a given day, they may add any comment necessary in Section 7 - Remarks to explain. The Contractor may be required to record, track and address the comments as a Deficiency.

**17.08 QUALITY ASSURANCE**

**17.08.01 GENERAL**

A The Owners Representatives and the Contractor's personnel shall make every effort to work together to expedite the prosecution of the Contract. The work is to be done without violating the terms and conditions of the contract or sacrificing the quality of work or materials.

B The Owners Representatives shall be congenial and professional when dealing with Contractors.

C No instructions for method and means shall be given to the Contractor. Limit instructions to the scope of the plans and specifications, such as interpretations of plans and specification requirements. However, it is appropriate to give advice of a flaw that may cause a delay or extra work by the contractor. Resolve misunderstandings with the Contractor's employees promptly.

D It is the Contractor's responsibility to provide the Agency with a quality product. It is up to the Quality Control personnel to give instruction to the Contractor's personnel and provide acceptable solutions when there is a question about the quality of materials, method of construction, or workmanship on the Contract.

E Quality Assurance does not abdicate the acceptance responsibility; Contractor Quality Control is an extension, a first layer, to ensure a quality project by placing the first line of quality at the contractor level.

F The Quality Assurance inspector has full stop work authority of the contractor if they, as determined by the contract, repeatedly fail to comply with the contract specifications.

G If at all possible, the contractor shall not be allowed to proceed "at their own risk" as that, by definition, is not quality control. If the material is placed at risk, the contractor shall be notified that no payment will be made for the material.

H Differences of opinion may occur between the Contractor's employees and those of the Owners Representative about the contract, interpretation of the specifications, quality of work, and measurement and payment of items. The Owners Representative will try to resolve these differences promptly and fairly within the scope of the Contract documents. If disagreements



cannot be satisfactorily resolved, the Owners Representative will refer the matter to an immediate supervisor in accordance with the Conflict Resolution process.

## 17.08.02 QUALITY ASSURANCE TESTING

### A General

- 1 Under the supervision of the Project Manager, Quality Assurance testing and/or inspection certified testers are authorized to inspect or test materials incorporated or to be incorporated into the work.
- 2 Testers may test materials fabricated at commercial material sites or fabrication facilities.
- 3 Because test results are the deciding factor in accepting or rejecting work or material, accurate test results are important.
- 4 The Quality Assurance tester must maintain testing equipment in good condition. When testing equipment requires repair, replacement, or calibration, the tester must inform the laboratory manager.
- 5 Testing procedures must conform to the specified test methods, and documentation must be complete and accurate.
- 6 Test material shall not be discarded until after final acceptance unless it is known that the sampling, testing method or the material itself were flawed.

### B Quality Control Test Verification in the Field

- 1 In general, verification of Quality Control Test Results shall occur at the Contract Site and laboratory independently on a minimum of one (1) Quality Assurance test to every ten (10) Contractor with minimum of one per day for each type of accumulative material. The exception is for higher risk Structural items that warrant additional Quality Assurance testing. The frequency for Quality Assurance on the following items is 30% of Quality Control:
  - (a) All materials that are not listed in the contract documents special provision 117 for non-structural.
  - (b)
- 2 "Split-Samples" **shall not** be used for the Quality Assurance and Quality Control samples. They are to be sampled separately by Quality Assurance and Quality Control at the same time and approximate location. This protocol is designed to test for the material, not the tester.
- 3 The timing and location of the testing shall be controlled by Quality Assurance until just prior to testing. The test results are given the same day verbally to the Quality Assurance Inspector with a hard copy attached to the Activity Card (field tests only).
- 4 If the Quality Control test passes, the work may continue. If it is a fails, more testing by the contractor is needed or re-work the area then re-test.
- 5 If the Quality Assurance test fails and the Quality Control test passes, both must re-test in the same area that failed. If failure occurs from both, the area is to be re-worked and re-tested. If a pass by Quality Control and a fail by Quality Assurance or visa-versa continues for that area, an independent assurance inspector responds and observes both testing processes for assurance compliance and performs 3-way split samples.
- 6 If this problem appears to be a trend, the Quality Assurance testing shall be increased until a consistency exists.

### C Dispute Resolution

- 1 If verification cannot be obtained, an immediate review of the results shall be requested by the Project Manager.
- 2 The Project Manager shall investigate the test data and forward requests, which warrant further investigation to the Quality Assurance Supervisor.
- 3 If a dispute remains or the circumstances continue, the Project Manager may require more testing or use a third party to determine the problem.

### 17.08.03 QUALITY ASSURANCE TESTING – INTERIM REPORTING

- A The contract Special Provision Section 112 states that the Contractor shall be responsible for coordinating the monthly Quality Control summaries at the end of each calendar month and submitting to the Quality Assurance on the 15<sup>th</sup> of each month. However, the timing may be altered by the Clark County Project Manager for convenience of the Owner or Contractor.
- B The report layout is identified in the Special Provisions and available in electronic format.
- C The monthly report shall include summary reports, as further defined below, of the Quality Assurance testing performed during the Contractor reporting period that also includes the frequency of testing as required in this manual. The ratio of Quality Assurance to Quality Control testing must be incorporated in the Quality Assurance monthly report.
- D The Owners Representative(s) shall review the summary and check for short falls in testing, sampling, or quantities and document that they have been identified, quantified, and acknowledged.
- E Quality Assurance deficient items shall be acknowledged and state what resolution actions are being taken. A material resolution shall be reviewed and stamped by the Nevada P.E. who has responsible charge.
- F A Professional Engineer shall certify that all field and laboratory testing was performed correctly, and that the corresponding data is accurate. The certification shall be attached to the monthly submittal.
- G Additional Professional Engineer stamped letters shall accompany the monthly summary to indicate a Professional Engineer level review and acceptance of the information provided by outside laboratories.
- H The Quality Assurance report may be submitted on media as follows:
- 1 CD-Rom
  - 2 Other word processor documents
  - 3 Or any combination of the above
- I The summary shall be submitted in the following format:
- 1 Cover letter generated by the Quality Assurance team
  - 2 Professional Engineer, in responsible charge of the testing, stamped cover letter stating review and approval of the test summary which attests to the individual tests for that time period.
  - 3 Field Test Result Summary that shall indicate all field test procedures and results performed during the reporting period. Items and tests shall be summarized by type.
  - 4 Field Density Test Result Summary indicating all pertinent information generated during all field density testing,
  - 5 Laboratory Test Result Summary that shall indicate all laboratory test procedures and results performed during the reporting period. Items and tests shall be summarized by type.
  - 6 Laboratory Concrete Break Result Summary facilitating brief analysis of critical concrete strength data. Items shall be summarized by cylinder set numbers.
  - 7 Laboratory Aggregate and Soils Result Summary indicating all gradation test procedures performed during the reporting period.
  - 8 Testable Quantity Summary that shall indicate total month and to-date counts of tests performed relative to the testable quantities and to-date testable quantities.
- J The monthly Quality Assurance summary report shall attach a copy of the most current Accreditation status for the laboratories. This would be in the form of printout of the appropriate AASHTO or similar web site page for that laboratory. The printout shall include the tests used on the project.
- K The report shall also attach a list of the NAQTC and/or ACI certified technicians that were working at the referenced laboratories or in the field for the project during that report period. A copy of the individuals cert cards will meet this requirement.

L All validation reports shall be included.

#### 17.08.04 QUALITY ASSURANCE TESTING - FINAL REPORTING

A A final Quality Assurance summary report shall be generated in accordance with section above and shall not be submitted until such time as all discrepancies and non-conformances have been resolved.

B For Federal Projects, at the timing as specified in the contract, or at a minimum monthly, all **ORIGINAL** Contractor, Consultant and Quality Assurance testing and inspection documents must be transferred, consolidated and stored. The Owner must retain the **ORIGINAL** documents. They shall include all field inspection/testing and laboratory typed and hand written forms, letters, notes, and results. *(Emphasis is added to the word ORIGINAL here to be certain that none of the documents are copies, but the one true ORIGINAL.)* Storing of copies is prohibited.

#### 17.09 LOG INTERACTION

A As individual Log items are completed the Quality Control Coordinator will review and log them.

B The Quality Assurance Inspector is required to assure weekly that Logging is conducted properly.

C The Quality Control Coordinator is required to keep and maintain each Log with the current status of each item on the Log. The individual items on the Log shall be numbered sequentially and clearly identify the content. Copies of the individual items shall be kept in the file system in the same sequential order as the Log Number indicates for ease in retrieval. These logging and filing rules apply to each of the Logs listed below:

- 1 Submittal Log
- 2 Request For Survey Log
- 3 Pre-Activity Meeting Log
- 4 Advance Notification Card Log
- 5 Activity Card Log
- 6 Material Tracking Log
- 7 Deficiency Log
- 8 Sample Log
- 9 Request for Information Log

#### 17.10 MONTHLY REPORT REVIEW

A See [Section 11 - Submittal Review Details](#) for details of Quality Assurance and Quality Control monthly report review.

#### 17.11 VALIDATION OF QUALITY CONTROL RESULTS

##### 17.11.01 GENERAL

A Quality Assurance is required to conduct the validation processes and report the results in their monthly Quality Assurance Summary.

B Testing of the same sample (Split Test method) is not acceptable within the Clark County's Quality Control System.

C There are two levels of validation

- 1 Daily: Daily check of the AASHTO or other precision statements for multiple laboratories between two tests
- 2 Weekly: A minimum of three (3) QA tests validation of a minimum of 10 QC tests. The minimum may be obtained over several days. Refer to the FHWA procedure in technical advisory T6120.3 "Use of Contractor Test Results in the Acceptance Decision, "Recommended Quality Measures, and the Identification of Contractor/Department Risks"

The Clark County validation forms are in conformance to the FHWA requirements and located on the QAQC website.

3 The validation forms are located on the QAQC website and named as follows:

- (a) *CCPW QA-V200 Soil and HMA Field Density Validation*
- (b) *CCPW QA-V500 Concrete Validation*

#### 17.11.02 DAILY VALIDATION OF TEST RESULTS

- A The verification process is the validation of two data sets using the Owner's Quality Assurance and Contractor's Quality Control using the AASHTO or ASTM precision statement for multiple laboratories.
- B The daily validation process shall occur at the time of testing. The Owner's Representative shall review both Quality Assurance and Quality Control test results for the AASHTO or ASTM deviation between tests. T

#### 17.11.03 VALIDATION OF MULTIPLE TEST RESULTS

- A The data validation procedures shall be complied fully as a minimum or the accumulation of three QA to 10 QC tests. There is no limit on the number of days in that week to input to get the result however, all QA and QC tests must represent the approximate similar stationing or area.. ). If the QA test results are less than three (3), the data collection may continue into the following week until the minimum is achieved. For concrete testing, only seven (7) day breaks are required for validation. For density test, the validation tests are to be conducted relatively close to QC tests and on the same day. Quality Assurance shall use the appropriate validation forms (available on the County website If the Quality Assurance is not able to verify through validation the Quality Control test data, both parties are required to attempt to reach a consensus for acceptance criteria within the Contract specifications which may require more testing. When consensus cannot be achieved by both parties, third party resolutions will be required. Contact the Clark County Project Manager for further instructions.

#### 17.12 ACCEPTANCE OF WORK

- A Acceptance of work will be based on whether or not the Quality Assurance staff was able to validate the Contractor Quality Control.
- B If the steps, taken in [Section 17.11 - Validation of Quality Control Results](#) above, show that Quality Assurance is able to Validate Quality Control then acceptance will be based on Quality Control results.
- C If the steps, taken in [Section 17.11 - Validation of Quality Control Results](#) above, are not able to Validate Quality Control test data, both parties shall be required to reach a consensus for acceptance criteria within the Contract specifications. When both parties cannot achieve consensus, third party resolutions will be required.

## SECTION 18 INDEPENDENT ASSURANCE PROGRAM

### 18.01 OVERVIEW

#### 18.01.01 GENERAL

- A The Construction Management Division Independent Assurance (IA) is an independent verification of Contract documentation, testing equipment, sampling, and testing procedures, and is designed to provide documented conformance of the Quality Assurance and Quality Control functions contained throughout this manual and contract documents.
- It involves a separate and distinct schedule of Quality Control Contract document review, laboratory testing equipment inspection, comparison of test results, and the limited observation of inspection sampling & testing procedures. A Contract Audit will also include a review of Contract Administration records.
- The IA verifies the conformance of the QA and QC technicians and equipment. The test results are not to be used in the acceptance of the materials.
- B There are two roles in Clark County for Independent Assurance
- 1 To provide documented conformance of the program, it involves a separate and distinct schedule of Quality Control and Quality Assurance verification:
    - (a) The observation of sampling & testing procedures
    - (b) Comparison of test results
    - (c) Document review for technician and laboratory testing equipment inspection
    - (d) Verification of the Contract Quality inspection.
    - (e) This coincides with the contractor specification documents 105.19 Independent Assurance sampling.
  - 2 In order to maintain separation and minimize the potential of a conflict of interest, the Construction Management Division organization is such that the QA section and the Contract Management section report separately to the Deputy Director.

#### 18.01.02 INDEPENDENT ASSURANCE PROTOCOL

- A The FHWA allows for two different auditing protocols:
- 1 Project
    - (a) The project approach requires testing to be performed on the project for a frequency of 10% of the required non-structural and 30% of the structural materials of the required Quality Assurance testing for each test method used on the project as exemplified in Figure 2.  
The definition of non-structural is given in the contract special provisions 117 "Contractor Quality Control Testing" and that designated by the Engineer.
  - 2 System
    - (a) The system approach requires a list of personnel that have tested each method within a year of being used on a project. The qualification of the tester may use a project and/or AASHTO Materials Reference Laboratory (AMRL) or CMEC proficiency sample.
- B The list of personnel is combined from all of the agencies in the valley. A list of testing personnel is posted on the internet website:
- (a) [Quality Control Administration Manual and Inspection Forms](#)
  - 2 **Clark County uses the Project Approach**
- C For both protocols, all three of the testers, Independent Assurance, Quality Assurance, and Quality Control are observed and tested per the manual procedures. For very small projects with minimal tests, IA may be visual of the QA and QC only if approved by NDOT for NDOT/Federal projects or the QA Supervisor for county only projects.
- 1

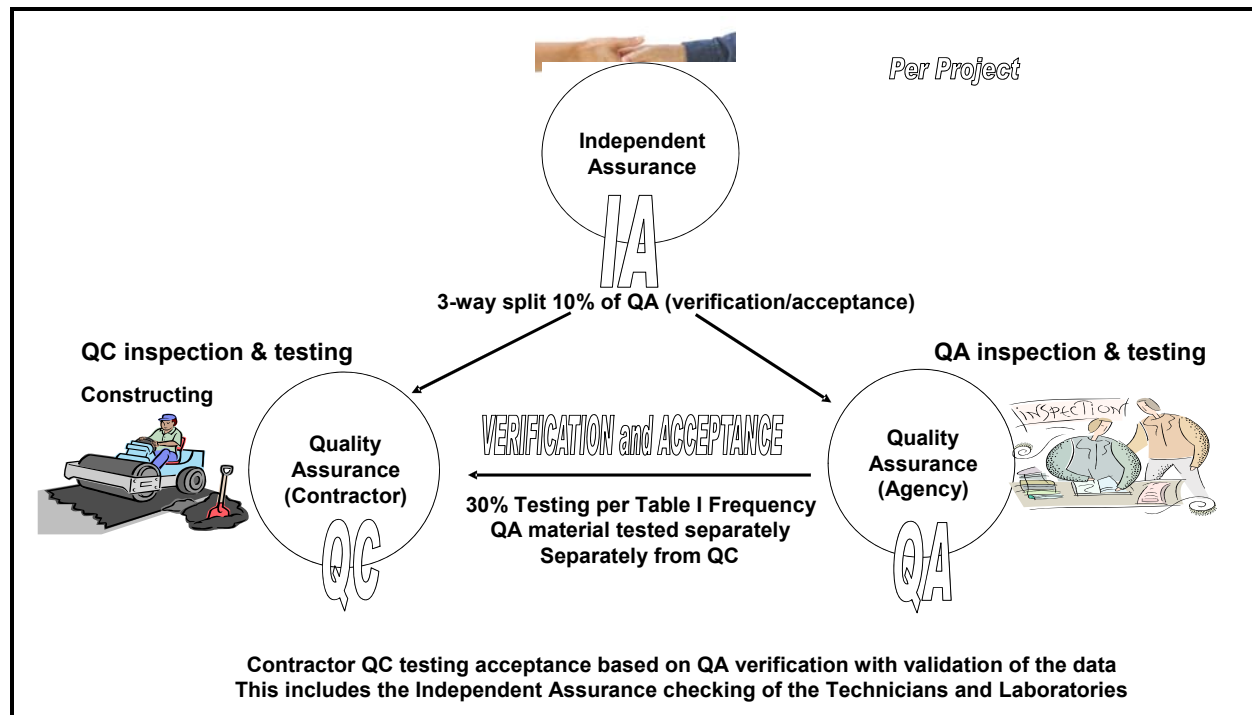


Figure 2- Example of Quality Control, Quality Assurance and Independent Assurance Relationship for the Project Approach

### 18.01.03 AUDITING UNIT

A The Auditing Unit of the Independent Assurance Section has primary responsibility for oversight of this program. The Program consists of two distinct systems working as one:

#### 1 Program Audits and Laboratory Audits.

- (a) Program Audits are a continual validation of the Contractor's Quality Control Plan (Special Provisions 111 thru 117) and Clark County Public Works Quality Assurance function as it applies to each Contract and as defined in this manual. Each project requires a minimum of one (1) audit. The target for most projects, which depends in the project size, is a pre-audit, project process, and closeout audit.

#### 2 Laboratory Audits

- (a) Laboratory Audits are continual verification of accredited laboratories. Laboratory verification includes, but is not limited to, Technician Training Qualification and Certification, and Laboratory Qualification and Accreditation status. The frequency of the audits is twice per year.
- (b) If the audit of the laboratory is related to the project, all Owners Representatives are required to cooperate with Audits conducted by the Independent Assurance Unit. Further, the Project Manager shall assure the cooperation of the Contractor for the Project.

### 18.01.04 AUDIT CATEGORIES

A There are six separate categories of inspection, further defined in the following sections:

- 1 Independent Assurance Split Sampling (System or Project approach)
- 2 Independent Assurance Contract Audit
- 3 Independent Assurance Laboratory Audit (System or Project approach)
- 4 Independent Assurance Project Inspection Audit



- 5 Inter-Agency Quality Assurance Committee Material Review and posting
- 6 Material Source Inspection and Auditing

#### 18.01.05 DOCUMENTATION REVIEW

- A Independent Assurance reviews all Contract documentation for compliance with their respective Specifications. It is essential that deficiencies be detected in a timely manner to improve the reliability of Clark County Public Works Quality System Program.

#### 18.02 SPLIT SAMPLING

- A The Independent Assurance Inspector is responsible for administering the 3-way split sample program among the various lab personnel. This involves supervising the sampling, splitting (performed by Quality Control), distribution of the samples, collecting and reporting the results of the tests and the observation of the testing.
- B All of the Quality Assurance and Quality Control testing personnel shall be observed by the Independent Assurance inspector who is certified in the same method. The testing process is documented as a part of the final report.
- C The Independent Assurance inspector shall coordinate with the Owner Representative for the timing and location of the sampling.
- D The Independent Assurance split sampling and testing program uses visual observation of the test methods and testing to verify that the technician and laboratory are qualified.
- E The sample encompasses all three test laboratories, Independent Assurance, Quality Assurance, and Quality Control. The various forms shall be used to document the reliability of the results of field sampling, testing and laboratory testing<sup>1</sup>. For small projects that have minimal tests, the Independent Assurance lab testing may be waived by NDOT and the report consist of visual observation of the QA and QC testing processes.
- F The Independent Assurance lab and its testers are not associated with the project testers, which are under the supervision of the Contractor or CCPW Manager. This assures an independent check on the testing procedures.
- G When an Independent Assurance lab tests a sample, the test results are not to be used to determine the quality and acceptability of the materials and workmanship. The value is used to determine if the technicians and laboratories agree. The importance is not in the acceptability of the test value, but that the values are in agreement within the standard inter-lab tolerance as established by the test method precision statements or as stated in the contract.
- H This testing of material must use the same laboratory and field technician. If the technician is changed, another Independent Assurance split is required for the Quality Control or Quality Assurance, depending on which laboratory is affected.
- I Changing technicians without notification and Independent Assurance verification will prompt a Deficiency to the contractor or CCPW consultant. This Deficiency is handled by the CCPW project representative.
- J The following selected materials will be split, sampled and tested per NDOT methods. A log shall be maintained of technicians with each test and posted on the website. The decision of testing the material is based on the need to re-certify the technician for a particular expired test. For each test method, the test shall be observed and equipment verified of equipment calibrations. The test types are as follows:
  - 1 Soils and Aggregate, or Aggregates for Plantmix Bituminous Surface, or UTACS or Concrete Aggregates
    - (a) Sieve Analysis - NDOT T206
    - (b) Plastic Index, Liquid and Plastic Limits (Three Point Method) – NDOT T210 T211
    - (c) Fractured face - NDOT T230

<sup>1</sup> The difference in the reporting forms is that CCPW uses the statistical procedure the method in ASTM D4460 and D670. NDOT uses it's own non ASTM method.

- (d) Specific Gravity and Absorption of Coarse Aggregate - NDOT T111
- (e) Specific Gravity and Absorption of Fine Aggregates - NDOT T493 Sieve Analysis - NDOT T206
- (f) Laboratory Maximum Density (Proctor) – AASHTO T180
- (g) Aggregate Base Nuclear Density - NDOT T103
- (h) Fractured face - NDOT T230
- 2** Concrete Aggregates
  - (a) Cleanliness Value – NDOT T228
  - (b) Sand Equivalent - NDOT T227
  - (c) Specific Gravity and Absorption of Coarse Aggregate - NDOT T111
  - (d) Specific Gravity and Absorption of Fine Aggregates - NDOT T493
  - (e)
- 3** Concrete
  - (a) Slump - NDOT T438
  - (b) Unit weight - NDOT T435
  - (c) 7 day Compression Tests (Two each) - ASTM C31 & ASTM C39
  - (d) Air Content- Volumetric - NDOT T431
- 4** Plantmix Bituminous Surface or UTACS
  - (a) Extraction of Bitumen - NDOT T760
  - (b) Theoretical Maximum Specific Gravity - NDOT T324
  - (c) Bulk Specific Gravity (Paraffin) - NDOT T336
  - (d) Bulk Specific Gravity (Vacuum) - AASHTO T331
  - (e) Mechanical Analysis of Extracted Aggregate - NDOT T206
  - (f) Asphalt Binder Content of Hot-Mix Asphalt by the Ignition - NDOT T761
  - (g) Quantitative Extraction of Bitumen - AASHTO T164
- 5** Base Density
  - (a) Soil and Aggregate Base nuclear density - NDOT T103
  - (b) The sand cone will not be required. Prior to testing, the IA, QA, and QC shall present calibration information from a validator.
    - (1) Per the AASHTO T310, gauges can be verified with the ValiDator within 12 months of being calibrated via “multi-block” calibration. From T310: “If the verification process indicates a variance beyond the specified tolerances, the gauge shall be calibrated.”
    - (2) In the case of testing non-compliance, the referee is the sand cone.
- 6** Asphalt Concrete Density
  - (a) Plantmix Nuclear Density - NDOT T335
- 7** Other samples that are determined by the Quality Assurance section supervisor as appropriate for the project
- K** Unless directed by the Independent Assurance inspector, the Quality Control, Quality Assurance and Independent Assurance shall use the same test methods, including any options that are within the method. Any optional portion of the method shall be discussed prior to any testing.
- L** The split sample shall be acquired at the same locations as regular project samples or in the case of the System Approach, the project or other location as selected by the Engineer.
- M** The Quality Control tester shall sample in the presence of and at the locations indicated by the Independent Assurance inspector.



- N The Quality Control and Quality Assurance labs may not use the split sample to satisfy frequency requirements of their regular project.
- O The sample shall be large enough for the appropriate sampling method so that each lab will have enough material for testing.
- P The results of all three labs will be reviewed; however, the focus shall be on the Independent Assurance and Quality Control comparison.
- Q The Independent Assurance to Quality Assurance comparison is secondary and is not considered in the overall Federal requirement however is required to pass the Clark County requirements.
- R Independent Assurance Testing Frequency for the "Project Approach"
- 1 The CCPW Independent Assurance 3-way split testing frequency shall be a minimum 10% of the required Quality Assurance testing. At no time shall the Independent Assurance testing frequency be less than 1% of the required Quality Control frequency, or one per project, per material.
- S Independent Assurance Testing Frequency for the "System Approach"
- 1 The 3-way split testing is based on the technician and laboratory including equipment to be verified per each method.
- 2 The qualification for each is one year from the time of testing for the approved method used on a project.
- 3 The technician from another agency in Clark County may be posted if they follow the procedures in this manual.
- T Sample Preparation
- 1 Using an approved method, the Quality Control shall 3-way split the sample with the Quality Assurance tester and the Independent Assurance inspector present. Thus each portion is representative of the original sample and is similar to other portions as possible.
- 2 Carefully obtaining and preparing split samples allows for correlating testing.
- 3 The Independent Assurance shall take possession and deliver the sample to the Quality Assurance and Quality Control laboratories.
- 4 The Independent Assurance shall use a "chain of custody" form and sample tag. The sample containers shall be sealed using packing tape with the signature of the Independent Assurance representative across the tape onto the container for instant recognition of material tampering.
- 5 The Independent Assurance inspector shall continually retain custody of the samples from the time they are taken until they are delivered to the Quality Control and Quality Assurance laboratories.
- U Reporting Procedures
- 1 The Quality Assurance and Quality Control Company must ensure to report the results of the tests performed to the Independent Assurance inspector.
- (a) When the Independent Assurance inspector receives all reports, they will submit the results on a single form for comparative purposes to the CCPW Quality Assurance Supervisor within 7 days after receipt of the Quality Control and Quality Assurance report which will include all data.
- 2 The noted forms may be altered for the particular contract. If a consultant is designated as the Independent Assurance, their corporate forms may be used only if they contain the same information and similar format. The CCPW logo must be posted at the top left. The consultant may post a logo and name below.
- V Tolerances and Corrective Action
- 1 When split samples vary more than the allowable tolerances shown in Table 1, Independent Assurance Audit Tolerances, confirm that testers are following proper testing procedures..

- 2** If all three samples do not agree, perform another 3-way split and repeat the process and continue this procedure until the problem is resolved.
- 3** If laboratories cannot meet allowable tolerances with the additional audits, then the Quality Assurance Supervisor will notify the Supervisor Construction Management Inspection for further action.
- 4** An alternative method of determining acceptable tolerance is checking the D2S Limit shown in the Test Method. The D2S Limit is given in most ASTM and AASHTO Test Methods as the "Acceptable Range of Two Test Results."
- 5** The Table 1 input form, per the Clark County method, uses the D2S tolerance as a range that Independent Assurance, Quality Assurance and Quality Control must abide.
- 6** The Table 1, per the NDOT method, considers the NDOT value as correct; the "correct" point is then surrounded by the tolerance.

**Table 1 Independent Assurance Audit Tolerances**

TEST	CONTROL	TOLERANCE (PLUS OR MINUS)
Sieve Analysis	Percent Passing 3" to 1" sieves	7%
	Percent Passing 3/4" to 3/8" sieves	6%
	Percent Passing No. 4 Sieve	5%
	Percent Passing No. 8 to No. 16 sieves	4%
	Percent Passing No. 20 to No. 50 sieves	3%
	Percent Passing No. 60 to No. 200 sieves	2%
Fractured Face	Percent Fractured Faces	7%
Sand Equivalent	Sand Equivalent Value	4%
Fine or Coarse Bulk SG	Bulk Spec Gravity (BSG) Value (AASHTO Tolerance)	0.033
Fine or Coarse Bulk SG SSD	BSG Saturated Surface Dry Value (AASHTO Tolerance)	0.028
Fine or Coarse Apparent SG	Apparent SG Value (AASHTO Tolerance)	0.028
Coarse Percent Absorption	Percent Absorption Value	0.25
Fine Percent Absorption	Percent Absorption Value	0.33
Atterberg Limits	Plasticity Index	3
Density	Calculated Maximum Density	3 lbs/cu.ft.
Slump	Slump of Concrete	1 inch
Air Content	Percent of Air in Concrete	0.5%
Unit Weight	Pounds per cubic foot	3.0 lbs
Compressive Strength	Pounds per square inch (ACI)	14% of average
T.M.D. (Rice)	Density	2 lbs/cu.ft.
Ignition Oven or extracted	Bitumen Ratio	0.3%
Soils Nuclear Density	Density direct transmission- AASHTO T310 (wet density avg all soil)	1.0 pcf
	Density direct transmission- AASHTO T310 (Moisture Content avg all soil)	1.0 pcf
Bituminous Nuclear Density	Density direct transmission- ASTM D2950 Backscatter	4.9 pcf

**W Records**

- 1** The CCPW Quality Assurance Section maintains the original records. The final report shall contain the following:
  - (a) Quality Assurance Section Supervisor Cover Letter
  - (b) Audit report form
  - (c) Inspector reports
  - (d) Mix design (where applicable)
  - (e) Test results
  - (f) Certifications
  - (g) Excluded Parties List System

#### **18.02.02 VISUAL AUDITS OF FIELD TESTING PROCEDURES**

- A The Independent Assurance shall randomly perform visual field audits of sampling/testing procedures and documentation to verify the accuracy of field methods.
- B Review the validation documents for the verification of the Quality Control tests retained by Quality Assurance.
- C Audits shall include the inspection of any or all of the following:
  - 1 Sampling procedures
  - 2 Sample splitting procedures
  - 3 Sample preparation
  - 4 Testing procedures
  - 5 Calculations
  - 6 Reports
  - 7 Equipment use and procedures
  - 8 Files
- D If corrective action is necessary, discuss the audit with the individual(s) whose testing is being audited and with the Quality Assurance Inspector before leaving the job site or laboratory.
- E Report the audit on Independent Assurance Inspection form Visual Audit Reporting :
- F A follow-up audit is required for any failing or unsatisfactory audit (visual or procedural) to verify conditions have been corrected.

#### **18.03 CONTRACT ADMINISTRATIVE AUDITING**

- A The CCPW Independent Assurance unit or designated Consultant has primary responsibility for oversight of this program.
- B Contract Administrative Audits are a continual validation of the Contractor's Quality Control and Clark County Public Works' Quality Assurance documentation as it applies to each Contract. The frequency of audit is a minimum of one per project
- C Scheduling
  - 1 The Independent Assurance inspector shall coordinate with the contract CCPW site inspector for the time and date to review both of the Quality Control and Quality Assurance documentation and submit the Quality Assurance audit report and Quality Control Contract Administration Audit Form.
- D The audit is performed at the contractor's office with the Quality Assurance inspector present. The Quality Assurance will be audited at the same time or the time as specified by the Quality Assurance inspector.
- E The audit shall consist of the review of the following subsections to the contract:
  - 1 105.20 "Payment for Contractor Quality Control"
  - 2 111.01 "Personal and Certifications"
  - 3 111.09 "Organization- General"
  - 4 112.04 "File Maintenance"
  - 5 112.06 "Project File System"
  - 6 112.07 "Submittals"
  - 7 112.08 "Deficiency Tracking & Resolution"
  - 8 112.10 "Material Delivery & Tracking Procedure"
  - 9 112.12 "Tracking"
  - 10 112.13 "Testing ID"
  - 11 112.15 "Monthly Report"
  - 12 112.16 "Final Report"
  - 13 112.17 "QC Auditing Procedure"

- 14 112.18 "Production Control and Charting"
  - 15 112.19 "Sample Retention"
  - 16 113 "Qualifications"
  - 17 114.04.01 "Pre-activity Meetings"
  - 18 114.04.02 "Notification Cards"
  - 19 114.04.03 "Activity Cards"
  - 20 114.04.04 "Sampling and Testing"
  - 21 114.04.05 "Final Inspection and Testing"
  - 22 114.08 "Inspection Reports"
  - F QA Audit
    - 1 The Quality Assurance will audited for the same items and the quantity of tests, daily reports, IA tests and onsite laboratory observations
  - G Once complete, a transmittal shall be sent to the Supervising Construction Management Inspector, the Assistant Manager Offsite Construction, and the Deputy Director. The transmittal will have any penalties that will be deducted by the Supervising Construction Management Inspector from the contractor pay request.
- 18.04 LABORATORY AUDITING**
- A The CCPW Independent Assurance unit or designated Consultant has primary responsibility for oversight of this program.
  - B Laboratory Audits are verification of accredited laboratories. Laboratory verification shall include, but is not limited to, Technician Training, Qualification, and Certification and Laboratory Qualification and Accreditation status.
  - C The Independent Assurance unit shall determine frequency of program verification through audits. The minimum frequency is one per.
  - D The laboratories are also inspected on a six month rotation of which the contract lab audit may be included.
  - E The Independent Assurance Inspector will perform the laboratory audit as a part of the contract administrative audit.
  - F The Independent Assurance inspector shall evaluate the Contractor Quality Control and Quality Assurance laboratories and field equipment by confirming that it is R-18 ASTM D 3666, D 3740, and C1077 accredited where appropriate and has been calibrated per the AMRL/CCRL or CMEC AASHTO calibration frequency requirements for accreditation. Verify that each method is listed on the accreditation document.
  - G The inspector shall review the equipment and laboratory documentation for proper method procedure and format. This will normally be performed during the laboratory audit at the beginning of the project and recorded on the audit form.
  - H Scheduling
    - 1 The Independent Assurance inspector shall coordinate with the laboratory for the time and date of the inspection.

**18.05 INSPECTION AUDITING**

- A The Independent Assurance inspector has the reporting responsibility of ensuring through random inspections that the construction is in compliance with plans and specifications.
  - 1 The Quality Assurance inspector has oversight of acceptance of the Quality Control inspection activity card.
  - 2 The Quality Assurance inspector may need to inspect a critical item at 100% of Quality Control while other aspects may require less oversight, depending on the trust level of the contractor.

- 3 The Independent Assurance randomly selects a component of the construction and checks for compliance after Quality Assurance and Quality Control have performed their inspection.
- 4 An inspection report is then issued of the observation. If the Independent Assurance inspector observes a critical aspect of the project that is not in compliance and needs to be rectified in an urgent manner, the Independent Assurance inspector will advise the Quality Assurance inspector.
- 5 If there is no response, both the Supervisor Construction Management Inspection and Quality Assurance Supervisor will be notified for further action.
- 6 A report is then issued of the Independent Assurance non-compliance and sent by the Quality Assurance Supervisor to the Deputy Director, Assistant Off-site Construction Manager, Supervising Construction Management Inspector, and the Senior Construction Management Inspector.

## **18.06 INTERAGENCY QUALITY ASSURANCE COMMITTEE MATERIAL REVIEW**

### **18.06.01 GENERAL**

A The CCPW Independent Assurance is responsible, in agreement with other agencies, to monitor the region materials. The agencies are as follows:

- 1 Boulder City
- 2 Clark County
- 3 City of Henderson
- 4 City of Las Vegas
- 5 City of Mesquite
- 6 City of North Las Vegas

B The region is divided between the following agencies for material source testing verification.

- 1 Clark County
- 2 City of Henderson
- 3 City of Las Vegas

### **18.06.02 WEBSITE**

A Clark County maintains a website for qualified materials which are as follows:

- 1 Type II aggregate
- 2 Concrete mix designs
- 3 Asphalt Concrete Mix Designs

B The Inter-Agency Quality Assurance Committee website for Qualified Materials address is as follows:

- 1 [Construction Management: Materials & Lab](#)

### **18.06.03 MATERIAL SUBMITTAL DATES**

A Each year, the various sources submit their material for approval and posting. The submittal process dates are as follows:

- 1 Type II: March 31<sup>st</sup>
- 2 Asphalt Mix designs: September 30<sup>th</sup>
- 3 Concrete Mix designs: January 31<sup>st</sup>

### **18.06.04 MATERIAL SAMPLING AT SUBMITTAL TIME**

A Type II base materials

- 1 The aggregate source arranges a consultant to split a sample annually with Independent Assurance. The recycled type II requires a sample every six months.

- 2 Testing is performed and the tests are compared.
- 3 If the tests are acceptable as compared, the product is posted on the website. Each agency submits their own review to the county (Independent Assurance) for posting.
- B Concrete Mixes
  - 1 Presently, due to personnel constraints, there is no sampling and testing of concrete and aggregate. However, NDOT does this regularly on aggregates of which CCPW receives copies.

#### 18.06.05 MONTHLY REPORTING

- A Each month, the following material sources submit their reports:
  - 1 Asphalt cement
  - 2 Precast pipe and box culverts

### 18.07 MATERIAL SOURCE AUDITING

#### 18.07.01 GENERAL

- A **For Federally Funded projects**, material authorized sources are not allowed.
- B The authorized local material sources are audited for conformance to their submitted and approved Quality Control procedures. This process eliminates the requirement for the contractor to inspect and test at the material source.
  - 1 The authorized facilities are listed on the Clark County QAQC webpage. [Construction Management: Materials & Lab](#)
- C Monitoring
  - 1 The testing and observation of the facilities is provided by the various project Quality Assurance inspectors. Their information resides on the project.
  - 2 The material source submits monthly Quality Control reports are audited by Independent Assurance.
  - 3 Each year Independent Assurance visits the facility for inspection and subsequent documentation.

#### 18.07.02 INDEPENDENT ASSURANCE FILES AND RECORDS

- A Keep all original Independent Assurance test worksheets and reports on file in the Quality Assurance Section office, and forward all copy reports to the CCPW Project Manager.
- B Files
  - 1 The Quality Assurance Section files shall be organized by the project number. The file cabinet drawer shall be solely used for the Independent Assurance auditing with sections designated as follows:
    - (a) Independent Assurance Material Audits
    - (b) Contract Quality Administration Audits
    - (c) Laboratory and field Audits
- C At the end of one year of a project completion, and/or laboratory audit date, the files shall be compiled and transferred to the county division for scanning into the archives. The only exception is if the project is in litigation.
- D Independent Assurance will use the forms which are posted on the internet site:
  - 1 [Quality Control Administration Manual and Inspection Forms](#)





## **SECTION 19      FEDERALLY FUNDED PROJECTS ADDITIONAL REQUIREMENTS**

### **19.01      GENERAL**

- A      The Clark County program utilizes county procedures dovetailed into the Federal NS 23 CFR 637B Requirements which allows for one manual. There are specific instances, when Federally Funded projects with Nevada Department of Transportation oversight, requiring additional efforts for compliance with other Federal laws. This section will identify those items/instances. Some repetition of these items may happen throughout this manual to assist in the process.

### **19.02      POLICY (23 CFR 637.205)**

- A      The Deputy Director provides the appropriate oversight to ensure that the County's quality assurance program is being implemented as approved. At a minimum the oversight shall cover:
- 1            Materials sampling and testing issues
  - 2            Construction inspection issues covering the specific attributes which reflect the quality of the finished product
  - 3            County capabilities – maintaining an adequate, qualified staff to administer the Independent Assurance, Quality Assurance program and qualified laboratories.

### **19.03      LABORATORY PERSONNEL QUALIFICATION (23 CFR 637.209)**

- A      The Contractor Quality Control, Owner Quality Assurance and Independent Assurance testing personnel on the Contract possess NAQTC and/or ACI Certification and that all testing companies and/or contractor be accredited in accordance with the AASHTO Accreditation Program for specifications R18, ASTM D 3666, D 3740, and C1077. The accreditation is required for both field and laboratory sampling and testing.
- B      All test procedures used in the acceptance decision shall be within the scope of accreditation for the consultant laboratory.
- 1            The County laboratory is not accredited however the consultant and all other laboratories that will be used are accredited.

### **19.04      SAMPLING AND TESTING**

#### **19.04.01      GENERAL**

- A      Test results are not to be discarded unless it is known that the sampling or testing was flawed. It may be appropriate to perform additional testing when the quality of the material is in question. However, in cases where additional tests are performed, the acceptance and pay criteria will need to be adjusted to account for the additional test results.

#### **19.04.02      FHWA PARTICIPATION**

- A      FHWA Area Engineers may collaborate in sampling and testing.

### **19.05      MATERIALS**

#### **19.05.01      AUTHORIZED MATERIALS**

- A      The Authorized Materials List cannot be used on federally funded projects. Materials will not be considered to be Authorized thus they inherently become Qualified or Non-Authorized Materials. The Contractor must include the source testing as a part of their regular Contract Quality Control requirements.
- B      Alternately, Quality Assurance inspections and testing, on a frequency approved by the Quality Assurance Supervisor, may be utilized in addition to the Authorization process. This "heightened level" of Quality Assurance would effectively incorporate the Authorized Sources Quality Control program into the Contract. Due to the materials being used on several projects, the Quality Assurance inspectors and testers report directly to the Quality Assurance Supervisor when performing these functions.

## 19.06 REPORTS

- A For Federal Projects, at the timing as specified in the contract, or at a minimum monthly, all **ORIGINAL** Contractor, Consultant and Quality Assurance testing and inspection documents must be transferred, consolidated and stored. The Owner must retain the **ORIGINAL** documents for a minimum of 5 years. They shall include all field inspection/testing and laboratory typed and hand written forms, letters, notes, and results. *(Emphasis is added to the word ORIGINAL here to be certain that none of the documents are copies, but the one true ORIGINAL.)* Storing of copies is prohibited.

## SECTION 20 CONTRACT TIME

### 20.01 GENERAL

- A The overall responsibility for tracking Contract Time and determining Time Extensions and/or Compensation falls on the Clark County Project Manager. The Clark County Project Manager will assign the responsibility for completion of the Weekly Contract Time Summary form to the Consultant Project Manager, Senior Construction Management Inspector, or another Owners Representative who is on the Contract daily.
- B The Project Manager will gather the document and give a cursory review once per week. Detailed review need only happen as outlined in [Section 20.04 - Review of Request for Time or Compensation](#).

### 20.02 CONTRACTOR REQUIREMENTS

- A The Contractor is required by Contract Documents to request Extension of Time or Compensation for Owner Caused Delays within ten (10) days of the event causing the request. See Section 108.06 and 108.08 of the Special Provisions and Uniform Standard Specifications for details.
- B Generally, this request is made through a letter detailing the specific event(s) which caused the Contractor to be delayed (I.E. adverse weather, utility conflict, and design change.) However, the request may be submitted as provisions of a *Construction Change Authorization* or conditions within a Request for Information.
- C The Contractor is further required to sign and accept receipt of a copy of the Weekly Contract Time Summary. Accepting their copy does not mean that the Contractor agrees to the information contained therein. It is merely affirmation that the copy has been transmitted to them by the Owners Representative. The specifications noted above also detail the Contractors ability to contest this information.

### 20.03 WEEKLY CONTRACT TIME TRACKING

#### 20.03.01 GENERAL

- A The Owners Representative shall track and record Contract Time on the *Weekly Contract Time Summary form*. This form is to be compiled daily, filling the relevant day's information on the form. At the end of the workweek, the Owners Representative shall assure that the form is complete in its entirety.
- B The Owners Representative shall present the form to the Contractor for signature at the end of each week and turn into the Clark County Project Manager.
- C Take the following steps to complete the Weekly Contract Time Summary:

#### 20.03.02 DAY OF THE MONTH

- A Input the calendar day number for each day of the reporting week.

#### 20.03.03 CONTRACTOR PRESENCE

- A For the needs of these columns, it is merely an indication of whether or not the contractor was present on the Contract. If the Contractor was not present at all, both columns will be left blank.

##### 1 FULL WORKING DAY

- (a) X this column if the Contractor had personnel on-site for five (5) hours or longer.

##### 2 LESS THAN FULL WORKING DAY

- (a) X this column if the Contractor was onsite but less than five (5) hours.

#### 20.03.04 FULL DAY OF WORK ON CRITICAL ACTIVITY

- A This column should be "X'd" if the Contractor effectively prosecuted the Critical Activity of work for at least five (5) hours. In the instance when Adverse Weather occurs during a workday, the

Contractor shall have worked a minimum of four (4) hours. See Section 101.70 - Working Day of the Uniform Standard Specifications for details of Full Working Day definition.

- B This item is independent from the fact that an Excusable or Non-Excusable Delay was or was not active. Often the circumstances allow the Contractor to make progress on the Critical Activity even though an Excusable Delay (I.E. a utility being lowered in the area) or Non-Excusable Delay could have potentially caused them to not work. As long as, the Contractor has personnel working on the Critical Item

#### **20.03.05 POTENTIAL NON-EXCUSABLE DELAYS**

- A Any delay that was reasonably foreseeable or within the Contractor's control is a Non-excusable delay, and no additional time or monetary compensation will be considered. For example, a delay caused by the Contractor not placing a material order in a timely manner would be Non-excusable. X each column that applies for each day worked.

##### **1 Contractor Elected Not to Work**

- (a) To be recorded when the Contractor could have effectively prosecuted the controlling item of work for at least five (5) hours, but elected not to. This criterion applies as long as the reason for not prosecuting the work was under the Contractor's control. Saturdays and Sundays will generally fall in this category.

##### **2 Slow Progress**

- (a) To be recorded when the Contractor worked on the controlling item, but the actual rate of production was slower than normally achievable. This criterion applies as long as the reason for the delay was under the Contractor's control and typically occurs when the Contractor appears to be working, but is actually performing an operation that is not progressing the controlling item, such as during cleanup operations.

##### **3 Material Delivery**

- (a) Record this delay when material delivery delays the progress of the controlling item of work for any of the following causes:
- (1) Contractor not ordering materials in a timely manner
  - (2) Suppliers re-prioritizing their customer deliveries
  - (3) Contractor reordering and replacing materials rejected by Clark County Public Works
  - (4) Financial problems of the Contractor, manufacturer, or supplier
  - (5) Causes foreseeable by the Contractor, manufacturer, or supplier

##### **4 Other**

- (a) Record this delay type when other issues affect the Contractors ability to perform the work, and were within their ability to control.

#### **20.03.06 POTENTIAL EXCUSABLE DELAYS**

- A Any delay that was beyond the Contractor's control and not caused by the Contractor's fault or negligence may be considered an excusable delay.

##### **1 Adverse Weather Delays**

- (a) This column should be "X'd" when adverse weather conditions happened on this day. X this column even if the adverse weather happened outside of regular working hours. Use the Remarks column to describe the weather event and the approximate time it occurred.

##### **2 Clean-Up from Adverse Weather**

- (a) The recovery time required to attain the approximate condition of the work prior to the event should be recorded here. X this column when the Contractor continues cleanup efforts even if they are able to work on the Critical Activity.

##### **3 Utility Conflict**

- (a) Record delays caused by Utility Conflicts in this column. Any time work on a Utility is being performed within the Contract site and is in direct conflict with the Critical Path.

**4 Design Change**

- (a) When a change in the design has caused the Critical Activity to be impacted make an X in this column. Should the change be minor in nature, and has little effect on the Critical Activity, no record needs to be made.

**5 Other**

- (a) Record an X in this column when other issues cause the Critical Activity to be delayed. Generally these will be Third Party issue, but may include issues brought about by the Contractors own actions.

**20.03.07 REMARKS**

A Generally the remarks noted here should be brief and to the point. One remark is expected for each X placed in the potential delay boxes. If two boxes are checked, two remarks are expected.

B Examples of remarks are as follows:

- 1 South West Gas, Sta. 10+50 to 10+75, lower 4" lateral
- 2 Water Reclamation District, lowering 10" at MH #8
- 3 Rain 4:00 thru 10:00
- 4 Contractor did not provide a full crew.
- 5 Reinforcing steel not on site
- 6 Clean-up continues but work progressed without impact
- 7 Contractor taking his time on Clean-up
- 8 Contractor present all day, but did not accomplish much
- 9 Adverse Weather in forecast, Contractor elected to wait to perform work
- 10 Light rain, Contractor went home anyway

C Be certain to provide enough information to allow someone familiar with the Contract to understand what is being written. Remember, specific details about the event will be recorded in the *Daily Inspection Report* and not on this document.

**20.04 REVIEW OF REQUEST FOR TIME OR COMPENSATION**

**20.04.01 GENERAL**

A Once the Contractor has requested Time Extension or Compensation, the Project Manager shall perform a detailed review of the Weekly Contract Time Summary forms.

B Be certain to have the "big picture" about the cause of any delay. The Owners Representative is merely noting the issues happening on and around the Contract, they are not determining if the Potential delay warrants Time Extensions or Compensation.

C The Weekly Contract Time Summary has two (2) columns to assist in this review, Time Extension and Compensation. For those days which Time Extension and/or Compensation are allowed, make an X in the appropriate column. Sign and Date each Summary after review.

D Consider the following guidelines when evaluating delays for contract time extensions and compensation:

**1 Contract Schedule**

- (a) Review the Progress and Update Schedules to determine if the Contractors own actions have caused the delay. Occasionally, the Contractor will elect to move slowly prior to a conflict in order to gain compensation at the later time. Inversely, watch for acceleration of work items that would make a conflict appears to mandate compensation.
- (b) While Schedules do not have any Float Time built into the Critical Path, there are often circumstances when accelerated work has caused Float to appear in Critical Item(s). Be certain to receive any Float Time credit available.

**2** Adverse Weather Extensions

- (a) Review Special Provisions 108.06 for the Contract specific requirements. Compensation will not be considered for Adverse Weather under any circumstance.

**3** Compensable Delays

- (a) A compensable delay is an excusable delay for which the Contractor may be entitled to additional monetary compensation. Review the Special Provisions; allowance for known conflicts is often addressed therein. When known conflicts are addressed, compensation will not be made for the amount of time specified.

- (b) Examples are as follows:

(1) A design plan revision by Clark County Public Works caused a delay to a controlling item of work on the critical path, which resulted in a delay to Contract completion.

(2) An interference that requires completion (**not** part of the Contract) and is caused by any of the following:

- I Utility Company
- II Developer
- III Contractor
- IV Unanticipated Special Event
- V Other Third Party

**4** Non-compensable Delays

- (a) A Non-compensable delay is an excusable delay for which the Contractor may be entitled to a contract time extension with no additional monetary compensation. Examples of Non-compensable delays include acts of God, acts of the public enemy, fires, floods, area-wide strikes, freight embargoes, and unusually severe weather conditions.
- (b) Non-compensable delays also include delays caused by fuel shortage and material delivery, if the delay is due to unusual market conditions such as industry-wide strikes, national disasters, and area-wide shortages.
- (c) Consideration of compensation will be for time only, not money.

**20.05 CLAIMS**

- A If the Contractor notifies the Clark County Project Manager of intent to file a claim, continue to charge full working days, as appropriate. Extensions to contract time that are justified should be based solely on contractual and factual data.

## SECTION 21 DAILY INSPECTION RECORDS

### 21.01 GENERAL

- A All Owners Representatives assigned to Construction Management Division, including Augmentation and Consultant staff, shall complete a “*Daily Inspection Report*” for each day the employee works on a Contract. One Inspection Report shall be generated for each Contract inspected during that day.
- B The Assistant Manager, Project Managers, and laboratory technicians are exempt from this requirement within their normal work functions. Senior Construction Management Inspectors shall complete a Daily Inspection Records only when performing inspection duties on a Contract.
- C Records shall be given to the Project Manager not less than weekly. Project Managers may require more frequent submissions. Project Managers have the responsibility to review a minimum of one report of each type from each Owners Representative per week. The Project Manager shall insure the reports are complete, accurate and submitted on time.

### 21.02 DAILY INSPECTION REPORT

#### 21.02.01 GENERAL

- A “Daily Inspection Reports” are to be factual in nature; personal feelings and/or opinions should not be included. The information outline in the following sections shall be included in each “Daily Inspection Report.” These items do not cover each and every possible condition; however, they are intended to provide each Quality Assurance Inspector and Independent Assurance Inspector with guidance to capture adequate information to prepare concise and accurate daily reports.

#### 21.02.02 CONTRACT HEADER

- A Contract Name (as described in the contract documents)
- B Bid Number and Contract Number
- C Contractor
- D Superintendent
- E Contract hours (not inspector hours)

#### 21.02.03 CONTRACT STATISTICS

- A Day and Date (i.e. Friday, December 28, 2004)
- B Report Number (sequential)
- C Contract Day number
- D Temperature (minimum and maximum in Fahrenheit)
- E Weather remarks (rain, wind, and snow.)

#### 21.02.04 SUBCONTRACTORS

- A List each subcontractor
- B Mark as being onsite or not
- C Hours worked

#### 21.02.05 VISITORS

- A List each visitor to the site, utility representatives, citizens you may have had discussions with, contractor management personnel not normally onsite, or similar.
- B Hours onsite

#### 21.02.06 TRAFFIC ACCIDENTS, UTILITY BREAKS, CONTRACT DELAY

- A Check boxes that apply
- B For any “YES” box has been checked, insert comments in Section G explaining the “YES.”

**21.02.07 TRAFFIC CONTROL STATUS**

- A Note any changes in traffic control set-ups, special maintenance performed, correction notices issued and time corrected.

**21.02.08 WORK BEING PERFORMED****A Activities**

- 1 Who performed the activity, prime contractor crew or subcontractor?
- 2 Where the activity occurred?
- 3 What work is being performed?
- 4 When did it occur, giving the duration and any relevant specific times?
- 5 Quality Assurance and/or Quality Control functions on this activity.

**B Schedule**

- 1 Scheduled work not being performed.
- 2 Work available, but not scheduled, which could have been performed.
- 3 Activities started but not progressing.
- 4 Delays caused by Clark County, utilities, or by third parties.

(a) Reminder: check box above for delay.

**C Quality Assurance Inspector presence**

- 1 List any time off site, annual leave, meeting time, and office time.

**D Utility Issues**

- 1 Relocation work ongoing, by whom, for what, any specifics.

**E Conversations**

- 1 List any conversations with persons relevant to the Contract, including property owners, supervisors, contractors or utility owner representatives.
- 2 Reminder: List persons as Visitors or Subcontractors above.

**21.02.09 QUALITY ASSURANCE INSPECTORS NAME****A Signature****B Printed name****21.03 CONTRACT TIME SUMMARY**

- A The Contract Time Weekly Summary is required to have portions completed by the Owners Representative on a daily basis, see [Section 20 - Contract Time](#) for details.

**21.04 WEEKLY MANPOWER AND EQUIPMENT REPORT****21.04.01 GENERAL**

- A The Owners Representative is required to complete a *Weekly Manpower And Equipment Report* Form for each week that the Contractor works. Whenever multiple Owners Representatives are working on the same Contract and completing this form for different portions of the work, it is necessary to coordinate to eliminate duplication of information and information being missed. The Project Manager will assign the coordination task to the lead Quality Assurance Inspector on the Contract. The assigned coordinator must assure that a comprehensive list of Manpower and Equipment exists and accurately represents the Contractor's, including all Subcontractors', efforts.
- B The Consultant Project Manager shall be responsible for assuring completion of this form and coordination between Quality Assurance Inspectors on Contracts administered by Consultant.
- C The general Contract information shall be completed on the first working day of the week. Each day the Owners Representative will complete that day's information. The Owners Representative will not wait until the end of the week to compile the entire form. The Project Manager is responsible to verify timeliness of form completion.



#### **21.04.02 FORM COMPLETION**

A The following information shall be recorded on the form:

- 1** Project Name,
- 2** Project Number
- 3** Bid Number
- 4** Sequential Report Number
  - (a) The coordinator must assign a consecutive report number for each week.
- 5** Sheet Number
  - (a) Identify the number of sheets used this week and label such as 1 of 4, 2 of 4.
- 6** Week of
  - (a) Give the beginning and ending dates for the week. Remember, weeks always begin on Saturday for this form.
- 7** Contract Day Number
  - (a) Give the Contract Day Numbers that correspond to the beginning and ending dates above.
- 8** Prime Contractor Name
- 9** Superintendent Name
- 10** Subcontractor
  - (a) List each Subcontractor working this week and place a different number in front of each. The number preceding the name will be used below to identify which equipment and manpower is associated with which Subcontractor
- 11** Equipment and Manpower
  - (a) Give the name of the individual or equipment here.
- 12** Sub Number
  - (a) When individuals or equipment are associated with a particular Subcontractor, fill in the Subcontractor Number from above.
- 13** Classification
  - (a) Identify the classification of employee, include Foreman when applicable.
- 14** M, T, W, Th, F, Sat, Sun
  - (a) For each applicable day, fill in the number of hours worked each equipment or individual. Additionally, fill in Coding that applies to equipment only.
    - (1)** B = Broken Down
    - (2)** O = Onsite Not Used
    - (3)** P = Pulled Off site
    - (4)** Sign and Date
- 15** At the end of the week, date and sign the form.

#### **21.05 FILING AND DISTRIBUTION**

##### **21.05.01 WHITE**

A The Project Manager is responsible for assuring final filing of the original (white) copy. They shall be permanently filed chronologically in the Contract File.

##### **21.05.02 PINK**

A The Owners Representative is responsible for assuring the filing of the pink copy for the duration of the Contract. The copy shall be retained in the Contract Site Files of the Owners Representative.



## SECTION 22 CONTRACT STOP-WORK

### 22.01 GENERAL

- A The purpose of this portion is to outline the Stop Work procedure.

### 22.02 CONTRACT AUTHORITY

- A Per Section 105.01 - Authority of the Engineer of the Uniform Standard Specifications, Clark County Public Works shall have the authority to suspend the work wholly or in part due to the failure of the Contractor to correct conditions unsafe for the workers or general public; for failure to comply with the technical provisions of the contract; for failure to carry out orders; and for such periods as is deemed necessary.
- B The Clark County Project Manager shall have the authority to stop work on items that do not meet the requirements of the Uniform Standard Specifications. The Owners Representative shall be required to issue a *Non-Compliance Report* (See [Section 17 - Quality System Interaction](#) for details) to the Contractor before any item can be suspended. Full documentation should be kept on the suspended work from shutdown to startup. The Clark County Project Manager shall be notified prior to or immediately after the notice is given to the Contractor.
- C Stop work authority only extends to Consultant Project Manager when eminent loss of life issues exists. All other instances will require that Clark County Project Manager be the person with authority to stop work. The Contractor may elect to stop work based upon any Owner's Representatives recommendations and/or comments. Advise the Clark County Project Manager before such conditions occur.

### 22.03 CONTRACT SHUTDOWN

- A The Clark County Project Manager shall not shut down the Contract in its entirety without first consulting with the Assistant Manager. All proper notification to the Contractor is required prior to official stop work on the Contract.
- B This includes, but is not limited to,
- 1 Any Non-Compliance Reports issued
  - 2 Letter stating the reasons for the shutdown
    - (a) Documentation should be completed daily, tracking the items in question for the shutdown. In most cases, the Contractor should present a letter describing fully his methods to correct the reason(s) for the stop work order before work is started again. The resumption of work decision shall be made by the Owner after consulting with the Owners Representative and the Contractor.



## **SECTION 23      TERMINATION OF CONTRACT**

### **23.01      GENERAL**

- A      Section 6.4 - Contract Termination of the General Conditions in the Special Provisions and Section 108 of the Uniform Standard Specifications, explains the contractual requirements for terminating the contractor's control. Termination of a Contract is rarely required on Clark County Contracts. The varying circumstances surrounding a Termination deem each individual instance to be evaluated on its own merits. To that end, only an outline of the process is defined herein.
- B      Clark County Project Managers shall work closely with the District Attorney, Assistant Manager, and Deputy Director once Termination seems to be indicated.

### **23.02      INDICATORS OF INADEQUATE PERFORMANCE**

- A      In addition to the specific conditions given in the Special Provisions, the following are indicators for determining if the contractor may be failing to supply an adequate workforce:
- 1      If the "percent completed" of the contract is more than 25 percent behind the "percent time elapsed." These percentages can be found in the Contract status report and on each Pay Application.
  - 2      Complete cessation of the work by the Contractor.
  - 3      The work has not started within a period equal to 10 percent of the original working days or 50 working days, whichever is less.
    - (a)      If the Project Manager determines that termination may be necessary, the Clark County Project Manager must immediately notify the Assistant Manager.
  - 4      Other issues within the contract.

### **23.03      REQUEST TO TERMINATE**

- A      With agreement from the Assistant Manager and the Deputy Director, the Clark County Project Manager sends a letter to the contractor that describes the Contract defaults to be remedied. If the contractor fails to promptly remedy the defaults outlined in the letter, the Clark County Project Manager will request that the Assistant Manager start the termination process.

### **23.04      NOTICE OF INTENT TO TERMINATE**

- A      The Assistant Manager will review the circumstances with the Deputy Director. The assistance of the District Attorney's Office may be solicited. Should the circumstances warrant further action, the Assistant Manager will be directed to send a letter to the contractor, with a copy to the Surety, notifying the contractor of Clark County Public Works intent to terminate the Contractor's control of the work.

### **23.05      NOTICE OF TERMINATION**

- A      Provided that none of the previous steps have prompted the Contractor to fulfill their Contractual obligations, a Notice of Termination will be sent. This Notice must receive approval from the Director and the Board of County Commissioners prior to being sent.

### **23.06      INTERIM CONTRACT MAINTENANCE**

- A      Normally, when Clark County Public Works terminates the contractor's control, the surety (bonding company) assumes responsibility for completing the Contract. During the interim between the Termination of the Contractor's control and completion by other forces, the Department must take all necessary steps to preserve the already completed work and maintain a safe area.

### **23.07      CONTRACT STATUS REPORT**

- A      The Project Manager may be tasked to determine the amount of completed work, the amount of work remaining to be performed, materials on hand, and extra work authorized. When a

Contract is being administered by a Consultant Construction Management staff, the Project Manager may request their assistance in compiling this information.

- B Regular reporting of the information noted above, both verbally and in writing is required. The Clark County Project Manager is responsible for assuring this information is accurate and is reported promptly.

## SECTION 24 CONFLICT RESOLUTION

### 24.01 GENERAL

- A In general, conflicts are to be resolved at the lowest level and as early as possible.
- B Most construction issues arise as a result of differing interpretations of the Plans and Specifications. If the Quality Control and Quality Assurance inspectors thoroughly review the Contract Documents, they should be able to resolve most common issues.
- C Should conflicts not be resolved quickly, they will be logged and escalated!

### 24.02 CONFLICT/ ISSUES LOG

- A A *Conflict/Issues Log* shall be maintained by the Project Manager to assure that unresolved issues and project conflicts are not forgotten. Further, any conflict or issue that will expend funds must be included on this log. This form is an integrated part of the *Construction Change Authorization Log (CCA Log)* form.
- B The appearance of the Conflict/Issue Log in conjunction with the Construction Change Authorization at first may seem odd. However, it is important to forecast possible future costs when maintaining the CCA Log and Progress Payments. Since no Owners Representative is allowed to authorize expenditure of monies beyond approved Contract amounts, the ability to forecast when a Contract Change Order is needed becomes paramount in keeping the project progressing. The forecasting ability relies on the Project Managers diligence in keeping an accurate projection of future spending and this log is the tool that the County utilizes.
- C As soon as any item is identified, either by the Contractor or an Owners Representative, that may cause potential increase or decrease in project spending, it needs to be tracked on the Conflict/Issues Log.
- D Any conflict or issue that has not been resolved in the field within one working day shall be logged herein.
- E The form is designed to be self-explanatory. The description herein of the form and its function being intentionally non-specific as this form is new to the system and expected to have changes over time.
- F The form is designed to allow the progression of the conflict or issue to be copied and pasted into the CCA Log once the item has been escalated. Maintaining the proper "Status" on the Conflict/Issues Log form will assure that outstanding balances will be accounted for correctly.

### 24.03 CONFLICT ESCALATION

#### 24.03.01 GENERAL

- A As in the Partnering process, a "chain of command" exists for all parties involved in the Contract. A typical Contract escalation chart is given below:

TIME FRAME	CLARK COUNTY		CONTRACTOR	
	Deputy Director		Principal Representative	
1 Week	Assistant Manager			
	Clark County Project Manager		Contractor's Project Manager	Quality Control Manager
1 Day	Senior Construction Management Inspector	Consultant Project Manager	Superintendent	
2 Hours	Quality Assurance Inspector			Quality Control Inspector (Foreman)
30 Minutes	Quality Assurance Technician		Quality Control Technician	

#### 24.03.02 TIME FRAME

A Time frames are given in the escalation chart to define the normal amount of time to spend resolving the issue prior to escalating to the next level. They are intended as Maximum times. However, if a resolution is near, the time frame may be extended. Be certain to inform the next level of command within the time frame, regardless of the ability to resolve the issue.

#### 24.03.03 PEER-TO-PEER RELATIONSHIPS

A Peer-to-peer relationships exist between any individuals on the same line of the Escalation Chart. In example, the Project Manager has a peer-to-peer relationship with the Superintendent, Contractor's Project Manager, and the Quality Control Manager. Any discussions between peers shall remain within the total Time Frame set for the level.

#### 24.03.04 FLOW OF CONFLICT PAPERWORK

A The chart flows from top to bottom for each issue.

REQUEST FOR INFORMATION	GENERAL INFORMATION	DEFICIENT WORK
<b>Initial Issue</b>		
Request for Information	Email	NCR
Request for Information Response	Request for Information	Deficiency
	Request for Information Response	Deficiency Response
		Owner Acceptance
<i>Construction Change Authorization</i> (As Applicable)		
<i>Contract Change Order</i> (As Applicable)		



## **24.04 REQUEST FOR INFORMATION**

### **24.04.01 GENERAL**

- A A *Request for Information* shall be treated similar to Submittals (See [Section 10 - Submittal Procedure](#) for details), and is the responsibility of the Submittal Coordinator. The Submittal Coordinator shall log all pertinent information into the Contract Tracking Software as a Request for Information.

### **24.04.02 RECEIPT AND REVIEW OF REQUEST FOR INFORMATION**

- A The following steps shall be taken upon receipt of a Request for Information:
- 1 Log the Request for Information into the Contract Tracking Software.
    - (a) Be sure to input the entire "question."
  - 2 Review the Request for Information for content. If the content is not intelligible, contact the requestor and clarify the content. Should the Request for Information be required to be rewritten, return to the original sender with notations as to the issue(s).
  - 3 Should the Request for Information require review by a Special Submittal Reviewer, follow the additional steps outlined in [Section 10.06 - Third Party Review](#).
  - 4 Log the Response into the Contract Tracking Software. Be certain to include the entire Response.
  - 5 Generate and Transmit (See [Section 9.03 - Correspondence Send Procedure](#) for details) the Response to the Contractor.

## **24.05 NONCOMPLIANCE REPORT**

### **24.05.01 GENERAL**

- A Non-Compliance Reports may be generated by any Owners Representative on the Non-Compliance Report Form. Tracking of Non-Compliance Reports shall be through the Contract Tracking Software and as a deficiency within the Quality Control Plan.

### **24.05.02 GENERATING NON-COMPLIANCE REPORT**

- A Once an Initial Issue arises that the Contractor is unwilling or unable to correct immediately, the Owners Representative shall generate a Non-Compliance Report.
- B The Non-Compliance Report shall include:
- 1 Contract Statistics, Name, Number, Bid Number, and other.
  - 2 Relevant specifications,
  - 3 Full description of the initial issue,
  - 4 Actions taken to verbal notify the Contractor,
- C The Contractor must sign each Non-Compliance Report form to acknowledge receipt, even if the Contractor does not agree with its content. If a Contractor refuses to sign the form, this refusal should be noted on the form. The form should then be immediately sent via email and followed up by registered mail to the home office address of the Contractor.
- D Non-Compliance Reports will require a formal written response (See [Section 24.06 - Deficiencies](#)).

### **24.05.03 NON-COMPLIANCE REPORT TRACKING**

- A On-site Logging
- 1 The Owners Representative who generated the Non-Compliance Report shall be responsible for assuring that the Contractor has logged it into the Quality Control Deficiency Log.
  - 2 A REMARK shall be made on the relevant Activity Card stating that a Non-Compliance Report was issued when an Activity Card was generated for the item of work
- B Contract Files

- 1 The Submittal Coordinator shall be responsible for tracking the Non-Compliance Report and subsequent responses into the Contract Tracking Software in accordance with the same procedures outlined in [Section 10 - Submittal Procedure](#).

## 24.06 DEFICIENCIES

- A Deficiency is the generic term used to define all deficient work related issues raised on the Contract. Most deficiencies are minor in nature and can be remedied in the field. However, as is with the case of a Non-Compliance Report, Deficiencies may be a larger issue. Regardless of the “importance” of the issue, all Deficient work is tracked through the Quality Control Program on the Deficiency Log.
- B Any Quality Assurance Representative or Quality Control Representative may initiate a Deficiency. Regardless of who generated the Deficiency, Quality Control must record and track deficiencies using the Activity Card and Deficiency Log processes, see [Section 17 - Quality System Interaction](#). Quality Assurance may utilize the same processes or may issue a Non-Compliance Report to document a deficient item.

### 1 Recording Deficiencies

- (a) The Owners Representative has two ways in which to record a Deficiency, through the Non-Compliance Report defined above, or through the Activity Card.
- (b) When the Activity Card process is used, taken the following steps:
  - (1) Verbally notify the responsible Quality Control Inspector for the item of work that a deficiency item has been found.
  - (2) Determine if the Deficiency is correctable prior to subsequent work being affected.
  - (3) Allow the Contractor as much time as possible to correct the Deficient work.
  - (4) Once it becomes apparent that the work will not be completed by the end of the day, locate the Activity Card for the item and record the deficiency thereon.
  - (5) If the work is corrected prior to the end of the shift, locate the Activity Card and record the correction.

### 24.06.02 DEFICIENCY LOG

- A Regardless of who or how a Deficiency was originally documented, Quality Control is required to track it in the Deficiency Log.
- B The Owners Representative is responsible for assuring that Quality Control records all deficiencies in the log. A minimum of weekly review of the Activity Cards and the Deficiency Log must be recorded in the PR's *Daily Inspection Report*.

### 24.06.03 DEFICIENCY RESPONSE

- A The Contractor is required to respond to each Non-Compliance Report issued. This response must be in written form.
- B The Contents of the Response shall include:
  - 1 Clearly identified the steps being taken or to be taken to rectify the initial issue.
  - 2 A time frame for achieving full compliance;
- C In some instances, the Contractor may submit a Response which asks to allow the work to remain in place. In these instances the Clark County Project Manager, with the guidance of the Assistant Manager, will be the authority for what is allowed to remain. A written recommendation from a Professional Engineer, licensed in the State of Nevada for the relevant type of work, must accompany any response for work to remain in place.

### 24.06.04 CLEARING A DEFICIENCY

- A The Clark County Project Manager is the ONLY individual with authority to accept the recommendation(s) for clearing a Deficiency submitted by the Contractor. Written direction from the Clark County Project Manager shall be received by any Quality Assurance staff before proceeding with the recordation of a Quality Control Deficiency clearance. Depending upon

the severity of the Quality Control Deficiency, the Clark County Project Manager's response will vary as outlined below:

**1** Letter for Acceptance

- (a) When the particular Deficiency is NOT MINOR **AND** will incur SUBSTANTIAL DEMERITS, the Clark County Project Manager would generate a Letter to clear the Deficiency.
- (b) Use the standard Clark County Public Works Letter Format to generate the response.

**2** Email for Acceptance

- (a) For Deficiencies that are minor in nature and will not incur substantial Demerits, the Clark County Project Manager would generate an email to the individual designated to sign off the Deficiency.
- (b) Be certain to include the date that the deficiency is "cleared", typically this will be the date of the Contractors response or the date that the response is submitted.

**B** Recording on the deficiency log:

**1** The Clark County Project Manager, or his designated Quality Assurance representative, is required to assure that Quality Control notes the response on the Deficiency Log.

**2** The Clark County Project Manager, or his designated Quality Assurance representative, will then note the date and sign-off the Deficiency directly on the Contractor's Deficiency Log.

- (a) It is recommended that the actual Deficiency Log be present at Weekly Progress Meetings so that the Clark County Project Manager may initial any cleared deficiencies. The onus of clearing deficiencies ultimately falls on Quality Control. However, Quality Assurance should take every step to assist in the process.



## SECTION 25 CLAIMS

### 25.01 GENERAL

- A Considering the amounts of money at stake, it should not be a surprise that differences of opinion will arise around the issues of excusableness and compensability of the contractor efforts. Some of these will be due to no fault of the contractor, for which the contractor should be appropriately compensated for any loss incurred. Some will be due to the contractor's own actions or errors and should not be compensated by taxpayer funds. A culpable third party, who may be brought into the review and defense of the claim and/or may fund any settlement made, may cause others.
- B The overriding philosophy of all claim resolutions is to seek a fair outcome for the contractor, the taxpayer, and for any third party who may be involved.
- C Any issue within which the Contractor incurs costs or delay that they do not believe is theirs to bare and the Clark County Project Manager does not believe is the County's obligation shall be considered a claim. A claim in this regard is not a "bad thing". It is the contractually defined process for seeking resolution of an outstanding issue. Further, it allows both parties to control costs and delay regardless of outcome.

### 25.02 CLAIM AWARENESS

- A Project Managers and Representatives should be constantly alert for the occurrence of events that may generate claims for additional compensation by the contractor. These include, but are by no means limited to:
  - 1 Delays incurred by the contractor
  - 2 Requests that the contractor accelerate or re-phase work
  - 3 Changes in scope
  - 4 Changes in milestones
  - 5 Rejection of sizeable work items
  - 6 Interference by utilities or other third parties
  - 7 Any event causing the contractor to deviate from his approved Part II Schedule & Updates.
- B Section 108.03 Prosecution and Progress requires the contractor to put in writing any causes of delay occurring in the previous month. Also, when weekly meetings are held, the standard agenda contains a section which forces the verbalization of any current claims or disputes. Although failure to notify in a timely fashion is a claim defense that will be used, the Project Manager should never rely on this defense alone to prevail in a claim situation.
- C Adjustments or settlements must be based on the Contract documents and factual information. Doing otherwise encourages frivolous claims that are not in the best interest of the public. All Clark County Public Works Contract personnel must maintain accurate and timely records throughout the Contract.

### 25.03 THIRD PARTY LIABILITY

- A Project Managers should be alert for any claim liability that may be due to the actions or inactions of third parties. Such third parties may be utilities, developers, design engineers, adjacent contractors, and similar. In claim situations where there may be potential third party liability, the Clark County Project Manager shall notify the third party in writing of their potential liability as soon as a potential claim situation is identified. When a written claim is received, a copy should be forwarded to the third party along with a cover letter requesting that they participate in defense of the claim.
- B When valid claims are paid, it is appropriate to invoice the liable third party for their share of the cost. When appropriate, the Owner-Caused Delay bid item should be used to document and quantify delay costs to the third party.
- C The Clark County Project Manager is responsible to notify the Assistant Manager as soon as possible that a third party situation has come about.

## 25.04 CLAIM PROCESSING PROCEDURES

### 25.04.01 CLAIM NOTIFICATION

- A The proper path for filing a claim for additional compensation is in writing, from the prime contractor to the Project Manager.
- B In order to allow a reasonable and fair evaluation, the claim document should include the following elements as a minimum:
- 1 A description of the event(s) giving rise to the claim.
  - 2 A "theory of liability" as to why the contractor believes he should be excused and/or compensated for the effect of this (these) event(s). Citation of contract clauses believed to have been breached is especially helpful at this point.
  - 3 A methodology used to calculate the time and/or monetary damages sought.
  - 4 A summary of costs, with appropriate backup materials, using this methodology.
  - 5 Contractor's Certification of the Claim.
- C If a submitted claim is missing one or more of these elements, it is appropriate to return the claim to the contractor without further review.
- D Because every claim is a unique event, it is difficult to outline steps that may be indicated past this point. The claim should be escalated as shown in the Contract escalation ladder, or via a similar process. Claims that rise to the Assistant Manager or Deputy Director level will generally call upon whatever resources are appropriate and necessary to achieve resolution.
- E The Uniform Standard Specifications, in Section 105.17 Claims for Adjustment and Disputes, require that the contractor notify the Project Manager, in writing, of any additional compensation **PRIOR TO ANY WORK BEING PERFORMED** on the items that are the subject of the claim.
- F The best defense in a claim situation is thorough and accurate documentation. As soon as it appears the Contract has experienced an event that may result in a claim, extra care should be taken to document every action, communication and circumstance even remotely connected to the claim basis. Such documentation may include daily reports, telephone logs, photographs, test reports or any other relevant data source.
- G All claims filed by the Contractor must be based on the requirements of the Contract documents (e.g., Contract Plans, Uniform Standard Specifications, Special Provisions). Upon discovery of facts leading to a potential claim, the Contractor must provide the Project Manager with immediate written notice of the intent to file a claim. Upon receipt of this notice, the Project Manager should perform the following:
- 1 Acknowledge Receipt
    - (a) Upon notification, the Project Manager shall respond with a letter that includes the following sample language. "We are in receipt of your notice July 2002 [Revised August 2004] General Provisions 100-38 of intent to file claim in regard to \_\_\_\_\_. The County will issue our decision upon receipt of your complete claim package, including the claim certification, in accordance with Subsection 105.17 of the Standard Special Provisions."
  - 2 Contract Specifications
    - (a) Review the requirements of subsection 105.17 of the Uniform Standard Specifications and Standard Special Provisions. Also, the General Conditions of the Contract often carry language about the Dispute Resolution process. Pay particular attention to specified time requirements.
  - 3 Seek Guidance
    - (a) Upon notification of a dispute or claim, the Clark County Project Manager shall seek advice and concurrence from the Assistant Manager and Deputy Director.
  - 4 Gather Supplemental Data

- (a) Document all pertinent details as soon as practical after receiving notification and immediately implement procedures that completely and accurately describe the disputed work. Such records include:
  - (1) Force Account Records - Force account records of the disputed work must be *Force Account Work Forms*.
  - (2) Conversations - Accurately document conversations, agreements, and actions taken by the Contractor, Project Manager, or other Clark County Public Works personnel regarding the disputed work. Do not editorialize.
  - (3) Photographs/Videotape - Where appropriate, take photographs and videotape of the disputed work. Be careful what is stated near audio microphones during videotaping.

#### **25.04.02 CONTRACTOR'S CLAIM PACKAGE**

- A In accordance with subsection 105.17 of Standard Special Provision, Revision of Section 105 – Disputes and Claims for Contract Adjustments, the Contractor must submit to the Project Manager a complete claim package that contractually and legally supports the validity of the claim. The Contractor's claim package must include certification, supporting evidence, alleged time and cost impacts, relevant correspondence, and other factual data.

#### **25.04.03 REVIEW OF CLAIM PACKAGE**

- A The Project Manager is responsible for reviewing the Contractor's claim package.
- B The review must be complete and thorough. Consider the following guidelines:
  - 1 Check Claim Package
    - (a) Compare the claim package documents to the Contract documents (e.g., Contract Plans, Uniform Standard Specifications, Special Provisions) and the Clark County Public Works Contract records to ensure there exists a contractual and factual basis for the claim.
  - 2 Seek Guidance
    - (a) Seek advice and concurrence from the Assistant Manager and Deputy Director. If claims involve legal issues or legal questions, the Clark County Project Manager, after discussing the issue with the Assistant Manager and Deputy Director, will consult the District Attorney for guidance.
  - 3 Use of Claim Consultants
    - (a) Consider using a non-Contract-specific claim consultant currently under contract with Clark County Public Works. Complex or multiple delay issues are difficult to analyze and such analyses are a complex and time-consuming task that may be more effectively performed by a claim consultant. Claim consultants can help determine the impacts of delays, the validity from a contractual and legal standpoint, and the compensation due, if any. A thorough analysis and a fair assessment of entitlement issues can sometimes help resolve the claim at an early stage. Contact the Assistant Manager for additional information.
  - 4 Request Additional Information
    - (a) If it is determined that additional information or clarification is required from the Contractor to fairly and accurately review the claim package, notify the Contractor in writing clearly stating the information required, why the information is required, and a reasonable response date.

#### **25.04.04 PREPARATION OF OFFICIAL CLAIM RECORD**

- A Based on the review of the claim package discussed in Section 105.17, the Project Manager will prepare the official claim record. The claim record will include the Contractor's claim package, documents supporting the Clark County's position and decision, and a formal written response from the Clark County Project Manager. The Clark County Project Manager's

response must completely address each of the Contractor's issues and thoroughly and accurately present the basis of the Clark County's position and decision.

**B** Consider the following guidelines:

**1** Gather Clark County Public Works Documents

- (a) The Project Manager must be thorough in determining the Clark County Public Works documentation that should be incorporated in the official claim record. Consider the following documents when preparing the claim record:

- (1) Contract Plans
- (2) Uniform Standard Specifications
- (3) Special Provisions
- (4) Shop drawings
- (5) Reports from claim consultants
- (6) Reports from auditors
- (7) Schedules and schedule updates
- (8) Schedule analysis
- (9) Contract diaries
- (10) Correspondence
- (11) Engineering memos
- (12) Inspection reports
- (13) Time counts
- (14) Pay Applications

**2** Prepare Formal Written Response

- (a) Respond to each allegation and issue raised by the Contractor. Failure to do so may jeopardize Clark County Public Works position in resolving the claim. If the Contractor claim has merit, settle the claim as soon as practical. If only a portion of the claim has merit, prepare a change order and make payment for the portion the Department has determined is justified.

**3** Organization and Binding

- (a) Arrange the documents of the official claim record in an orderly manner (e.g., chronological) and differentiate the Department's formal written response and supporting documentation from the items in the Contractor's claim package. Provide section inserts and an index so that the information is readily retrievable. Bind the claim record. The claim record is Clark County's official response to the claim and will be used by others if the claim is appealed.

**4** Forward Copy to Contractor

- (a) Forward one copy of the official claim record to the Contractor. This will include claim consultant reports that the Clark County Project Manager used to render a decision.

**5** Further Proceedings

- (a) Once the Clark County Project Manager renders a decision, any further proceedings will be in accordance with the Special Provision.



## SECTION 26 RECORD DRAWINGS

### 26.01 GENERAL

- A In many cases, the changes being noted on the Record Drawings have been documented in the *Construction Change Authorization* process. However, the Construction Change Authorization will not have sufficient detail of the change to allow the Design Project Manager knowledge of what was actually constructed.
- B Examples of As-Built Changes:
- 1 During the course of the work, a utility conflict was discovered on a storm drain lateral. The Design Project Manager reevaluates the situation, and subsequently changes the pipe type change from Round to Elliptical Reinforced Concrete Pipe. The Elliptical pipe allows the Storm Drain to go over the conflict without requiring relocation of the utility. The entire lateral is raised to accommodate the Elliptical pipe and allow maximum clearance for the utility.
  - 2 In this scenario, each of the following items requires notation on the record Drawings:
    - (a) Pipe type change
    - (b) Invert Elevation changes at the DI
    - (c) Invert Elevation changes at the main
    - (d) Elevation of the conflicting utility
    - (e) The height of the DI has also changed
    - (f) If the DI type had to be changed, it should be noted as well
  - 3 This example is given to demonstrate that a simple change in pipe type may affect several other items of work and require notation on the Record Drawings.

### 26.02 CONTRACTOR PREPARED

- A The Contractor is required to maintain a current set of Record Drawings or “As-Builts” throughout the duration of the Contract. The process used by the Contractor is not specifically defined by Contract. The “end result” is defined in Section 6.2 - Record Drawings and Specifications of the General Conditions in the Special Provisions.

### 26.03 QUALITY ASSURANCE REVIEW

- A At a minimum, the Owners Representative shall review the As-Built documents being generated by the Contractor once per calendar month. Any change made to the work whether it is a material change or installation, should clearly be noted on the As-built drawings.
- B The Owners Representative shall document the review in their Daily Report, noting any discrepancies identified during the review.
- C The Project Manager shall be required to assure that the Owners Representative is reviewing the Record Drawings on a regular basis and that the cause of all discrepancies has been resolved.



## SECTION 27 LABOR COMPLIANCE

### 27.01 CERTIFIED PAYROLLS

- A The Contractor is required by Special Provision, General Conditions Section 3 - Labor, to submit copies of all certified Payrolls by the 15th of each month for the previous month. Submissions are made directly to:
- B Clark County Government Center  
Purchasing and Contracts Division  
Construction Compliance Officer  
500 South Grand Central Parkway  
P.O. Box 551217  
Las Vegas, Nevada 89155-1217
- C Clark County utilizes the LCP Tracker Program. The Contractor may elect to use this program for submission of certified payrolls. Contact the group noted above for further information.
- D Project Managers are not required to review the Certified Payrolls prior to submission. However, should the Compliance Officer find discrepancies therein, the Project Manager may be tasked to research for requested information.

### 27.02 PROJECT SITE INTERVIEWS

- A The Compliance Officer has requested that all Projects have interviews conducted at least once per project. The *Project Employee Interview Form* shall be completed for not less than two (2) individuals per Contractor and each of the Subcontractors. Any Owners Representative may be asked to complete the interviews as directed by the Clark County Project Manager.
- B A "Head-Count" shall be conducted in conjunction with the interviews. Names and positions, or description of work type, need to be a part of the "head-count" form. Be sure to include all superintendent(s), foremen, and professional services when performing the "head-count."

### 27.03 NOTIFICATION OF LABOR CLAIM INVESTIGATION

- A Typically, the Clark County Project Manager is aware of an investigation prior to the Contractor receiving notification. The Compliance Officer is responsible for forwarding this notification to the Contractor and copying the Clark County Project Manager.
- B When the investigation has started, the Clark County Project Manager is only required to note the Pay Application History Log. The note will generally state that a labor claim has been asserted and to not release retention without further discussion. No further action is required at this time.

### 27.04 NOTIFICATION OF PENDING ASSESSMENT

- A The Clark County Project Manager will become aware of Pending Assessments by receiving a MEMO from the Compliance Officer. This MEMO requests that an amount of funds be included in Retention.
- B For Pending Assessments, the Clark County Project Manager is required to add an Additional Retention line item on the Pay Application Retention Sheet in an amount specified. On the Retention Sheet, the Additional Retention is contained in the bottom section of the page. Numerous items can be added to this section as necessary and must include accurate Starting Cycle and Ending Cycle pay period numbers.

### 27.05 NOTIFICATION OF LABOR COMMISSIONER ASSESSMENT

#### 27.05.01 GENERAL

- A The Contractor was made aware of the Assessment with the Notification of Pending Assessment. The Contractor has further elected not to pay the assessment directly. The Compliance Officer has received written direction from the Labor Commissioner to assess any Funds Due the Contractor for payment of the Assessment. Once the Labor Commissioner

gives this type of Directive, Clark County Public Works is required to redirect Contract funds toward their payment.

B The Contractor may have multiple Labor Commissioner Assessments during the life of the Contract.

C There are two types of Labor Assessments.

**27.05.02 SIMPLE FINE**

A The first type is an Assessment levied against the Contractor, generally for, but not limited to, being late in submitting the Certified Payrolls. These fines are generally small, between \$1,000.00 and \$10,000.00.

**27.05.03 WAGE REIMBURSEMENT**

A The second type is an Assessment levied against the Contractor to cover payment of outstanding wages due employees. These assessments can be quite large and may take several Pay Application cycles to pay in full.

**27.06 ATTACHMENT OF ASSESSMENT TO PAY APPLICATIONS**

A See [Section 33 – Pay Applications](#) for details of making the Assessment in the Pay Application.

## SECTION 28 CONTRACT STATUS NOTIFICATIONS

### 28.01 GENERAL

- A The Clark County Project Manager may be required to complete one or more of the following *Contract Status Notifications*. The time frame for completion varies depending upon the type, but generally is required to be submitted monthly.
- B Use the most recent Pay Application (See [Section 33 – Pay Applications](#) for details) to provide financial information, Percent of Time, and Percent Complete. Generally, the Percent Complete, which is calculated based on dollars billed versus contract dollars, is used. However, estimates of Percentage Complete may be used provided that written justification is documented and on file.

### 28.02 REGIONAL TRANSPORTATION COMMISSION

- A Using the form that is provided by the Department's Project Coordinator, complete all the relevant information requested.

### 28.03 REGIONAL FLOOD CONTROL DISTRICT

- A Generally, this is the same form provided by the Department's Project Coordinator. Complete all the relevant information requested.

### 28.04 US CENSUS BUREAU

- A The form is provided by the US Census Bureau. Complete all the relevant information requested.

### 28.05 BONDING AGENCIES

- A The form is provided by the Bonding Agency. Complete all the relevant information requested.



## SECTION 29 STOCKPILED MATERIALS

### 29.01 GENERAL

- A The Contractor is required to submit an Invoice for each Material. The maximum payment for materials on hand should be such that, when the estimated placing and other remaining costs of the work are added, the contract price is not exceeded. The purpose of this is to prevent payment of more than the contract price for the Materials and to leave sufficient funds in the item to complete the work.

### 29.02 STOCKPILES

- A Stockpiled materials are allowed by Nevada Law. Please review NRS 338.515 for the latest information and regulation for stockpiled materials.
- B Section 109.06 Partial Payments of the Special Provisions identifies those materials that are eligible for stockpile material payments. The County will also have the flexibility to determine possible other material(s) in a project that are not specifically called out in Special Provisions.
- C Any material being requested as a stockpile must be in its final form prior to stockpiling. I.E. reinforcing steel would have to be "bent" for the project. Bridge steel would already have to be fabricated into a bridge; the raw steel would not be stockpiled, or similar.
- D The Materials must then meet the following criteria prior to Prepayment:
- 1 The specific Materials being supplied for this Contract must be fabricated, complete, marked for use on this Contract only and securely stored
  - 2 Materials DO NOT have to be stored on the Contract site
  - 3 Proof of Payment IS NOT required; an invoice from the supplier will suffice

### 29.03 REDUCTIONS IN STOCKPILE MATERIAL BALANCE

- A Clark County Public Works will adjust the balance of each Stockpile Material as the Line Item of work with which the Stockpile is associated is completed. The Pay Application is designed to reduce the Stockpile Balance automatically.
- B The Project Manager is responsible for verifying when work has been completed in its entirety. Should the Contract Quantity be less than the Plan Quantity, the Clark County Project Manager will need to adjust the Stockpile Balance at the time all work associated with the Line Item has been completed.
- C In example, the Plans require twelve (12) streetlights be installed under Line Item 623.05. On the Contract, only eleven (11) Streetlights were physically installed with the remaining pole being transferred to Clark County Public Works Traffic Operations. Once the installation of the eleven (11) is completed and the remaining pole has been transferred, the Pay Application would have made full payment for 11/12ths of the Line Item and the Stockpile Balance would have been reduced so that approximately 1/12th remained. At that time the Clark County Project Manager will need to have the Stockpile further reduce to zero to reflect that payment has been made for all work and no further stockpile exists relevant to the Contract.
- D The Clark County Project Manager shall forward an email to the Pay Application Specialist for final adjustments to Stockpile Balances. Allow 48 hours for completion of the Pay Application revisions.





## SECTION 30 FORCE ACCOUNT

### 30.01 WHEN TO TRACK TIME AND MATERIALS

- A A Force Account should be used when the Clark County Project Manager and the Contractor cannot agree on a price for the work (i.e., unit or lump sum), or the nature of the work is such that it is not possible to determine an agreed price. The Department discourages the use of force account, because it increases the costs to the Department and removes the Contractor's incentive to efficiently complete the work. This is an especially important consideration for work involving large amounts of money.
- B Time and material tracking is also appropriate when work being performed is in dispute as to being "extra" work. However, extra care should be given in noting all processes used during construction as the Owner is not necessarily going to be in charge of the work force(s).

### 30.02 USE OF SUBCONTRACTORS

- A The use of Subcontractors for Force Account must be pre-approved by the Clark County Project Manager. The Prime Contractor may not markup subcontractor invoices if the work being performed would be within the Prime Contractor's, or any other Contract listed Subcontractor's, normal abilities.

### 30.03 INITIATING FORCE ACCOUNT WORK

#### 30.03.01 GENERAL

- A Force account work that is not already included in the Contract (i.e., planned force account) must be authorized by a *Construction Change Authorization*. Force account work is administered differently than other pay items. The Project Manager, not the Contractor, is responsible for directing the work. Before force account work begins, the Project Manager must discuss with the Contractor and reach agreement on many work-related issues. Although this will be performed in a cooperative manner, the Clark County Project Manager is authorized to make all final decisions regarding the work.
- B Consider the following guidelines:

#### 30.03.02 SCOPE OF WORK

- A Discuss the scope of work to ensure that the Contractor fully understands what the work is to accomplish, including limits, expectations, and acceptance.

#### 30.03.03 CONSTRUCTION METHODS

- A Discuss with the Contractor the most efficient construction methods and procedures available to complete the work, and emphasize that the work is to be performed in an efficient manner.

#### 30.03.04 EFFICIENCY IMPROVEMENTS

- A Both the Project Manager and the Contractor should continually monitor the progress of the work to determine if better methods are available to improve efficiency and reduce costs. In reality, such analyses will be the primary responsibility of the Project Manager; and, where improvements can be made, the Project Manager is authorized to require changes to the Contractor's operations.

#### 30.03.05 CONVERSION TO UNIT PRICING

- A Similar to efficiency improvements, both the Project Manager and the Contractor should continually monitor the operation for the opportunity to convert the force account to unit pricing. In reality, such an effort will be the primary responsibility of the Project Manager.

#### 30.03.06 LABOR ISSUES

- A Discuss with the Contractor the most efficient use of manpower available to complete the work. If practical, utilize manpower that is available on the Contract. In most cases, this will be the most efficient procedure, but ensure that it does not adversely affect the prosecution and progress of other Contract work. In addition, ensure that the Contractor has a clear

understanding of the number and classification of workers required (e.g., four laborers, three operators, and one foreman) and the number of hours to be worked each day.

### 30.03.07 MATERIALS

A Discuss with the Contractor the material issues related to the force account work, including:

- 1 Required types,
- 2 Available sources,
- 3 Quantities and rate of use,
- 4 Pricing, and
- 5 Acceptance criteria.

### 30.03.08 EQUIPMENT

A Discuss with the Contractor the most efficient use of the equipment available to complete the work. If practical, utilize equipment that is available on the Contract. In most cases, this will prove to be the most efficient, but may warrant a cost comparison to mobilizing more efficient equipment. The quantity of work will be a major consideration in this analysis. For example, if required only for a few hours, equipment available on the Contract may be the best choice, even if efficiency is discounted. However, if required for several weeks, it would probably be prudent to consider mobilizing more efficient equipment. Ensure that Contractor clearly understands what is required with respect to:

- 1 Owned, leased, or rented equipment and any mobilization required
- 2 Equipment type (e.g., scraper, backhoe, haul truck)
- 3 Size of equipment (e.g., five cubic yard, 15 cubic yard)
- 4 Number of each equipment type required (e.g., one each, 20 each)
- 5 Starting date required for each type of equipment
- 6 The hours the equipment is required each day

## 30.04 DAILY TRACKING

### 30.04.01 GENERAL

A Force account work will be recorded daily on the *Force Account Work Form* and is the source document for the pay item. Several key pieces of information must be recorded and the preparation of Form must be thorough. Consider the following when preparing Form:

### 30.04.02 SIGNATURE APPROVAL

A At the end of each workday, representatives of the Contractor and/or subcontractor must initial the daily record that has been documented on the form.

### 30.04.03 EMPLOYEE NAMES

A Employee names must be recorded exactly as they appear on certified payrolls, either Contractor or subcontractor.

### 30.04.04 EQUIPMENT DATA

A The following information must be recorded on the form for each piece of equipment used for the force account work:

- 1 Description
- 2 Equipment number
- 3 Equipment disposition (i.e., designated operation or on standby)
- 4 Hourly equipment rental rate
- 5 Hours the equipment was used

**30.04.05 SUPPORTING INFORMATION**

- A Supporting information related to work progress: conversations with the Contractor, decisions, and any problems encountered should not be recorded on the form, but should be documented in the Quality Assurance Inspector's Daily Report.
- B Upon completing the form, a copy should be forwarded to the Contractor. The Contractor shall use the copy of the form to prepare the billing for the force account work.

**30.04.06 EQUIPMENT RENTAL RATE DETERMINATION**

- A Per Section 109.03 - Extra and Force Account Work of the Uniform Standard Specifications, the Contractor shall use the current "Rental Rate Blue Book for Construction Equipment" rental rates. Requested rates will be reviewed by the Project Manager for compliance to Blue Book rental rates.

**30.04.07 STANDBY EQUIPMENT RENTAL RATES**

- A As approved by the Clark County Project Manager, standby equipment rental rates will be used to reimburse the Contractor for ownership costs and will be based on the Rental Rate Blue Book for Construction Equipment.
- B Consider the following guidelines before approving use of standby equipment rental rates:
- 1 If the equipment is idle because of a mechanical failure, there is no obligation for reimbursement.
  - 2 If the equipment is used for other non-force account work, standby rates should not be used.
  - 3 If equipment has been ordered available for work but is idle through no fault of the Contractor, standby rates should be used.
  - 4 If the cost for holding the equipment on site is less than the cost for removal and re-mobilization, standby rates should be used.
  - 5 If equipment is not mobilized under its own power, reimbursement will include the standby rate for mobilization, including disassembly and reassembly, if applicable; and, the hauling unit rental rate.
  - 6 Standby rates are not applicable to small tools.

**30.04.08 REIMBURSEMENT FOR LEASED OR RENTED EQUIPMENT**

- A The Contractor will be reimbursed for leased or rented equipment as follows:
- 1 Actual Costs
    - (a) If a certified invoice can substantiate the cost, the Contractor will be reimbursed for the actual cost of leased or rented equipment. It is possible for the hours on the invoice to differ from those on Force Account Work Form. For example, the Contractor may have had to pay for a minimum of eight hours, even though the piece of equipment was only used for six. The Contractor will be reimbursed for the actual invoice cost of the eight hours.
  - 2 Operating Costs
    - (a) If operating costs are excluded from the rental or lease agreement, the Contractor will be reimbursed for the cost of operating the equipment. The rate of reimbursement for operating costs will be based on the Rental Rate Blue Book for Construction Equipment. Operating costs only apply to hours of actual operation.
  - 3 Overhead Rates
    - (a) The Contractor will be reimbursed for overhead costs at a rate of 10 percent per Subsection 109.04.
  - 4 Negotiated Equipment Rental Rates
    - (a) Negotiated equipment rental rates may be used if they are less than those published in the Rental Rate Blue Book for Construction Equipment, including operating costs.

Justification for negotiated rates must include the equipment number and rental rate on the form.

**5 Rental Rates for Small Tools**

- (a) Generally, small tools are considered incidental to normal work. However, should specialized small tools be necessary for non-typical work, these small tools will generally be valued between \$500 and \$2,000. The rental rate for small tools will be \$2 per hour of use. Standby rates do not apply to small tools.

**6 Reimbursement for Fast-Wear Expendable Parts**

- (a) If substantiated by a certified invoice, items such as saw blades, tooth-bits for saws, pavement breakers, and other similar equipment will be reimbursed at invoice cost. Payment will be made based on the percentage of wear caused by the work. The 15 percent mark-up for materials specified in Subsection 109.04(b) of the Uniform Standard Specifications does not apply to fast-wear expendable parts.

**30.05 PAYMENT PROCEDURES FOR FORCE ACCOUNT WORK**

**30.05.01 GENERAL**

- A Before payment is made for force account work, Subsection 109.04 of the Uniform Standard Specifications requires the Contractor to submit a Force Account Work Form with all line items extended.

**30.05.02 SUBMITTAL CONTENTS**

- A The Contractors Submittal will include the following original documents as necessary:

- 1** All Force Account Work Forms
- 2** Certified invoices for materials
- 3** Statement of materials taken from stock
- 4** Certified invoices for specialty firms
- 5** Certified invoices for equipment rentals or leases

**30.05.03 CERTIFIED INVOICES**

- A Certified invoices from the Contractor must support billings for the following items:

- 1** Materials
- 2** Rented or leased equipment
- 3** Specialty firms

**30.05.04 CERTIFICATION STATEMENT**

- A Certified invoices must contain the following statement:

- 1** "We certify, by photocopy of this invoice, that the quantity of material/rental or lease/specialty work, represented by this invoice was purchased and received for Clark County Public Works Bid No. XXX-XX and that the prices shown are actual costs."

B Contractor Signature

C Date Signed

**30.05.05 CERTIFIED PAYROLLS**

- A The Contractor must furnish copies of certified payrolls for the labor used on the force account work, even though certified payrolls may not be required by the Contract. Only those payroll sheets showing Force Account personnel need to be submitted.

B Employee Pay Rates

- 1** Employee pay rates will not exceed the normal pay rate nor the prevailing wage for the area (e.g., the Contractor cannot double the normal pay rate for employees on force account).

- (a) If a salaried Foreman is being used on force account work, the Contractor must furnish a payroll certifying the Foreman's pay rate and fringe benefits.

- (b) Superintendent wages are included in the mark-up and should not be paid for separately, unless previously approved by the Clark County Project Manager before the expense was incurred. This may be applicable where the only work on the Contract is the force account work added by change order.
- (c) If certified payrolls do not agree with Force Account Work Form, the Contractor must submit a supplemental payroll or a new force account billing to correct the error. Minor errors may be corrected on billings and a copy returned to the Contractor, but under no circumstance should certified payrolls be returned for correction.

**30.05.06 MARK-UP**

A Mark-up, also known as “loading” will be applied as follows:

- 1 Actual Wages. Actual wages and fringe benefits that are paid directly to the employee will be loaded at the percent rate that can be demonstrated by the Contractor for actual costs (I.E. FICA, State Unemployment Tax, Insurance, or other.). These costs are generally between 25% and 35%, but other percentages may be justifiable. Ask the Clark County Project Manager, if you need assistance in this area.
- 2 Material Costs. A mark-up of 15 percent will be applied to material costs, including applicable transportation costs.
- 3 Fast-Wear Expendable Parts. Mark-up will not be applied to fast-wear expendable parts.
- 4 Administrative Mark-up. In accordance with Subsection 109.04 of the Uniform Standard Specifications, administrative mark-up will be applied to the total force account work for subcontractors, specialty firms, utilities, and railroads.

**30.05.07 MATHEMATICAL CHECKS**

A All calculations will be checked. The Project Manager can correct minor errors and a copy returned to the Contractor.

**30.05.08 REVIEW AND APPROVAL**

A The Project Manager must review all force account invoices based on certified payrolls and the approved copies of the Force Account Work Form. This should be performed on a monthly basis as the work progress. Do not backlog force account bills until finalization.



## SECTION 31 CONSTRUCTION CHANGE AUTHORIZATION

### 31.01 GENERAL

- A During construction, extra work not specified on the plans or in the specifications may be required to complete the Contract or to correct known or unforeseen problems. A **Construction Change Authorization** form depicts the extra work, whether by negotiated price, Force Account and/or line item extensions and costs associated therein.
- B Any monies that need to be charged against Item 109.03, Construction Conflicts, will be itemized on the Construction Change Authorization page of the monthly Pay Application. Other affected bid items not paid for by 109.03 - Construction Conflicts will be itemized on the Construction Change Authorization and the quantity will be reflected on each bid item in the Pay Application.
- C All work added or deleted due to the Design Project Manager or Project Manager's request will be reflected on a Construction Change Authorization for accounting purposes and tracking requirements. All Construction Change Authorizations will be tracked as outlined in the Contract Tracking Software.
- D The Table below gives a graphically representation of signing individuals for Construction Change Authorizations. Remember that all thresholds are positive and negative; if a deductive or credit Construction Change Authorization exceeds these thresholds, they as well need to have additional signatures.

ITEM	THRESHOLD	REQUIRED SIGNATURES						
		CONTRACTOR	CLARK COUNTY PROJECT MANAGER	DESIGN PROJECT MANAGER	ENGINEER OF RECORD	ASSISTANT MANAGER	DEPUTY DIRECTOR	DIRECTOR
All	Any	X	X					
All	Design Changes	X	X	X				
Single CCA Value	Exceeds \$25,000	X	X	X	X	X		
Single CCA Value	Exceeds 2% of Contract Value	X	X	X	X	X		
Single CCA Value	Exceeds 10% of Contract Value	X	X	X	X	X	X	X
Single CCA Value	Exceeds \$1 Million	X	X	X	X	X	X	X

#### 31.01.02 SITUATIONS NOT REQUIRING A CONSTRUCTION CHANGE AUTHORIZATION

- A Construction Change Authorizations are not required under any of the following conditions:
- 1 Deleted Items
    - (a) A Construction Change Authorization is not required if a Contract pay item is deleted, unless the Contractor is to be compensated for costs incurred before the item was deleted. The Contractor must be given written notification (Email or Letter) of the deletion.
  - 2 Substitution of Materials
    - (a) Substitution of materials, if allowed by the Contract, does not require a Construction Change Authorization. Where materials are to be substituted, provide the Contractor with written permission using a Email or Request for Information Response. If the substitution is offered at reduced pricing, a Construction Change Authorization would be necessary.

**3 Additional Contract Items**

- (a) A Construction Change Authorization is not required to add items that are included in the Contract. Some examples include:
  - (1) Liquidated damages
  - (2) Piling cutoffs
  - (3) Supplier lien deductions
  - (4) Extra construction surveying

**4 Field Revisions**

- (a) The Project Manager will determine when a field revision constitutes a design change and requires a Construction Change Authorization. Some examples of when field revisions do not require a Construction Change Authorization include:
  - (1) Minor Overruns or Under-runs of bid item quantities
  - (2) Minor adjustments to minor drainage structures, signs, fences, and walls
- (b) This type of Field Revision is documented on an Email or Letter and must be properly documented on the As-Built Plans; see [Section 26 - Record Drawings](#).

**31.01.03 SITUATIONS REQUIRING A CONSTRUCTION CHANGE AUTHORIZATION**

A The situations presented in this section require Construction Change Authorizations but are not all-inclusive, other situations may apply. The Clark County Project Manager will determine when a Construction Change Authorization is required for the change.

**1 Major Design Changes**

- (a) A Construction Change Authorization is required for major design changes, including:
  - (1) Significant errors or omissions in the original design
  - (2) Significant design features that are unsuitable for field conditions
  - (3) Significant increase in cost
  - (4) Other unforeseen circumstances of a significant nature
- (b) The Licensed Professional Engineer responsible for the design is required to stamp the new or revised design. The Project Manager is responsible for assuring that the changes get into the As-Built Plans (see [Section 26 - Record Drawings](#) for details).

**2 Differing Site Conditions/Significant Changes to Work**

- (a) Differing site conditions and significant changes in the character of work, in accordance with Subsection 104.02 of the Uniform Standard Specifications, can be complex; and the expertise of engineering and legal staff beyond the office of the Project Manager may prove to be invaluable. The Assistant Manager is available to provide additional advice and assistance.
- (b) Consider the following:
  - (1) Differing Site Conditions
    - I Subsection 104.02 of the Uniform Standard Specifications defines differing site conditions.
  - (2) Significant Changes in Character of Work
    - I Subsection 104.02 of the Uniform Standard Specifications defines significant changes in the character of the work.

**3 Contract Time**

- (a) Subsection 108.06 of the Uniform Standard Specifications defines when the Contractor may be entitled to additional contract time.

**4 Price Adjustments**

- (a) A Construction Change Authorization is required to accept or correct non-specification material(s). Regardless of whether or not a Contract formula is given within the Contract Documents for computing the price reduction for non-specification material.



**5 Force Account**

- (a) A Construction Change Authorization is required for payment of planned force account to the Contractor unless the method of measurement or basis of payment is changed.

**31.02 CONSTRUCTION CHANGE AUTHORIZATION GENERATION PROCEDURE**

**31.02.01 GENERAL**

- A The Construction Change Authorization should be completed by the Project Manager and signed by the Contractor prior to the start of the added or changed work. The Clark County Project Manager is responsible for approving all Construction Change Authorizations. Refer to the preapproval requirements in Section 105.18 - Authorized Changes of the Special Provisions.
- B In some cases, time constraints may prevent this from occurring. If it is necessary to commence work before the Construction Change Authorization is completed, the Clark County Project Manager must provide the Contractor with a written authorization to proceed. It is important that this authorization be as specific and accurate as possible to avoid further costs that may result from any confusion. The authorizing document should contain as much of the information required on the Construction Change Authorization as possible. The Clark County Project Manager may use a letter or email to issue the authorization. The authorization must describe the specific work being authorized, the basis of payment, the applicable specifications, and the method of measurement.
- C The basis of payment will be one of the following: Contract unit prices, agreed unit prices, lump sum or force account. When the basis of payment is agreed unit price or lump sum, the memo must include the actual agreed unit price or lump sum. The Construction Change Authorization should be completed and executed as soon as possible.
- D It is acceptable to include more than one line item change on each Construction Change Authorization Form.
- E During preparation, the Clark County Project Manager will obtain the required concurrences before the Assistant Manager approves the Construction Change Authorization. Depending on the nature of the change order, the following concurrences may be required:
- 1 Roadway Design**
- (a) Major roadway design changes must have concurrence from the Design Project Manager, and at their discretion, the Engineer of Record.
- 2 Structures**
- (a) Major design changes to a structure must have concurrence from the Contract Structural Engineer.
- 3 Typical Section**
- (a) Major design changes to a typical section, including changes to the sub-grade, must have concurrence from the Design Project Manager.
- 4 Compaction Specification**
- (a) Prior concurrence from the Clark County Project Manager, the Materials Engineer and Geotechnical Engineer is required when a contract modification order is written to change the hot bituminous pavement compaction specification. It is only necessary to note concurrences in the Construction Change Authorization.

**31.02.02 REQUIRED INFORMATION**

- A Construction Change Authorizations must be prepared in a clear and concise manner to effectively communicate to the Contractor the exact work to be performed, the applicable specifications, the basis of payment, and the impacts to contract time. Only contractual and factual information should be presented in the Construction Change Authorization. Construction Change Authorization will include the following information:
- 1 Contract Statistics**

- (a) Ensure that the heading information on the Construction Change Authorization Form is correctly completed including the Construction Change Authorization and/or minor contract revision line item reference.

**2 Cost Adjustments**

- (a) Include the increase or decrease in Contract cost associated with the Construction Change Authorization.

**3 Opening Statements**

- (a) The use of one of the following opening statements is recommended on any Construction Change Authorization:

- (1) "You are hereby authorized to . . ."
- (2) "Your Contract is hereby modified to include . . ."
- (3) "Your Contract is hereby revised to . . ."

**4 Minimum Information**

- (a) The Construction Change Authorization must clearly describe, at a minimum, the following information:

- (1) Description of work
- (2) Location of change
- (3) Description of materials, including quantities and specifications
- (4) Construction requirements including plan and specification references
- (5) Method of measurement
- (6) Basis of payment

**5 Contract Time**

- (a) Ensure that contract time is properly addressed in the Construction Change Authorization. If no time will be granted, add the statement "No Additional Time" to the Construction Change Authorization.

**6 Attachments**

- (a) If attachments are necessary, ensure that each attachment contains the Contract Number and Contract Bid Number and is sequentially numbered and referenced in the Construction Change Authorization. If new or revised plan sheets are required, ensure that they are referenced as attachments to the Construction Change Authorization and sealed by the responsible Design Engineer.

**31.02.03 PRICE JUSTIFICATION**

**A** When the proposed basis of payment is an agreed unit price or lump sum, a justification for the basis of payment must be included in the Construction Change Authorization. The price must be justified by one or more of the methods discussed in this Portion. The Project Manager shall consult with the Assistant Manager, as needed, for advice and assistance.

**B** The justification documentation must be attached to the Construction Change Authorization and included with the original copy.

**1 Contractor Cost Analysis**

- (a) The Project Manager may request that the Contractor furnish a detailed cost analysis, this information is always good to have. However, the Contractor's cost analysis will not be used to comply, it must be an original work product of the Project Manager. The cost analysis must include all costs for:

- (1) Labor
- (2) Specific equipment
- (3) Material
- (4) An appropriate allocation of related fixed costs (i.e., overhead)

- I Fixed costs are usually offered as a percentage mark-up of the direct costs. This mark-up should be reasonable and justifiable. The Project Manager may use the cost analysis to justify an agreed unit price or lump sum, provided that the analysis is reviewed and the Construction Change Authorization states that:
  - i The labor and equipment hours are reasonable.
  - ii The labor rates are correct and the equipment rates are reasonable, as compared to those presented in the Rental Rate Blue Book for Construction Equipment. If the Contractor will be renting equipment, actual rental rates are acceptable.
  - iii The material quantities and prices are reasonable.
- II The total cost, including overhead, is reasonable.
- 2 Independent Cost Analysis **(REQUIRED ON FEDERAL AID PROJECTS)**
  - (a) The Project Manager may prepare an independent force account analysis to justify an agreed unit price or lump sum. The unit price or lump sum justified by this method should not exceed the total cost determined by the Project Manager's independent cost analysis.
- 3 Cost Database
  - (a) Price justification should be performed by comparing the unit prices with those documented in any current project, bid within the last twelve (12) months. If the proposed unit price is unreasonable or significantly greater than the average unit price in current projects, further justification must be provided. It may be necessary to review the detailed data for the item. Occasionally, the price in other current projects will be sufficiently close to accept the Contractor's proposed price as reasonable.
  - (b) For example, the Contractor submits a price of \$2,350 for an inlet, but the average price in current projects is \$2,268. This may be considered reasonable. It is unreasonable to expect the price comparison to be exact prior to acceptance. It may be reasonable to accept price deviations within five to ten percent.
  - (c) Comparisons can be made based on the quantity involved, the Contract location, weighted averages and the range in prices in the current projects. Either average bid or award prices can be used. It is also reasonable to consider inflation and unusual Contract factors.
  - (d) Ultimately, the Clark County Project Manager is responsible for justifying the prices paid for the work.

#### **31.02.04 ADMINISTRATIVE SETTLEMENTS**

- A An Administrative Settlement is defined as any Construction Change Authorization that IS NOT based solely on a contractual basis using factual information.
- B The Assistant Manager and Deputy Director are the only Clark County Public Works individuals with authority to authorize an Administrative Settlement between Clark County Public Works and a contractor.
- C The Contractor must request in writing all monies that are not specifically covered in the Contract Documents. Once the request is received the Project Manager will review the request. If a portion of the request is justified, the Project Manager should execute a Construction Change Authorization for the portion that is justified.
- D If the request cannot be supported by the facts and Contract requirements in accordance with Subsection 105.17 of the Uniform Standard Specifications, the Project Manager must deny the request. The Clark County Project Manager should then discuss the denial of the request with the Assistant Manager.
- E The Assistant Manager may elect to require the Contractor to file an Intent to Claim to pursue the request or the portion of the request that was not justified. Alternatively, the Assistant Manager may personally, or through the Clark County Project Manager, pursue a negotiated Administrative Settlement.

### **31.03 CONTRACTOR CONCURRENCE**

- A Upon completion of the Construction Change Authorization Form, the Project Manager shall secure the signature of the Contractor Project Manager on the form prior to forwarding to the Assistant Manager.

### **31.04 OUTSIDE AGENCY APPROVAL**

- A The Clark County Project Manager is responsible receiving concurrence and signature approval for any Construction Change Authorizations that affect that agency. In particular, NDOT requires specific backup for change on projects which include Federal funding. Additionally, the Regional Flood Control District asks that all Construction Change Authorizations include a signature block for their representative.
- B Further, when Third Parties are being asked to fund all or part of a Construction Change Authorization, they may wish to have their representative sign the Construction Change Authorization as well.

### **31.05 ASSISTANT MANAGER APPROVAL**

- A The Assistant Manager is responsible for final approval and signature on Construction Change Authorizations. Once signed by the Assistant Manager, the Construction Change Authorization becomes effect.

### **31.06 DISTRIBUTION**

- A The Clark County Project Manager must forward a copy of the completed and signed Construction Change Authorization to the Contractor using [Section 9.03 - Correspondence Sent Procedure](#). Additionally, the Clark County Project Manager shall distribute electronic copies of Construction Change Authorizations to the Design Project Manager, the Owner's Representative(s), and the relevant Funding Agency Representative(s).

### **31.07 ESCALATION TO CONSTRUCTION CHANGE ORDER**

- A The amount of Construction Conflict Line Item monies varies from Contract to Contract. The Project Manager shall be responsible for reviewing Construction Change Authorizations generated throughout the Contract and determine when additional funding may be required above the Contract Value. See the discussion in [Section 32 – Contract Change Order](#).

### **31.08 CONSTRUCTION CHANGE AUTHORIZATION LOG**

- A The **CCA Log Form** is in the Microsoft Excel workbook format and contains the Conflict/Issues Log, the Construction Change Authorization (CCA) Log, as well as the Contract Change Order (CCO) Log.
- B At the earliest time possible, the Project Manager will begin to track all potential costs or credits. This will be achieved by use of the Conflict/Issues Log as the primary tracking log in [Section 24.02 – Conflict/Issues Log](#). Once costs have been finalized they can be added into the CCA Log by copy and paste procedures. The CCO Log is contained herein and allows for Contract funding increases to be tracked.
- C Since work cannot be paid directly by a Contract Change Order, this system of logs tracks the increase in the Construction Conflict Line Item and the related Construction Change Authorization which can be paid directly.
- D The form is designed to be self-explanatory. The description herein of the form and its function being intentionally non-specific as this form is new to the system and expected to have changes over time.
- E The majority of the calculated fields within this document are automated for convenience.

## SECTION 32 CONTRACT CHANGE ORDER

### 32.01 GENERAL

- A Change Orders are required when construction additive costs exceed the original contract amount, when significant changes in scope are made, when new funding sources are initiated, or when any provisions of the contract are to be altered. Change Orders authorize funds and time changes to the Contract, in comparison to Construction Change Authorizations which allow for payment execution on specific items and the time required for those specific items. The Table below graphically shows the steps taken to advise and discuss the need for a Change Order within the Chain of Command.

ITEM	THRESHOLD	ADVISE AND CONSULT			
		PROJECT MANAGER (FOR CONSULTANTS)	ASSISTANT MANAGER	DEPUTY DIRECTOR	DIRECTOR
Single CCA Value	Exceeds \$25,000	X			
Single CCA Value	Exceeds 2% of Contract Value	X			
Cumulative CCA Value	Reaches 50% of Conflict Monies	X	X		
Cumulative CCA Value	Reaches 4% of Contract Value	X	X	X	
Cumulative CCA Value	Reaches 75% of Conflict Monies	X	X	X	X
Cumulative CCA Value	Reaches 6% of Contract Value	X	X	X	X

### 32.02 DISCUSSION

- A The Assistant Manager is responsible for providing subject matter expertise, ensuring countywide uniformity and monitoring change orders for completeness and conformance with established Clark County Public Works policies and procedures. The Director of Public Works is authorized to execute Change Orders not to exceed \$1,000,000 or 10% of the Contract Value without the prior approval of the Board of County Commissioners. Only the Board of County Commissioners can approve change orders that exceed 10% of the contract value or one million dollars (\$1,000,000.00). The Director may elect to present **Contract Change Orders** of less than 10% to the Board of County Commissioners at their sole discretion.
- B The Clark County Project Manager has the responsibility to generate the draft of all Contract Change Orders. The Clark County Project Manager must contact the Assistant Manager for advice and assistance on all Contract Change Orders. At a minimum, the following items will be discussed:
- 1 Circumstances precipitating the change order
  - 2 Items of work to be included in the change order
  - 3 Basis of payment and justification for the prices being authorized
  - 4 Justification of any time extensions

### 32.03 GENERATING THE CONTRACT CHANGE ORDER

- A The Clark County Project Manager is required to justify each change order. It is acceptable to submit one Contract Change Order Form for one, more than one, or all of the Construction Change Authorizations for the Contract.
- B The Contract Change Order must contain sufficient information for a County Commissioner or any other reader, who may be unfamiliar with the Contract, to review and understand the change without additional assistance.

C The following information must be included in the Explanation portion of the Construction Change Order:

**1** Description of Work

(a) Fully describe the modifications to be performed.

**2** Explanatory Narrative

(a) Provide a clear and detailed explanation of why the change is necessary.

**3** Measurement and Payment

(a) Include the method of measurement and the basis of payment that will be used to pay for the work.

**4** Contract Time

(a) Explain the impact the change will have on contract time. If time will be added to the Contract, ensure that the letter thoroughly justifies the extension. Time extensions should only be granted if an analysis of the Contract schedule determines that the change will cause the Contractor to exceed the original contract time. Be certain to include the classification of time extensions: excusable compensable, excusable Non-compensable, Non-excusable Non-compensable.

**5** Price Justification

(a) Include justification for each price to be paid for the work. See [Section 31.02 - Construction Change Authorization Price Justification](#) for additional information on price justification.

**6** Conversations and Concurrence

(a) Include the dates and with whom (name and section) conversations were made and when concurrence was received from the Design Project Manager and any other entities (e.g. City of Las Vegas, Clark County Public Works Traffic Operations, Clark County Public Works Maintenance Management, Regional Transportation Commission, or similar.). The Professional Engineer of Record should review and approve changes to design plan sheets. Also include the date when the change order was discussed with the Assistant Manager.

**7** Financial Status

(a) Describe the financial status of the Contract.

**8** Status of Work

(a) Include a notation regarding work status.

**9** Adjusted Completion Duration (Contract Days)

**10** Adjusted Completion Date

**32.04 DIVISIONAL/DEPARTMENTAL APPROVAL**

A Change Orders are submitted by the Assistant Manager to the Deputy Director for Division approval. In turn, the Deputy Director will forward all divisionally approved Change Orders to the Director for Departmental review and approval, and subsequently for Board of County Commissioners approval.

## 32.05 AGENCY APPROVAL TIME LINE CHART

	NEVADA DEPARTMENT OF TRANSPORTATION THEN BOARD OF COUNTY COMMISSIONERS	BOARD OF COUNTY COMMISSIONERS ONLY	REGIONAL TRANSPORTATION COMMISSION THEN BOARD OF COUNTY COMMISSIONERS	REGIONAL FLOOD CONTROL DISTRICT THEN BOARD OF COUNTY COMMISSIONERS
Submission	30 Days Review Time		17 Days prior to EAC Meeting	17 Days prior to TAC Meeting
Agency Advisory Committee Meeting			14 Days prior to EAC	14 Days prior to TAC
Agency Commission Meeting			2nd Thursday of Month	2nd Thursday of Month
Submission	Concurrent with Agency Submission	17 Days Prior to Board of County Commissioners Meeting	Concurrent with Agency Submission	
Board of County Commissioners Meeting	1st and 3rd Tuesdays			
Process Duration “Best Case”	30 Days	17 Days	36 Days	36 Days
Process Duration “Normal Worst Case”	51 Days	30 Days	66 Days	66 Days

- A This Table is provided to illustrate the Approval process and time frames a typical Contract Change Order takes, after it has received the Department approval.
- B It is impossible to determine an "absolute worst case" scenario. In example, each of the following happens to the Contract Change Order during processing:
- 1 The Contract Change Order is submitted 16 days prior to an Executive Advisory Committee Meeting (30 days lost)
  - 2 Then the Executive Advisory Committee needs more information to approve (30 days lost)
  - 3 Next the Board of County Commissioners meeting is cancelled due it being the week of Christmas (14 to 21 days lost)
  - 4 And the subsequent meeting is cancelled due to lack of quorum on the Commission (14 to 21 days lost)
  - 5 Finally the Board of County Commissioners needs additional information (14 to 21 days lost)
- C The total time to process the Contract Change Order in this scenario is  $102 + 36 = 158$  days.
- D The example above is given to exaggerate the point, that care in preparing and timely submission of the Contract Change Order, will greatly improve an already lengthy process.



## **32.06 FUNDING AGENCY APPROVAL**

### **32.06.01 GENERAL**

- A The Clark County Project Manager shall prepare, submit, and receive approval of an *Agenda Item* for each Contract Change Orders through the appropriate funding agency, Regional Transportation Commission, Regional Flood Control District, or Nevada Department of Transportation. Submission may be concurrent with the Board of County Commissioners Agenda Item submission.

### **32.06.02 REGIONAL TRANSPORTATION COMMISSION**

- A All Construction Change Authorizations or Contract Change Orders of \$50,000.00 or more than 10% of the Contract Value must be approved by the Regional Transportation Commission.
- B All Contract Change Orders must be presented to the Executive Advisory Committee for technical review prior to being presented to the Regional Transportation Commission itself.
- C The Executive Advisory Committee meets two weeks prior to the Regional Transportation Commission meeting which is on the 2nd Thursday of each Month.

### **32.06.03 REGIONAL FLOOD CONTROL DISTRICT**

- A All Contract Change Orders with a value of \$50,000.00 or more must be approved by the Regional Flood Control District Board.
- B All Contract Change Orders must be presented to the Technical Advisory Committee prior to being presented to the Regional Flood Control District Commission itself.
- C The Technical Advisory Committee meets two weeks prior to the Regional Flood Control District Commission meeting, which is on the 2nd Thursday of each Month.

### **32.06.04 NEVADA DEPARTMENT OF TRANSPORTATION**

- A All Contract Change Orders regardless of Dollar Amount must be approved by Nevada Department of Transportation.
- B The submission will be turned around within the normal submission review time frame, generally thirty (30) days.

### **32.06.05 BOARD OF COUNTY COMMISSIONERS**

- A The submission of an Agenda Item to the Board of County Commissioners can be concurrent with any Agency Approvals. Select the next available Board of County Commissioners Meeting after the anticipated approval by the Agency.
- B Approval by other funding Agencies must be completed prior to presenting to the Board of County Commissioners. If a Contract Change Order does not receive approval and an Agenda Item is on the schedule of the Board of County Commissioners, the Deputy Director shall assure the item is carried over to the next appropriate Board of County Commissioners meeting, generally one month later.
- C Upon approval from the Board of County Commissioners, the Change Order and the Agenda Item will be filed in the Contract file in Administration with a copy given to the Clark County Project Manager for the working file.

## **32.07 CONTRACT CHANGE ORDER LOG**

- A The *CCO Log* is in the Microsoft Excel workbook format and is an integrated part of the CCA Log Form which contains the Conflict/Issues Log, the Construction Change Authorization (CCA) Log, as well as the Contract Change Order (CCO) Log.
- B At the earliest time possible, the Project Manager will begin to track all potential costs or credits. This will be achieved by use of the Conflict/Issues Log as the primary tracking log in [Section 24.02 – Conflict/Issues Log](#). Once costs have been finalized they can be added into the CCA Log by copy and paste procedures. The CCO Log is contained herein and allows for Contract funding increases to be tracked.



- C Since work cannot be paid directly by a Contract Change Order, this system of logging tracks the increase in the Construction Conflict Line Item and the related Construction Change Authorization which can be paid directly.
- D The form is designed to be self-explanatory. The description herein of the form and its function being intentionally non-specific as this form is new to the system and expected to have changes over time.
- E The majority of the calculated fields within this document are automated for convenience.



## SECTION 33 PAY APPLICATIONS

### 33.01 GENERAL

- A Interim (Monthly) Progress Payments, aka Pay Estimates, are hereafter referred to as *Pay Applications*. An Automated Pay Application will be generated for the Contract by the Pay Application Specialist, see [Section 8.04 - Pay Application Software Set-up](#). The Automated Pay Application will be used by the Clark County Project Manager for all submissions and review.
- B Pay period or billing cycle is generally one calendar month, with the “cutoff” date being the last day of the month.
- C Payments may be made twice (2) per month with approval of the Assistant Manager or Deputy Director. Generally, this exception is only made for Contracts with exceptionally high monthly cash flow.

### 33.02 CONTRACTOR REQUIREMENTS

- A On the last working day of the pay period, the authorized Contractor’s representative and the Owner’s representative shall meet to determine payable quantities for the period. A Tally Sheet shall be generated by the Senior Construction Management Inspector and given to the Owner’s representative. This Tally Sheet will be the official field record for the payable quantities and shall be filed in the permanent project files.
- B Once the Contractor and the Owner’s representative have come to an agreement on the quantities both shall sign the Tally Sheet. The Owner’s representative is responsible for forwarding the Tally Sheet to the Clark County Project Manager. Be certain to review all *Construction Change Authorizations* as part of the Tally Sheet review.
- C The Contractor is required to submit all stockpile material invoices for which they are requesting payment at this time. Further, the Pay Application shall be received as part of the monthly package also containing the following items:
  - 1 Quality Control Monthly Report
  - 2 Progress Schedule Update
  - 3 Contract Narrative

### 33.03 PAYMENT APPLICATION QUANTITIES

#### 33.03.01 GENERAL

- A It is imperative that Project Manager and Owners Representative verify the accuracy of interim payments to Contractors. Justifying interim payments based solely on information submitted by the Contractor, (i.e. load counts), is unacceptable. The Owners Representative must independently verify that work has been completed pursuant to the specifications and the Project Manager is responsible for ensuring that quantities are reasonable before authorizing the pay application.

#### 33.03.02 FIELD MEASUREMENT

- A Contract work, as bid on by the contractor, is measured and paid for as Bid/Contract items. Bid items are measured for payment as units. The unit for each Bid item is shown in the engineer’s estimate as “unit of measure.” Bid items may be measured by: units of count, length, area, volume, weight, lump sum. The engineer’s estimate also includes the estimated quantity of each Bid item.
- B The Owners Representative must determine, by measurement and calculation, the quantities of the various contract items actually performed by the contractor.
  - 1 Method of Measurement
    - (a) Check the “measurement” or “measurement and payment” clauses in the specifications for the required method of measurement for each Bid item. Use the specified method to measure quantities. A change in the unit or the method of measurement changes

the contract. Do not change the unit or the method of measurement unless the change is provided for in a *Contract Change Order*.

**2 Accuracy**

- (a) Measure and calculate Bid item quantities to a degree of accuracy consistent with the contract price of the item. Give early consideration to the accuracy desired so that all personnel on a given Contract will measure and calculate uniformly. The general rule is to measure to a degree of accuracy that, when calculated, the resulting value will be accurate within 0.2 percent to 0.5 percent. A \$50,000 item should be measured and calculated to result in payment accurate within about \$100.

**33.03.03 FIELD QUANTITY DETERMINATION**

- A Enter measurements and calculations for Bid item quantities on permanent record sheets that are referred to as "Item Quantity Sheets." Include on each *Item Quantity Sheet* the appropriate Contract item number, the location of installation (if applicable), the necessary measurements and calculations, and the name of the person preparing the document. Check source document calculations independently, and enter the name of the checker on the document.
- B Check Item Quantity Sheet calculations as soon as possible, preferably before the quantity is entered on a Tally Sheet. Always check them before entry on the proposed final estimate. Whenever possible, measure, calculate, and check contract item quantities as the work on a contract item is completed.

**33.03.04 FIELD MONTHLY SUMMARY**

- A The Owners Representative is responsible for generation of a period ending quantity sheet called the Tally Sheet. Using the Item Quantity Sheet, calculate and record the quantity of the total that was performed during the given billing cycle for each Bid Item. Reach agreement with the Contractor, sign and forward a copy of the Tally Sheet to the Clark County Project Manager. The Contractor shall be given a copy of the agreement quantities as well.

**33.03.05 PAYMENT APPLICATION QUANTITIES**

- A The Clark County Project Manager is required to approve all progress payments based on the interim quantities documented during the prosecution of work. Three documentation methods may be used. The method selected for each Bid Item should minimize the time required to prepare and submit final quantities:

**1 Method One – Measured or Counted Quantities**

- (a) Method One should be used for Bid items that can be measured or counted as the work progresses, especially those that cannot be determined after completion of the work (e.g., reinforcing steel). The source document will be used to support payment of actual quantities as the work is performed.

**2 Method Two – Estimated Quantities**

- (a) Method Two should be used when the actual quantity of the Bid item cannot be determined as the work progresses (e.g., earthwork). The Item Quantity Sheet will be used to support payment of estimated quantities.
- (b) If Method Two is used, the final quantity of the Bid item will be measured as indicated in the Specifications. It is the Project Manager's responsibility to calculate estimated quantities as accurately as possible so as not to overpay the Contractor. Consider the following:
- (c) It is unacceptable to rely on load counts alone to justify interim payments. Interim surveys or quantities calculated based on cross section estimates may be used to support earthwork payments.

**3 Method Three - Lump Sum Breakdown Worksheet**

- (a) If the Contractor wishes to be paid partial payments for Lump Sum Items, the Project Manager shall require the Contractor to submit a *Lump Sum Breakdown Worksheet*. The Clark County Project Manager shall review the Worksheet at the time of submission to assure that the costs are distributed appropriately and not excessively front loaded.

- (b) The Submittal will need to be as detailed as the expected Payment for items of work. Payment will only be made in Full against the Line Items stipulated in the Submittal. Further partial payment of subcategories within the Lump Sum will not be considered.

### **33.04 RETENTION**

- A Retention deductions are made in accordance with the terms of the contract and Nevada Revised Statutes. Retention is differentiated from Additional Withholding in that interest is paid on Retention.
- B The Automated Pay Application will calculate the Standard Special Provision allowed retention and make deduction without any specific action by construction personnel. The Automated Pay Application does not calculate and include retention for unsatisfactory progress. Should the Contract progress become unsatisfactory, additional Retention may be calculated and input manually into the Automated Pay Application. When manual input is required contact the Pay Application Specialist for assistance.
- C For Release of Retention or Retention Reduction see [Section 34.7 - Semifinal Pay Application](#) for details.

### **33.05 LIQUIDATED DAMAGES**

- A Liquidated damages are discussed in both the Uniform Standard Specifications and in the Special Provisions. The Clark County Project Manager shall discuss all potential Liquidated Damages with the Assistant Manager prior to taking action.
- B If the Actual Completion Date for the Contract is beyond the Anticipated Completion Date (plus any allowances for Contract Time) the Clark County Project Manager shall assess Liquidated Damages. The Clark County Project Manager and Assistant Manager must concur prior to assessment of liquidated damages.
- C Enter the deduction for Liquidated Damages, as an Additional Withholding, on the next Pay Application. See [Section 33 – Pay Applications](#) for details.

### **33.06 LABOR COMMISSIONER ASSESSMENTS**

#### **33.06.01 GENERAL**

- A The first round of labor related investigation might end with the generation of a memo from the Compliance Officer. At this time the official ruling from the Nevada State Labor Board has not been issued. An increase in retention may be necessary. Consult with the Clark County Project Manager about the need for the increase.
- B When assessments are made against the Contractor by the Labor Commissioner, the Clark County Project Manager shall be responsible for assuring the Fines are assessed through the Pay Application. See [Section 27 - Labor Compliance](#) for details of when these Assessments are applied. Regardless of the type of Assessment, the specific steps to take on the Pay Application are as follows:

#### **33.06.02 ASSESSMENT PROCEDURE**

- A The steps to add a Labor Fine are as follows:
  - 1 Go to the Labor Fines page of the Pay Application.
  - 2 Complete a new Line Item as follows:
    - (a) Date Assessment was applied.
    - (b) Billing Cycle during which the Assessment will first show up on the Pay Application, generally this is the number of the current Pay Application.
    - (c) A Description of the cause of the Assessment. Look on the Notification sent by the Compliance Officer for this language.
    - (d) Total Dollar Value of the Assessment for this particular Line Item. Once this number is input, it will not be changed. If additional Assessments come in, input new Line Items.

- (e) Lastly, a Dollar Amount equal to the Total Dollar Value needs to be placed under the current Pay Application Number.

3 You will now see the Line Dollars reflect the new Line Item on the Summary Page.

### **33.07 ADDITIONAL WITHHOLDING**

#### **33.07.01 GENERAL**

- A Additional Withholding (as opposed to retention) are those amounts held back for specific purposes. Additional Withholding is further differentiated from Retention in that interest is not paid on Additional Withholding. The Clark County Project Manager must identify, initiate, and control all Additional Withholding.
- B Make an AW from payment to the contractor as soon as the liability for the event requiring an AW has been determined. It is preferable to base AW on known amounts resulting from agreements or actual billings, but, if necessary, they can be estimated.
- C Clark County Project Manager must keep any source documents and summary sheets in the appropriate Contract Records to cover all AW. In the absence of any information to the contrary, the Pay Application will carry AW forward from the previous month.

#### **33.07.02 CONDITIONS TO WITHHOLD**

##### **A LIQUIDATED DAMAGES**

- 1 Whenever the contractor's progress is unsatisfactory, and the Contract has progressed to a point where a reasonably accurate estimate of possible liquidated damages can be made, the Clark County Project Manager must deduct an amount sufficient to cover probable liquidated damages. Make the deduction in lieu of any retention for unsatisfactory progress.

##### **B NON-SUBMISSION OF SCHEDULE**

- 1 Non-submission of required Progress Schedules can lead to Additional Withholding. Verify that the Special Provisions, Section 108.03 - Prosecution and Progress, have specific language that directs this withholding.

##### **C OTHER ITEMS**

- 1 When specifically provided within the Special Provisions, Additional Withholding may be applied to other items of work.

#### **33.07.03 APPLYING ADDITIONAL WITHHOLDING**

- A For each event that allows AW to be applied, a new Line Item on the AW worksheet in the Pay Application needs to be added. Provide the following information:

- 1 Go to the AW page of the Pay Application.
- 2 Complete a new Line Item as follows:
  - (a) Date AW was applied.
  - (b) Billing Cycle during which the AW will begin, generally this is the number of the current Pay Application.
  - (c) A Description of the cause of the AW.
  - (d) Total Dollar Value for this Line Item. Once this number is input, it will not be changed. If you need to add monies, input a new Line Item.
  - (e) Lastly, a Dollar Amount equal to the Total Dollar Value needs to be placed under the current Pay Application Number.

3 You will now see the AW Dollars reflect the new Line Item on the Summary Page.

#### **33.07.04 RELEASING ADDITIONAL WITHHOLDING**

- A In the instances when the Contractor is able to make corrective action which eliminate the need for the AW, a "return of AW" entry is made to the appropriate line item on the Pay Application.
- B Examples of when an AW may be released are:

- 1 The Contractor becomes current with Schedule submissions,
  - 2 Additional Contract Time is allowed which will eliminate some or all Liquidated Damages,
  - 3 Other conditions for Release may exist; consult with the Assistant Manager when questions arise
- C Review the Contract Documents prior to making a Release.
- D For each event that allows release of some or all of an AW, an adjustment for the Line Item on the AW worksheet in the Pay Application needs to be added. Provide the following information:
- E Under the current Pay Application Number, the Clark County Project Manager will need to input a Dollar Amount equal to the dollars being released. The dollar value entered for this period may be less than the Total Dollar Value of the Line Item. You will now see the AW Dollars reflect the new Line Item on the Summary Page.

### 33.08 REVIEW AND APPROVAL

#### 33.08.01 CONTRACT ADMINISTRATION SECTION APPROVAL

- A The Project Manager will review the Tally Sheet and all other documentation to verify the mathematical accuracy and make changes as necessary. The Clark County Project Manager will input the Tally Sheet information into electronic pay application. Remember to review all Construction Change Authorizations, mobilization, and stockpiles for payment during each pay application. An electronic (.pdf) version of the Pay Application will be “printed” and forwarded to the Contractor.
- B The Contractor is required to review the document, and if acceptable, print sign and return three (3) copies to the office of the Clark County Project Manager.
- C Once received back from the Contractor, The Clark County Project Manager will assure themselves that no modifications have been made, sign, and submit to the Administrative Specialist.
- D The Administrative Specialist will:
- 1 Log the Pay Application for tracking
  - 2 Verify the mathematical accuracy
  - 3 Forward to the Assistant Manager
- E The Assistant Manager will review the Pay Application and by signing and dating it will give approval to forward to Clark County Public Works Administration for Payment. If errors in the Pay Application exist it shall be returned to the Clark County Project Manager for further corrections.

#### 33.08.02 CORRECTION LETTER

- A Per NRS 338, billings containing errors, or otherwise needing correction, must be corrected and processed, with a detailed letter explaining the corrections sent to the Contractor. The Clark County Project Manager shall generate the *Pay Application Correction Letter*. The letter shall include:
- 1 A statement that corrections to the Pay Application were required
  - 2 An itemized list of changes made to the Pay Application
  - 3 A copy of the revised Pay Application

#### 33.08.03 FINANCE DEPARTMENT APPROVAL

- A Department of Finance will review the Pay Application and conduct payment tracking operations. Public Works Administration will return copies of the application once the billable amount has been verified and the pay estimate forwarded to the Department of Finance for payment.
- B If discrepancies are noted, they will be returned to the Clark County Project Manager for clarification. The Clark County Project Manager shall be required to review the discrepancies, make corrections, and obtain “re-approval” as necessary within 2 days.





## SECTION 34 CONTRACT CLOSEOUT

### 34.01 GENERAL

- A The purpose of this portion is to outline the general procedure to close out a Contract. Actual Contract closeout consists of several different steps. Some of those steps are covered separately in other portions of this manual.
- B The Contractor shall notify the Clark County Project Manager (in writing) when he believes the Contract is substantially complete. The Project Manager shall determine if the Contract is substantially complete and receive concurrence from the Assistant Manager. If the Contract is determined to be Substantially Complete, the Clark County Project Manager shall schedule a Contract Walk-Thru to determine any Punch List items and generate a *Letter of Substantial Completion*.

### 34.02 CONTRACT WALK-THRU

#### 34.02.01 GENERAL

- A As a Contract's completion approaches, the Project Manager must schedule a Walk-Thru Inspection. A *Walk-Thru Letter* shall be generated and distributed to all interested parties. Typically, the list to interested parties is the same as the Start Notice Letter; however, additional parties may have arisen during the Contract and should also be copied on the Walk-thru Letter.
- B If, in the event, that any party is unable to attend the walk-thru, they shall have two weeks in which to respond to the Clark County Project Manager with any deficiencies that they may have.
- C Specific attention should be given to internal Divisions of Public Works as appropriate review by Maintenance Management and Traffic Operations is critical to generating the Final Punch List. Your objective is to prevent last-minute delays in contract acceptance.

#### 34.02.02 SCHEDULING WALK-THRU

- A Notification of a walk-thru shall be sent in writing to all concerned parties notifying them of the time, date and location of such walk-thru. According to Section 105.16 - Final Acceptance of the Uniform Standard Specifications, the Project Manager must do a final observation of the contract work during the final inspection. The Project Manager shall invite all interested parties to attend the Walk-thru.
- B The following is a list of parties generally invited to attend, but is not all inclusive:
  - 1 Design Project Manager
  - 2 Engineer of Record (Consultant Professional Engineer)
  - 3 Funding Agency (Regional Flood Control District, Regional Transportation Commission, Nevada Department of Transportation, or similar.)
  - 4 Utilities

#### 34.02.03 CONDUCTING THE WALK-THRU

- A Generally, documentation of the Walk-Thru inspection is in the Contractor's responsibility. However, the Owners Representative shall generate a list of Attendees and generate an independent Punch-List to verify that the Contractor has accurately itemized all issues discussed during the Walk-Thru.

#### 34.02.04 OTHER AGENCY PUNCH LISTS

- A When other Agencies are involved in the Contract and their Representative is not present during the Walk-thru, be certain that a separate Punch List is received from the Agency. If all items are acceptable to the Agency, see [Section 34.06 - Other Agency Concurrence](#) for details.

#### 34.02.05 GENERATING FINAL PUNCH LIST

- A The Project Manager shall generate and compile a *Final Punch List*. This Final Punch List shall include all concerns from internal and external parties.

- B The Project Manager may elect to generate the Final Punch List in either of the two formats listed below:
- 1 Single List Format
    - (a) One single Punch List is created with all items listed by Other Agencies being reiterated directly therein, and no attachments are included.
  - 2 Multiple List Format
    - (a) The Clark County Public Works Punch List is a separate list and each Other Agency Punch List is attached. If this format is used, be certain to add one line item for each Other Agency which identifies the attachment and requires the Contractor to complete the items listed therein.

### 34.03 RELIEF FROM MAINTENANCE

- A The Contractor must request Relief from Maintenance in writing; generally this is the letter of Substantial Completion listed in the walk thru above, unless only a portion of the project is being requested. The Clark County Project Manager shall receive concurrence from the Assistant Manager that the Relief may be provided.
- B Under conditions specified in Section 107.15 - Relief From Maintenance and Responsibility of the Uniform Standard Specifications, the contractor may be relieved from maintaining and protecting certain completed portions or portions of the work. Clark County Public Works policy recommends relief only for those portions of the work specifically mentioned in the specifications unless exceptions are fully justified in the request for relief.
- C Relief from maintenance and responsibility relieves the contractor of responsibility for repair of damage from the elements. Before recommending any request for relief from maintenance and responsibility, determine that the requested work will not be damaged as a result of incomplete adjoining work. For instance, a roadway section may be complete while an upstream culvert remains incomplete. Water flowing past the uncompleted culvert may damage a portion of the requested roadway section. Before recommending relief from maintenance and responsibility, analyze each situation critically to determine if it qualifies in all respects. The Contract's proper completion must not be jeopardized by indiscriminate recommendations for relief from maintenance and responsibility.
- D Once the contractor is relieved from maintaining and protecting a portion of the work, the contractor cannot be required to do more work on it, except by agreement or to remedy defective work or materials. If you have any doubts about the requested area's eligibility, deny the contractor's request for relief from maintenance and responsibility. Inform the contractor in writing so no doubt exists as to the status of the contractor's request and the nature of uncompleted work. The Uniform Standard Specifications clearly state that the portion of work must be complete in all respects before it becomes eligible for relief from maintenance and responsibility.
- E Relief from maintenance and responsibility denotes recognition of work that is completed. Therefore, any recommendations for this action on work for other public agencies or owners also require the concurrence of these agencies and owners. Before recommending relief from maintenance and responsibility on such portions of the work, complete the procedures outlined in [Section 34.02 - Contract Walk-Thru](#). In the communication recommending relief, include a statement that the agency authorities concur, or in the absence of such concurrence, include a justification for relief.

### 34.04 LETTER OF SUBSTANTIAL COMPLETION

- A Once the Contract has reached Substantial Completion, the Clark County Project Manager generates a *Letter of Substantial Completion*. This letter shall include the following:
- 1 Project Statistics
  - 2 Date of Substantial Completion
  - 3 Date and Time of Walk-thru if applicable
  - 4 Punch List calendar days length

5 Punch List Liquidated Damages amount

B After drafting the letter, consult with the Assistant Manager. The Assistant Manager or Deputy Director are the only individuals with the authority to sign this letter.

### **34.05 COMPLETION OF PUNCH LIST ITEMS**

#### **34.05.01 GENERAL**

A The Owners Representative shall assure and document that all Punch List items have been completed through their Daily Inspection Reports and discussions with the Owner's Representatives.

#### **34.05.02 PUNCH LIST TIME**

A Typically, the Contractor is allowed thirty (30) calendar days to complete the Punch List items. Reference the Special Provisions, Section 108.14 - Project Close-out Procedure, to determine if the Punch List Time is different for a particular Contract.

B When additional items are added to the Punch List during the Punch List Time, additional time may be allowed to complete these items. Allowance of additional time is at the discretion of the Clark County Project Manager. Should the Contractor feel that additional time be allowed and the Project Manager is in agreement, the Contractor shall submit a written request letter to that effect, with justification. The Clark County Project Manager shall discuss the issue with the Assistant Manager and respond to the request in writing.

C Documentation of time usage shall be made on the Weekly Time Tracking Report, see [Section 20 - Contract Time](#) for details. Specific attention shall be given to documenting Less than Full Working Days.

#### **34.05.03 PUNCH LIST LIQUIDATED DAMAGES**

A Should the Contractor not complete the Punch List in the time allowed, the Clark County Project Manager shall assess Punch List Liquidated Damages in accordance with the Contract Documents. Specifically see Section 108.09 - Failure to Complete the Work on Time of the Special Provisions for details and [Section 33.07 - Additional Withholding](#) for the particulars of Liquidated Damages on the Pay Application.

### **34.06 OTHER AGENCY CONCURRENCE**

A When any work performed under the contract is for other Agencies or owners, as a courtesy, the Project Manager shall ask for the concurrence of these entities in the acceptability of the work. The Agency should have been notified of the Walk-thru and have generated a Punch List as they deemed appropriate. Further, the Owners Representative shall have assured that all concerns were addressed in the Completion of the Punch List.

B At this point, ask for concurrence from the Agency in writing. Most Agencies will generate and submit a concurrence provided all corrective actions have been taken. However, do not withhold recommendations for acceptance or relief merely because an outside agency will not concur.

### **34.07 SEMIFINAL PAY APPLICATION**

A A Semifinal Pay Application is the last Pay Application prepared by the Contractor before the Retention Release (Final) Pay Application and *Contractor's Affidavit of Final Settlement* are completed.

B The primary purpose of a semifinal estimate is that the Project Manager and Contractor come to agreement on Final Quantities. The Semifinal Pay Application would then make timely payment for all non-disputed items that have not been paid on a previous Pay Application. Disputed items may be included on the Retention Release Pay Application.

C Normally, use the same procedures to issue a semifinal estimate as those to issue an Interim Pay Application.

D The semifinal estimate should not show a zero balance for money owed to the contractor.

### **34.08 CONTRACTOR RECORDS SUBMISSION**

- A The Contract or Quality Control files and records shall be boxed and all correspondence put in chronological order and submitted to the Project Manager for his review prior to being stored to the end of the warranty period.

### **34.09 CONSULTANT RECORDS SUBMISSION**

- A Our Consultants also have a contractual obligation to maintain project files and record drawings during the course of construction. They also have the responsibility to verify that the contractor is maintaining current project files and record drawings.
- B The Consultant is required to submit their entire project file system at the end of the contract.

### **34.10 CONTRACT ACCEPTANCE**

#### **34.10.01 INDEPENDENT ASSURANCE REVIEW**

- A The Quality Assurance Section of the Division will review the Contract documentation one final time. They will generate a Contract Close-Out Audit Record.

#### **34.10.02 FINAL QUANTITY REVIEW**

- A The Owners Representative shall thoroughly review the Semi-Final Pay Application against the Item Quantity Sheets, Daily Reports, Construction Change Authorizations, Contract Change Orders and other records which may be present on the Contract. Adequate documentation for all Final Quantities must be verified by the Owners Representative before the quantities will be paid.
- B The Clark County Project Manager must review the Owners Representatives work to assure accuracy and be in agreement thereto.

#### **34.10.03 AFFIDAVIT OF FINAL SETTLEMENT**

- A The Clark County Project Manager shall generate an *Contractor's Affidavit of Final Settlement Form* using the Final Pay Application as the guideline for Total Dollars. The Clark County Project Manager shall transmit the Affidavit to the Contractor for Signature and Notarizing.

#### **34.10.04 RETENTION RELEASE PAY APPLICATION**

- A Commonly referred to as the "Final Estimate" this Payment Application is generated by the Clark County Project Manager, forwarded to the Contractor for concurrence, signed, and submitted. This Pay Application may only be submitted after ALL of the following conditions have been met:
- 1 The Contractor has submitted all required documents (Quality Control files, As-Built Drawings, or similar.)
  - 2 Complete agreement to ALL quantities in the Semi-Final payment has been reached
  - 3 If Claims were outstanding, the Assistant Manager's must concur that all Claims have been resolved
  - 4 The Contractor has signed, sealed (Notarized), and delivered the Affidavit of Final Settlement
- B The only exception to the list above is if the Assistant Manager has been advised by the Clark County Project Manager to proceed. The Assistant Manager will review the signed Affidavit and the Final Pay Application prior to submission for payment.
- C The Divisions goal is to complete all closeout steps and process the Final Pay Application within 30 days of Punch List completion.

#### **34.10.05 UNDER-RUNS / OVERRUNS**

- A The Project Manager shall assure that all bid items that Overruns or Under-runs by 10% (the threshold on federally funded projects is different) or more have a detailed written explanation. These explanations shall be prepared by the Owners Representative and submitted with the Final Pay Application.

**34.10.06 AS-BUILT DRAWING SUBMISSION**

- A All changes from the as designed plans and the as constructed facilities shall be documented on the record drawings. The plan set used for recording changes shall be full size.
- B Upon completion of a Contract and prior to release of retention, the record drawings shall be obtained from the Contractor and compared with the Project Manager set. Any differences shall be reconciled.
- C Contract plans and drawings need to become a part of the permanent record of the construction Contract and be available for future reference. Modifications made to the Contract design during construction should be reflected in the record drawings.
- D At the time the final Pay Application is presented for payment, the Contractor shall submit the record drawings with all revisions ("red lines") to the Owners Representative for verification. These record drawings shall then be submitted to the Design Project Manager for his review using the *Record Drawing Transmittal Form*.

**34.10.07 ROAD DATA SHEETS**

- A The Quality Assurance Inspector or Consultant Project Manager shall complete the *Road Data Sheet(s) Form*. This form records all changes made to pavement sections with CCPW rights-of-way. They will be used to update Clark County road information database and need to be as accurate as possible.
- B The form must be completed in the "<Feet> <Direction> of Centerline" rather than project stationing. The project stationing is not universal and therefore not used in the road database.



## SECTION 35 OUTSIDE SERVICES PERFORMANCE REPORTS

### 35.01 GENERAL

- A The *Outside Services Performance Evaluation Form* is used to track performance of Service Providers and Contractors. These reports assist in the evaluation of a Service Provider during the Statement of Qualifications process. The Clark County Project Manager shall remain open and honest in all remarks made on the Outside Services Performance Evaluation Form.
- B The Outside Services Performance Report form is self-explanatory and generally requires 15 minutes each to complete. Be certain to reference the specific Contract with which the remarks are associated.
- C The Clark County Project Manager is required to place a copy of each relevant Outside Services Performance Evaluation Form in the Contract Close-Out folder of the Contract Files.

### 35.02 CONSULTANT

- A The Clark County Project Manager is required to complete an Outside Services Performance Report about the Consultant Construction Manager when one is utilized for Contract. This evaluation of the Consultants performance should include each key individual utilized by the Consultant on the Contract. Consultant Outside Services Performance Reports shall be completed a minimum of two times during the Contract (at 50% and upon completion).

### 35.03 QUALITY ASSURANCE LABORATORY

- A The Clark County Project Manager is required to complete an Outside Services Performance Evaluation Form about the Quality Assurance Laboratory for each Contract. Specifically evaluate the field personnel individually.

### 35.04 AUGMENTATION

- A The Clark County Project Manager is required to complete an Outside Services Performance Evaluation Form about the Augmentation Service Provider. This Outside Services Performance Evaluation Form is more for the individual Augmenter than the Service Provider; however both should be addressed within the report.





## SECTION 36 FILES IN PERPETUITY

### 36.01 GENERAL

- A All file submission must be an **ORIGINAL**. This includes all Quality Control documents provided by the Contractor. In particular, the Quality Control, Quality Assurance and Independent Assurance Laboratory(ies) must submit originals to comply with FHWA (federally funded projects) requirements. SCANNED ORIGINALS in the appropriate file format (see below) may be an acceptable substitute in the case of the Quality Control Laboratory, consult with the Clark County Project Manager.

### 36.02 FILE PREPARATION

#### 36.02.01 FILE INDEXING PROTOCOL

- A The *KOVIS Index Page* is a Microsoft Excel file. This file lists the File Folder system, or file indexing protocol, that will be accepted for Final Filing. There are numerous levels within the Index Page that address the function of the group submitting documents for Final Filing (see Table below).

FILE TYPE	USE
Office	Only for CCPW Administration use
Engineer	Only for CCPW Project Manager use
Consultant	For Consultant files in their entirety
Contractor	For Contractor Quality Control submission
Field	Only for CCPW Field Personnel
Lab	Only for CCPW Construction Management Lab Personnel
Legal	Only for CCPW Management and District Attorney Staff

- B **ONLY THOSE FOLDER TYPES LISTED ON THE INDIVIDUAL PAGE FOR YOUR GROUP WILL BE ACCEPTED.**
- C One COVER PAGE must accompany each box of materials provided.
- D One INDEX SHEET 2 must accompany each folder type being submitted. If the folder type applies to numerous physical folders, one INDEX SHEET 2 must be in each physical folder.
- E Further, an "X" shall be marked next to the appropriate folder type. Notes may be added to the bottom of the page to further define the contents of a particular sheet; in example, "Submittals 1 thru 98".
- F This indexing must be included in all electronic submissions as well.

#### 36.02.02 ELECTRONIC FILE SUBMISSION

- A Ask your Clark County Project Manager if Electronic File submission is acceptable. If found to be acceptable at this time, be certain that only the following digital file types are submitted:
- 1 Pdf
  - 2 Tiff
  - 3 Jpeg
- B Digital video and audio recordings are not placed into our archiving system. Instead they are saved on the Project folders within our in-office archive. Please place all such files on a separate CD or DVD and label accordingly.

#### 36.02.03 PROJECT MANAGER

- A At the close of a Contract, the Project Manager boxes all physical files in accordance with the File Indexing protocol above. The Administrative Specialist will be tasked with combining the electronic Office files, Engineer Files, and Field Files into the Office File only. Email the Administrative Specialist once you are ready.

### **36.03 FILE IMAGING**

- A The Administrative Specialist will forward a request for Imaging to the Public Works Administration Imaging Specialist. The Specialist will image all documents to Perpetual File System (KoVis).
- B Once the Contract is imaged and burned to Compact Disc, a spot check is done, by the Administrative Specialist, to ensure accuracy in the imaging process. After completion of the spot check, the hard copy records are then destroyed.

## SECTION 37 WARRANTY

### 37.01 GENERAL

- A Almost all County Contracts include a warranty provided by the contractor for materials and workmanship. This warranty is typically in effect for one year following substantial completion.

### 37.02 NOTIFICATION OF WARRANTY INSPECTIONS

- A The Administrative Specialist maintains a “tickler” file with warranty information of Contracts. Approximately 1 month prior to the Warranty expiration date, notice is given to the Clark County Project Manager to initiate an end of Warranty inspection.
- B Upon receipt of notification from the Administrative Specialist, the Clark County Project Manager shall draft an *End Of Warranty Reminder Letter* to the Contractor. Additionally, they need to email a request to the Maintenance Management and Traffic Operations Divisions to perform a Warranty Inspection for their related work. Include a “drop dead” date for completion.
- C Upon hearing from the Contractor, the Clark County Project Manager shall coordinate a time and place for the Warranty Inspection.

### 37.03 WARRANTY INSPECTION

- A The Clark County Project Manager shall perform or delegate performance of the Warranty Inspection. Generally, the Clark County Project Manager would delegate the inspection to the Owners Representative who performed inspection during the Contract.
- B The Owners Representative shall review the Contract Documents. Then the Owners Representative shall perform an inspection of all facilities constructed during the Contract. The Owners Representative will generate a Warranty Punch List of the items found to be in need of repair.

### 37.04 RESULTS OF WARRANTY INSPECTION LETTER

- A If items requiring correction were noted during the Inspection, the Clark County Project Manager will review the Warranty Punch List and any inputs from Traffic Operations and Maintenance Management. Once all items on the list are verified, the Clark County Project Manager will draft and send a *Results of Warranty Inspection Letter* to the Contractor. The Letter shall include an itemized list of the work to be corrected.
- B If no items were noted during the Inspection, this letter will not be required.

### 37.05 FOLLOW-UP WARRANTY INSPECTIONS

- A After the Contractor has completed all corrections noted in the Results of Warranty Inspection Letter, the Owners Representative shall reinspect the items for compliance. The Owners Representative shall generate a Daily Inspection Report stating that all work has been completed.

### 37.06 RELEASE FROM WARRANTY LETTER

- A Once all items are corrected, or when no items exist the Clark County Project Manager shall generate a *Release from Warranty Letter*. The letter must specifically state which Warranty is being released, any specific language about Traffic Marking or other Extended Warranties which are still outstanding must be clearly noted in the letter.
- B When all Extended Warranties are cleared, the Clark County Project Manager shall generate a letter stating that ALL Warranties have been honored and the Contractor is “released from all further obligation of warranty.”

### 37.07 EXTENDED WARRANTY

- A Some specific items of work have an extended warranty period greater than the typical one year. Extended Warranties are sometimes negotiated for questionable or slightly out-of-specification work. The Administrative Specialist and Clark County Project Manager shall follow the same procedures outlined above for each additional Warranty type. The Clark

County Project Manager shall list any outstanding extended warranty items on the Release Letter.

**37.07.02 PAVEMENT MARKINGS**

A Typical Special Provisions, see Section 632 - Permanent Painted Pavement Markings, requires the Contractor to Warranty Painted Pavement Markings for a period of three (3) years.

**37.08 WARRANTY RECORDS**

A The Clark County Project Manager shall forward copies of all Warranty related Documentation to the Administrative Specialist. The Administrative Specialist shall forward the documentation to the Imaging Specialist as a Warranty File. This file will be imaged and stored in perpetuity as outlined above in [Section 36 - Files in Perpetuity](#).