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OVERVIEW

Note: Refer to "Conventions Used in This Manual" on page 1-3 "Conventions Used in This Manual" on page 1-3 for terminology used in this chapter and/or the order of precedence of contract documentation.

This chapter encompasses the primary processes and the corresponding events/activities performed by the applicable Construction Field Crews, District Administration, Construction Division, Other NDOT divisions and FHWA for each major phase of a project/contract's development (Design, Procurement, Construction, Closeout, Other) in order to facilitate the successful delivery and administration of the Department's Construction Program.

On a construction project, the Resident Engineer administers the contract following the Construction Division policies, procedures and manuals as required by NDOT's Stewardship Agreement with FHWA and 23 CFR 635. These policies, processes and procedures are uniform for Design-Bid-Build and Construction Manager at Risk (CMAR) projects throughout the state, unless otherwise noted in this chapter. For Design-Build (DB) projects, refer to NDOT's *Pioneer Program Guidelines*.

DESIGN PHASE

Note: This phase does not apply For Design Build projects.

Note: Refer to "Other Contract Administration Functions" on page 2-32 for processes/activities that can occur anywhere in this phase but are not listed in this phase.

This Phase of project development begins with the Preliminary Design Field Study (PDFS) and ends with the submittal of final project documents to the Department's Administrative Services Division. A Project Coordinator will be assigned to the project prior to the PDFS.

The Design Phase requires the input of data from all applicable disciplines within the Department. Service Providers may be hired to execute a discipline's function due to workload. In these cases, the Service Provider would be held to the same standards as the Department discipline would be required to follow. The following information is an overview of the processes followed for project development through the Design Phase. For more information, refer to the NDOT *Road Design Guide*.

PRELIMINARY DESIGN FIELD STUDY

The Preliminary Design Field Study (PDFS) determines the scope of work to be included in the design development. The PDFS typically includes a meeting to determine areas of concern within the proposed project limits, field visit to identify existing conditions as well as critical field-observed data to help develop a list of project priorities addressing the concerns of each Division. (These studies should involve a representative from the appropriate Divisions.) Plans of the preliminary design should accompany the PDFS invitation.

CONSTRUCTION FIELD CREWS

Attend the PDFS meeting and provide input for scope and additional issues to be addressed through project development.

DISTRICT ADMINISTRATION

- Assign a Resident Engineer to attend the PDFS meeting.
- Assign a Maintenance representative to identify problem areas within project limits, provide potential solutions for existing
 issues and identify maintenance concerns on proposed improvements.

CONSTRUCTION DIVISION

CONSTRUCTABILITY SECTION

 Provide input relative to the constructability of the project concept and recommendations for applicable scope. The Constructability representative will take notes on discussions and recommendations to include in the final PDFS Report.

FHWA

May attend or provide information depending upon project type and scope

OTHER NDOT DIVISIONS

- The Project Coordinator from the division responsible for the project:
 - Schedule the PDFS meeting and distributes the invitation to the appropriate disciplines, and provides all information pertinent to the project. (This may include past project information within the same limits, crash data, pipe condition survey, Road Safety Audit (RSA) information and stakeholder information.)
 - Write/distribute the PDFS report to all PDFS meeting attendees and Division heads.

ROAD DESIGN

Approve the PDFS report (Chief Road Design Engineer).

ENVIRONMENTAL SERVICES DIVISION

Identifies requirements to ensure compliance with National Environmental Protection Act (NEPA).

RIGHT-OF-WAY

Initiate the right-of-way setting verification.

INTERMEDIATE REVIEW

For Design Bid Build projects, the Intermediate Review (also referred to as the 60% Review) is a comprehensive review of project documents that have been developed based upon data provided and discussions with internal disciplines and stakeholders between the development of the Final PDFS Report to the time of the review meeting of intermediate documents. Each division finalizes its plans, specifications and quantities, and provides them to the Project Coordinator to include in the review set.

For CMAR projects, this process is still applicable with the basic exception that an agreement with the Contractor is in place and they are engaged in the review process. Refer to the NDOT *Pioneer Program Guidelines* for more information.

CONSTRUCTION FIELD CREWS

- Review and provide comments on the intermediate review documents in advance of the meeting.
- Attend Field Review with Constructability Section.
- Attend the Intermediate Review meeting to clarify the comments provided and collaborate on any proposed solutions.

DISTRICT ADMINISTRATION

Distribute intermediate review documents to the appropriate Resident Engineer.

CONSTRUCTION DIVISION

ASSISTANT CONSTRUCTION ENGINEER

Assists the various Sections within the Division in assuring that issues are addressed properly.

CONSTRUCTABILITY SECTION

- Participate in various activities to discuss constructability issues/concerns between the PDFS and the Intermediate Review, including:
 - Preliminary traffic control approach.
 - Preliminary Transportation Management Plan (TMP).
 - Discipline specific meetings.
 - Cost Risk Assessment (CRA), value Engineering (VE) and product evaluations.
 - Field crew review with Resident Engineer.
 - Review plans and specifications and quantities.
 - Generate/distribute memos providing recommendations to the Intermediate Review documents.
 - Attend the Intermediate Review meeting to clarify the comments provided and collaborate on any proposed solutions.

QUALITY ASSURANCE SECTION

- Provide material-specific specifications and testing requirements.
- Provide specifications for pavement smoothness and compaction requirements for the surface courses, including the monetary incentive/disincentive requirements.

FHWA

- For federally-funded projects:
 - Review and provide comments on the intermediate review documents in advance of the meeting.
 - May attend the Intermediate Review meeting or provide information, depending upon project type and scope.

OTHER NDOT DIVISIONS

- The Project Coordinator from the division responsible for the project:
 - Compiles and distributes all information required for comprehensive review.
 - Schedules and provides information for discipline specific meetings. (These meetings may be required if issues are identified that require significant changes to project documents.)

ALL PARTICIPATING DIVISIONS

- Review and provide comments on the intermediate review documents in advance of the meeting.
- Attend the Intermediate Review meeting.

TRAFFIC OPERATIONS DIVISION

Develop the Traffic Management Plan (TMP).

ENVIRONMENTAL SERVICES DIVISION

Develop the required National Environmental Protection Agency (NEPA) documents.

RIGHT-OF-WAY DIVISION

• Confirm that the right-of-way elements and setting comply with the current scope.

PLANS, SPECIFICATIONS AND ESTIMATE REVIEW

For Design Bid Build projects, the Plans, Specifications and Estimate (PS&E) Review, also referred to as the 100% Review, is the final review of contract documents. Upon the incorporation of comments/input from this review, the final documents are prepared for advertisement.

For CMAR projects, this process is still applicable with the basic exception that an agreement with the Contractor is in place and they are engaged in the review process. Refer to NDOT's *Pioneer Program Guidelines* for more information.

CONSTRUCTION FIELD CREWS

- Review and provide comments on the PS&E documents.
- Attend the PS&E review meeting; provide additional information as needed.

DISTRICT ADMINISTRATION

Communicate with and assist field crews to assure that issues are properly addressed.

CONSTRUCTION DIVISION

ASSISTANT CONSTRUCTION ENGINEER

Assist the various Sections within the Division to assure that issues are properly addressed.

CONSTRUCTABILITY SECTION

- Perform a final review of plans and specifications, addressing the comments/concerns that were identified during the Intermediate Review.
- Generate a memo to the Project Coordinator that includes the following:
 - Time Determination Schedule (Working Day/Completion Date) in accordance with Subsection 108.02, "(Prosecution and Progress) Notice to Proceed", of the Special Provisions

- Limitations of Operations in accordance with Subsection 108.04, "(Prosecution and Progress) Limitation of Operations", of the Special Provisions
- Liquidated Damages in accordance with Subsection 108.09, "(Prosecution and Progress) Failure to Complete the Work on Time," of the Special Provisions
- Asphalt base price for demerits in accordance with Subsection 109.02, "(Measurement and Payment) Scope of Payment" and Subsection 402.05.01, "(Plantmix Bituminous Surface) Payment", of the Special Provisions
- For federally-funded projects, provide a contract closeout ("federal end") date.
- Attend the PS&E review meeting; provide additional information as needed.

FHWA

• For federally-funded projects, review and approve the PS&E documents.

OTHER NDOT DIVISIONS

- The Project Coordinator from the division responsible for the project:
 - Prepare and distribute all PS&E documents for review.

ALL PARTICIPATING DIVISIONS

- Review and provide comments on the PS&E documents.
- Attend the PS&E review meeting; provide additional information as needed.

TRAFFIC OPERATIONS

■ Finalize the Traffic Management Plan (TMP).

ENVIRONMENTAL SERVICES

Finalize the required National Environmental Protection Agency (NEPA) documents and obtain the necessary permits.

DOCUMENTATION DATE

The Documentation Date is the date that all contract documents have been corrected, updated and are sent to the Administrative Services Division for advertisement. The typical duration between the Documentation Date and the advertisement of a contract is 2 weeks. For federally-funded projects, an additional 1-2 weeks may be required to ensure adequate time to review the contract documents. FHWA will be informed of all changes that occur after the PS&E.

CONSTRUCTION FIELD CREWS

N/A

DISTRICT ADMINISTRATION

N/A

CONSTRUCTION DIVISION

N/A

FHWA

N/A

OTHER NDOT DIVISIONS

ADMINISTRATIVE SERVICES DIVISION, CONTRACT SERVICES SECTION

Prepare documents for advertisement.

RIGHT-OF-WAY DIVISION

Certify that the project is in compliance with the right-of-way and utility criteria (Chief of Right-of-Way Agent).

ENVIRONMENTAL SERVICES DIVISION

Certify that the appropriate clearances are in place.

PROCUREMENT PHASE

Note: This phase of the contract lifecycle applies to a Design-Bid-Build program only.

Note: Refer to "Other Contract Administration Functions" on page 2-32 for processes/activities that can occur anywhere in this phase but are not listed in this phase.

Once a project is designed and ready for construction, the Department undergoes the procurement process to enter into a contract with a Contractor that is both responsible and responsive. The process of procuring a Contractor is managed by the Administrative Services Division's Contract Services Section, which is responsible for ensuring compliance with the applicable state and federal regulations regarding procurement of a Contractor. For additional information, refer to Section 102, "Bidding Requirements and Conditions", and Section 103, "Award and Execution of Contract", of the Standard Specifications, Nevada Revised Statutes (NRS) Chapter 408, and 23 CFR 635.

ADVERTISE

To initiate the advertise process, the Department issues an Invitation to Bid, as identified in Section 102, "Bidding Requirements and Conditions", of the Standard Specifications, to the Contractor community. The minimum advertisement period is 3 weeks; however most contracts are advertised for 4 weeks. Highly complex projects, such as projects requiring a mandatory pre-bid meeting, may be advertised for up to 6 weeks. All bids are electronically submitted and can be viewed in the NDOT e-Bidding Portal Intranet.

Contractual information throughout the advertisement period is considered confidential and should not be discussed with the bidding community. During the advertisement period, no person from NDOT, other than the Administrative Services Division, may discuss the project with any contractors. Contractor questions regarding any/all contract documents shall be submitted in writing in the NDOT e-Bidding Portal Intranet, through the Request for Clarification (RFC) process as identified in Subsection 102.05, "(Bidding Requirements and Conditions) Examination of Plans, Specifications, Contract Documents, and Site of Work", of the Standard Specifications. The project team will review Contractor questions and publish responses to the e-Bidding Portal. If changes to the

contract documents and/or an extension of the advertisement period is warranted, a Supplemental Notice as identified in Subsection 101.03, "(Terms and Definitions) Definitions", of the Standard Specifications, will be issued.

At the end of the advertisement period, proposals by responsible and responsive bidders are opened and read publicly at the time and place indicated in the Invitation to Bid or as revised by Supplemental Notices.

CONSTRUCTION FIELD CREWS

- Respond to the Administrative Services Division memo regarding the required number of paper copies of the contract documents.
- Review RFCs and provide recommendations for responses to the project team.
- Review the final set of plans and specifications and identify items that may cause issues during construction including but not limited to:
 - Delays to construction activities.
 - Quantity discrepancies leading to potential disputes during construction.
 - The ability to effectively manage traffic control.
- Request supplemental notices to address any necessary changes.
- Incorporate supplemental notices into contract documents.

DISTRICT ADMINISTRATION

- Review RFCs and provide recommendations for responses to the project team.
- Incorporate supplemental notices into contract documents.

CONSTRUCTION DIVISION

ASSISTANT CONSTRUCTION ENGINEER

- Review RFCs and provide recommendations for responses to the project team.
- Review and/or request supplemental notices.

CONSTRUCTABILITY SECTION

- Review RFCs and provide recommendations for responses to the project team.
- Review and/or request supplemental notices.

FHWA

N/A

OTHER NDOT DIVISIONS

- The Project Coordinator from the division responsible for the project:
 - Gather information and publish the response to the RFCs.
 - Develop and submit supplemental notices as needed.

ADMINISTRATIVE SERVICES DIVISION, CONTRACT SERVICES SECTION

Advertise the contract and manage the process.

PRE-BID MEETING (OPTIONAL)

For complex or unique contracts, the project team may consider holding a mandatory pre-bid meeting to address concerns and anticipated questions requiring clarification beyond what the contract documents provide. A representative of the Contractor shall be present at the mandatory meeting in order to submit a bid. The pre-bid meeting will include the Department's discussion of the contract and allow for contractors to ask questions regarding the contract.

CONSTRUCTION FIELD CREWS

Attend the meeting; provide input and/or clarify the intent of contract documents.

DISTRICT ADMINISTRATION

Attend the meeting; provide input and/or clarify the intent of contract documents.

CONSTRUCTION DIVISION

ASSISTANT CONSTRUCTION ENGINEER

• Attend the meeting; provide input and/or clarify the intent of contract documents.

FHWA

Attend the meeting as needed.

OTHER NDOT DIVISIONS

- The Project Coordinator from the division responsible for the project:
 - Schedule and facilitate the meeting.

ADMINISTRATIVE SERVICES DIVISION

- Advertise and attend the meeting.
- Ensure that any Contractor who submits a bid attends the meeting.

BID REVIEW AND ANALYSIS

The Bid Review and Analysis Team (BRAT) evaluates the two lowest bids to identify mathematically or materially unbalanced bids as identified in Subsection 102.07, "(Bidding Requirements and Conditions) Irregular Proposals", of the Standard Specifications. A mathematically unbalanced bid contains unit bid prices that do not reasonably reflect the actual costs (plus reasonable profit, overhead costs, and other indirect costs) to construct the item. The Price Sensitivity Report identifies all significant items of work (bid items greater than \$50,000) that are mathematically unbalanced, and it defines the amount a quantity of work must vary to change the order of the two lowest bidders. A materially unbalanced bid generates reasonable doubt that award to that bidder would result in the lowest overall cost to the Department. The BRAT also reviews the Notice to Proceed date and provides recommendations.

After thorough evaluation, the BRAT provides a Report of Recommendations to the Director to accept the bids, reject all bids and re-advertise, or reject the lowest bidder and award to the second lowest bid. The Director may or may not accept the recommendations.

CONSTRUCTION FIELD CREWS

Review bids and attend the BRAT meeting.

DISTRICT ADMINISTRATION

Review bids and attend the BRAT meeting.

CONSTRUCTION DIVISION

CHIEF CONSTRUCTION ENGINEER

- Develop and maintain the BRAT procedure.
- Co-chair the BRAT.
- Review proposals and attend BRAT meeting.
- Sign the report of recommendations.

ASSISTANT CONSTRUCTION ENGINEER

Review bids and attend BRAT meeting.

CONSTRUCTABILITY SECTION

Review bids and attend BRAT meeting.

FHWA

Review bids and attend BRAT meeting.

OTHER NDOT DIVISIONS

ALL PARTICIPATING DIVISIONS

Review bids and attend meeting.

DESIGN DIVISION

- Co-chair the BRAT (Design Division Chief).
- Sign the report of recommendations (Design Division Chief).

ADMINISTRATIVE SERVICES DIVISION, CONTRACT SERVICES SECTION

- Manage the bid review and analysis process:
 - Generate and distribute the BRAT Report (Price Sensitivity Report, Bid Tabulation).
 - Schedule and attend the meeting.
 - Gather additional information from bidders as needed.
 - Generate the Report of Recommendations.
 - · Obtain signatures.
 - Send the report of recommendations to the Director.

NOTICE OF AWARD

To award the contract, the NDOT Director's office reviews the BRAT recommendation and determines whether to award the contract. If it is not awarded, the project may be re-advertised. For contracts that exceed \$5,000,000, Transportation Board approval is required for award. Once the Director or Transportation Board approves the contract for award, an official Notice of Award, Execution and Notice to Proceed letter and the contract to be signed is sent to the Contractor. The Notice of Award, Execution and Notice to Proceed letter identifies the Notice to Proceed date for the contract. The Notice to Proceed date is when construction starts (i.e., Working Day #1).

For additional information, refer to Section 103, "Award and Execution of Contract", of the Standard Specifications.

CONSTRUCTION FIELD CREWS

- Set up contract files.
- Contact the Contractor to discuss contract details, including but not limited to:
 - Establishing the Pre-Construction Conference date.
 - Identifying key project personnel.
 - Establishing the submittal management protocol.
 - Reviewing and tracking any environmental mitigation requirements.
 - · Contract schedule.
 - Schedule Partnering meeting.

DISTRICT ADMINISTRATION

N/A

CONSTRUCTION DIVISION

ASSISTANT CONSTRUCTION ENGINEER

Assist the Resident Engineer in scheduling the Pre-Construction Conference.

CONSTRUCTABILITY SECTION

- Provide the Construction Field Crew with:
 - Constructability assumptions.
 - Training as needed.

CONSTRUCTION ADMINISTRATIVE SERVICES SECTION

- Provide the Construction Field Crew with:
 - The contract start-up package.
 - Loading contract into electronic documentation system.
 - Training as needed.

QUALITY ASSURANCE SECTION

- Provide the Construction Field Crew with:
 - Acceptance Testing Summary Sheet (ATSS).
 - Training as needed.

CONSTRUCTION ADMINISTRATION SERVICES MANAGER

- Partnering system set-up.
- Dispute Resolution system set-up.

FHWA

N/A

OTHER NDOT DIVISIONS

ADMINISTRATIVE SERVICES DIVISION, CONTRACT SERVICES SECTION

- Notify the Construction Division, the Resident Engineer, the District Engineer and FHWA of the Notice of Award.
- Issue the Notice of Award, Execution and Notice to Proceed letter, which includes the Notice to Proceed date.

EXTERNAL CIVIL RIGHTS DIVISION, CONTRACT COMPLIANCE SECTION

Load contract into electronic documentation systems.

CONSTRUCTION PHASE

Note: The guidelines identified in one or more of the processes in this phase may not necessarily apply for Design-Build projects.

Note: Refer to "Other Contract Administration Functions" on page 2-32 for processes/activities that can occur anywhere in this phase but are not listed in this phase.

The project that the Department has planned and designed is now a contract. The Construction Phase is the most expensive, has the greatest risks, and is the most critical aspect of building or rehabilitating a roadway. This phase also has the most public impact, and it is when the workers and the traveling public are at the greatest risk of injury.

The goals of the Department during this phase are to administer the contract in a manner that ensures safety, provides quality roadways and delivers on schedule and within budget.

PRE-CONSTRUCTION CONFERENCE

Upon receipt of the Notice to Proceed, the Resident Engineer will schedule a Pre-construction Conference in accordance with Subsection 108.07, "(Prosecution and Progress) Preconstruction Conference", of the Standard Specifications. The Pre-construction

Conference is vital to a successful project in that it establishes a mutual understanding of project requirements, provides a forum to discuss key elements of the project and identifies key project personnel. Discussions at the Pre-Construction Conference relate mostly to the project's construction details and compliance with labor laws and regulations. The Contractor will likely ask the Resident Engineer specific project-related questions. If the Resident Engineer cannot provide an immediate answer and requires additional time to research, it is appropriate to tell the Contractor that research is required and that a written response will be forthcoming. A written response provides a record that supplements the recording of the meeting. The meeting is voice recorded, and the completed agenda becomes a permanent file for the contract.

Refer to the Construction Division's SharePoint Forms library [https://nevadadot.share-point.com/sites/040/FormServerTemplates/], for a Pre-Construction Conference template and related documents.

Upon the date of the Pre-Construction Conference, the Contractor shall submit various documentation. Required submittals prior to or upon the date of the Pre-Construction Conference may change in accordance with the Contract Special Provisions.

Examples of required submittals include but are not limited to:

- Preliminary Progress Schedule, in accordance with Subsection 108.03, "(Prosecution and Progress) Prosecution and Progress", of the Standard Specifications.
- Traffic Control Supervisor information:
 - Name
 - Contact Information
 - Qualifications.
- Water Pollution Control Manager information:
 - Name
 - Contact information
 - Qualifications
- Quality Control Plans.
- Temporary pollution control documents in accordance with Section 637, "Temporary Pollution Control", of the Standard Specifications:
 - Notice of Intent
 - Stormwater Pollution Prevention Plan (SWPPP)
 - Other related documents (as needed or required)
- Safety plans.
- Pre-Construction Conference Memorandum of Record (External Civil Rights Division, Contract Compliance Section).
- Disadvantaged Business Enterprise (DBE) Implementation Plan.
- Environmental and other permits.
- Contractor representatives that have signatory authority.
- Testing personnel information:
 - Names
 - Certifications
- Required submittals in accordance with the Contract Special Provisions.

CONSTRUCTION FIELD CREWS

- Ensure that a schedule is received from the Contractor prior to the Pre-construction Conference showing anticipated DBE Program subcontractor utilization.
- Ensure that the contract has been fully executed prior to the Contractor starting construction activities.
- Review the RFCs, BRAT findings, plans and specifications that may need to be addressed at the Meeting.

- Ensure the required submittals are generated and received in accordance with the contract documents and are available for discussion at the meeting.
- Identify key stakeholders to invite, including but not limited to FHWA, utility companies, business owners, etc.
- Arrange the meeting location, ensuring that sufficient space is provided for all attendees to take part in the discussion.
- Prepare the agenda and distribute it to attendees.
- Facilitate and record the meeting.
- Set Partnering Meeting date.
- Discuss the DBE Implementation Plan with the Contractor to have an understanding of how the DBE goal will be achieved.

DISTRICT ADMINISTRATION

Attend the meeting and provide input/clarification as needed.

CONSTRUCTION DIVISION

- Assist the Resident Engineer in setting up the Pre-construction Conference including arranging facilities, setting up video or teleconferencing and distributing the invite to the Project Team.
- Assist with any additional requirements.
- Attend the conference.

FHWA

Attend the conference as needed.

OTHER NDOT DIVISIONS

EXTERNAL CIVIL RIGHTS, CONTRACT COMPLIANCE SECTION

- Send the Contractor the Pre-Construction Conference Memorandum of Record to complete prior to the conference.
- Attend the conference.

ALL PARTICIPATING DIVISIONS

- Attend the conference as needed. Divisions include but are not limited to:
 - · Roadway Design.
 - Project Management.
 - Traffic Operations
 - Structures.
 - Materials.
 - Stormwater and Environmental Services (Include an agenda item to discuss NDOT's environmental commitments)
 - · Right-of-Way.
 - Maintenance and Asset Management.

SUSPENSION OF WORK

Suspension of work on the contract can be directed by the Resident Engineer in accordance with Subsection 108.06, "(Prosecution and Progress) Temporary Suspension of Work", of the Standard Specifications. The Resident Engineer may also consider suspension of work upon the Contractor's request. The suspension will include an anticipated date of resumption, if one is known.

CONSTRUCTION FIELD CREWS

RESIDENT ENGINEER

- Determine the need for suspension of work, including the evaluation/validation of any Contractor request for suspension of work.
- Discuss the suspension with the Contractor, Assistant District Engineer and Assistant Chief Construction Engineer.
- Send the Contract Suspension letter, containing the approval of the date to suspend work and the date when work is to resume (if known), to the Assistance District Engineer and Chief Construction Engineer (cc: Contractor, District Engineer, Construction Administrative Services Section, and Contract Compliance).
- Implement suspension of working days.

DISTRICT ADMINISTRATION

■ Review/sign Project Suspension letter.

CONSTRUCTION DIVISION

ASSISTANT CHIEF CONSTRUCTION ENGINEER

■ Review/sign Project Suspension letter.

CONSTRUCTION ADMINISTRATIVE SERVICES

Record the suspension date.

FHWA

N/A

OTHER NDOT DIVISIONS

Contract Compliance receives a copy of the Suspention Letter.

RESUMPTION OF WORK

When the reasons for the suspension no longer exist, and/or the date to resume work (if stated in the Contract Suspension letter) is reached, the Resident Engineer provides written notification of the date the work has resumed. The Resident Engineer will coordinate with the Contractor to provide sufficient time to resume operations.

CONSTRUCTION FIELD CREWS

RESIDENT ENGINEER

- Discuss the resumption with Assistant District Engineer and Assistant Chief Construction Engineer.
- Send the Contract Resumption letter to the Assistant Chief Construction Engineer (cc: Contractor, District Engineer, Assistant District Engineer, Chief Construction Engineer, Construction Administrative Services Section and Contract Compliance).
- Implement resumption of working days.

DISTRICT ADMINISTRATION

N/A

CONSTRUCTION DIVISION

CONSTRUCTION ADMINISTRATIVE SERVICES

Record the resumption date.

FHWA

N/A

OTHER NDOT DIVISIONS

Contract Compliance receives a copy of the Resumption Letter.

CONTRACT COMPLIANCE

The function of contract compliance is to ensure fairness in Department contracting through compliance with Disadvantaged Business Enterprise (DBE) program regulations and to ensure that contracts are compliant with Department contracting policy and procedures and applicable State and Federal Wage and Labor laws.

The External Civil Rights Division's Contract Compliance Section provides guidance and support in determining a contractor's compliance with:

- Contractor/Subcontractor Requirements.
- Employee Wage Requirements.
- Equal Employment Opportunity Requirements.
- DBE program.
- SBE program.
- Title VI of the Civil Rights Act.
- Training Hours/Apprenticeship Agreement(s).

In accordance with Section 110, "Wages and Conditions of Employment", of the Standard Specifications, the Department utilizes two separate electronic systems/software programs, administered by the Contract Compliance Section, to monitor and track payroll and contract compliance:

- LCP Tracker: The electronic system being utilized for certified payroll tracking; software to assist with labor compliance.
- B2Gnow: The software to assist with DBE compliance and subcontract monitoring utilized to process applications for DBE Certification, track certified DBEs, perform outreach, manage Requests to Sublet and subcontract agreements, monitor monthly payments to subcontractors, and monitor contract compliance.

Important: Contractors are required to use both programs. Refer to the NDOT <u>Certified Payroll and Compliance Manual for additional information.</u>

CONSTRUCTION FIELD CREWS

- Ensure all subcontractors (including service providers) are approved and listed in B2Gnow prior to performing work on contract in accordance with Subsection 108.01, "(Prosecution and Progress) Subletting of Contract", of the Standard Specifications.
- Ensure Contractor and all subcontractors are listed in LCP Tracker and reporting payrolls weekly.
- Verify each week that the information reported in LCP Tracker accurately reflects that the Contractor and subcontractor(s)
 are actively working on the contract.
- Document any conversations about late payrolls.
- Make recommendations to withhold progress payments (in accordance with "Contractor Progress Payments" on page 2-23)
 for contractors who have not corrected their late reporting of weekly certified payrolls.
- Assess Liquidated Damages for any Affirming Orders received as part of Late Payroll Determinations.
- Review and monitor the Contractor's DBE Implementation Plan.
- Monitor DBE goal attainment:
 - Ensure Contractor to subcontractor payment information is reported monthly in B2Gnow (by the 15th of the month following the payment).
 - Ensure if DBE goal attainment is jeopardized, the Contractor is properly documenting the good faith effort and Contract Compliance is notified early in the process.
- Prepare NDOT Form 052-073 (Commercial Useful Function/CUF) for each DBE working on a federally funded contract.

Note: If the DBE firm is not performing a CUF, notify prime Contractor in writing and cc: Contract Compliance Section.

- Assist Contract Compliance to ensure proper certification and documentation of each trainee on the project prior to starting work.
- Ensure the Contractor is meeting the trainee hours goal.
- Monitor reimbursement of trainee hours.
- Conduct random, on-the-job interviews with several employees of the contractor, subcontractors, service providers and owner operators each month.
- Make available self-addressed postage paid cards (NDOT form 052-010) to every Contractor and subcontractor employee working on the contract for prevailing wage complaints.
- Forward hauling agreements to the External Civil Rights Division's Contract Compliance Section.
- Notify the External Civil Rights Division's Contract Compliance Section of any discrepancies:
 - LCP Tracker
 - B2Gnow
 - DBE goal attainment and DBE Implementation and Utilization Plan.
- Ensure Contractor submittal of FHWA Form 1391 (Annual EEO Report) for any contracts active in the last week of the month
 of July.
- Ensure that the jobsite bulletin board is erected and maintained in accordance with Subsection 110.01 "(Wages and Conditions of Employment) Description", of the Standard Specifications.
- Ensure Contractor submittal of FHWA Form 1391 (Annual EEO Report) for any contracts active in the last week of the month
 of July.
- Ensure that the jobsite bulletin board is erected and maintained in accordance with Subsection 110.01 "(Wages and Conditions of Employment) Description", of the Standard Specifications.

DISTRICT ADMINISTRATION

- Advise Resident Engineers of any course of action to take on projects where meeting the stated commitment is in jeopardy.
- Make a recommendation to the Director's Office to impose sanctions when applicable. Notify the Contractor's DBE Representative, the Resident Engineers and Contract Compliance if sanctions are requested.
- Review any denials of requests to sublet for DBE subcontractors and consult with Contract Compliance, the Resident Engineers and the Contractor to ensure a clear understanding of the denial and the course of action to take.

CONSTRUCTION DIVISION

ASSISTANT CONSTRUCTION ENGINEER

- Assist the Resident Engineer as needed if subcontractors are not being paid in a timely manner.
- Support the Resident Engineer's request(s) to withhold Contractor progress payments for contractors who have not corrected their late reporting of weekly certified payrolls.

CONSTRUCTION ADMINISTRATIVE SERVICES SECTION

- If the Affirming Order is received after Semi-Final estimate is generated, assess Liquidated Damages for any Affirming Orders received as part of Late Payroll Determinations.
- Notify the Contract Compliance Section when Liquidated Damages for any Affirming Orders received (as part of Late Payroll Determinations) are withheld.

FHWA

Review/audit pertinent documents distributed in this section.

OTHER NDOT DIVISIONS

EXTERNAL CIVIL RIGHTS DIVISION, CONTRACT COMPLIANCE SECTION

- Set-up Field Crews and District for access and permissions in LCP Tracker and B2Gnow.
- Review/approve all requests to sublet, subcontract agreements, and requests to utilize service providers in B2Gnow and assign them in LCP Tracker.
- Ensure sublet/subcontracted work does not exceed the requirements for self-performance in accordance with Subsection 108.01, "(Prosecution and Progress) Subletting of Contract", of the Standard Specifications.
- Ensure that prevailing wage rates for the contract are being paid to all employees.
- Ensure the Contractor and subcontractors report required Equal Employment Opportunity and Affirmative Action information.
- Ensure that contractors follow the DBE program rules and regulations.
- Ensure that discrimination does not occur in programs or activities receiving federal financial assistance.
- Monitor and disseminate information from LCP Tracker regarding late payroll submittals.
- Review late monthly payroll submittals for Consideration or Determination:
 - If Considerations applied to late payrolls, notify the Contractor.
 - If Determination made, calculate penalties and prepare letter to Labor Commissioner.
- Ensure any Affirming Orders from Labor Commissioner are distributed and that Field Crew/Resident Engineer or Construction Division assesses appropriate Liquidated Damages.
- Review DBE Implementation Plan and assist the Resident Engineer with the contractor's proper plan implementation.
- Monitor DBE goal attainment reporting in B2Gnow.

- Discuss with Resident Engineers and Contractors on DBE-related issues in order to ensure the stated commitment is met or non-attainment is appropriately documented; maintain documentation for audit purposes.
- Initiate sanctions and notify the RE, DE, Construction Office and Contractor DBE Representative if commitments are not met and sufficient documentation of good faith efforts are not provided.
- Calculate/verify final DBE participation dollar amounts or determine adequate good faith efforts, and issue final DBE attainment certification at project completion.
- Assess penalties or impose sanctions if applicable.
- Maintain documentation (in B2Gnow) to clearly show the DBE participation, or why the commitment was not met with the subcontractors and suppliers on the original bid reports.
- Monitor CUF reviews.

ENVIRONMENTAL AND STORMWATER COMPLIANCE

NDOT and its contractors will comply with Federal, state, and local agencies environmental regulations. The requirements that relate to water quality, wetlands, endangered species, naturally occurring asbestos (NOA) and cultural resources are identified in the project design phase as part of the National Environmental Policy Act (NEPA). In addition to those environmental issues identified in NEPA, other environmental factors such as dust and noise are evaluated and addressed.

NDOT has environmental and stormwater requirements that control erosion and pollution during the life of the finished roadway project and during construction activities. To control pollution that may occur following completion of the project, plans and specifications incorporate measures to reduce erosion, sedimentation, and other environmental damage. For long-term pollution control measures, refer to "211 Erosion Control", in Chapter 2 of the *Field Inspection Guide*. For temporary pollution control measures during construction, refer to "637 Temporary Pollution Control", in Chapter 2 of the *Field Inspection Guide*.

The Resident Engineer is responsible to monitor compliance with the environmental requirements, as violations of these regulations can result in civil penalties, criminal penalties, or both. Violations of environmental regulations can result in construction delays.

CONSTRUCTION FIELD CREWS

- Follow all environmental requirements described in the project plans and specifications.
- Consult with the Stormwater Division as needed regarding:
 - · Archaeological considerations.
 - Biological considerations.
 - Compliance requirements.
 - Non-compliance escalations.
- Verify that the Contractor's activities (1) occur within the contract limits or any approved locations, and (2) have been cleared through the Environmental Services Division.
- Discuss NDOT's and the Contractor's environmental mitigation commitments and obligations at weekly meetings.
- Review the Stormwater Pollution Prevention Plan (SWPPP) for completeness.
- Follow all best management practices (BMPs) identified in the completed SWPPP prior to allowing work to begin.
- Ensure that inspection and documentation are performed at required intervals.
- Ensure that all provisions of the NDOT Stormwater Guidance Manual for Construction Projects are met.

DISTRICT ADMINISTRATION

N/A

CONSTRUCTION DIVISION

CONSTRUCTABILITY SECTION

Support Construction Field Crews with environmental/stormwater issues or concerns.

CONSTRUCTION ADMINISTRATIVE SERVICES SECTION

- Pick up all original forms and correspondence at the time of contract closeout.
- Deliver forms and correspondence to Administrative Services Division's Records Management Section.

FHWA

Provide technical support and assistance

OTHER NDOT DIVISIONS

STORMWATER DIVISION

- Review/approve contractor's plan for staging areas on undisturbed land or outside contract limits.
- Supply appropriate personnel for contract.
- Attend field review in accordance with the NDOT Stormwater Guidance Manual for Construction Projects.
- Coordinate the change of operator.
- File the Notice of Termination with the Nevada Department of Environmental Protection (NDEP).

TRAFFIC CONTROL REQUIREMENTS

The traffic control for any project is a large and integral element of the project's construction. NDOT places a great deal of importance on the traffic control of a project. While the traffic control plays a major role in the successful construction of any project, the components/elements that make up the traffic control begin early in a project's development and design phases. This section is intended to provide a basic overview administration of the traffic control on a project; refer to "624 Accommodations for Public Traffic", in Chapter 2 of the *Field Inspection Guide*, for details on the accommodations for public traffic where the majority of the activities related to traffic control occur for the Construction Field Crews. For the requirements of contractor-designed traffic control plans, refer to "625 Construction Signs", in Chapter 2 of the *Field Inspection Guide*.

The <u>NDOT Work Zone Safety & Mobility Implementation Guide</u> addresses roadway safety and mobility impacts of work zones. The design of all traffic control shall conform to the requirements of the <u>Manual on Uniform Traffic Control Devices</u> (MUTCD), and all corresponding sections of the Standard Plans and Standard Specifications.

Every project has a Transportation Management Plan (TMP) designed/developed during a project's Design Phase and carried through the Construction Phase in accordance with the <u>NDOT Work Zone Safety & Mobility Implementation Guide</u>. The TMP is available to bidders to assist in their development and implementation of traffic control.

Traffic control for each project is typically advanced through the Design Phase in one of two formats for bidding purposes in accordance with Subsection 108.04, "(Prosecution and Progress) Limitations of Operations", of the Standard Specifications and Special Provisions:

1. For Lump Sum Traffic Control (Rent Traffic Control Devices – Lump Sum), the Contractor bids a single lump sum item to furnish a traffic control plan and its implementation and maintenance throughout the life of the contract; all necessary traffic control and safety devices not listed as separate items are included in the lump sum item. A project's traffic control will typically fall under this format when it is determined the type of traffic control with its necessary staging and phase is straightforward enough that the Standard Plans and MUTCD standards can be applied with little or no modification.

Contractor Lump Sum Traffic Control is provided as a submittal in accordance with Subsection 625.03.05 "(Construction Signs) (Construction) Contractor Designed Traffic Control Plans", of the Standard Specifications. For more information, refer to "Submittals: Traffic Control Plans" on page 2-38.

NDOT develops a detailed phasing and staging plan with specific devices and individual pay items for each device. These types
of projects are typically more complex urban-area contracts where the most efficient method to convey the intent of the devices
necessary for the control and protection of public traffic throughout the project is with a detailed plan.

A Traffic Control Supervisor (TCS) is required on all construction contracts, and has the responsibility for initiating, installing, and maintaining all traffic control devices on a project in accordance with Subsection 624.03.06, "(Accommodations for Public Traffic) (Construction) Traffic Control Supervisor", of the Standard Specifications.

The use of Uniformed Traffic Control (UTC) officers is often determined to be an essential element to the successful implementation of a project's traffic control; as such, a force account bid item is set up in the contract. Officers are obtained through agreements between the construction Contractor and local law enforcement agencies. The Contractor is reimbursed in accordance with 624.04.01, "(Accommodations for Public Traffic) (Method of Measurement) Measurement", of the Standard Specifications. Specific use and implementation of the officers is part of the traffic control plan and operations agreed to between the Contractor and Resident Engineer.

CONSTRUCTION FIELD CREWS

- Review/approve submitted TC plans.
- Ensure submitted TC plans are in accordance with contract documents.
- Submit TC plans (as needed) to District Traffic Engineer and Traffic Operations for review/comment.
- Send requests for speed reduction/limitations to Traffic Operations and District Administration.
- Monitor TC daily to ensure compliance with approved TC plans.
- Ensure that TC devices are compliant with MUTCD requirements.
- Ensure the timely submission and review of TC supervisor reports.

CONSTRUCTION DIVISION

- Assist Field Crews with assumptions used to develop TC plans.
- Support Field Crews with TC administration.

DISTRICT ADMINISTRATION

Review, provide input/recommendations to TC plans (Assistant District Engineer, District Traffic Engineer)

FHWA

■ For on-site visits, review for conformance with MUTCD

OTHER NDOT DIVISIONS

- The Project Coordinator from the division responsible for the project:
 - Provide input/recommendations on TC plans (as necessary).

TRAFFIC OPERATIONS DIVISION

• Review, provide input/recommendations to TC plans.

CONTRACTOR PROGRESS PAYMENTS

As the project progresses, the Resident Engineer prepares progress payments for acceptable work completed by the Contractor and for materials that the Contractor incorporated into the work. The Resident Engineer prepares progress payments every 2 weeks and submits them electronically to the Construction Division's Administrative Services Section. The progress payments are based on quantities installed and documented by Construction Field Crews. The Administrative Services Section reviews the quantities submitted by the Resident Engineer and forwards the progress payment request to the Accounting Division for payment.

Withholding Payments. Contractor progress payments may be withheld in accordance with the Subsection 109.06, (Measurement and Payment) Partial Payment", of the Standard Specifications. This includes but is not limited to submission of schedules, contract compliance deficiencies, unacceptable traffic control, failure to follow the Quality Control Plan, Environmental violations, etc. Withholding of progress payments must be approved by the Director's Office prior to withholding.

CONSTRUCTION FIELD CREWS

- Discuss with the Contractor their inability to meet contract requirements. If compliance is not achieved, notify the Contractor in writing that withholding of progress payment(s) will occur, then document the issue in a timely manner.
- Send recommendation of partial or full payment withholding, including the amount, and then work with the Assistant District Engineer.
- The Resident Engineer notifies the District Engineer of the recommendation to withhold payment; the District Engineer coordinates with the Chief Construction Engineer to gain concurrence from the Director's Office.
- Upon Director's Office approval to withhold progress payment(s), notify Contractor immediately, by phone and in writing, of the payment(s) to be withheld.

DISTRICT ADMINISTRATION

ASSISTANT DISTRICT ENGINEER

- Accept/reject the request to withhold progress payment(s).
- Recommend withholding progress payment(s) to the District Engineer.

DISTRICT ENGINEER

- Accept/reject the request to withhold progress payment(s).
- Recommend withholding progress payment(s) to the Chief Construction Engineer.

CONSTRUCTION DIVISION

CHIEF CONSTRUCTION ENGINEER

- Upon District's recommendation to withhold progress payment(s), accept/reject the request to withhold progress payment(s).
- Recommend withholding progress payment(s) to the Director's Office.
- Notify District Engineer and FHWA of Director's Office approval/rejection.

FHWA

N/A

OTHER NDOT DIVISIONS

DIRECTOR'S OFFICE

Approve/reject the request to withhold progress payment(s) and the amount.

PARTIAL RELIEF OF MAINTENANCE

When portions of work are complete, Partial Relief of Maintenance may be granted in accordance with Subsection 107.15, "(Legal Relations and Responsibility to the Public) Relief from Maintenance and Responsibility", of the Standard Specifications. The Department may grant relief for the portions of work that are satisfactorily complete.

If all work is complete, Full Relief of Maintenance is warranted and a Final Inspection is required. Refer to the "Einal Inspection" section for more information.

CONSTRUCTION FIELD CREWS

- Contact the Assistant District Engineer for Field Review in accordance with Subsection 107.15, "(Legal Relations and Responsibility to the Public) Relief from Maintenance and Responsibility", of the Standard Specifications.
- Perform Field Review with Assistant District Engineer.
- Send Partial Relief of Maintenance Correspondence to Contractor, Chief Construction Engineer and District Engineer.

DISTRICT ADMINISTRATION

ASSISTANT DISTRICT ENGINEER

- Perform the Field Review.
- Concur with satisfactorily completed work.

DISTRICT ENGINEER

Review/sign Partial Relief of Maintenance correspondence.

CONSTRUCTION DIVISION

• File the Partial Relief of Maintenance correspondence with Final Project Closeout records.

FHWA

N/A

OTHER NDOT DIVISIONS

N/A

FINAL INSPECTION

Final Inspection represents the end of the Construction Phase and sets in motion various elements of the Contract Closeout Phase. The Final Inspection is a formal part the contract identified under Subsection 105.16, "(Control of Work) Final Inspection and Acceptance", of the Standard Specifications.

Near the completion of the contract, the Resident Engineer conducts an inspection. The Resident Engineer will verify that all work was constructed or installed according to the contract documents, and if the contract is determined satisfactorily complete, this inspection shall constitute the Final Inspection.

If any work is determined to be unsatisfactory, the Resident Engineer prepares a list of deficiencies related to items of work and areas that the Contractor must clean up in accordance with Subsection 104.05, "(Scope of Work) Final Clean Up", of the Standard Specifications*. The Resident Engineer will provide the Contractor with this list as soon as possible. On large or complex projects, maintaining an ongoing list benefits both the Resident Engineer and the Contractor, as it reduces the level of effort required at the end of the project. The Resident Engineer charges working days until all contract work is complete. If questions exist regarding whether to charge working days, the Resident Engineer should consult with the District Engineer and the Chief Construction Engineer.

* Under no circumstances shall this list be referred to as a "Punch List". Use the term "Deficient or incomplete items of work" for any list provided to the Contractor prior to Final Inspection.

The Resident Engineer will also inspect any sites used as the aggregate sources and haul routes for the project. If an aggregate source is a commercial source, no action is required. If a contractor-furnished source was used, and it is not a commercial source, the Contractor shall provide written documentation that the property owner is satisfied that the Contractor fulfilled the obligations of the agreement between the property owner and the contractor. If the Contractor utilized an NDOT-furnished material source, the Resident Engineer will contact the local Bureau of Land Management (BLM) office and arranges for a BLM inspection of the material site. If the BLM notes deficiencies, the Contractor shall correct the deficiencies and notify the BLM official in writing after the material site work is complete.

In Clark County, a copy of the final inspection and release from the Clark County Department of Air Quality Management is also required.

After all bid item, clean-up work, and aggregate source requirements, and applicable air quality requirements are complete, the Resident Engineer notifies the District Engineer that the project is ready for Final Inspection. Depending on the project type and location, the District Engineer may invite other individuals to the inspection, such as:

- NDOT Maintenance supervisor assigned to maintain the area where the project was constructed
- FHWA representative, if the project used federal funds
- Assistant Construction Engineer

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CONTRACT ADMINISTRATION

 Local entity representative, if the project included signal system improvements or other improvements to be maintained by the local entity

If the District Engineer notes deficiencies during the Final Inspection, the Resident Engineer will notify the Contractor immediately and in writing. After the Contractor corrects the deficiencies, the Resident Engineer will inform the District Engineer in writing that all work is complete. The District Engineer then prepares and issues a letter to the Contractor stating that the Final Inspection has been completed and that the Contractor is granted Full Relief of Maintenance.

Note: The District Engineer's field acceptance is not final acceptance. The Director's Office issues the contract final acceptance.

CONSTRUCTION FIELD CREWS

- Prepare and distribute the list of deficient or incomplete items of work.
- Notify the District Engineer that the contract is ready for Final Inspection.
- Notify the Contractor of any additional incomplete items identified during the District Engineer's Final Inspection.
- Notify the District Engineer that the Contractor has completed additional clean up items and contract is ready for final acceptance.

DISTRICT ADMINISTRATION

- Perform the Final Inspection.
- Identify any additional incomplete items during Final Inspection.
- Generate/send letter to Contractor (cc: District Engineer, Chief Construction Engineer), granting Final Inspection (aka "District Acceptance letter") and Full Relief of Maintenance.
- Assume maintenance responsibility.

CONSTRUCTION DIVISION

File the Final Inspection and Full Relief of Maintenance correspondence with Final Project Closeout records.

FHWA

Perform the /Final Inspection as required.

OTHER NDOT DIVISIONS

N/A

CONTRACT CLOSEOUT PHASE

Note: The guidelines identified in one or more of the processes in this phase may not necessarily apply for Design-Build projects.

Note: Refer to "Other Contract Administration Functions" on page 2-32 for processes/activities that can occur anywhere in this phase but are not listed in this phase.

Contract closeout verifies the completion of all the required documents throughout the contract lifecycle to ensure fulfillment of all state and federal obligations and in accordance with 49 CFR Part 18.

Timely closeout is crucial in order to:

- Release the Contractor's retention, allowing the Contractor to pursue future projects.
- Limit Department exposure to potential Contractor issues.
- Ensure the availability and accuracy of contract documents.
- Increase Department efficiency and efficacy by freeing up critical resources.
- Meet federal end date and related funding obligations.

For more information on the closeout procedure and the required documents, refer to Chapter 25 of the <u>AWP Documentation</u> <u>Manual.</u>

ACCEPTANCE OF CONTRACT

The final inspection of the contract is performed upon due notice or presumptive completion of the entire contract. If all work is found to be acceptable, the Department Director will accept the contract in accordance with Subsection 105.16, "(Control of Work) Final Inspection and Acceptance", of the Standard Specifications. The Director's acceptance of the contract initiates the required correspondence in accordance with NRS 408.387.

CONSTRUCTION FIELD CREWS

- Follow the instructions in Chapter 25 of the AWP Documentation Manual, which includes:
 - Completing/sending the Acceptance Testing Summary Sheet (ATSS) to the Construction Division.
 - Reviewing/approving the Final Audit Report, and sending to the Construction Division.
 - Creating/sending the Pit Release (if applicable) to the Construction Division.
 - Creating/sending the Material Deposit Usage Report to the Construction Division.
 - Creating/sending the Guardrail Inventory Data Sheet to the Construction Division.
 - Creating/sending completed As-Built Plans to the Construction Division.
 - Requesting final pick-up of contract.
- Submit the Final Payroll letter to the External Civil Rights Division's Contract Compliance Section.
- Complete/send the Contractor's Past Performance Report (CPPR).

DISTRICT ADMINISTRATION

- Ensure compliance with required procedures outlined in Chapter 25 of the AWP Documentation Manual.
- Review/sign the Final Audit Report.
- Review/sign the CPPR.
- Review/sign partial release of retention

CONSTRUCTION DIVISION

CHIEF CONSTRUCTION ENGINEER

- Review/sign the Final Audit Report.
- Create/modify Final Estimate Amount Balance Report.

ASSISTANT CONSTRUCTION ENGINEER

- Review/sign the Final Audit Report.
- Review/sign partial release of retention

QUALITY ASSURANCE SECTION

- Incorporate Independent Assurance tests into ATSS.
- Send the final ATSS to the Materials Division.

CONSTRUCTION ADMINISTRATIVE SERVICES SECTION

- Ensure compliance with required procedures outlined in Chapter 25 of the AWP Documentation Manual.
- Conduct the close out of contract.
- Prepare/send Final Audit Report to Resident Engineer, District Administration and Assistant Construction Engineer.
- Print/file Final Audit Report.
- Collect, Send As-Built Plans.
- File the Pit Release (if applicable).
- File the Material Deposit Usage Report.
- File the Guardrail Inventory Data Sheet.
- Generate/send Request for Director's Acceptance memo.
- Print/file Request for Director's Acceptance memo.
- Review the CPPR and send to the Administrative Services Division.

FHWA

N/A

OTHER NDOT DIVISIONS

DIRECTOR'S OFFICE

■ Review/approve Request for Director's Acceptance memo.

ADMINISTRATIVE SERVICES DIVISION, CONTRACT SERVICES SECTION

- Publish Notice to Creditors (in accordance with NRS 408.387).
- File the CPPR and follow the guidelines in Transportation Policy (TP) 1-2-6.

EXTERNAL CIVIL RIGHTS DIVISION, CONTRACT COMPLIANCE SECTION

- File the Final Payroll letter.
- Provide final EEO Clearance Memo to Construction Administrative Services Section.

PARTIAL RELEASE OF RETENTION

Partial release of retention may be requested by the Contractor when all contract items are closed, final quantities are checked by the field office, and there are no outstanding or unresolved issues (e.g., claim, payroll, wage complaints, EEO Clearance, ATSS, or Lab Clearance). All requests shall be made in writing and accompanied by a letter of concurrence from the Contractor's bonding

company. The Resident Engineer will concur that the retained amount covers any documentation errors or liquidated damages that may develop. This correspondence (Contractor's request, bonding company concurrence and Resident Engineer's concurrence) will be routed through the District Office for their written concurrence, then forwarded to Headquarters Construction for their concurrence and processing. Retention shall not be reduced to less than \$10,000. If retention held is less than \$10,000, a reduction will not be processed.

CONSTRUCTION FIELD CREWS

- Receive request for partial release of retention (email, memo or letter) from Contractor.
- Receive the Consent of Surety document from Contractor and forward to the Construction Administrative Services Section.
- Create, send the Reduction of Retention letter and send to the Construction Administrative Services Section.

DISTRICT ADMINISTRATION

Sign the Reduction of Retention letter.

CONSTRUCTION DIVISION

CHIEF CONSTRUCTION ENGINEER

- Sign the Reduction of Retention letter.
- Initial the Reduce Retention memo.

CONSTRUCTION ADMISTRATIVE SERVICES SECTION

- Create, send the Reduce Retention memo (upon receipt of request for partial release of retention and Reduction of Retention letter).
- Create the Semi-Final estimate in AASHTOWare Project (AWP) and release retention.

FHWA

■ N/A

OTHER NDOT DIVISIONS

DIRECTOR'S OFFICE

Sign the Reduce Retention memo.

FINAL PAYMENT

The final payment is made upon the contractor's acceptance of final quantities in accordance with Subsection 109.07, "(Measurement and Payment) Acceptance and Final Payment", of the Standard Specifications. All required documentation that comprise the Final Report are prepared and distributed. The final payment releases the retention of the contract, per NRS 408.383.

Refer to Chapter 25 of the AWP Documentation Manual for closeout procedures.

CONSTRUCTION FIELD CREWS

- Generate the Closeout Change Order.
- Generate the Semi-Final payment.
- Review/sign the Final Payment Report.
- File the Final Report Packet.

DISTRICT ADMINISTRATION

- Review/sign the Final Payment Report.
- File the Final Report Packet.

CONSTRUCTION DIVISION

CHIEF CONSTRUCTION ENGINEER

Review/sign the Final Payment Report.

ASSISTANT CONSTRUCTION ENGINEER

Review/initial the Final Payment Report.

CONSTRUCTION ADMISTRATIVE SERVICES SECTION

- Ensure compliance with required procedures outlined in Chapter 25 of the AWP Documentation Manual.
- Send the Final Estimate Amount Balance Report to Contractor.
- Create/send the Final Payment Report to Resident Engineer.
- Process the final payment to Contractor.
- Finalize the Final Payment Report.
- Create/send the Final Report Packet to Resident Engineer, District Administration and Central Records.
- Create/store the Contract Archive File.

FHWA

- File the Final Report Packet.
- Sign-off on the project in the Financial Management System.

OTHER NDOT DIVISIONS

MATERIALS DIVISION

- Send the Lab Clearance Report to Resident Engineer.
- Review/approve the ATSS.

RECORDS MANAGEMENT DIVISION

Store contract documents per Records Retention Schedule requirements.

ACCOUNTING

- File the Final Payment Report.
- Perform final billing to FHWA and third-parties as needed.

DIRECTOR'S OFFICE

Review/sign Final the Payment Report. (Assistant Director, Operations)

POST-CONSTRUCTION REVIEW

The Post-Construction Review provides a forum for evaluating the successes and challenges related to the project. The purpose of the Post-Construction Review is to improve future projects through discussion of Change Orders, field adjustments, plan deficiencies, and constructability issues. Participants evaluate and discuss the challenges and successes of the design, materials, and procedures to identify future opportunities for improvement.

When the project is approximately 85 percent complete, the Constructability Section schedules the Post-Construction Review meeting, which includes representatives from NDOT divisions who had a substantial role in the contract.

In addition to the contract-level Post-Construction Review, the Constructability Section prepares an annual report that summarizes the findings and recommendations from project post-construction reviews held during the preceding year. The annual report includes changes that have been implemented because of the Post-Construction Review recommendations.

CONSTRUCTION FIELD CREWS

- Prepare any project recommendations in advance of the Post-Construction Review meeting.
- Attend and participate in the meeting.
- Review the Post-Construction Report (PCR) for accuracy and provide any comments as needed.

DISTRICT ADMINISTRATION

Attend and participate in the meeting as needed.

CONSTRUCTION DIVISION

CONSTRUCTABILITY SECTION

- Schedule the meeting location, time and date.
- Conduct the meeting and record discussion.
- Attend and participate in the meeting.
- Prepare the PCR, including findings and recommendations.

FHWA

• For federally-funded projects, attend and participate in the meeting as needed.

OTHER NDOT DIVISIONS

DESIGN DIVISION

- Attend and participate in the meeting.
- Review and implement process changes based on Post-Construction Review recommendations.

MATERIALS DIVISION

- Attend and participate in the meeting.
- Review and implement process changes based on Post-Construction Review recommendations.

OTHER CONTRACT ADMINISTRATION FUNCTIONS

The processes/activities outlined in this section can occur anywhere in one or more phases of the contract administration lifecycle:

- "Design Phase" on page 2-3
- "Procurement Phase" on page 2-8
- "Construction Phase" on page 2-13
- "Contract Closeout Phase" on page 2-26

SAFETY

Safety on any project is a shared responsibility. The transportation construction industry has many dangers on the project, but most if not all safety hazards can be mitigated through engineering effort, education of workers and constant awareness of jobsite surroundings and grades. The culture of safety must be instilled in every worker and continuously reinforced through tailgate meetings, safety meetings, and strong safety leadership values set by the Resident Engineer. Refer to the Human Resources Division's Safety and Loss Section for further guidance on safety matters.

Safety on a construction contract has two main concerns, worker safety and traveling public safety. The safety of the traveling public is directly related to the traffic control set-up on the contract. There are safety hazards wherever a crewmember works, including driving to the project, working on the grade around heavy equipment, working in the lab, taking samples in a pit and working in the field office. These hazards can be in many different forms such as slips, trips, and falls, weather extremes both heat and cold, exposure to harmful substances or environments and/or electrical hazards.

Resident Engineers are responsible for the safety of their crew and all NDOT employees on their project. Each Resident Engineer will supply required personal protective equipment, such as hard hats, safety goggles, hearing protection, respiratory protection, and reflective vests to their crew members. Crewmembers will use the appropriate safety equipment as required by project specific requirements and current policy.

Contractors are responsible for the safety of their employees, including subcontractors and vendors. Each Contractor shall comply with all safety regulations governed by the Occupational Safety and Health Administration (OSHA) and the Mine Safety and Health Administration (MSHA) and ensure the safety and convenience of the public throughout the work zone. The Contractor shall submit a project-specific safety plan to the Resident Engineer before project work begins. Project-specific safety issues (e.g., blasting, fire protection, naturally occurring asbestos (NOA)), will be identified in the Special Provisions. At least once during each construction season, the Contractor shall also complete an OSHA safety checklist form, NDOT form 040-028 (Safety Inspection

Checklist - Contractor Operations). The Contractor conducts the inspection and completes the form in the presence of a Construction Crew representative.

CONSTRUCTION FIELD CREWS

- Review and enforce special provisions for safety issues.
- Attend or designate representative to attend the Contractor's weekly meeting.
- Provide all necessary PPE to crew members
- Hold crew safety meetings.
- Set the example with safety.
- Discuss safety concerns with the Contractor.
- Suspend work on project if Contractor continually disregards safety.
- Ensure crew members are properly trained on safety matters.
- Ensure Safety Data Sheets (for office and lab supplies) are up to date and accessible for crew members.

DISTRICT ADMINISTRATION

- Enforce safety standards.
- Discuss safety with Resident Engineers.
- Wear appropriate PPE on jobsite.

CONSTRUCTION DIVISION

- Follow project specific safety protocol.
- Wear appropriate PPE on jobsite.

FHWA

- Check in with Resident Engineer prior to visiting jobsite.
- Wear appropriate PPE on jobsite.

OTHER NDOT DIVISIONS

ALL PARTICIPATING DIVISIONS

- Check in with Resident Engineer prior to visiting jobsite.
- Wear appropriate PPE on jobsite.

PROJECT RECORDS

Note: The guidelines identified in this process may not necessarily apply for Design-Build projects.

After the project is assigned to the Resident Engineer, the Resident Engineer begins preparing project records. For every NDOT construction contract, records are organized in accordance with the Construction Division's <u>AWP Documentation Manual</u>, <u>AWP User Guide</u> and related policies and procedures. These references allow for uniform organization in each field office throughout the state, ensuring that records organization is familiar to construction staff working in different field offices. Standard processes and procedures protect NDOT from legal disputes, claims, or other actions related to NDOT projects. Records organization includes a filing system for documents such as correspondence, submittals and other contract documents.

Project records are maintained in the Resident Engineer's office, commonly referred to as the field office.

CONSTRUCTION FIELD CREWS

RESIDENT ENGINEER

- Ensure that the field crews are correctly documenting the construction projects.
- Submit Daily Diaries.
- Enforce the submission of Daily Work Reports (DWRs).

FIELD CREWS

Submit DWRs and document the construction progress.

DISTRICT ADMINISTRATION

Assist and enforce the field crews in correctly documenting the construction projects.

CONSTRUCTION DIVISION

ADMINISTRATIVE SERVICES SECTION

- Manage/update the AWP Documentation Manual and the AWP User Guide.
- Provide uniform guidance and support to all construction crews for conformance with documentation requirements.

FHWA

N/A

OTHER NDOT DIVISIONS

■ N/A

PARTNERING

Partnering on a construction project is a business model by which the owner (NDOT) and the Contractor work together to achieve mutually beneficial goals. Partnering provides the framework to effectively communicate and to resolve disputes, the ability to manage risk, it will help to anticipate and avoid problems, and provides a forum for innovation and to make necessary changes to the contract.

The positive benefits of partnering will come about through the wise use of the principles of partnering, working cooperatively, and as a team.

The objectives and benefits of partnering are:

- Increased safety.
- Projects delivered on time or ahead of schedule.
- Projects Completed within budget.
- Improved quality.

- Prompt mitigation and resolution of disputes.
- Increased job satisfaction.
- Award-winning project construction.

The partnering relationship can take one of the following forms:

- Formal partnering is conducted by a professional facilitator who leads quarterly partnering meetings, mandated by the Standard specifications on projects greater than \$10 million.
- Informal partnering is conducted by the Resident Engineer beginning with the "Conflict Resolution Ladder" completed at the Pre-Construction Conference, continuing with weekly project meetings and/or the Contractor's project manager.

For more information, refer to the <u>Guide to Partnering on NDOT Projects</u> and Subsection 105.05, (Control of Work) Partnering", of the Standard Specifications.

CONSTRUCTION FIELD CREWS

- Provide invitation to enter into partnership after award of contract.
- Coordinate with the Contractor to schedule Partnering meetings.
- Work with Contractor to mutually select a Partnering facilitator.
- Attend and participate in Partnering meetings.

DISTRICT ADMINISTRATION

Attend and participate in Partnering meetings.

CONSTRUCTION DIVISION

- Attend and participate in Partnering meetings.
- Provide updated Partnering Facilitator List.

FHWA

Attend and participate in Partnering meetings as needed.

OTHER NDOT DIVISIONS

ALL PARTICIPATING DIVISIONS / STAKEHOLDERS

Attend and participate in Partnering meetings as needed.

DISPUTES REVIEW TEAM

For construction projects that have a Disputes Review Team (DRT) established, disputes may arise between the Contractor and the Resident Engineer that cannot be resolved through the conflict resolution ladder and affect the timely completion of the contract.

Since litigation and lawsuits are often the most time-consuming and resource intensive ways of resolving disputes, the Department encourages using dispute avoidance through DRTs that consist of third-party experts selected by the Department and the Contractor to assist in and facilitate the timely and equitable resolution of these disputes to avoid unnecessary delay and litigation.

The DRT consists of three members who are chosen per Subsection 105.18, "(Control of Work) Disputes Review Team," of the Special Provisions (if a DRT is required for a contract). The members should be acknowledged experts in the type of construction related to the project, but areas of expertise should be varied. The Department will reimburse the Contractor 100 percent of the DRT costs under a force account payment with no markup.

Once DRT members are chosen, they will need to sign a Three-Party Agreement that outlines payment to DRT members, provides them indemnification for decisions rendered through the DRT and assigns responsibility to DRT member, the Contractor, and the Department. As part of the Three-Party Agreement, the DRT members will have to disclose any conflict of interests.

Prior to or during its first meeting at the project site, the DRT shall, with the agreement of all parties, establish written procedures for the conduct of its routine site visits and its hearings of disputes. At a minimum, hearing procedures should address submitting documents, conducting hearings, providing recommendations and associated tasks.

If the Contractor and the Department cannot resolve a dispute, the DRT provides an unbiased audience that is familiar with the contract and has an industry background. The DRT's recommendations are not legally binding on the Contractor or NDOT. However, any records associated with the Dispute Resolution Team, such as written recommendations, are admissible as evidence in a formal claim process.

For more information, refer to the <u>Dispute Resolution Program</u> page on the NDOT Internet site and Subsection 105.18, (Control of Work) Disputes Review Team", of the Standard Specifications.

CONSTRUCTION FIELD CREWS

- Work with the Contractor to establish DRT members.
- Provide administrative functions associated with the assembly of and communication with the DRT.
- Work with the DRT and the Contractor to establish procedures and guidelines, and execute the Three-Party Agreement.
- Coordinate with the Contractor to schedule DRT meetings.
- Develop/present NDOT's position at DRT meetings.
- Attend and participate in DRT meetings.

DISTRICT ADMINISTRATION

Attend and participate in DRT meetings.

CONSTRUCTION DIVISION

Attend and participate in DRT meetings.

FHWA

Attend and participate in DRT meetings (as necessary).

OTHER NDOT DIVISIONS

ALL PARTICIPATING DIVISIONS / STAKEHOLDERS

Attend and participate in DRT meetings; provide technical expertise for the Resident Engineer as needed.

DIRECTOR'S OFFICE

- Accept/reject the DRT's written recommendation.
- Attend and participate in DRT meetings (as necessary).

REQUESTS FOR INFORMATION

When clarification of the contract documents is requested, the Contractor submits a Request for Information (RFI) to obtain written clarification. Written questions and responses are an effective method to document ongoing issues and resolutions encountered during the execution of the contract. When a Contractor submits an RFI to the Resident Engineer, the Resident Engineer will respond as quickly as possible so that the project is not delayed. The Resident Engineer has the authority to determine the final response to the Contractor. A complete and comprehensive RFI log is generated and updated timely to track the issues and resolutions.

CONSTRUCTION CREWS

- Review and respond timely to RFIs.
- Provide clarifying information to the Contractor, such as revised plan sheets and/or specification clarification.
- Consult with the Assistant District Engineer on RFI responses to ensure any potential conflicts are mitigated.
- Generate and update RFI log including pending, current status and resolution results with references to documents.

DISTRICT ADMINISTRATION

- Provide input and guidance to the Resident Engineer on RFIs.
- Assist the Resident Engineer and facilitate resolution with the Contractor when issues arise from the RFI responses.

CONSTRUCTION DIVISION

Assist the Resident Engineer in responding to RFIs as needed.

FHWA

N/A

OTHER NDOT DIVISIONS

ALL PARTICIPATING DIVISIONS

Provide support and assistance for responses to RFIs.

SUBMITTALS

Contractors are required to provide submittals in accordance with the contract documents, for review and acceptance by the Department prior to starting work. Submittals requirements vary by type and scope of work.

Refer to the following sections of this chapter for the major submittal types that can be expected on all contracts:

- "Submittals: Traffic Control Plans" on the next page
- "Submittals: Project Schedules" on page 2-39

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- "Submittals: Plantmix and Concrete Mix Designs" on page 2-41
- "Submittals: Safety Data Sheets" on page 2-43
- "Submittals: Shop Drawings" on page 2-44

There are submittal requirements throughout the contract documents which will all vary depending on the specific contract. Some examples of these submittals may include individual materials, products, personnel certifications, or subcontractor qualifications.

CONSTRUCTION FIELD CREWS

- Generate and maintain submittal logs with accurate status of submittals.
- Notify Contractor of submittal requirements.
- Review/approve/reject submittals
- Notify Contractor timely of submittal approvals or rejections.
- Provide submittals (as needed) to other Divisions/District for review/comment.

DISTRICT ADMINISTRATION

• Provide input/recommendations on submittals (as necessary).

CONSTRUCTION DIVISION

N/A

FHWA

N/A

OTHER NDOT DIVISIONS

- The Project Coordinator from the division responsible for the project:
 - Provide input/recommendations on submittals (as necessary).

SUBMITTALS: TRAFFIC CONTROL PLANS

Maintaining traffic safely through a work zone is a Department priority. Contractors are required to submit a Traffic Control (TC) Plan and related changes in accordance with Section 624, "Accommodations for Public Traffic" and Section 625, "Construction Signs", of the Standard Specifications, for review and acceptance by the Department prior to starting work.

The TC Plan is reviewed/approved to ensure that it complies with one or more of the following:

- Standard Plans.
- Manual on Uniform Traffic Control Devices (MUTCD).
- Contract documents.
- The Traffic Management Plan (TMP).
- The NDOT NDOT Work Zone Safety & Mobility Implementation Guide.

- Notify Contractor of submittal requirements.
- Provide timely notification to Contractor of submittal acceptance/approval or rejection; provide related documents.

- Review/approve submitted TC plans and related changes.
- Ensure proper compliance of submitted TC plans.
- Submit TC plans (as needed) to the District Traffic Engineer and Traffic Operations for review/comment.

DISTRICT ADMINISTRATION

Assist Field Crews with assumptions used to develop TC plans.

CONSTRUCTION DIVISION

N/A

FHWA

N/A

OTHER NDOT DIVISIONS

- The Project Coordinator from the division responsible for the project:
 - Provide input/recommendations on TC plans (as necessary).

SUBMITTALS: PROJECT SCHEDULES

Contractors are required to submit a project schedule in accordance with Subsection 108.03, "(Prosecution and Progress) Prosecution and Progress", of the Standard Specifications prior to the Pre-Construction Conference. A project schedule is a tool used to define the Contractor's plan on how the project is going to be built. It documents, measures and monitors a Contractor's progress in completing the project on time. Project schedules also serve as an analytical tool for evaluating impacts to contract time.

The Project Schedule identifies activities, durations and logic ties between activities and the critical path. The critical path is the consecutive sequence of activities in a project whose cumulative time requirements determine the minimum total project time. Delays in critical path activities can delay the entire project if mitigating efforts, such as re-sequencing, are not addressed.

Key elements of a Project Schedule include:

- Project complexity.
- Critical path activities applicable to the completion of the project.
- Subcontractor work.
- Durations of physical work.
- Limitations.
- Project duration.

The following are guidelines in reviewing project schedules:

- Preliminary Schedule (submitted 7 days prior to the Pre-construction Conference)
 - Schedule format is established
 - Notice to proceed is identified
 - A minimum of the first 30 working days of activities are identified and durations are provided
 - · All logic ties are identified with predecessor and successor
 - Working days are clearly represented

- Material procurement timelines are identified
- Submittal timelines are provided
- Baseline Schedule (submitted within 15 days of acceptance of the Preliminary Schedule)
 - The schedule includes all items necessary to complete the project and are identified clearly
 - Submittal, procurement, fabrication and delivery timelines shall be individual activities
 - Mobilization is included as an activity
 - All durations for activities appear reasonable
 - Logic ties are complete and in order
 - · Calendars have been defined
 - Schedule completes all required activities within the provided contract time
 - Schedule meets all specification requirements
 - Critical path is easily identified and includes all activity descriptions, durations and logic
 - All concurrent work is achievable

Note: In the event an early completion schedule is submitted, either party may submit a Value Engineering Proposal to modify Subsection 108.02, "(Prosecution and Progress) Notice to Proceed", of the Standard Specifications, to reflect the early completion.

- Monthly Updates
 - All Baseline Schedule changes are identified
 - Schedule matches the actual work being done
 - Schedule reflects all delays, and critical path has been adjusted if necessary
 - Determine whether a supplemental schedule is required

If the Contractor is not meeting the contractual requirements for schedule submittals, the Resident Engineer will be timely in addressing it with the Contractor. It is in the best interest of the contract to enforce the specifications for schedule submittal. Early identification of schedule delays can assist the Resident Engineer to mitigate or assist in identifying responsibility for potential delays.

If the Contractor fails to submit an updated schedule, the Resident Engineer may withhold all or a portion of a progress payment. Refer to "Contractor Progress Payments" on page 2-23 for more information.

In the event the Contractor requests an extension of contract time and/or submits a request for compensation due to delays to the contract, a recovery schedule shall be submitted.

- Save/archive the progress schedule in electronic format.
- Monitor the contractor's ongoing performance as compared to the progress schedule. Critical activities, as identified in the Progress Schedule, should continually be cross-referenced to the actual work being performed.
- Ensure the schedule accurately represents the anticipated and ongoing work.
- Ensure the Contractor submits the schedules as required.
- Provide electronic schedule to Construction Division for review as needed.
- Follow process to document contractor's noncompliance of submittals.
- Recommend withholding of progress payments to the Assistant District Engineer if schedules are not submitted.

DISTRICT ADMINISTRATION

- Support the Resident Engineer to enforce the contractual requirements for schedule submission.
- Concur with the Resident Engineer to withhold progress payments for the Contractor's failure to submit schedules.
- Provide recommendation to Chief Construction Engineer to withhold Contractor payment for failure to submit schedules.

CONSTRUCTION DIVISION

- Review electronic copies of all schedules for:
 - · Reasonableness.
 - Logical activity sequencing.
 - Meeting the contractual requirements.
 - Changes in logic.

FHWA

N/A

OTHER NDOT DIVISIONS

N/A

SUBMITTALS: PLANTMIX AND CONCRETE MIX DESIGNS

Contractors are required to submit plantmix and concrete mix designs in accordance with the Standard Specifications prior to starting work. The quality of the project depends on the quality of the materials used, and these materials are subject to the requirements of the contract documents. For materials requirements, refer to Section 106, "Control of Material", and Division III, "Materials Details", of the Standard Specifications.

The mix design for each product and each component of the mixture must conform to requirements described in the contract documents. The Resident Engineer will test* the components of a mixture to ensure they meet specification requirements before submitting the mix design to the Materials Division for review and approval. This assists in mitigating potential delays to approval of the mix design.

*Test – The Materials Division provides approval of the components (materials), this approval is defined as "source acceptance".

PLANTMIX BITUMINOUS PAVEMENTS

The Materials Division develops mix designs and determines bitumen ratios based on approved stockpiles, Contractor-proposed submitted bin percentages and bituminous material supplier.

The Contractor may request to use a mix design developed by the Materials Division within the calendar year. The Contractor's request to use a previous mix design requires approval from the Materials Division.

Because plantmix bituminous pavement mix design specifications vary, the Materials Division's mix design represents one of many designs that could meet specifications using the aggregates supplied by the Contractor. The Contractor proposes a job-mix formula based on the Material Division's mix design with single values within the Standard Specification's range of values.

JOB MIX FORMULA

The Resident Engineer reviews the Contractor's Job Mix Formula (JMF), makes any necessary changes and establishes the approved JMF that the Contractor shall use on the project. While the mix design can be used on multiple projects, JMFs are contract-specific and a new JMF is required for the current contract using the latest JMF from the contract the mix design was approved from.

PORTLAND CEMENT CONCRETE

The Contractor submits a concrete mix design based on the requirements stated in the Standard Specifications. The proposed mix design must be designed by an outside lab with an accreditation acceptable by the Materials Division. In the submittal, the Contractor shall state the class of concrete for which the mix design is being submitted.

The Contractor may choose to submit a mix design of a higher-quality mixture than required. This mix design's strength will become the contract's required strength.

The Contractor may also request to use a previously-approved mix design, if the approval is less than a year old. The request is considered only if the aggregate source and other pertinent information (proportions of aggregates, amount of water, amount and type of cement, and admixtures) remain unchanged. The request must be accompanied by recent certified test results.

The Contractor submits the proposed mix design to the Resident Engineer, who forwards it to the Materials Division for review and approval. The Materials Division approves or rejects the mix design and notifies the Resident Engineer.

A concrete mix design submittal is required for all quantities, large or small, of concrete. Small quantities include:

- Fence posts.
- Curb, gutter and sidewalk less than 100 feet long.
- Small permanent ground-mounted signs.
- Other minor placements under 1.3 cubic yards.

Although a mix design submittal is required for small quantities, the Resident Engineer may:

- Approve mix designs for minor placements.
- Waive trial batch test requirements (aggregates must still come from approved sources)*.
- Waive field tests relating to minor placements based on visual inspection of the quality of the delivered concrete.*

- For plantmix bituminous pavement mix designs:
 - Verify the mix design is not older than one year if the Contractor proposes to use an existing mix design.
 - Verify all material types are as specified in the contract documents.
 - Approve the components of the mix design before submitting it to the Materials Division for review and approval.
 - Review the approved mix design from the Materials Division and forward to the Contractor upon agreement.
 - Review the Contractor's JMF for conformance with the Job Mix Formula Process Memo and:
 - Make any necessary changes in accordance with Subsection 401.02.02 "(Plantmix Bituminous Pavements) (Materials)
 Composition of Mixtures", of the Standard Specifications.
 - Develop/send the Job Mix Formula letter to the Contractor.

^{*}Refer to Page 2 of the *Field Testing Guide*.

- For Portland cement concrete mix designs:
 - Review/forward the mix design to the Materials Division for approval.
 - Review the approved mix design from the Materials Division and forward to the Contractor upon agreement.

DISTRICT ADMINISTRATION

N/A

CONSTRUCTION DIVISION

QUALITY ASSURANCE SECTION

- For plantmix bituminous pavement mix designs, review the draft JMF for conformance with the <u>Job Mix Formula Process</u> Memo and provide comments.
- Post the approved mix design and JMF for future reference.

FHWA

N/A

OTHER NDOT DIVISIONS

MATERIALS DIVISION

- For plantmix bituminous pavement mix designs:
 - Test the material samples for conformance with specifications.
 - Develop the mix design.
 - Send the mix design to the Resident Engineer.
- For Portland cement concrete mix designs:
 - Review the mix design and:
 - Forward the approved mix design to the Resident Engineer.
 - Notify the Resident Engineer of the rejected mix design.

SUBMITTALS: SAFETY DATA SHEETS

Contractors are required to submit Safety Data Sheets (SDS) for any hazardous material that will be used on the job site. Contractors typically submit the SDS before the Pre-Construction Conference. The Contractor shall have all SDS readily available on the jobsite, which is a required component of the Contractor's safety plan.

CONSTRUCTION FIELD CREWS

• Verify that all SDS are submitted and filed prior to or upon delivery to job site.

DISTRICT ADMINISTRATION

N/A

CONSTRUCTION DIVISION

N/A

FHWA

N/A

OTHER NDOT DIVISIONS

N/A

SUBMITTALS: SHOP DRAWINGS

Contractors are required to submit shop drawings in accordance with the Standard Specifications prior to starting work.

The plans and specifications describe the quality of the product that the Contractor shall incorporate into the contract prior to the start of related work in accordance with Subsection 105.02 "(Control of Work) Plans and Working Drawings" of the Standard Specifications. When the product is complex or has significant public safety implications, the Department actively monitors the techniques and processes that the Contractor will use. In these situations, the Contractor may use interim designs or drawings. NDOT reviews these drawings, commonly referred to as working drawings or shop drawings. Bridges, major structures, and retaining walls are common examples of when the Contractor uses working drawings. With few exceptions, the Contractor submits shop drawings to the Resident Engineer, who transmits them to the Structures Division for review and approval. On occasion, other divisions or entities will review shop drawings.

The following are common shop drawing submittals that may require other reviewing entities:

- Railroads: Structures or falsework that crosses a railroad
- Utilities: Utility installations or relocations
- City or county governments: Construction of improvements owned by a local agency

If the shop drawing is for reinforcing steel, the Resident Engineer reviews the drawing to confirm that the construction details conform to the contract documents. For all other shop drawings, the Resident Engineer forwards the drawings to the Structures Division for review and approval. The corresponding section(s) of the Standard Specifications cite the required time limitations for reviews and submittals. The Contractor may not proceed with work until the relevant shop drawings are approved.

During the review and approval process, shop drawings may be returned to the Contractor for revision or modification. An important aspect of the shop drawing submittal process is maintaining a complete, accurate, and current log of shop drawing submittals, revisions, and approvals. The Resident Engineer will ensure that inspectors use the current, approved shop drawings for the work they are inspecting.

Shop drawings are critical to the construction of the project, and ample time must be allocated to review shop drawings. The specifications state the minimum time allowed for the Contractor to submit shop drawings before beginning work. The Resident Engineer should encourage the Contractor to submit shop drawings early enough to allow adequate review time.

- Submit shop drawings to appropriate Divisions for approval.
- Provide approval/rejection in writing to the Contractor.

Maintain submittal log.

DISTRICT ADMINISTRATION

N/A

CONSTRUCTION DIVISION

N/A

FHWA

N/A

OTHER NDOT DIVISIONS

ALL PARTICIPATING DIVISIONS

Perform necessary review/approval of shop drawings.

CHANGES TO CONTRACT: SUPPLEMENTAL AGREEMENTS

Whenever the termini (contract limits) of the project are changed within the governing environmental document limits of the National Environmental Policy Act (NEPA), a Supplemental Agreement acceptable to both parties to the contract shall be executed in advance of performing the affected work. A Supplemental Agreement is a written agreement between the contractor and NDOT for work not included in the current project limits in accordance with Subsection 104.02, (Scope of Work) "Changes in Character of Work", of the Standard Specifications. After the contractor and the Department approve and execute a Supplemental Agreement, it becomes part of the contract.

Any work outside the project limits requires a Supplemental Agreement. It is necessary to use a Supplemental Agreement in these circumstances because the Department cannot direct a contractor to perform work outside of the original scope of the contract, and work outside the project limits is outside of the original scope.

After a decision is made to enter into a Supplemental Agreement, the Administrative Services Division's Contract Services Section initiates the preparation of the agreement. The Resident Engineer will negotiate prices to be included in the agreement and generate an administrative Change Order in order for the Department to incorporate the additional work into the contract. In addition, there are multiple divisions within NDOT who must be involved in or notified of a change in project limits, and a Supplemental Agreement puts these Divisions on appropriate notice of such a change. There are additional requirements when the project is Federally funded.

CONSTRUCTION FIELD CREWS

RESIDENT ENGINEER

- Negotiate prices to be included in the Supplemental Agreement. Each force account or agreed price used requires an analysis
 or justification.
- Work with the Construction and Project Management Design divisions to review the updated plans, project limits, and contract terms, and finalize the spreadsheet showing original proposal bid items and quantities, previous Change Orders affecting bid

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CONTRACT ADMINISTRATION

items, quantities or pricing, and the bid items, quantities and working days (as applicable) to be updated by the Supplemental Agreement.

- Notify District Engineer and the Administrative Services Division's Contract Services Section of the negotiated prices.
- Review updated plans, quantities and unit prices and provide comments.
- Generate the administrative Change Order after the Supplemental Agreement is fully executed.

DISTRICT ADMINISTRATION

 Concur with the scope of work and cost prior to full execution of the Supplemental Agreement, and notify the Administrative Services Division.

CONSTRUCTION DIVISION

- Coordinate with the Resident Engineer to finalize the updated project limits and determine what work will be added or deleted.
- Review updated plans, quantities and unit prices and provide comments.

FHWA

N/A

OTHER NDOT DIVISIONS

- The Project Coordinator from the division responsible for the project:
 - Prepare or request updated plans showing the updated project limits and plan quantities. Plans must show the revision date ("REVISED MM/DD/YYYY") in red ink on every page. Send updated plans to the Construction Division and Resident Engineer for comments. Incorporate comments and finalize the plans.
 - Request an updated Right of Way Certification and Environmental Clearance.
 - Obtain the negotiated prices from the Resident Engineer.
 - Prepare a spreadsheet showing bid items, quantities and unit prices for work to be added to the contract.
 - Generate specifications as needed.
 - Contact the Financial Management Division to obtain funding approval.
 - Prepare a description of the changes to the project limits and any other terms and conditions that need to be changed.
 - Send all information to the Administrative Services Division's Contract Services Section with a request to process a Supplemental Agreement.

ADMINISTRATIVE SERVICES DIVISION, CONTRACT SERVICES SECTION

- Verify receipt of the following:
 - Updated Right of Way Certification
 - Updated Environmental Clearance
 - Verification of funding approval
 - Updated plans
 - Updated project limit description
 - Updated bid items, quantities, unit prices and other contract terms (such as specifications and working days)
 - Prepare the Supplemental Agreement and notify the District Engineer.
 - If the project is a Project of Divisional Interest (PODI), submit the Supplemental Agreement for FHWA approval.
 - Fully execute the Supplemental Agreement.
- Send a copy of the fully executed Supplemental Agreement to the Resident Engineer and post a copy on the E-Bidding Portal.

CHANGES TO CONTRACT: CHANGE ORDERS

Note: The guidelines identified in one or more of the processes in this phase may not necessarily apply for Design-Build projects.

Note: Any changes to the project limits require a Supplemental Agreement. Refer to <u>"Changes to Contract: Supplemental Agreements"</u> on page 2-45 for more information.

The Department has the right to modify a contract through Change Orders. A Change Order is required for changes to the scope and character of the work, payment, specification or contract working time. A Change Order is legally binding and becomes part of the contract. Just as the original plans and specifications define the scope, terms and conditions of work, a Change Order needs to define the same and include all supporting documentation.

Because a Change Order is legally binding to the Contractor and to the Department, the Change Order must be prepared with care. The required elements of a Change Order must be clear, concise and unambiguous. A Change Order is prepared so that a person not familiar with the modification can readily interpret scope, terms and conditions of the work. Refer to Chapter 3 of the AWP Documentation Manual for the essential elements required to generate a Change Order.

The Construction Division, in cooperation with the FHWA, has developed the following standard guidelines outlining conditions that require a Change Order:

- Revision of geometric design (main road, ramps, frontage roads, or crossroads).
- Revision of roadbed structural section's base or pavement thickness.
- Revisions of major structures.
- Any change in planned access provisions. On the Interstate system, changes in planned access require FHWA authorization and should be submitted well in advance. These changes include, but are not limited to, such minor revisions as relocating a control of access locked gate and include plan sheets showing the change.
- Any change that alters the scope of the contract including deletion or addition of contract items.
- Any change related to type or quality of materials to be furnished.
- Changes in specifications or specified construction techniques.
- Changes resulting in adjustment of bid unit prices or in establishing agreed unit prices for items not contained in the original contract.
- Design changes, such as providing for a culvert not indicated on the plans or modifying the diameter of a pipe. A Change Order is not required for changes in pipe lengths.
- Payment for materials stockpiled out of state, unless otherwise stated in the contract documents.
- Acceptance of material or work that does not conform to the Standard Specifications.
- Adding/removing materials sites.

Change Orders may be approved for routine maintenance work or procurement of materials on state-funded projects, but they are not permitted on federally-funded projects.

Change Orders related to right-of-way agreements with property owners and/or utility companies are required for any work required which has not been identified in the contract documents or the current Right of Way agreement. All required agreements/documents must be executed and attached to the Change Order. A Change Order cannot be executed until all required agreements/documents are executed.

Changes require the Resident Engineer to inform other NDOT divisions and coordinate with them for guidance and recommendations. When a division requests a change, the requesting division submits the request in writing to the Chief Construction Engineer. The Chief Construction Engineer reviews the request and, if the Chief Construction Engineer concurs in the request, the Assistant Construction Engineer forwards it to the Resident Engineer and Assistant District Engineer.

If the District Engineer or the Resident Engineer initiates a Change Order, they do not need to submit a request for change to the Construction Division but still need to coordinate with Construction Division and all appropriate divisions. The Resident Engineer should always discuss contemplated changes with the Assistant District Engineer, the Assistant Construction Engineer, the appropriate technical divisions, and FHWA representatives.

NDOT policy and FHWA regulations require that work requiring a Change Order shall not begin until (1) The Change Order has been fully executed; or (2) on PoDI contracts, a written Prior Authorization from FHWA authorizing the work to proceed has been granted. If the Contractor begins Change Order work before the Director executes the Change Order, the Contractor risks receiving no payment for the work.

On PoDI contracts, the FHWA reviews and approves Change Orders. Generally, the FHWA does not approve orders involving changes in the Standard Specifications unless one of the following criteria is met:

- The specifications, as written, are impossible or impractical to comply with.
- A product equal in all respects to the one specified can be furnished at a savings to the contract.
- A product superior to one specified can be furnished at no increase in cost.

Any change in the project limits as defined in the contract documents cannot be made by a Change Order. A Supplemental Agreement is required. Refer to "Changes to Contract: Supplemental Agreements" on page 2-45 for more information.

Refer to <u>Change Order Examples</u> in the Construction Crew Portal of the Construction Division SharePoint for various examples of completed Change Orders.

COMMITMENT AUTHORITY

The Resident Engineer and District Engineer have the authority to initiate Change Order work. Commitment authority is limited to the following:

- District Engineer
 - Projects greater than \$5,000,000: Commitment Authority to initiate a Change Order: \$100,000
 - Projects less than or equal to \$5,000,000: Commitment Authority to initiate a Change Order: \$50,000
- Resident Engineer
 - Projects greater than \$5,000,000: Commitment Authority to initiate a Change Order: \$50,000
 - Projects less than or equal to \$5,000,000: Commitment Authority to initiate a Change Order: \$25,000

The following categories are excluded from the District Engineer's and the Resident Engineer's commitment authority, regardless of cost:

- Substantial revisions in geometric design, structural section, or revisions in the geometric design that do not conform to design standards.
- Significant changes on a major structure or pile bearing requirements.
- Changes in material specifications of a Major Item. (Refer to Subsection 101.03, "(Terms and Definitions", of the Standard Specifications, for more information)

- Changes involving right-of-way limits or access control.
- Changes that would abolish or nullify a right-of-way agreement or changes to proposed right-of-way work not covered by a
 prior right-of-way agreement.
- Changes allowing work outside contract limits or outside the right-of-way that are not covered by an agreement to which the state is a party.
- Changes that involve an agreement or contract with a government agency, utility, private or corporate agency, and the proposed change is not addressed in a previous agreement.
- Changes that affect property drainage, water, or other abutting property owner rights that may result in action against the state.
- Changes to the payment method to the contractor. This does not include Force Account or agreed prices that may be necessary to perform Extra Work, but does include changes in the method of measurement or adjustment of a unit bid price.
- Changes that involve settlement of a Contractor's claim.

CONSTRUCTION FIELD CREWS

RESIDENT ENGINEER

- If required on a PoDI contract, obtain pre-authorization from FHWA (form FHWA-1365) to proceed with the Change Order.
- Create/send draft of Change Order to Construction Division and District Administration for review.
- After review, generate Change Order in AWP.
- Develop/send Change Order in accordance with Chapter 3 of the AWP Documentation Manual.
- Approve executed Change Order in AWP.

DISTRICT ADMINISTRATION

- Review draft of Change Order.
- Recommend Change Order for execution.

CONSTRUCTION DIVISION

CHIEF CONSTRUCTION ENGINEER

- Review/approve request for Change Order.
- Recommend Change Order for execution.
- For federally-funded, non-PoDI contract, provide federal authorization to fund the Change Order.

ASSISTANT CONSTRUCTION ENGINEER

- Notify RE change order request is approved.
- Review draft of Change Order.
- Recommend Change Order for execution.
- Communicate with Financial Management (<u>PCEMSDL@dot.nv.gov</u>) and Project Manager/Project Coordinator to ensure if additional funding is required and it is properly programmed.

CONSTRUCTION ADMINISTRATIVE SERVICES

- Review draft of Change Order.
- Notify Resident Engineer and District Administration of recommended changes to draft of Change Order.
- Process Change Order in accordance with Chapter 3 of the AWP Documentation Manual.

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CONTRACT ADMINISTRATION

Communicate with Financial Management (<u>PCEMSDL@dot.nv.gov</u>) and Project Manager/Project Coordinator if additional
categories (breakouts) need to be added.

FHWA

- For PoDI contracts:
 - Approve/disapprove or limit federal participation.
 - Provide pre-authorization to proceed with the Change Order.
 - Provide federal authorization to fund the Change Order.

OTHER NDOT DIVISIONS

ALL PARTICIPATING DIVISIONS

- Send request for Change Order to Chief Construction Engineer.
- Provide receipt of notification of Change Order (plus any comments) prior to execution.

DIRECTOR'S OFFICE

Approve Change Order for execution.

CHANGES TO CONTRACT: LETTERS OF AUTHORIZATION

Note: The guidelines identified in this process may not necessarily apply for Design-Build projects.

Letters of Authorization are used for minor construction items that are not anticipated in the original scope but must still be completed on a project. These minor construction items are incidental construction items, which do not have bid items, but the contractor must still be compensated for. The Resident Engineer can pay for these incidental construction items with a Letter of Authorization (LOA).

An LOA will contain the following information:

- Reason for work
- Description of work
- Cost of work including a cost analysis

The following are the Resident Engineer's limitations on an LOA:

- The spending limit per incident is set at \$15,000.
- The cumulative total of incidental construction items cannot exceed the amount programmed for the contract.
- Multiple LOAs cannot be written to cover the same issue, either the same thing multiple times or multiple LOA to achieve one goal.

Although an LOA is appropriate in directing the Contractor to accomplish incidental items of work, certain situations exist in which an LOA cannot be used. When an LOA is not used, a Change Order may be the appropriate process.

An LOA cannot be used:

- To grant time extensions.
- When the contract documents clearly state that the work is incidental to other items of work, or that no direct payment is made for certain work.
- When the contract documents clearly provide bid items to perform the work.
- For substantial revisions in geometric design, structural section, or revisions in the geometric design that do not conform to design standards.
- For significant changes on a major structure or pile bearing requirements.
- For changes in material specifications.
- For changes involving right-of-way limits or access control and changes that would abolish or nullify a right-of-way agreement or changes to proposed right-of-way work not covered by a prior right-of-way agreement.
- Changes allowing work outside contract limits or outside the right-of-way that are not covered by an agreement to which the state is a party.
- Changes that involve an agreement or contract with a government agency, utility, private or corporate agency, and the proposed change is not addressed in a previous agreement.
- Changes that affect property drainage, water, or other abutting property owner rights that may result in action against the state.
- Changes to the payment method to the contractor. This does not include Force Account or agreed prices that may be necessary to perform Extra Work, but does include changes in the method of measurement or adjustment of a unit bid price.
- Changes that involve settlement of a Contractor's claim.

Refer to Chapter 3 of the AWP Documentation Manual for an example of an LOA.

CONSTRUCTION FIELD CREWS

RESIDENT ENGINEER

- Develop LOA in accordance with Chapter 3 of the AWP Documentation Manual.
- Send draft of LOA to District Administration for review as needed.
- Sign/execute the LOA.

DISTRICT ADMINISTRATION

Review draft of LOA as needed. (District Engineer, Assistant District Engineer)

CONSTRUCTION DIVISION

N/A

FHWA

N/A

OTHER NDOT DIVISIONS

N/A

EQUIPMENT

The Resident Engineer is responsible for the operation, maintenance, inventory and upkeep of all equipment assigned to the Construction Crew.

Equipment includes but is not limited to:

- Lab trailers
- Vehicles
- Survey and testing equipment
- Computers

The type of equipment and associated costs dictate the policies and associated processes that will be followed to obtain the equipment.

ACQUISITION AND REPLACEMENT

Lab trailers. Lab trailers are assigned to each construction crew, follow a 20-year replacement cycle and are acquired in accordance with Transportation Policy (TP) 1-3-10 (Licensed Equipment and Replacement) and the Equipment Division's Policy 709.01. The Construction Division works with the Equipment Division to obtain and deliver the lab trailers in accordance with the replacement cycle. The Equipment Division delivers the new trailer to the location of the trailer being replaced. The District assigns the trailer to the respective crew.

Vehicles. Vehicles are assigned to each Construction Field Crew member and follow a replacement cycle in accordance with <u>Iransportation Policy (TP) 1-3-10</u> and the Equipment Division's <u>Policy 709.01</u>. The District and the Equipment Division coordinate all associated prioritization for replacement.

Survey and testing equipment. Equipment is assigned to each construction crew and are replaced at the discretion of the Assistant District Engineer and the Construction Division. (Refer to "Surveying" on page 3-1, "Sampling and Testing" on page 4-1, and the Construction Survey Manual for more information.) The Construction Division delivers the new equipment to the District, which assigns the equipment to the respective crew.

Computers. Computers are assigned to construction crews at the discretion of the District and in conjunction with the Information Technology Division Policies. Computers are replaced according to the Information Technology (IT) Division's replacement schedule.

BUDGET AUTHORITY

The budget for equipment varies by equipment type and is based on the Governor's biennial budget approved by the Legislature. The Construction Division, in coordination with the Assistant District Engineer, is responsible to generate the yearly budget requests for equipment exceeding \$10,000, except for vehicles and lab trailers.

- Identify replacement needs.
- Maintain equipment inventory.

DISTRICT ADMINISTRATION

- Generate equipment requests based on replacement needs.
- Prioritize equipment for acquisition, assignment and/or replacement within the District.

CONSTRUCTION DIVISION

- Manage equipment procurement (lab trailers, survey and testing equipment).
- Maintain statewide inventory (lab trailers, survey and testing equipment).
- Manage statewide equipment budget (survey and testing equipment).

FHWA

N/A

OTHER NDOT DIVISIONS

EQUIPMENT DIVISION

- Manage equipment procurement (vehicles, lab trailers).
- Maintain statewide inventory (vehicles, lab trailers).
- Manage statewide equipment budget (vehicles, lab trailers).

INFORMATION TECHNOLOGY DIVISION

- Manage equipment procurement (computers).
- Maintain statewide inventory (computers).
- Manage statewide equipment budget (computers).

SUPPLIES

The Resident Engineer is responsible for obtaining and managing all supplies required by the Construction Crew.

Supplies include but are not limited to:

- Personal Protective Equipment (PPE).
- Office and field supplies.
- Mobile electronic devices (e.g., phones, iPads, Wi-Fi hot spots).
- Lab trailer supplies.
- Other supplies as needed.

BUDGET AUTHORITY

The budget for supplies is generated by the Construction Division in conjunction with the Districts. The Construction Division is responsible for managing the statewide budgets for the construction crews, and the Districts manage the crews' expenditures.

The Resident Engineer is delegated expenditure authority from the District Engineer in accordance with the Department's <u>Transportation Policy (TP) 1-1-4</u> (Authorized Signatures) and at the discretion of the District for expenditures less than \$1,000. Any expenditure in excess of \$1,000 requires the Assistant District Engineer's signature, and any expenditure in excess of \$10,000 requires the Director's Office signature.

CONSTRUCTION FIELD CREWS

- Approve/sign request(s) for expenditures less than \$1,000.
- Send request for approval and signature for expenditures exceeding \$1,000.
- Maintain inventory for mobile electronic devices as needed.
- Maintain inventory for lab trailer supplies.

DISTRICT ADMINISTRATION

Approve/sign request(s) for expenditures exceeding \$1,000 (Assistant District Engineer).

CONSTRUCTION DIVISION

- For iPads:
 - · Manage procurement.
 - Maintain statewide inventory.
 - Manage budget.

FHWA

N/A

OTHER NDOT DIVISIONS

DIRECTOR'S OFFICE

■ Approve/sign request(s) for expenditures exceeding \$10,000.

INFORMATION TECHNOLOGY DIVISION

■ Procure all mobile electronic devices.

HEADQUARTERS, EQUIPMENT DIVISION OR DISTRICT STOCKROOM

Procure all supplies except mobile electronic devices.

SERVICE PROVIDER PROCUREMENT

The Construction Division selects and retains service providers (formerly known as consultants) through Requests for Proposals (RFPs) in accordance with processes and procedures established by the Administrative Services Division's Step By Step Agree-ment Guide on the Agreement Services Division's SharePoint site. The selection of the service providers to fulfill the specific needs and requirements of the assignment/agreement are based on a qualifications-based selection process. Service providers for the Department are responsible for their own internal supervision and personnel requirements.

Full Administration. The Department may retain service providers to administer full construction projects. A Service Provider staff includes an engineer, licensed to practice in Nevada, to serve in the role of a Resident Engineer, and all necessary support staff to oversee and monitor the project in conformance with NDOT policies and procedures. This type of agreement is typically referred to as "Full Administration". A service provider provides sufficient staff possessing the experience, knowledge and character to perform the duties adequately and meet the agreement requirements. A service provider also provides the field office,

equipment, field labs, vehicles and supplies necessary to administer the project. A service provider administers a NDOT contract in the same manner as a NDOT field crew; however a service provider assuming the role of Resident Engineer does not have the authority to make financial commitments on behalf of the Department.

Augmentation. The Department may also retain service providers to support, or augment, a Resident Engineer's existing crew. This type of agreement is typically referred to as "Augmentation". The size and configuration of the Service Provider staffing on an augmentation are based on the needs of the Resident Engineer/Field Crew and specific project. They may include one or more individuals functioning in various roles such as inspectors, testers, field surveyors, office engineers, document control specialists, schedulers or Assistant Resident Engineers. Service providers may be retained for augmentations through either project specific RFPs or as part of the Construction Division's On-Call Agreement.

Other services. The Construction Division may retain service providers for services other than direct construction project management activities. Such services may include:

- Independent Assurance testing.
- Claims evaluation and support.
- Schedule analysis and training.
- Constructability review.
- Dispute resolution and training.
- Other special projects as necessary to fulfill the needs of the Department's Construction program.

CONSTRUCTION FIELD CREWS

- Coordinate with the Construction Division and District Administration to evaluate workload and possible needs for service providers.
- Provide management and oversight of augmentation and on-call service providers, including but not limited to:
 - Reviewing invoices for hours, equipment and deliverables.
 - · Recommend the approval of staffing changes.
 - Forward signed invoices to the Construction Division.

DISTRICT ADMINISTRATION

- Coordinate with the Construction Division and Construction Field Crews to evaluate workload and possible needs for service providers.
- Provide management and oversight of full-administration service providers performing contract administration within the District, including the review of invoices.

CONSTRUCTION DIVISION

- Coordinate with District Administration and Construction Field Crews to evaluate workload and possible needs for service providers.
- Develop scope, negotiate and execute agreement with service provider.
- Complete final review of Service Provider invoices and process payment vouchers.
- Complete Closeout Process of service provider agreements.

FHWA

■ N/A

OTHER NDOT DIVISIONS

ADMINISTRATIVE SERVICES DIVISION

Manage the processes and procedures for procuring service providers.

PERFORMANCE MEASURES/BUDGETS

Note: The guidelines identified in this section may not necessarily apply for Design-Build projects.

The Department is mandated by FHWA and the Nevada Legislature to effectively manage all budgets and track performance. The Construction Division and all Districts are responsible for managing the construction contract, overtime and operating budgets. Budgets can be met and performance measures can be achieved with successful management and fiscal responsibility across all levels.

Performance Measures. The Construction Division is responsible for reporting performance on construction contracts in the following areas:

- Budget: Projects completed within 10 percent of original programmed budget
- Change Orders: Projects completed with cost increase of less than 3 percent in Change Orders
- Schedule: Projects completed within 10 percent of original assigned working days
- Construction Engineering: Projects completed at or below the budget cost
- Testing Frequencies: Projects completed within 10 percent of minimum required frequencies
- Overall Target: 80 percent of Projects completed within budget, schedule, Change Order, construction engineering and testing frequency measures

The Resident Engineer is responsible to measure the performance of their construction contracts. If any budget or measure that is expected to be exceeded or cannot be met, timely notification to the Assistant District Engineer and the Construction Division's Assistant Construction Engineers is required. Funds need to be obligated to the contracts before the budget is exceeded.

Budgets. Resident Engineers are responsible to track their operating (supplies), travel (per diem) and overtime budgets. Budgets are allocated according to the NDOT fiscal year, July to June. The Chief Construction Engineer is responsible for generating and managing the budgets for the construction crews statewide; each District is responsible for its expenditures. The budget is generated with each District's input and recommendations, and it accounts for the statewide construction program. However it is important to note that the ultimate budget is determined by the funding allocated from the Governor's statewide budget and then distributed across the Department by the Director's Office.

The operating and overtime budgets cannot be exceeded in any given year. Upon approval from the Nevada Legislature, additional funding for the travel budget may be provided in order to effectively manage the construction contracts across the state.

CONSTRUCTION CREWS

- Monitor contract performance to meet stated measures.
- Track budgets to meet stated measures.
- Notify Construction Division of any budget or measure that is expected to be exceeded or cannot be met.

DISTRICT ADMINISTRATION

- Monitor contract performance to meet stated measures.
- Track budgets to meet stated measures.
- Notify Construction Division of any budget or measure that is expected to be exceeded or cannot be met.

CONSTRUCTION DIVISION

- Notify Financial Management Division of any budget that will be exceeded.
- Generate/send the Construction Division's annual performance measures to Performance Analysis Division.

FHWA

• Review the Department's annual Performance Management Report.

OTHER NDOT DIVISIONS

PERFORMANCE ANALYSIS DIVISION

- Incorporate the Construction Division's annual performance measures into the Department's annual Performance Management Report.
- Publish/distribute the Department's annual Performance Management Report to FHWA and the Nevada Legislature.