Arizona Department of Transportation
Record Drawing Guidelines

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Contents

Letter to Record Drawing Guideline Users

The Arizona Department of Transportation (ADOT) Record Drawing Guidelines is written to ensure that all stakeholders participating in the development of record drawings will apply consistent methodologies and to provide ADOT personnel and Consultants with the guidelines and procedures needed to prepare final record drawings (formerly known as “As-Built” Drawings).

These guidelines are intended to provide consistency in the development of final record drawings, and record accurately the information of any modification(s) made during construction on projects throughout the State of Arizona. This guidance document also sets requirements to ensure the electronic files are received in a timely manner and that they are stored electronically in a format that preserves the documents for future use by stakeholders through the Repository of Online Archived Documents (ROAD).

It is the responsibility of the Project Resource Office to maintain the engineering records for all civil construction projects for decades to come.

Our goal is to provide you with a guideline that will include all of the most current documentation in one location and to bring all of the prior documentation related to preparing final record drawings into one document which will help to improve consistency and accuracy in the development of the final record drawings.

Please note that updates to this document will be ongoing as processes change, or new more efficient methods are established to make the development process more accommodating for our stakeholders and provide our customers with accurate records through the ROAD portal.

Please feel free to contact the Project Resource Office with any questions or modifications to these guidelines.

Chapter 1

Background / Scope / Authority / Guidance / References

1.1 Background / Scope

This guideline was established as of October 1st, 2017 to update the current record drawing documentation, which is in some cases, was out of date and may have changed based on the new procedures for submitting Record drawings to the department. This guideline has been developed to incorporate any of the previously distributed guidance that may still be accurate and/or in effect and also supersedes any previous guidance documents that may have changed based on newly developed procedures. This guideline is intended to provide a complete and accurate explanation of the record drawing process, policies and procedures that are available in various locations, and combine these documents into one document.

1.2 Authority

ADOT is required by State law to keep an official record of the final plans for all construction projects which involve ADOT oversight (per Arizona Revised Statues ARS 32-152). These record drawings are required on all ADOT administered projects and must record the field changes made to the original design plans during the construction of a project.

On November 8th, 2008 the State Engineers Office distributed a memorandum on the "As Built Procedure". The information in that memorandum is covered within this guidance document. In addition, on November 10th, 2010 an Intermodal Transportation Division (ITD) policy ENG 10-1 – "As-Built Plans Archiving Policy" was established for further guidance on the "As-Built" procedure. As part of an agency wide effort to update old policies, it was requested by the State Engineers Office to change the ENG 10-1 policy to a guideline. This guideline will replace the ENG 10-1 policy most of which is covered within this guideline.

In January of 2004 an ADOT CADD Archiving Team was created to review the existing archive process for storing electronic project data. Documents were produced that outlined the "*CADD Files Archiving Process*", and "*Technical Design Group Requirements for Archiving*". This information is found in the "*Dictionary of Standardized Work Tasks*" and is currently available on the Project Management web site. All engineering design contracts that produce CADD drawings include the requirement to use the "*Dictionary of Standardized Work Tasks*" as part of the contract. In June of 2005, a memorandum was issued from the State Engineers Office stating that the ADOT CADD File Archiving Process will be the standard method for both ADOT staff-designed projects as well as consultant-designed projects. In addition, as part of the record drawing submittal process, if the CADD files were not submitted after the project went to bid, then the CADD files are required to be submitted before the project can be closed out.

On April 7th, 2015 a memorandum was issued by the Project Resource Office that replaced the terms “as built drawing” and/or “as build drawing” with the updated term “record drawings”. At the time of the writing of this guidance document the Arizona Revised Statues ARS 32-152 has not been changed to reflect the term record drawing, however the Arizona Revised Statue that reference “As Build” and/or “As Built” is referring to the new term record drawings for the purposes herein.

1.3 Guidance

Our goal is to give you a guidance document that will provide quality and consistency and help the person(s) responsible for completing the documentation or recording of changes made to the as-bid documents. There may be additional items that are not covered in this guidance document which may need to be addressed on a case by case circumstance in which the Project Resource Office can be contacted directly for additional guidance and direction.

This record drawing guidance document supersedes any other record drawing guidance documents. This record drawing guidance document does not supersede any current State Statues and is intended only for general guidance in the record drawing preparation and submittal process.

The record drawing and CADD archiving procedures described in the following chapters shall be applied by ADOT staff and consultants to all projects which involve ADOT oversight to assure ADOT and other stakeholders the deliverance and availability of the record drawing information and CADD data.

Record drawing plans are required on all projects including but not limited to: permit projects, procurement or as-bid projects, sub-program projects, transportation enhancement projects, local government projects and alternate delivery projects.

CADD files are required for archiving on all state highway system projects. CADD file deliverables are specified in Section 7.1.

If a project crosses or impacts property owned or maintained by the Central Arizona Water Conservation District (CAWCD), Maricopa Water district (MWD), please refer to the Contract Special Provisions. These agencies may need a copy of the record drawings. If a copy of the record drawings is required for an outside agency, it is the responsibility of the Project Manager to deliver or inform the Project Resource Office that a copy of the record drawings needs to be provided to the agency.

Any reference to a PE in this document is a person, ADOT or Non-ADOT, who has been granted registration by the Arizona State Board of Technical Registration and is authorized to practice engineering in the State of Arizona.

1.4 References

Project Resource Office Web Page:
https://azdot.gov/business/ManagementServices/ProjectResourceOffice

Record Drawings Guidelines Web Page:
https://azdot.gov/business/ManagementServices/ProjectResourceOffice/record-drawing-guidelines

Bridge Group Guidelines Web Page:
https://www.azdot.gov/business/engineering-and-construction/bridge/guidelines

Dictionary of Standardized Work Tasks
https://azdot.gov/business/project-management-services/project-management-group/references-project-management-group

Repository of Online Archived Documents (ROAD) Portal: https://road.azdot.gov/

Record Drawings Email: RecordDrawings@azdot.gov

Project Resource Office Contact Number: 602-712-7015

Chapter 2

Definitions

2.1 Definitions

As-Bid Plans – The as-bid plan set is the final sealed and signed plans including addenda at bid opening.

As-Built Plans – The term or words "as-built" plans has been changed to "record drawing" plans. This new definition was adopted by ADOT on April 7th, 2015. The terms as-built or as-build are used interchangeably but the official term on all ADOT documentation is or will be changed to record drawing(s).

Additional Information Sheets – Additional information sheets are drawings that contain additional information pertinent to the project. This may include hand drawn sketches or actual additional drawings provided for or included as part of the project. These additional information sheets must be sealed, signed and dated by a PE.

Addendum – Addendums or Addenda are revisions to the contract made available to bidders after bid advertisement, but prior to awarding the contract. After the contract has been awarded, changes are referred to as Supplemental Agreements. Addenda are typically shown in black on the record drawings since they occurred prior to the contract being awarded. The original sheet is not required in the record drawings as long as the addendum is reflected on the drawing that requires the addendum. If the original sheet is available, it can be included with an "X" from corner to corner of the sheet (red or black). (See Chapter 6, Section 6.1, # 4)

Agency – Agency refers to the agency being discussed, typically an outside agency.

CADD – Computer Aided Design and Drafting, typically refers to the software and/or the electronic files used to produce engineering drawings.

Change Order – Change orders are done after the project has been awarded and the project has gone to construction. Change orders are a form of supplemental agreement that occurs from an unforeseen situation during construction. Change orders are shown in the record drawings in red.

In some cases the change order requires that a new sealed plan sheet be developed during construction activities to replace the existing as-bid sheet. The changes on the new sealed plan sheet and associated sheets need to identified as outlined in Chapter 6, Section 6.2, # 5 (Also see Appendix G for example)

Construction Administrator – The ADOT Resident Engineer (RE) or the person who is in charge of administering the project during construction. This person needs to be a Professional Engineer (PE) and is designated as such on the face sheet of the record drawings in the information block. The Construction Administrator must also be an ADOT employee. (See Appendix C)

Critical Structures Notice – The Critical Structures Letter is uploaded to the ROAD portal in place of the record drawings plans on any projects (typically bridge projects) that have been identified as a critical structure. This is pursuant to measures taken through the Federal Homeland Security Act of 2002. Access to the record drawings for critical structures must be requested through the ADOT Office of Safety & Risk Management.

Designer of Record – The Designer of Record is the PE who is responsible for the design of the as-bid plans and responsible for sealing the as-bid plan sheets. There may be more than one Designer of Record on a project.

Department – The Department refers to the Arizona Department of Transportation.

Design Project Manager (PM) – The Design Project Manager (PM) is the person in charge of or oversees the design and/or post design services of a project and initiates, coordinates and evaluates the RE request from the designing side of the project to ensure the transferred changes requested by the District RE are recorded in the record drawings.

Electronic Design Files – Electronic design files are created using Computer Aided Design Drafting (CADD) software.

Field Red-Lines – The field red-lines are the changes or modifications that occurred during construction of the project. These are typically minor modifications that are not dealt with by a supplemental agreement or a change order. These can include quantity adjustments, minor field modifications, sketches, added plan sheets, exhibits or anything that was done on a project that is outside of the original design and did not require a change order.

Final Record Drawings – Also see Preliminary Record Drawings. The final record drawings is the final set of record drawings completed by the Record Drawing Designer under the supervision of the RE / Construction Administrator and submitted to the Project Resource Office for approval and conformity to the current ADOT Record Drawing Guidelines and archived into the ROAD portal.

Information Block – See Record Drawing Information Block for definition on page 2-3.

Liaison – The liaison is an employee that represents ADOT.

No-Plans – The term "No-plans" refers to projects that do not contain plan sheets. No-plans are typically used for procurement projects or projects done by special provisions. A No-plans document (see Appendix E) is required to be submitted to the Project Resource Office. The document is reviewed and uploaded to the ROAD portal. A blank PDF copy of the No-Plans document is available on the record drawings web site.

PE – See Registered Professional Engineer (PE) on page 2-3.

Preliminary Record Drawings – Also see Final Record Drawings. The Preliminary Record Drawings generally refers to the set of record drawings that are either being used in the field to document changes, or given to the Record Drawing Designer to produce the final record drawings.

Prime Contractor – The Prime Contractor is the Contractor that the project was awarded to. There may be Sub-Contractors hired by the Prime Contractor, however the Prime Contractor is responsible for the project delivery. The Prime Contractor is identified in the Record Drawing Information Block on the Face Sheet of the final record drawings. (See Appendix C)

Project Submittal Form – See Record Drawing Project Submittal Form on page 2-4.

Record Drawing Information Block – This is shown on the Face Sheet of the project plans along the right side of the sheet. This Record Drawing Information Block includes the name of the Prime Contractor / Construction Company that constructed the project and the date the project was completed. This block also contains the name of the Construction Administrator, who is the Resident Engineer (RE) and is a PE or RLA (for landscape projects) and is designated as such within the information block and the date the RE signed off on the project completion. The Construction Administrator must be an ADOT employee. This block also has the name of the Record Drawing Designer and the date the record drawings were completed. (See Appendix C)

Red-lines – See Field Red-lines on page 2-2.

References – References are shown on the Design Sheet of a plan set. These were previously shown on the face sheet of the plans. References are the plans that were used to develop / design the current set of plans. When references are not shown on the as-bid plans, they need to be shown on the record drawings. References are very useful for locating information that may not be available in the current set of plans. See example on page .

Registered Professional Engineer (PE) – the PE is a person, ADOT or Non-ADOT, who has been granted registration by the Arizona State Board of Technical Registration and is authorized to practice professionally in the State of Arizona. This individual is usually a member of the design team who is in charge of developing the details for a project and has current or active license when the project is required to be sealed and signed. This person can be a Civil Engineer, Landscape Architect, Architect or Land Surveyor.

Resident Engineer (RE) – The RE is an ADOT employee and a PE who is the designated as the Construction Administrator on the project who is in charge of administering the project and responsible for the field red-lines being recorded completely and accurately.

Record Drawing Coordinator / Project Resource Office Liaison – The Record Drawing Coordinator is an ADOT employee who oversees the record drawing procedure and verifies the content of the deliverables to the Department.

Record Drawing Designer – The person in charge of the record drawing plans for a project and ensures that the field red-lines are transferred accurately to the final record drawing Plans. Typically this person is assigned or designated by the Project Manager and/or the RE / Construction Administrator.

Record Drawing Plans – Record Drawing Plans are all of the changes to a construction document for a project based on a Professional Engineers (PE) changes to the original design. The changes are based on field observations or information obtained during construction. ADOT is required to maintain the record drawings (formerly known as "As Built Plans") per the Arizona Revised Statues ARS 32-152. The record drawing red-lines record the changes occurring during construction and are incorporated onto the plans manually and/or electronically. The field red-lines set and other miscellaneous documents will be provided by the District's Resident Engineer / Construction Administrator.

Record Drawing Project Submittal Form – The RE / Construction Administrator must submit a Record Drawing Project Submittal Form (See Appendix B) with the final submittal of the record drawings to the Project Resource Office. This project submittal form lets the project resource office know that the RE / Construction Administrator has reviewed the final record drawings and they include all of the field changes and the changes have been recorded accurately based on the marked up version from the field.

ROAD – ROAD is the acronym used for the Repository of Online Archived Documents. This is a cloud based portal to a database that contains all of the final record drawings for state and local governments. Record drawings can be searched by project information or through an interactive GIS map.

ShareFile – ShareFile is available to ADOT employees as a method to transfer large files or files that are too large to send through email. The maximum message size for emails is 20 MB (includes message and any/all attachments). ShareFile has replaced the ADOT FTP site. To access ShareFile you will need to setup a ShareFile account by opening a Service Desk Ticket from Information Technology Group (ITG). This is done either through an email or calling the Help Desk.

Sketches – Sketches may be added to a set of plans however they must be clear and the quality of the sketch and information must be reproducible if the sketch is scanned or copied. If the sketch is such that it is changing the design of the project or adding significantly to the design, the sketch must be signed, sealed and dated by a PE.

Supplemental Agreement – Is a signed written agreement between ADOT and the Contractor covering changes of work not otherwise provided for in the contract such as revisions or amendments to the terms of the contract.

Chapter 3

Record Drawing Preparation (See Flowchart Stage I, Appendix A)

3.1 Transferring the field changes to the Record Drawings (RE Requirements)

1. It is recommended that the field office identify a single drawing set or electronic (CADD or PDF) file, including all addenda, to be used for red-lines prior at the start of construction. This set of drawings should be used to keep track of or record all of the field changes during construction. Modifications shall be recorded promptly to ensure that a thorough and accurate set of final record drawings are compiled. This set of drawings should be kept clean, dry and apply all safeguards avoid any damage to the plan set. If a drawing within the set is damaged or impaired, immediately replace the damaged drawing with a clean copy to record any changes. If an electronic file is used it should be stored in a directory accessible to the project field staff on a server or drive that is backed up regularly.

2. During the course of construction activities, the Resident Engineer (Construction Administrator) is responsible for recording any changes in the locations, dimensions or quantities of constructed elements from those shown in the original as-bid contract documents (i.e., construction plan sheets). The Resident Engineer (Construction Administrator) shall record all changes to the original design on a copy of the As-Bid plans in red so that it is clearly identifiable as to changes that have occurred.

   Any major design changes should be discussed with the original Designer of Record that prepared the As-Bid plans.

   Items that should be taken into consideration during the construction phase are:

   - Addenda
   - Supplemental Agreements
   - Change Orders
   - Field Adjustments
   - Request for Information Drawings
   - Shop Drawings (Unique/Different from As-Bid plans)
   - Bridge Working Drawings *
   - Found, relocated and abandoned utilities

   Red-lines are a continuous process from the start of a project.

   *Per the General Provisions in Section 16 of the ADOT Bridge Group Design Guidelines, available on the Bridge Group web page (see References on page 1-2), the following selected working drawings will become part of the final record drawings for permanent retention:

1) Post-tensioning details
2) Expansion Joint details (non-standard only)
3) Proprietary bearing details
4) Proprietary retaining wall details
5) Proprietary sound barrier wall details
6) Precast and stay-in-place deck panels
7) Other working drawings for atypical structures as specified in the special provisions

3. The Resident Engineer and Design Project Manager (PM) must coordinate the preparation efforts with the ADOT Technical Section(s) or Consultant(s) preparing the final record drawings, for the proper allowance of time and funding (see Chapter 3, Section 3.1, # 4). It is recommended that the "Team" comprised of the Resident Engineer (RE), the Project Manager (PM), and the Record Drawing Designer meet to determine the best approach to transferring the field changes to the final record drawings (several methods are described below in Section 3.2).

   During the coordination meeting, the RE, PM and Record Drawing Designer should be aware of the required checklist shown on the "Record Drawings Project Submittal Form". (Appendix B, and also Chapter 6, Section 6.1, # 12) It is also a good time for the team to check the record drawings web page for additional guidance or requirements on the preparation of the final record drawings.

4. The RE, PM, Designer of Record and the Record Drawing Designer shall prepare the "Record Drawing Preparation Estimate". (see Appendix D) This estimate should take into consideration the method that will be used to produce the final record drawings as indicated in Chapter 3, Section 3.2. This form is a tool for the PM to verify the reasonableness of the Record Drawing Designers cost to prepare the final record drawings. A blank Excel copy of this form is available on the record drawing web page.

5. Within 45 days of the project's final acceptance (including Consultant, internal ADOT or Local Government administered projects), the RE shall assemble the final red-line drawings and transmit them, along with the Record Drawing Preparation Estimate (see Chapter 3, Section 3.1, # 4) to the Record Drawing Designer (If required based on Method used, See Chapter 3, Section 3.2).

6. The RE shall complete the "Record Drawing Information Block" on the face sheet of the project plans. This includes the company name of the Prime Contractor and the date the construction project was finished. The name and date of the Construction Administrator / RE and date the red-lines were completed and ready to be handed off to the Record Drawing Designer. <u>The RE shall keep a copy of the preliminary record drawings / red-lines for a record during the time the Record Drawing Designer completes the final record drawings.</u>

7. The RE must ensure that the final record drawing set includes all Addenda, Revisions (change orders, Letter of Agreements, etc.), field changes and any additional drawings created as a result of unforeseen circumstances (see checklist in Chapter 6, Section 6.1, # 12). Any additional drawings must be stamped, sealed and signed by a PE. Depending on the method used to create the final record drawings, once the RE is sure that all of the changes are recorded or documented, the RE will then hand off a color copy of the red-lines to the Record Drawing Designer for final preparation.

8. When the RE transmits the completed red-lines to the Record Drawing Designer for final record drawing preparation, the RE shall email both the PM and the Field Reports Section advising them of the transmittal date. Field Reports will enter the date into the Field Office Automation System (FAST) to be reflected on the Contract Card.

3.2 Methods to prepare Final Record Drawings

There are several methods (Method a – d) or processes available to prepare the final record drawings.

NOTE: Regardless of the method chosen to prepare the final record drawings, the final product must be legible, clean, not faded and reproducible.

a) On smaller projects that do not require a lot of field changes, the RE can mark (using a red pen) the field red-lines on the designated Preliminary Record Drawing plans set. As long as the field red-lines are clean, neat, complete, legible and reproducible, the RE or the Record Drawing Designer can consecutively number the sheets in the lower right corner and add the date in the upper right corner in red per the attached example plan set (see Appendix G, Record Drawing Example). This complete set can be scanned into a PDF/A document and directly submitted to the Project Resource Office for review (See Chapter 6, Section 6.2, # 2). This method does not require electronically transferring the red-lines into the PDF document. The RE / Construction Administrator shall also complete the Record Drawing Project Submittal Form and submit this form with the final record drawings.

For Methods b – d, if the red-lines are being transferred to a PDF document, the size of the font used on the PDF should be large enough to read when the page is at its extents. Typically for a 17”x11” sheet the PDF font height would be 10 and on a 34”x22” sheet the size would be 20.

b) The RE / field office can make the field red-line changes electronically to a PDF copy of the as-bid plan set as changes are required (during construction activities). Changes should be made to the PDF document daily as the field changes are completed. The red-lines shown on the PDF must be done according to these guidelines (see Appendix G, Record Drawing Example). This PDF copy must be protected and saved to location that is backed up (not on the local hard drive). Once the project is complete and all of the field changes have been recorded, the RE can create a PDF/A

document and submit this, along with a completed Record Drawing Project Submittal Form directly to the Project Resource Office for review.

c) A legible copy of the field red-lines that the RE / Construction Administrator has prepared are given to the Record Drawing Designer and the red-lines are transferred electronically to produce the set of final record drawings. The electronically transferred red-lines can be done using Computer Aided Design and Drafting (CADD) software or any other application such as Adobe Acrobat to produce the final PDF document. If CADD is used to record the changes, the CADD file must be capable of printing the changes in red. A special pen table may be required to print out the changes in red. Alternatively, as long as the red-lines are clean, neat, complete, legible and reproducible, the Record Drawing Designer can manually add the sheet numbers and record drawing date to each drawing. In either case, the final record drawing PDF must be submitted as a PDF/A document.

d) On large projects that require many field changes, the RE and the Designer of Record can communicate any field red-line changes to the Record Drawing Designer during construction activities as changes occur. This allows the Record Drawing Designer the option of maintaining a PDF document with red-line changes as construction progresses. If there are major changes to a drawing or the need for additional drawing(s), the Record Drawing Designer may create these in CADD and print out a PDF for insertion into the preliminary record drawing plans set. Any new drawings added to the original as-bid plan set must be sealed, signed and dated by a PE. As indicated in method c, there may be a need for a special pen table to allow printing the field changes from the CADD document in color (red).

   If major modifications and/or a new plan sheet(s) is required, the RE, Designer of Record and the Record Drawing Designer should determine if the new plan sheet should be drawn using CADD or if an additional sheet can be sketched or hand drawn to replace the original as-bid sheet(s). In either case, the original plan sheet(s) is still required in the final record drawing plans submittal. The original plan sheet(s) will have a red “X” drawn through the sheet(s) and the new sheet(s) will be included after the crossed out sheet(s). The “X” on each sheet should go from the upper left corner to the lower right corner and the lower left corner to the upper right corner (see the examples in the record drawings included with these guidelines). The “X” should not be so thick as to obscure any information on the plan sheet. The new plan sheet must be stamped, signed and dated by a PE.

Keep in mind that final record drawings can be submitted with field red-lines done by hand. If the red-line changes to the plans are neat, clean, legible and reproducible the record drawing sheet numbers and date can be added to the plan sheets and electronically submitted as final record drawings (PDF/A). If there are drawings that contain many changes or markups, sometimes it is easier to make the changes electronically using Adobe Acrobat or CADD so that you can move things around such as text and clouding. Erasing on the record drawings is not an option.

Never remove or cover any original values or details.

Chapter 4

Record Drawing Preparation (See Flowchart Stage II, Appendix A)

4.1 Creating the Final Record Drawings (Record Drawing Designer Requirements)

1. Once the RE / Construction Administrator has finished gathering all of the record drawing data, the field red-lines (mark-ups) depicting construction changes are turned over to the Record Drawing Designer (Consultant or ADOT technical section) to prepare the record drawing plans.

2. Once the Record Drawing Designer receives the red-line drawings, the Record Drawing Designer should review the red-line drawings for accuracy, legibility and completeness. If there are any questions or something is not understood or clear on the field red-lines, the Record Drawing Designer must contact the RE / Construction Administrator to clear up any issues in a timely manner.

3. Once the Record Drawing Designer receives the red-line drawings, the Record Drawing Designer must complete the final record drawing plans within 60 days or less.

4. The Record Drawing Designer will complete the final record drawings in accordance with these Guidelines and information available on the ADOT – Project Resource – Record Drawing Guidelines Web Page. More information on general record drawing preparation guidelines is available is Chapter 6. If there are any questions during the preparation of the final record drawings, the Record Drawing Designer will contact the RE for clarification. If there are any questions on the preparation of the final record drawings regarding the final submittal, the Record Drawing Designer and/or the RE can contact the Project Resource Office.

5. The Record Drawing Designer must submit the completed record drawing plans to the RE / Construction Administrator for review to ensure all of the field red-lines and information is included in the record drawing plans. The record drawing plans must be converted to a PDF/A document. Information on creating a PDF/A document is available in Chapter 6, Section 6.2, # 2 and also available on the Project Resource Office Web Page.

6. The RE / Construction Administrator should complete the review within 5 working days.

7. During the RE / Construction Administrators review, the RE / Construction Administrator shall download the Record Drawing Project Submittal Form (Appendix B) and make sure the final record drawings are in conformance with the checklist on the submittal form.

   The Record Drawing Project Submittal Form is located on the Project Resource Office, Record Drawings Web Page.

8. Once the RE / Construction Administrator approves the record drawings, the RE / Construction Administrator shall send an email to the Record Drawing Designer and the Project Resource Office with the Project Request Form attached. The Project Resource Office email address for record drawing submittals is: RecordDrawings@azdot.gov.

9. The Record Drawing Designer will then email the final record drawings in PDF/A format to the Project Resource Office at: RecordDrawings@azdot.gov and copy the RE / Construction Administrator on the email notification.

Chapter 5

Record Drawing Preparation (See Flowchart Stage III and Stage IV, Appendix A)

5.1 Final Record Drawing Review (Project Resource Office Review Requirements)

1. Once the final record drawings are submitted to the Project Resource Office, the Project Resource Office will (typically within 1 – 2 working days) send out an email indicating that we have received the record drawings and will be reviewing them for conformity to the ADOT Record Drawing Guidelines. The Record Drawing Designer and RE / Construction Administrator will be notified once the drawings are accepted and approved by the Project Resource Office or if there are any changes that need to be made to the submitted drawings.

2. The Project Resource Office will typically complete the review of the record drawings within 2 working days (depending on the complexity of the project).

3. If there are changes that need to be made to the record drawings, the Project Resource Office will notify the RE / Construction Administrator and Record Drawing Designer of the required changes. The Record Drawing Designer will have a maximum of 14 days to make the changes to the record drawings from the date of notification of non-compliance.

4. The Record Drawing Designer will need to re-submit the record drawings to the Project Resource Office for another review. The Record Drawing Designer will copy the RE / Construction Administrator on the submittal. Reviews will continue until the Project Resource Office approves the final record drawings.

5. Once the Project Resource Office accepts the final record drawings, the Project Resource Office will generate an acceptance email and send the acceptance email to the RE / Construction Administrator, the Record Drawing Designer, Field Reports, MPD, Final Voucher and the Project Manager notifying them that the final record drawings have been accepted.

   The Field Reports Section will send out an email indicating that the final record drawings have been documented in the FAST Contract Card.

6. The Project Resource Office will load the final record drawings into the Repository of Online Archived Documents (ROAD) portal and the final record drawings will be available typically the next day. The ROAD portal is also mirrored or copied to AIDW.

7. The Project Resource Office will then send a copy of the final record drawings to the State Archives. Submittals to the State Archives are typically done on a quarterly basis. There is no notification sent to the RE / Construction Administrator or the Record Drawing Designer that the files have been submitted to the State Archives.

Chapter 6

Record Drawing General Requirements

6.1 Record Drawing General Requirements

Below are general requirements for the preparation of the final record drawings. Most of these requirements are shown in the example set of record drawings in Appendix G.

1. The base or working set of record drawings will be a copy of the As-Bid plan set including all addenda that were available at bid opening.

2. The Record Drawing Information Block on the Face Sheet must be filled in completely including: (Also see Appendix C)

   Constructed By:
   Construction Company – The name of the Prime Contractor on the project (shown in red).
   Completion Date - Date the project was completed (shown in red).

   Red-Lines By:
   Construction Administrator – The name of the RE on the project (must be a PE and designated as an Engineer) (shown in red).
   Completion Date – The date the RE submitted the plans to the Record Drawing Designer (shown in red).

   Record Drawings By:
   Record Drawing Designer – The name of the person reviewing the transfer of the field re-lines to the final record drawings (must be a PE and must be designated as an Engineer). This person is typically the primary Designer of Record on the as-bid set. The transferring of the field red-lines from the RE to the final record drawings can be done by anyone, but the review of the transferred red-lines must be performed by a PE (shown in red).
   Completion Date – the date the record drawings were completed (shown in red).

   All of the information that is provided in the Record Drawing Information Block needs to be shown in red. (See Appendix C)

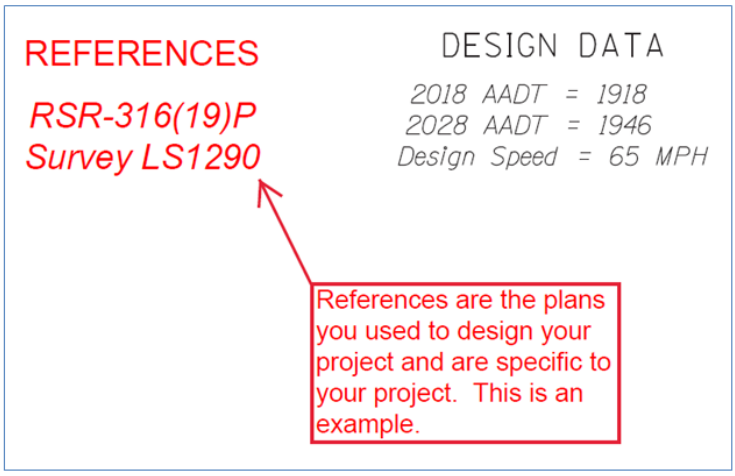
3. Ensure that every sheet has been sealed, signed and dated by the Engineer of Record. The seals need to be clear and readable. This applies to additional sheets or sketches that have been added.

4. All Addenda need to be included in the final record drawing submittal. Because an addendum typically occurs prior to bid acceptance, these sheets and the addendum information can be, or is typically shown in black.

   If the original sheet (prior to the addendum release) is available, this sheet can be included but an "X" must be drawn through the sheet indicating that the sheet was replaced with the new sheet. The new addendum sheet should be placed after the original "X'd" out sheet. The original sheet is not required as long as all of the addendum information is shown on the new addendum sheet. The "X" should not be so thick as to obscure any information on the plan sheet.

   The Record Drawing Designer needs to check AIDW for any addenda or consult with the Project Manager and RE / Construction Administrator to ensure all of the addenda have been provided and are included in the final record drawing submittal.

5. If the record drawings do not show the "References" on the as-bid Design Sheet, the record drawings need to show all of the plans and or survey number that were used to develop / design the project. This information needs to be shown on the Design Sheet. If a Design Sheet is not included in the original as-bid plans the information should be shown on the Face sheet. The text size should be as close as possible to the other text on the Design Sheet (Typically for a 17"x11" sheet the PDF font height would be 10 and on a 34"x22" sheet the size would be 20). Below is an example of how this information should be shown.



6. Change orders that require that a new sealed plan sheet be developed during construction activities are developed as indicated in one of the two examples shown below:

   To replace the existing as-bid sheet:

   a. The new sheet is sealed, signed and dated.

b. All information pertinent to the sheet needs to be copied to or incorporated in the new sheet from the as-bid sheet such as addendums.

c. The original as-bid sheet that is being replaced needs to be included in the record drawings and a red "X" drawn from corner to corner.

d. The changes on the new plan sheet and associated sheets need to be clouded in black.

e. On the newly sealed change order sheet (and any additional associated sheets) that replace an existing sheet, identify each change order in the upper right corner of the sheet with "To Accompany Change Order No. XX".

f. Add a triangle to each clouded change with the Change Order number in the triangle. Also, add a brief description of the change in the Revision Block.

(See Appendix G, Page 24 - 26 for an example)

Add a Change Order sheet to the project (not replacing an existing sheet):

a. The new sheet to be added is sealed, signed and dated.

b. The new sheet is inserted into the section of the plans based on type of work. (i.e. Roadway detail should go in the details section, traffic pavement marking should go in the pavement marking plans section)

c. On the newly sealed change order sheet(s) (and all associated sheets) that are being added, identify each change order in the upper right corner of the sheet with "To Accompany Change Order No. XX". This can be done in black or red.

d. Cloud the title block in the lower right corner and add a triangle to identify the change order with the change order number in the triangle. This must be done in red.

(See Appendix G, Page 15 for an example)

7. All field revisions to permanent construction shall be documented on the sheet where the change occurs and shown in red. These revisions include but are not limited to; geometrics, utilities, guardrail, striping, signing and permanent erosion control.

8. Change Order (CO) and Letter of Agreement (LOA) changes need to be identified on the record drawings and shown in red. (Except as noted in Chapter 6, Section 6.2, # 5) The change also needs to be clouded in red. Any added text associated with the change needs to be large enough to read (PDF font size of 10 for a 17"x11" sheet size and 20 for a 34"x22" sheet size works well).

9. Shop drawings that are unique in nature and are original Contractor submitted designs, shop drawings that change the design, Request for Information (RFI), Supplemental Agreements, etc. shall all be included in the final record drawings. All additional drawings must be sealed, signed and dated by a PE and include in the final record drawings preferably at the location where the additional information pertains or added at the end of the record drawing plan set.

10. Per the General Provisions in Section 16 of the ADOT Bridge Group Design Guidelines, available on the Bridge Group web page (see "References" on page 1-2), the following selected working drawings will become part of the final record drawings for permanent retention:

    a. Post-tensioning details
    b. Expansion Joint details (non-standard only)
    c. Proprietary bearing details
    d. Proprietary retaining wall details
    e. Proprietary sound barrier wall details
    f. Precast and stay-in-place deck panels
    g. Other working drawings for atypical structures as specified in the special provisions

11. If the project includes a SWPPP sheet, Part 2 of the sheet needs to be completed if more than 1 acre was disturbed during construction. This information is provided by the RE / District Office. If after checking with the RE / District Office, the information is not available, then a red "X" needs to be drawn through only Part 2 of the sheet indicating that the RE / District did not have the information available.

Minor Revisions:

- Minor revisions can be hand drawn on the record drawings in red. If there are no red-lines or changes during construction, the record drawing sheet numbers, record drawing date and the information block on the face sheet can be hand drawn in red. Any hand drawn information needs to be neat, clear, readable and reproducible.

- The RE / Construction Administrator can add sketches that clarify or document new findings or field modifications that need to be recorded. If the sketches are done on a separate page, the new sheet needs to be sealed, signed and dated by the PE making the change in the field. The RE / Construction Administrator should ensure that the information is drawn in red and is neat, clear, readable and reproducible without leaving any extraneous data on the plans. All changes must also be clouded in red.

Major Revisions:

- If a sheet is being replaced by a revised sheet, the new revised sheet shall be sealed, signed and dated by the PE making the revision.

- The original as-bid sheet is not discarded. A red "X" must be drawn from corner to corner of the border. The line weight of the "X" must not obscure any information on the sheet. Never remove or cover any original values or details.

- If a single sheet is being revised several times with major changes, a new sheet may be required. If so, a red "X" must be drawn on the original sheet and all subsequent sheets until the last revised sheet is shown. The line weight of the "X" must not obscure any information on the sheet. All pertinent revisions must be transferred to the last revised sheet and all revisions shall be shown in red. (Except as noted in Chapter 6, Section 6.2, #5) Place sheets in order behind the original / subsequent sheets.

  Never erase, remove or cover any original values or details.

- If there are resources available and depending on the method used to prepare the record drawings (See Chapter 3, Section 3.2 for Methods), the changes can be made using CADD or within the PDF document itself. Either way, the final PDF sheet must show the revisions in red. If CADD is used, this may require a special pen table to allow printing in color. All original features of the sheet should remain in black and only the revisions shall be shown in red.

- If there are not enough resources to prepare an electronic detail, and depending on which method was used to prepare the record drawings (See Chapter 3, Section 3.2 for Methods) the RE / Construction Administrator can create hand drawn sketches sealed, signed and dated by the PE.
- All revisions to the original as-bid plans shall be shown in red, clouded in red and if necessary numbered using triangles with a legend / description of changes (also shown in red). Record drawing sheet numbers in the lower right corner and the record drawing date shall be shown in red. The text needs to be large enough to read (PDF font size of 10 for a 17"x11" sheet size and 20 for a 34"x22" sheet size works well).

12. Added plan sheets shall be inserted within the appropriate section. Label the sheet with the sheet number and the next letter in the alpha designation sequence using upper case alpha letters (i.e. 18A, 18B, 18C, etc.). These should be shown in the upper right corner of the sheet.

13. The Technical Group or Consultant that was the lead for the design of the project, is also the lead for distributing the revisions received from the Project Manager and/or the RE / Construction Administrator. This should be coordinated before construction begins and a method of record drawing preparation should be decided on as outlined in Chapter 3, Section 3.2 (Methods). If the red-lines need to be distributed to the groups or Consultants that completed the work on the original design, the lead for the design of the project shall contact the appropriate groups or persons to perform the work.

    The lead for the design shall collect all of the PDF documents from each discipline and combine

them into one PDF document. This document shall then be converted to a PDF/A prior to submittal to the Project Resource Office. The Project Resource Office does not coordinate the collection of the record drawing submittals from each discipline and does not accept partial submittals of record drawings.

14. Below is a general guidance checklist for items that are commonly overlooked during the record drawing plans creation and submittal process. This is also part of the Record Drawing Project Submittal Form. (See Appendix B)

☐ All As-Bid sheets are included.

☐ If required all Bridge Working Drawings are included.

☐ Record Drawings are being submitted as a PDF/A.

☐ If required Part 2 of the SWPPP sheet has been filled in or "X'd" out (if Part 2 was not used) and if there is one on the project.

Were there any Addendums on this project? (See Appendix G in the Record Drawing Guidelines – PDF page 49)

☐ No.

☐ Yes, the addendum numbers _____ are included in the record drawings.

☐ All of the field red-lines shown on the plans are clouded and shown in red.

Were there any Change Orders or Supplemental Agreements on this project that changed the plans?

☐ No.

☐ Yes, please list the Change Order(s) number (i.e. CO-4, LOA-1):_____

_____

☐ All utility work (gas, water, CAP, electric, communications, irrigation, railroad, etc.) that was moved, added, or abandoned as part of the project are shown on the record drawings.

☐ All of the information that the Contractor is required to provide has been shown in red on the record drawings. (i.e. record drawing information for electrical items, pull box locations, etc.)

☐ All of the information in the "record drawing block" on the face sheet is completed and show in red.

☐ The Construction Administrator's name and date, and the Record Drawing Designer's name and date are shown in red.

☐ The Construction Administrator and Record Drawing Designer are designated as a PE.

☐ All of the drawings have the PE stamp and signature.

☐ All of the record drawing sheet numbers and dates are shown on each sheet in red.

☐ The file size of each PDF/A file is below < 100 MB.

☐ The PDF/A file is unlocked and not password protected.

☐ The file name(s) are correct (i.e. H123401C_vol1(pgs1to18of18)RecDwgs-2016.pdf)

15. If there is more than one volume in a project set of plans, the Face Sheet and Standard Drawing Sheet (1A, 1B, 1C, 1D, 1E) needs to be included in the record drawings for each volume if they were provided as part of the original as-bid plans. This would also be where Record Drawing File Name would change to designate the next volume (See Chapter 6, Section 6.3, Record Drawing

File Naming Convention). The sheets would be included in the total number of record drawing plans sheet numbers in successive order of the original as-bid plan set.

16. Projects that are done by special provisions only, have no plan sheets or are material only procurement projects must be submitted to the Project Resource Office using the "No-Plans" document. The No-Plans document is available on the Record Drawing Web Site. The No-Plans submittals go through the same process as a regular set of record drawings with regards review by the Project Resource Office and uploading the final No-Plans document to the ROAD portal. Notification is also sent to Field Reports to update the FAST Contract Card. Note that the No-Plans form needs to be submitted as a PDF/A document. This document is also sent to the State Archives.

17. Record drawings for projects that are identified or involve work related to Critical Structures are still completed and submitted as outlined in these guidelines, however the final record drawings are not uploaded to the ROAD portal by the Project Resource Office. Instead, a Critical Structures Notice is uploaded to the ROAD portal identifying the project as a critical structure project and access to the record drawings is required to go through the ADOT Safety and Risk Management Section. (See Appendix F)

6.2 Record Drawing Deliverables

1. The record drawings shall be submitted electronically in PDF format with the following settings:

    - The size of the drawings within the PDF document shall all be either 17" x 11" (also known as half size) or 34" x 22" (also known as full size). All drawings in the PDF document must be the same size.
    - Any added text using Adobe needs to be large enough to read (PDF font size of 10 for a 17"x11" sheet size and 20 for a 34"x22" sheet size works well).

    - The PDF document shall have no security on it. The PDF file needs to be unlocked and not password protected.

    - The PDF document needs to be submitted as a PDF/A.

2. All record drawing submittals must be submitted electronically in PDF/A format.

    PDF/A is a "standard being established to set guidelines for archiving and preserving digital documents in Portable Document Format (PDF) and will ensure the preservation of their contents over an extended period of time and will ensure that those documents can be retrieved and rendered with a consistent and predictable result in the future."

    PDF/A frequently asked questions, an important notice regarding creating a PDF/A and instruction on how to create a PDF/A document are available on the Record Drawings Web Page.

3. The completed Record Drawing Project Submittal Form must be submitted along with the record drawing submittal. This form must be filled out completely and signed by the RE / Construction Administrator. The Record Drawing Project Submittal Form is available on the Record Drawing Web Page (example shown in Appendix B).

4. The record drawings must follow the correct file naming convention outlined in Chapter 6, Section 6.3 Record Drawing File Naming Convention.

5. The record drawing PDF file size should be limited to 100 MB (which is 100,000 KB). Larger projects will need to be broken up into smaller file sizes. File naming conventions should be followed (See Chapter 6, Section 6.3). This makes downloading the final record drawings quicker and easier to upload and retrieve from the ROAD portal.

   PDF file size can be dramatically reduced by optimizing or reducing the file size from within Adobe Acrobat. If the file is optimized or reduced, please make sure none of the data such as red-lines are removed as part of the optimization process. PDF optimization and file reduction needs to occur prior to creating the final PDF/A document.

6. Record drawings can be submitted to the Project Resource Office several different ways.

   NOTE: Record drawings must be submitted as a complete set of record drawings. We do not accept partial record drawing submittals. Please contact the Project Manager or the RE / Construction Administrator for any questions related to combining files into one final record drawing submission.
   All record drawings must be submitted electronically to: RecordDrawings@azdot.gov

   - If you are a Consultant, you can either email the pdf of the record drawings directly to ADOT, or send a link to the record drawings from either your company FTP site or through a file sharing application such as ShareFile. The files must be available for download for a minimum of 14 days from notification to ADOT that the files are ready to be downloaded.

   - If you are an ADOT employee and you are either receiving files on behalf of a Consultant or if you are submitting files from a project you are working on, you can email the record drawing files or submit the files using the ADOT ShareFile.

     ShareFile is available to ADOT employees as a method to transfer large files or files that are too large to send through email. The maximum message size for emails is 20 MB (includes message and any/all attachments). ShareFile has replaced the ADOT FTP site. To access ShareFile you will need to setup a ShareFile account by opening a Service Desk

Ticket from Information Technology Group (ITG). This is done either through an email or calling the Help Desk.

For more information, please contact the Project Resource Office at: 602-712-7015.

7. The Project Resource Office will send a standard email response indicating that we have received the record drawings and will be reviewing them for conformity to the ADOT Record Drawing Guidelines. You will be notified once the drawings are accepted and approved by the Project Resource Office or if there are any changes that need to be made to the submitted drawings.

   Depending on the complexity of the project (i.e. number of sheets) record drawings are typically reviewed by the Project Resource Office within 1 – 2 business days.

8. If there are any changes to the record drawing plans, the Project Resource Office will email the Record Drawing Designer and the RE / Construction Administrator indicating what changes are required. The Record Drawing Designer will coordinate any changes with the RE / Construction Administrator and re-submit the record drawings for a 2nd review. Depending on the complexity or number of changes required, the Record Drawing Designer should return the revised plans within 5 business days.

9. Upon approval of the final record drawing plans, the Project Resource Office will send an email to the RE / Construction Administrator, the Record Drawing Designer, Field Reports, MPD, Final Voucher and the Project Manager indicating that the final record drawings have been accepted.
10. Field Reports sends out an email indicating the project has its final record drawings documented in the FAST Contract Card.

6.3 Record Drawing File Naming Convention

1. File Naming Convention: TRACS Number, Volume Number, Page Range, Record Drawings, - year construction was completed, File Extension. (Note, no spaces allowed in file names, use underscore or dash)

Example (Regular Plans, file size below 100 MB):
H542301C_vol1(pgs1to40of40)RecDwgs-2016.pdf

Example (Regular plans, file size above 100 MB, broken up into separate files <100 MB):
H835401C_vol1(pgs1to75of150)RecDwgs-2017.pdf
H835401C_vol1(pgs76to150of150)RecDwgs-2017.pdf *(Try to break by discipline)*

Note: Try to make the break between files occur where the project files change from one group to another (i.e. break between Roadway and Traffic Group sheets).

Some larger projects are broken up by volumes (volume 1, volume 2, etc.). The volume number should be designated in the file name if required (See Chapter 6, Section 6.1 # 13).

Example (Volumes):
H725101C_vol1(pgs1to175of980)RecDwgs-2015.pdf
H725101C_vol1(pgs176to395of980)RecDwgs-2015.pdf
H725101C_vol2(pgs396to752of980)RecDwgs-2015.pdf *(Volume Number Changes here)*
H725101C_vol2(pgs753to980of980)RecDwgs-2015.pdf

Example (Shop Dwgs):
H835401C_vol1(pgs1to50of50)ShopDwgs-2017.pdf
H835401C_vol2(pgs1to25of25)ShopDwgs-2017.pdf

Example (Large Set):
H922501C_vol1(pgs1to974of2980)RecDwgs-2016.pdf (Roadway sheets)
H922501C_vol1(pgs975to1026of2980)RecDwgs-2016.pdf (Roadway sheets)
H922501C_vol2(pgs1027to1089of2980)RecDwgs-2016.pdf *(Volume Number Changes)*
H922501C_vol2(pgs1090to1100of2980)RecDwgs-2016.pdf (Traffic sheets)
H922501C_vol2(pgs1101to1275of2980)RecDwgs-2016.pdf (Landscape sheets)
H922501C_vol3(pgs1276to1395of2980)RecDwgs-2016.pdf (Irrigation sheets)
H922501C_vol3(pgs1396to2752of2980)RecDwgs-2016.pdf *(Volume Number Changes)*
H922501C_vol3(pgs2753to2980of2980)RecDwgs-2016.pdf (Bridge sheets)

Note in the “Large Set” the disciplines were broken out in addition to the volumes. When submitting a large project and you have the disciplines separated out, please identify each discipline and this will be added to the description in the ROAD portal.

Chapter 7

CADD File Archiving Requirements

7.1 CADD File Archiving General Requirements

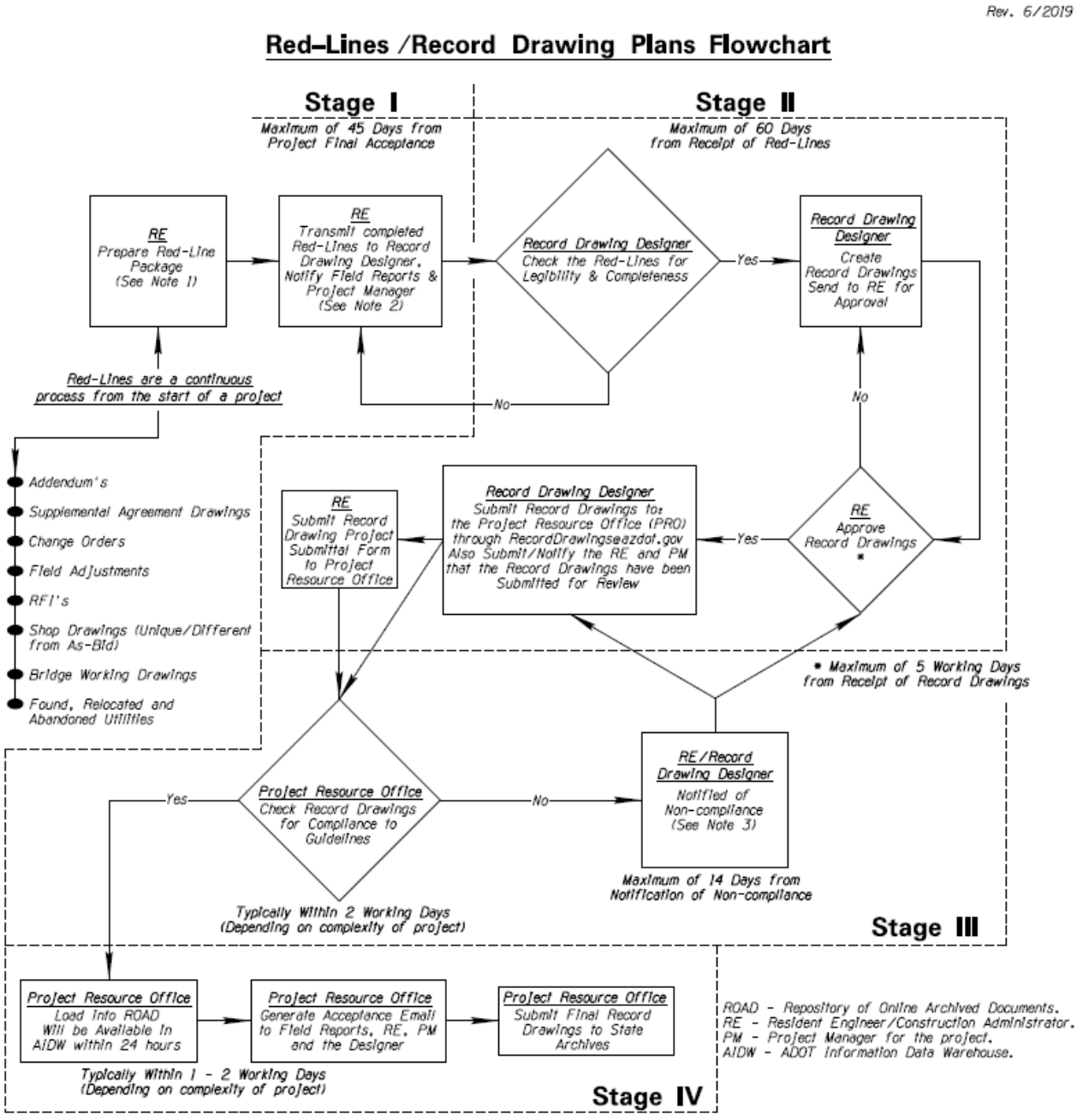
In order to ensure receipt of and to make our records complete, if the CADD files were not submitted as part of the delivery package at bid advertisement, ADOT requires that CADD files be submitted as part of the record drawing submittal process before the project can be closed. This is to ensure ADOT receives all CADD files associated with the project.

- CADD files shall be submitted in a Zip file.
- Zip file size shall be less than 100MB. If the file size is larger than the 100MB size requirement, the CADD files need to be separated into smaller Zip files. If there is more than one Zip file, the files should be broken at either a specific discipline (Bridge, Roadway, Traffic, etc.) or at a specific consultant (Consultant 1, Consultant 2, etc.).
- The CADD file shall include the ADOT project number (TRACS number) and the words CADD_Files as shown below:

  H123401C_CADD_File
  or by discipline if larger than 100MB…
  H345601C_CADD_Files_Bridge
  H345601C_CADD_Files_Traffic etc.

- The CADD file submittal must include all CADD files for the project from all disciplines and consultants submitted at one time. We do not receive partial submittals for CADD files.
- All CADD files for the project including dgn, dtm, alg, reference files, etc. must be included as part of the submittal.

Appendix A: Flowchart



NOTES:

1. The RE must coordinate the submittal format (see Methods In Guidelines) with the Record Drawing Designer and Project Manager. The RE, Record Drawing Designer and Project Manager must understand the requirements of the Record Drawing Guidelines and the Project Submittal Request Form checklist to ensure compliance to the Record Drawing Guidelines.
2. The "Information Block" on Face Sheet must be completed and submitted with Red-Lines and the Record Drawing Preparation Estimate to the Record Drawing Designer. The Record Drawing Preparation Estimate can be used as a tool to verify reasonableness of the designer's cost to prepare and submit Final Record Drawings.
3. The Project Resource Office will notify the Record Drawing Designer and RE if the Record Drawing Plans are not in conformance with the Record Drawing Guidelines. The RE/Record Drawing Designer have 2-weeks to revise the Record Drawing Plans and re-submit the them to the Project Resource Office for a 2nd review.
4. The RE or Record Drawing Designer can contact the Project Resource Office if additional time is required on the submission of Record Drawings at any step or stage of the development.

Appendix B: Project Submittal Form

RECORD DRAWING PROJECT SUBMITTAL FORM
ARIZONA DEPARTMENT OF TRANSPORTATION
Project Resource Office

This Record Drawing Project Submittal Form must be completed and submitted with all projects as part of the record drawings submittal process to ADOT.

Record Drawings shall be submitted electronically to: RecordDrawings@azdot.gov

SUBMITTAL DATE:_____

PROJECT NUMBER:_____ ADOT PROJECT NUMBER:_____

ROUTE:_____ COUNTY:_____ MILEPOST:_____

PROJECT DESCRIPTION:_____

BELOW IS A LIST OF ITEMS THAT NEED TO BE ***CHECKED*** AS PART OF THE RECORD DRAWING SUBMITTAL PROCESS

☐ All As-Bid sheets are included.

☐ If required all Bridge Working Drawings are included.

☐ Record Drawings are being submitted as a PDF/A.

☐ If required Part 2 of the SWPPP sheet has been filled in or "X'd" out (if Part 2 was not used) and if there is one on the project.

Were there any Addendums on this project? (See Appendix G in the Record Drawing Guidelines – PDF page 49)

☐ No.
☐ Yes, the addendum numbers _____ are included in the Record Drawings.

☐ All of the field red-lines shown on the plans are clouded and shown in red.

Were there any Change Orders or Supplemental Agreements on this project that changed the plans?

☐ No.
☐ Yes, please list the Change Order(s) number (i.e. CO-4, LOA-1):_____
_____

☐ All utility work (gas, water, CAP, electric, communications, irrigation, railroad, etc.) that was moved, added, or abandoned as part of the project are shown on the record drawings.

☐ All of the information that the Contractor is required to provide has been shown in red on the record drawings. (i.e. record drawing information for electrical items, pull box locations, etc.)

☐ All of the information in the "record drawing block" on the face sheet is completed and show in red.

☐ The Construction Administrator's name and date, and the Record Drawing Designer's name and date are shown in red.

☐ The Construction Administrator and Record Drawing Designer are designated as a PE.

☐ All of the drawings have the PE stamp and signature.

☐ All of the Record Drawing sheet numbers and dates are shown on each sheet in red.

☐ The file size of each PDF/A file is below < 100 MB.

☐ The PDF/A file is unlocked and not password protected.

☐ The file name(s) are correct (i.e. H123401C_vol1(pgs1to18of18)RecDwgs-2016.pdf)

RECORD DRAWING CERTIFICATION

I HEARBY CERTIFY THAT THESE RECORD DRAWINGS WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

_____ _____ _____
Construction Administrator (RE, RLS) (Signature Required) Registration Number Expiration Date

_____
Printed Name

Rev. 6/2019

Appendix C: Face Sheet Information Block

Constructed by:

Finest Contractor LLC
Construction Company

5/10/2015
Completion Date

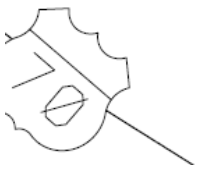
Red-Lines by:

John Cambora, PE - ADOT
Construction Administrator Name & Company

7/4/2015
Completion Date

Record Drawings by:

Mike Davis, PE - Greatest Consulting LLC
Record Drawings Designer Name & Company



8/12/2015
Completion Date

Appendix D: Record Drawing Preparation Estimate

Arizona Department of Transportation

Record Drawings Preparation Estimate

Project Number:				TRACS No.		
Resident Engineer's name:				Date:		

Enter your data in all yellow fields DO NOT CHANGE THESE FIELDS		Unit	Number of sets	Estimated minutes/sheet	Total estimated minutes	Total Estimated Hours
Number of sheets in plan set		sheets				
Number of sheets with no revisions (no redlines) but include checking of seal and signature (1 min/sheet)		sheets		1.00	0	0
(*) Number of sheets with limited revisions (minor edit redline changes) (15 min/sheet).		sheets		15.00	0	0
(*) Number of sheets with extensive revisions (some drawings need to be either recreated or edited) (40 min/sheet)		sheets		40.00	0	0
Number of extra sheets to confirm that all pages are signed (1 min/sheet)		sheets		1.00	0	0
Administration (contract estimate, QC etc)						1
				Total Project Hours =		**1**
				Equivalent to (min/sheet) =		#DIV/0!

(*) Note: Some major changes may need more time to re-draw some details.

If that is the situation in your project then add 5 to 10% total hours or consult with the As-Built Statewide Project Management Specialist

Appendix E: "No-Plans" Document

RECORD DRAWING – "NO-PLANS"
CONSTRUCTION UNIT INFORMATION

** PROJECT NUMBER: _____ ** TRACS NUMBER: _____

* ROUTE: _____ * COUNTY: _____

* BEGIN MILEPOST: _____ * END MILEPOST: _____

** CONTRACTOR: _____

* BEGIN DATE: _____

* COMPLETION DATE: _____

* BID AMOUNT: $ _____

* FINAL AMOUNT: $ _____

** ANY ADDITIONAL CHANGE ORDERS? ☐ Y / ☐ N

** BRIEF DESCRIPTION OF CHANGE ORDERS: _____
_____

** NAME OF OFFICE CONTACT: _____

** PHONE NUMBER: _____

** RESIDENT ENGINEER'S NAME (Printed): _____

** RESIDENT ENGINEER'S SIGNATURE: _____

** DATE: _____

* UNIT COMMENTS: _____
_____
_____
_____
_____

* PROJECT RESOURCE OFFICE COMMENTS: _____
_____
_____
_____

** PROJECT RESOURCE APPROVAL DATE: _____ ** APPROVED BY INITIALS: _____

Please submit completed form to: RecordDrawings@azdot.gov

Contact Phone: 602-712-7015

* **USEFUL** Information on Field Redline Submittals.
** **REQUIRED** Information on **"ALL"** Field Redlines Submittals.

Rev. 07/2017

Appendix F: Critical Structures Notice

ADOT

Infrastructure Delivery and Operations

NOTICE

Pursuant to measures taken through the Federal Homeland Security Act of 2002, this project has been identified as a "Critical Structure" and access must be requested through the ADOT Office of Safety & Risk Management Section.

The Public Records Requests Form is available at: https://www.azdot.gov/media

Thank you.

ARIZONA DEPARTMENT OF TRANSPORTATION
1801 W. Jefferson St., Suite 120, MD 102M | Phoenix, AZ 85007 | azdot.gov

Appendix G: Record Drawing Example

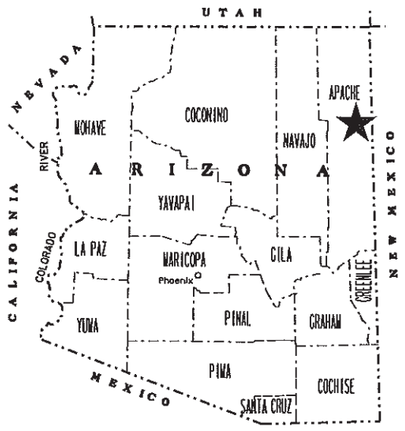
PDF/A Identification

STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION

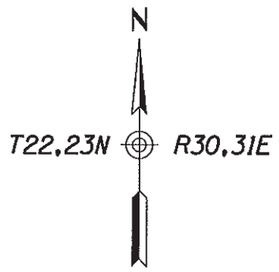
ADOT

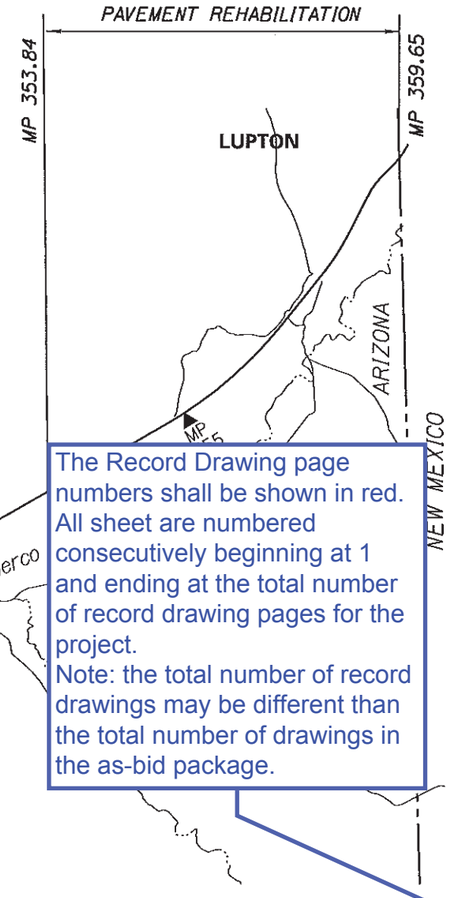
PROJECT PLANS

STATE HIGHWAY
HOLBROOK–LUPTON HIGHWAY
INTERSTATE 40



Note: This is an example of how Record Drawings need to be completed. The blue text, blue circles and blue lines are for informational purposes only and should not be included on the Record Drawings.





The Record Drawing page numbers shall be shown in red. All sheet are numbered consecutively beginning at 1 and ending at the total number of record drawing pages for the project.
Note: the total number of record drawings may be different than the total number of drawings in the as-bid package.

This information needs to be filled out in red as shown. The Construction Administrator is the RE on the project and needs to be a PE & designated as a PE as shown. Also needs to be an ADOT employee.

Constructed by:
Great Contracting, Inc.
Construction Company
3/24/2017
Completion Date

Red-Lines by:
Carl Rickson, P.E., ADOT
Construction Administrator Name & Company
3/28/2017
Completion Date

Record Drawings by:
Jon Sey, P.E. ADOT
Record Drawings Designer Name & Company
4/3/2017
Completion Date

ALLENTOWN RD–STATE LINE
PROJECT NO. 040 AP 353 H8781 01 C
FEDERAL AID NO. NH–040–E(218)T

Page numbers in lower left corner are for reference only and should not be shown on record drawings.

Page 1

Record Drawing date shall be shown in red.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
DALLAS HAMMIT, P.E., STATE ENGINEER

REC. DWGS DATE	REC. DWG. DATE		
	4/3/2017	1 OF	75

V:/Roadway\users\hp071\ 1:41:37 PM half_fs.tbl

ADOT STANDARD DRAWINGS
C STANDARDS

ISSUE OR REVISION DATE	STANDARD NO.	SUBJECT
		CONSTRUCTION
5/12	C-01.10 SH 1	SYMBOL LEGEND
5/12	C-01.10 SH 2	SYMBOL LEGEND
5/12	C-01.10 SH 3	SYMBOL LEGEND
5/12	C-01.10 SH 4	SYMBOL LEGEND
5/12	C-01.30 SH 1	GENERAL ABBREVIATIONS
5/12	C-01.30 SH 2	GENERAL ABBREVIATIONS
5/12	C-01.30 SH 3	GENERAL ABBREVIATIONS
5/12	C-02.10	SLOPES, RURAL DIVIDED HIGHWAYS
5/12	C-02.20	SLOPES, RURAL UNDIVIDED AND FRINGE-URBAN HIGHWAYS
5/12	C-02.30	SLOPES, MISCELLANEOUS ROADWAYS
5/12	C-03.10 SH 1	DITCHES, CHANNELS, DIKES AND BERMS, DITCHES AND CHANNELS
5/12	C-03.10 SH 2	DITCHES, CHANNELS, DIKES AND BERMS, DIKES
5/12	C-03.10 SH 3	DITCHES, CHANNELS, DIKES AND BERMS, DITCH DIKE
5/12	C-03.10 SH 4	DITCHES, CHANNELS, DIKES AND BERMS, PIPE BERMS
5/12	C-03.10 SH 5	DITCHES, CHANNELS, DIKES AND BERMS, HEADWALL BERMS
5/12	C-04.10 SH 1	SPILLWAY, EMBANKMENT SINGLE INLET
5/12	C-04.10 SH 2	SPILLWAY, EMBANKMENT DOUBLE INLET
5/12	C-04.20 SH 1	DOWNDRAIN, EMBANKMENT SINGLE INLET
5/12	C-04.20 SH 2	DOWNDRAIN, EMBANKMENT DOUBLE INLET
5/12	C-04.30	SPILLWAY LENGTH TABLE
5/12	C-04.40	DOWNDRAIN LENGTH TABLE
5/12	C-04.50	DOWNDRAIN ENERGY DISSIPATOR
5/12	C-05.10	CURB & GUTTER, CURB, GUTTER
5/12	C-05.12 SH 1	CURB & GUTTER TRANSITIONS
5/12	C-05.12 SH 2	CURB & GUTTER TRANSITIONS
5/12	C-05.12 SH 3	CURB AND GUTTER TRANSITIONS
5/12	C-05.20 SH 1	CONCRETE DRIVEWAYS & SIDEWALKS, DRIVEWAYS
5/12	C-05.20 SH 2	CONCRETE DRIVEWAYS & SIDEWALKS, SIDEWALKS
5/12	C-05.30 SH 1	SIDEWALK RAMP, TYPE A
5/12	C-05.30 SH 2	SIDEWALK RAMP, TYPE B
5/12	C-05.30 SH 3	SIDEWALK RAMP, TYPE C
5/12	C-05.30 SH 4	SIDEWALK RAMP, TYPE D
5/12	C-05.30 SH 5	SIDEWALK RAMP, TYPE E
5/12	C-05.30 SH 6	SIDEWALK RAMP, TYPE F
5/12	C-05.30 SH 7	SIDEWALK RAMP, DETECTABLE WARNING STRIP
5/12	C-05.40	MEDIAN PAVING AND NOSE TAPER
5/12	C-05.50	CONCRETE BUS BAY
5/12	C-06.10 SH 1	DRIVEWAY & TURNOUT LAYOUTS
5/12	C-06.10 SH 2	DRIVEWAY & TURNOUT LAYOUTS
5/12	C-07.01 SH 1	PCCP JOINTS
5/12	C-07.01 SH 2	PCCP JOINTS
5/12	C-07.02	LOAD TRANSFER DOWEL ASSEMBLY
5/12	C-07.03 SH 1	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 2	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 3	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 4	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 5	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.03 SH 6	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.03 SH 7	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.03 SH 8	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.04 SH 1	PCCP JOINT LOCATIONS, PARALLEL TYPE ENTRANCE RAMP WITH AUXILIARY LANE
5/12	C-07.04 SH 2	PCCP JOINT LOCATIONS, PARALLEL TYPE EXIT RAMP WITH AUXILIARY LANE
5/12	C-07.04 SH 3	PCCP JOINT LOCATIONS, TAPER TYPE ENTRANCE RAMP
5/12	C-07.04 SH 4	PCCP JOINT LOCATIONS, TAPER TYPE EXIT RAMP
5/12	C-07.04 SH 5	PCCP JOINT LOCATIONS, CROSSROAD AND RAMP TERMINI
5/12	C-07.06	TRENCH BACKFILL AND PAVEMENT REPLACEMENT
5/12	C-08.20	PAVED GORE AREA
5/12	C-10.00	GUARDRAIL MEASUREMENT LIMITS
5/12	C-10.01	GUARDRAIL INSTALLATION, TYPE A AND REFLECTOR TAB
5/12	C-10.02	GUARDRAIL INSTALLATION, TYPE B AND REFLECTOR TAB
5/12	C-10.03	W-BEAM GUARDRAIL, G4(1W) AND G4(2W), BLOCKED-OUT TIMBER POST
5/12	C-10.04	W-BEAM GUARDRAIL, G4(1S), BLOCKED-OUT STEEL POST
5/12	C-10.05 SH 1	W-BEAM GUARDRAIL, G4(MODIFIED) WITH FREEWAY CURB AND GUTTER
5/12	C-10.05 SH 2	W-BEAM GUARDRAIL, G4(MODIFIED) WITH FREEWAY CURB AND GUTTER
5/12	C-10.06 SH 1	W-BEAM GUARDRAIL, NESTED, TYPES 1 AND 2
5/12	C-10.06 SH 2	W-BEAM GUARDRAIL, NESTED, TYPE 3
5/12	C-10.07 SH 1	W-BEAM GUARDRAIL, BOLTED ANCHOR
5/12	C-10.07 SH 2	W-BEAM GUARDRAIL, BOLTED ANCHOR
5/12	C-10.08	W-BEAM GUARDRAIL, END ANCHOR
5/12	C-10.20	THRIE-BEAM GUARDRAIL, G9, BLOCKED-OUT STEEL POST
5/12	C-10.30 SH 1	GUARDRAIL TRANSITION, THRIE BEAM TO CONCRETE HALF BARRIER, 32" TYPE 'F'
5/12	C-10.30 SH 2	GUARDRAIL TRANSITION, THRIE BEAM TO CONCRETE HALF BARRIER, 32" TYPE 'F'
5/12	C-10.40	CONCRETE MEDIAN BARRIER, 32" TYPE 'F', CAST-IN-PLACE
5/12	C-10.41	CONCRETE MEDIAN BARRIER, 42" TYPE 'F', CAST-IN-PLACE
5/12	C-10.42 SH 1	GLARE SCREEN, CONCRETE MEDIAN BARRIER
5/12	C-10.42 SH 2	GLARE SCREEN, CONCRETE MEDIAN BARRIER
5/12	C-10.42 SH 3	GLARE SCREEN, CONCRETE MEDIAN BARRIER
5/12	C-10.50 SH 1	CONCRETE HALF BARRIER, 32" TYPE 'F', CAST-IN-PLACE
5/12	C-10.50 SH 2	CONCRETE HALF BARRIER, 32" TYPE 'F', PRECAST
5/12	C-10.51	CONCRETE HALF BARRIER, 32" TYPE 'F' WITH SIDEWALK
5/12	C-10.52	CONCRETE HALF BARRIER, 32" TYPE 'F' WITH GUTTER
5/12	C-10.53	CONCRETE HALF BARRIER, 42" TYPE 'F' WITH GUTTER
5/12	C-10.54 SH 1	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, CAST-IN-PLACE
5/12	C-10.54 SH 2	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, PRECAST
5/12	C-10.54 SH 3	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, LAYOUT
5/12	C-10.55 SH 1	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, CAST-IN-PLACE
5/12	C-10.55 SH 2	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, PRECAST
5/12	C-10.55 SH 3	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, LAYOUT
5/12	C-10.70 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
5/12	C-10.70 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
5/12	C-10.70 SH 3	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS

ISSUE OR REVISION DATE	STANDARD NO.	SUBJECT
		CONSTRUCTION
5/12	C-10.71 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CURB & GUTTER
5/12	C-10.71 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CURB & GUTTER
5/12	C-10.72 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
5/12	C-10.72 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
5/12	C-10.72 SH 3	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
5/12	C-10.73 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH GUTTER
5/12	C-10.73 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH GUTTER
5/12	C-10.74	CONCRETE HALF-BARRIER TRANSITION, 42" TO 32" TYPE 'F'
5/12	C-10.75 SH 1	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F', TANGENT DEPARTURE TYPE 1
5/12	C-10.75 SH 2	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F', TANGENT DEPARTURE TYPE 2
5/12	C-10.76	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F' AT RADIUS, 32" TO 0"
5/12	C-10.77	CONCRETE HALF-BARRIER TRANSITION, END TERMINAL CURB AND GUTTER
5/12	C-11.10 SH 1	ROADWAY CATTLE GUARD
5/12	C-11.10 SH 2	ROADWAY CATTLE GUARD
5/12	C-11.10 SH 3	ROADWAY CATTLE GUARD
5/12	C-11.10 SH 4	ROADWAY CATTLE GUARD
5/12	C-11.20	CATTLE GUARD, DRAINAGE
5/12	C-12.10 SH 1	FENCE, WOVEN WIRE
5/12	C-12.10 SH 2	FENCE, BARBED WIRE
5/12	C-12.10 SH 3	FENCE, TYPES 1 AND 2 GATES, FLOOD GATE
5/12	C-12.10 SH 4	FENCE, FLOOD GATE INSTALLATION
5/12	C-12.10 SH 5	FENCE, MISCELLANEOUS DETAILS
5/12	C-12.20 SH 1	FENCE, CHAIN LINK, TYPE 1
5/12	C-12.20 SH 2	FENCE, CHAIN LINK, TYPE 2
5/12	C-12.20 SH 3	FENCE, CHAIN LINK, GATES
5/12	C-12.30 SH 1	FENCE, CHAIN LINK CABLE BARRIER
5/12	C-12.30 SH 2	FENCE, CHAIN LINK CABLE BARRIER
5/12	C-12.30 SH 3	FENCE, CHAIN LINK CABLE BARRIER
5/12	C-13.10 SH 1	PIPE CULVERT INSTALLATION
5/12	C-13.10 SH 2	PIPE CULVERT INSTALLATION
5/12	C-13.15	TYPICAL PIPE INSTALLATION
5/12	C-13.20	PIPE, REINFORCED CONCRETE END SECTION
5/12	C-13.25	PIPE, CORRUGATED METAL END SECTION
5/12	C-13.30	PIPE AND PIPE ARCH, CORRUGATED METAL, CONCRETE INVERT PAVING
5/12	C-13.55	PIPE, CATTLE-VEHICLE PASS, MITERED END TREATMENT
5/12	C-13.60	SLOTTED DRAIN DETAILS
5/12	C-13.65	SLOTTED DRAIN INSTALLATION DETAILS
5/12	C-13.70	STORM DRAIN CONNECTION DETAILS
5/12	C-13.75	STORM DRAIN OUTLET BARRIER GATE
5/12	C-13.76	STORM DRAIN OUTLET AND STORM DRAIN PLUG
5/12	C-13.80	PIPE COLLAR DETAILS
5/12	C-15.10	CATCH BASIN, TYPE 1
5/12	C-15.20 SH 1	CATCH BASIN, TYPE 3
5/12	C-15.20 SH 2	CATCH BASIN, TYPE 3
5/12	C-15.20 SH 3	CATCH BASIN, ACCESS FRAME AND COVER DETAILS
5/12	C-15.30	CATCH BASIN, TYPE 4
5/12	C-15.40 SH 1	CATCH BASIN, TYPE 5
5/12	C-15.40 SH 2	CATCH BASIN, TYPE 5
5/12	C-15.50	CATCH BASIN, FRAME AND GRATE
5/12	C-15.70 SH 1	CATCH BASIN, MISCELLANEOUS DETAILS
5/12	C-15.70 SH 2	CATCH BASIN, MISCELLANEOUS DETAILS
5/12	C-15.75	CATCH BASIN, DROP INLET
5/12	C-15.80	CATCH BASIN, FLUSH
5/12	C-15.81	CATCH BASIN, SIDE SLOPE
5/12	C-15.90	
5/12	C-15.91	
5/12	C-15.91	
5/12	C-15.92	
5/12	C-15.92	
5/12	C-16.40	
5/12	C-17.10	. 2 & 3
5/12	C-17.15	& 6
5/12	C-17.20	9
5/12	C-18.10	
5/12	C-18.10	
5/12	C-18.10	MANHOLE, FRAME AND COVER DETAILS
5/12	C-19.10 SH 1	FORD, CONCRETE WALLS
5/12	C-19.10 SH 2	FORD, TYPES 1 AND 2
5/12	C-21.10	SURVEY MONUMENT FRAME AND COVER
5/12	C-21.20	SURVEY MARKER

Text should be readable at full extents of sheet. For 17"x11" sheets use 10 point and for 34"x22" sheets use 20 point fonts. Place text in the correct location and uniform.

The Record Drawing page numbers shall be shown in red.

Record Drawing date shall be shown in red.

ADOT STANDARD DRAWINGS
REVISION DATES and STANDARD NO.'s REVIEW

	NAME	DATE
CONSTRUCTION Standards	JKF	1/12/16

PROJECT NO. H8781 01 C — IA OF 62

RECOR DRAWING DATA	FEDERAL AID NO.	RECORD DWG DATE	
	NH-040-E(218)T	4/3/2017	2 OF 75

REV.: 05/12

Page 2

ADOT STANDARD DRAWINGS

TRAFFIC SIGNING & MARKING STANDARDS
(SHEET 1 OF 2)
EFFECTIVE MAY 2015

REVISION	STANDARD	SUBJECT: SIGNING & MARKING DETAILS
6/14	M-1	CURB MARKINGS FOR RAISED MEDIAN AND ISLANDS
6/14	M-2 SHT 1	INTERSECTION STRIPING
5/15	M-2 SHT 2	INTERSECTION STRIPING (TWO-LANE RURAL)
6/14	M-2 SHT 3	CENTERLINE & REVERSE CURVE DETAILS
6/14	M-3	STRIPING AND DELINEATION FOR FREEWAY TERMINALS
6/14	M-4	PASSING LANE STRIPING DETAILS
6/14	M-5	RAILROAD PAVEMENT MARKINGS
6/14	M-6	WORD MARKINGS
6/14	M-7	PAVEMENT LETTERS
6/14	M-8	PAVEMENT LETTERS
6/14	M-9	PAVEMENT NUMBERS
6/14	M-10 SHT 1	PAVEMENT MARKING SYMBOLS
6/14	M-10 SHT 2	PAVEMENT MARKING SYMBOLS
6/14	M-11	TURN LANE PAVEMENT MARKINGS
6/14	M-12	WRONG-WAY ARROWS
6/14	M-13	PREFERENTIAL LANE PAVEMENT MARKINGS
6/14	M-14	STRIPING AND DELINEATION FOR TRUCK ESCAPE RAMPS
6/14	M-15 SHT 1	PAVEMENT MARKING FOR FREEWAY ENTRANCE RAMP - TAPERED ACCELERATION LANE
6/14	M-15 SHT 2	PAVEMENT MARKING FOR FREEWAY ENTRANCE RAMP - PARALLEL ACCELERATION LANE
6/14	M-15 SHT 3	PAVEMENT MARKING FOR FREEWAY ENTRANCE RAMP - PARALLEL ACCELERATION LANE WITH HOV BYPASS
6/14	M-15 SHT 4	PAVEMENT MARKING FOR FREEWAY PARALLEL - ACCELERATION LANE
6/14	M-16 SHT 1	PAVEMENT MARKING FOR FREEWAY EXIT RAMPS - TAPERED DECELERATION LANE
6/14	M-16 SHT 2	PAVEMENT MARKING FOR FREEWAY EXIT RAMP - PARALLEL DECELERATION LANE
5/15	M-17	FREEWAY LANE DROP PAVEMENT MARKINGS
6/14	M-18	RECESSED PAVEMENT MARKER DETAILS
6/14	M-19 SHT 1	RAISED PAVEMENT MARKER PLAN LEGEND
6/14	M-19 SHT 2	NON-REFLECTIVE RAISED PAVEMENT MARKER DETAILS
6/14	M-19 SHT 3	RETROREFLECTIVE RAISED PAVEMENT MARKER DETAILS
6/14	M-19 SHT 4	RETROREFLECTIVE RAISED PAVEMENT MARKER DETAILS
5/15	M-19 SHT 5	PAVEMENT MARKING DETAILS FOR UNDIVIDED HIGHWAYS
6/14	M-19 SHT 6	RETROREFLECTIVE RAISED PAVEMENT MARKERS (RPM) FOR UNDIVIDED HIGHWAYS
6/14	M-19 SHT 7	FREEWAY AND DIVIDED HIGHWAY EDGE LINE AND LANE STRIPING
5/15	M-19 SHT 8	LANE DROP MARKING AND RAMP OR INTERSECTION GUIDE STRIPING
6/14	M-19 SHT 9	PAVEMENT MARKING CROSS-SECTION DETAILS FOR HIGHWAYS AND FREEWAYS

REVISION	STANDARD	SUBJECT: SIGNING & MARKING DETAILS
6/14	M-20 SHT 1	CHIP SEAL MARKER USAGE FOR TEMPORARY MARKERS
6/14	M-20 SHT 2	CHIP SEAL MARKER USAGE FOR TEMPORARY MARKERS
6/14	M-21	TRANSVERSE RUMBLE STRIP DETAILS
6/14	M-22 SHT 1	LONGITUDINAL RUMBLE STRIP GROOVE, PATTERN - AND LOCATION DETAILS
6/14	M-22 SHT 2	LONGITUDINAL RUMBLE STRIP EXCEPTION DETAILS
6/14	M-22 SHT 3	CENTERLINE RUMBLE STRIP GROOVE, PATTERN - AND LOCATION DETAILS
6/14	M-23	OBJECT MARKER DETAILS
6/14	M-24	OBJECT MARKER PLACEMENT DETAILS
6/14	M-26 SHT 1	DELINEATOR PLACEMENT AND SPACING
6/14	M-26 SHT 2	DELINEATOR PLACEMENT AND SPACING
6/14	M-26 SHT 3	FLEXIBLE DELINEATOR ASSEMBLIES
6/14	M-26 SHT 4	SQUARE STEEL POST DELINEATOR
6/14	M-26 SHT 5	DELINEATOR FOUNDATION DETAILS
6/14	M-27	DELINEATION DETAILS FOR MEDIAN CROSSOVERS
6/14	M-29	OFF-MAINLINE REFERENCE MARKER LOCATION DETAIL
6/14	M-30	OFF-MAINLINE REFERENCE MARKER DETAILS
6/14	M-32	BRIDGE AND BARRIER MARKER DETAILS
6/14	M-33	BRIDGE & BARRIER MARKER PLACEMENT AND INSTALLATION DETAILS
6/14	M-34	GUARDRAIL END TERMINAL DELINEATION DETAILS
6/14	M-35	OBJECT MARKER FOR SAND BARREL CRASH CUSHION

Note: The next several sheets will be omitted in this example to reduce file size and redundancy of information.

NO.1	DESCRIPTION OF REVISION: REVISED M-2 SHT1, M-41, M-19 SHT5 SAA, REVISED 5-1 SHT3 ON PDG, UPDATED BORDER TITLE BLOCK	MADE BY: L. LOPEZ	DATE: 5/15
NO.2	DESCRIPTION OF REVISION: REVISED ALL DRAWINGS AND RE-ISSUED. CREATED SHEET 2.	MADE BY: L. LOPEZ	DATE: 6/14

ADOT STANDARD DRAWINGS REVISION DATES and STANDARD NO.'s REVIEW		
SIGNING & MARKING STANDARDS	NAME	DATE 1/12/16
PROJECT NO. H8781 01 C	IB-1	OF 62
RECORD DRAWING DATA	FEDERAL AID NO. NH-040-E(218)T	REC. DWG. DATE 4/3/2017 — 3 OF 75

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	2	62	4/3/2017
		040-AP-353			

The Record Drawing date shall be shown in red.

MIDPOINT OF PROJECT

Eastern Zone
State Plane Coordinates

X=829,000
Y=1,581,000

REFERENCES

I-40-5 (42)
I-40-5 (8)
I-40-5 (29)
STP-40-5(90)
I-40-5-504
1M-04D-E(211)A
1M-40-5(102)P

DESIGN DATA

2016 AADT = 19,200
2026 AADT = 23,800
Design Speed = 75 MPH

LOOP DETECTOR / CLASSIFIER SYSTEMS

Std T.S. 6-1 Type C = Traffic Counter
Std T.S. 6-2 Type SA or SB = Speed and Vehicle Class

Systems	Type	Approximate Location
1 *	C	MP 357.1 EB & WB
1 *	C	MP 357.9 EB & WB

* Partial Replacement

Notes:
1. Depth of sawcut shall be 4"
2. Contractor shall install loops prior to AR-ACFC placement

LENGTH OF PROJECT

Westbound ◒
Beg Proj Sta 2569+44.00 to 2723+38.10 BK = 15,394.10'
Sta 2723+58.10 AHD to 2803+11.28 BK = 7,953.18'
Sta 2803+22.63 AHD to 2850+56.84 BK = 4,734.21'
Sta 2850+37.77 AHD to 2871+13.04 BK = 2,075.27'
Sta 2871+29.03 AHD to End Proj 2876+60.28 = 531.25'

Westbound Net Length = 30,688.01' = 5.81 miles
Mile Post 353.84 to 359.65

Eastbound ◒
Beg Proj Sta 2569+44.00 to 2723+78.22 BK = 15,434.22'
Sta 2723+58.16 AHD to 2803+33.99 BK = 7,975.83'
Sta 2803+22.63 AHD to 2850+18.70 BK = 4,696.07'
Sta 2850+37.77 AHD to 2871+45.02 BK = 2,107.25'
Sta 2871+29.03 AHD to End Proj 2874+89.23 = 360.20'

Eastbound Net Length = 30,573.57' = 5.79 miles
Mile Post 353.84 to 359.63

◒ *Station Limits include all structures within the limits of the project.*

Hawthorne TI Bridge: MP 354.61 to MP 354.62
Window Rock TI Bridge: MP 357.53 to MP 357.54
Lupton/Grants TI Bridge: MP 359.20 to MP 359.21

INDEX OF SHEETS

GENERAL NOTES

The roadway plans have been designed utilizing the 2012 Construction Standard Drawings (C-Series) and Current Revisions. Refer to the 1A sheet for a listing of current revision dates.

Prior to the start of construction, the contractor shall establish control for locating and documenting existing striping and reflective pavement markers. After paving, the striping and reflective pavement markers shall be installed using survey control and documented existing striping and reflective pavement marker information, while also using the current edition of the Signing and Marking Standard drawings (M & S Series). This item is paid for under construction survey & layout.

Existing centerline information shown is based on as-built information. No geometric survey was completed for this project. The contractor shall establish survey control.

All paving limits shall be as shown on the plans or as determined by the Engineer based on field conditions.

Pavement lift thickness is nominal.

The average project elevation is 6100'.

Existing utility locations are approximate. The contractor shall verify the exact location and depth of all underground facilities and comply with all current blue stake laws and section 107.15 of the specifications.

Delineators and object markers shall be removed and replaced with new as noted in the plans. The cost of removal is considered included in the price of contract items.

New right-of-way and easements are not required.

For right-of-way information not shown, see right-of-way plans D-1-T-252, A-1-T-210 and D-1-T-217B.

Changes in location and length of spillway or down drain installation may be made by the Engineer to improve drainage conditions.

Elevations noted in ( ) are approximate. Contractor shall verify all existing elevations prior to construction.

Approximately 8 Tons of AC (Misc Str) and 11 CY of embankment (milled AC) are estimated for the construction of each guardrail end terminal pad. See Special Provisions.

The seal and signature need to be on each drawing. This also needs to be readable.

The Record Drawing page numbers shall be shown in red.

	NAME	DATE
DESIGN	JKF	12/15
DRAWN	CPG	12/15
CHECKED	ZK	12/15

PARSONS BRINCKERHOFF

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

DESIGN SHEET

ROUTE	LOCATION
I-40	ALLENTOWN RD - STATE LINE

TRACS NO. H8781 01 C | NH-040-E(218)T

Expires 09/30/2017

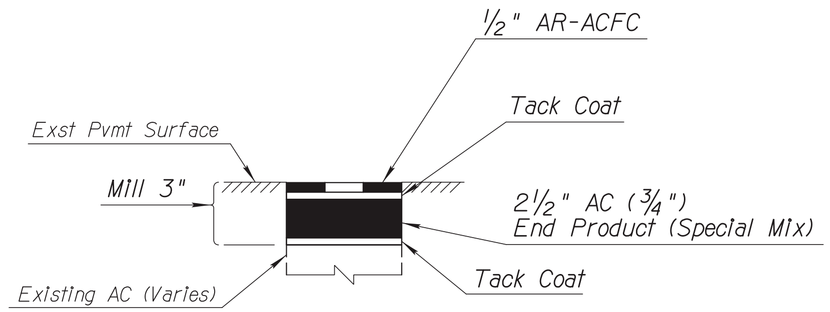
SHEET 2 OF 62

9 OF 75

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

1/12/2016 T:\I-40\data\H8781_ds01.dgn

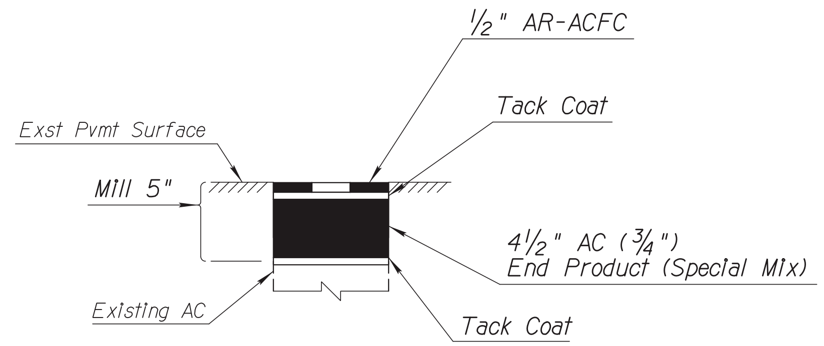
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	3	62	4/3/2017
		040-AP-353			



Total Thickness = 3"

PAVEMENT STRUCTURAL SECTION NO. 1

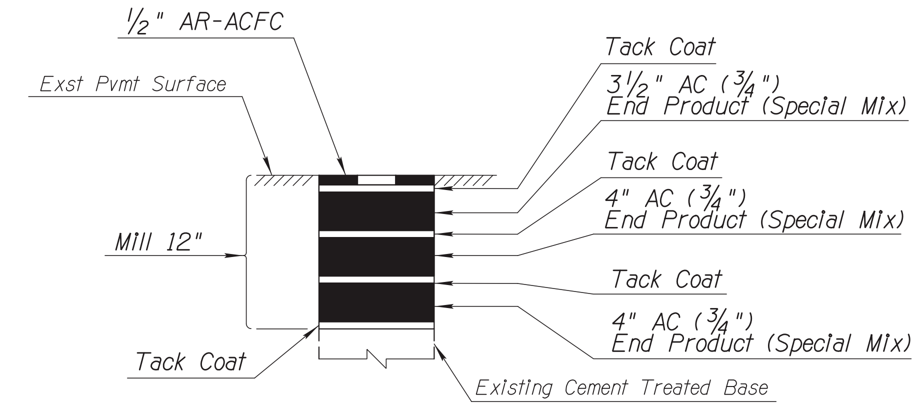
I-40 West Bound Passing Lane
I-40 East Bound Passing Lane
Ramps and Bridge Decks at:
Hawthorne Road T.I.,
Window Rock T.I.,
Grant Rd/Lupton T.I.



Total Thickness = 5"

PAVEMENT STRUCTURAL SECTION NO. 2

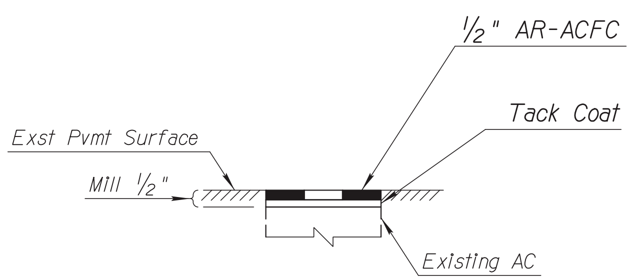
I-40 East Bound Travel Lane
I-40 West Bound Travel Lane



Total Thickness = 12"

PAVEMENT STRUCTURAL SECTION NO. 3

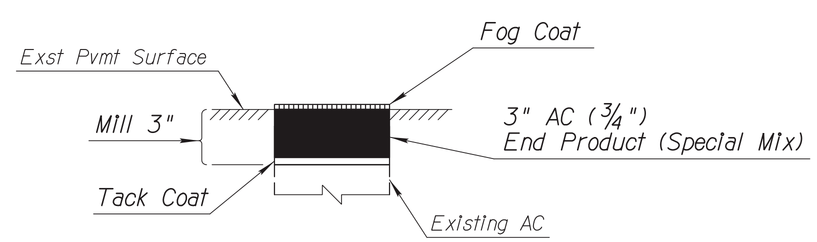
I-40 East Bound Travel Lane
I-40 West Bound Passing and Travel Lanes



Total Thickness = ½"

PAVEMENT STRUCTURAL SECTION NO. 4

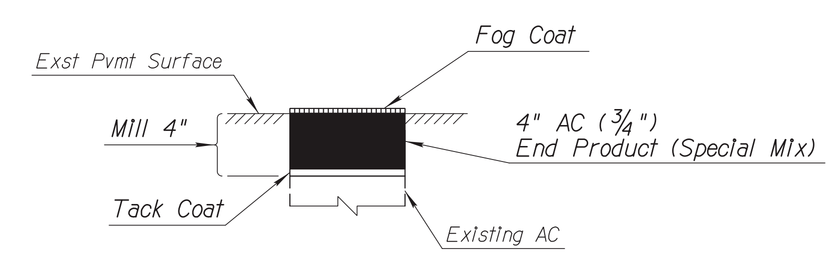
I-40 West Bound Inside and
Outside Shoulders
I-40 East Bound Inside and
Outside Shoulders



Total Thickness = 3"

PAVEMENT STRUCTURAL SECTION NO. 5

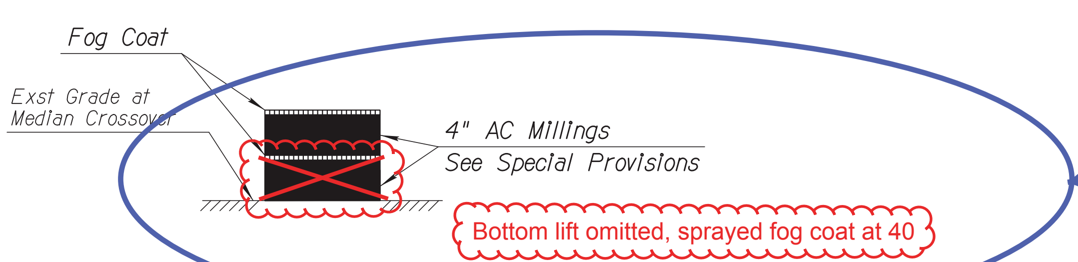
Cross Streets at:
Hawthorne Road T.I.,
Window Rock T.I.,
Grant Rd/Lupton T.I.



Total Thickness = 4"

PAVEMENT STRUCTURAL SECTION NO. 6

Text should be readable at full extents of sheet. For 17"x11" sheets use 10 point and for 34"x22" sheets use 20 point fonts. Place text in the correct location and uniform.



All field changes need to be shown clearly. The field changes need to be clouded as shown and also in red.

Total Thickness = 8"

PAVEMENT STRUCTURAL SECTION NO. 7

Median Crossovers

	NAME	DATE
DESIGN	JKF	12/15
DRAWN	CPG	12/15
CHECKED	ZK	12/15

PARSONS BRINCKERHOFF

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

DESIGN SHEET
PAVEMENT STRUCTURAL SECTIONS

ROUTE I-40 LOCATION ALLENTOWN RD - STATE LINE

TRACS NO. H8781 01 C NH-040-E(218)T

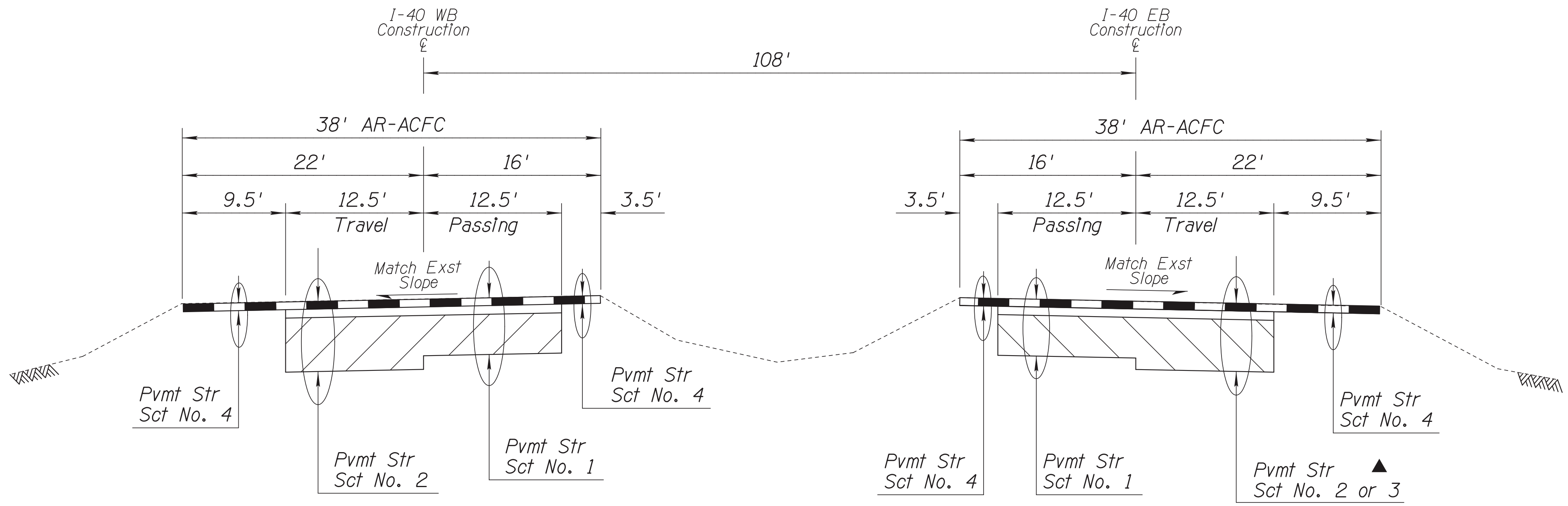
Expires 09/30/2017

SHEET 3 OF 62

10 OF 75

1/12/2016 T:\I-40\data\H8781_ds03.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	4	62	4/3/2017
		040-AP-353			



▲ Pvmt Str Sct No. 2: Sta 2569+44 to 2773+57.54
Pvmt Str Sct No. 3: Sta 2773+57.54 to 2805+24.15

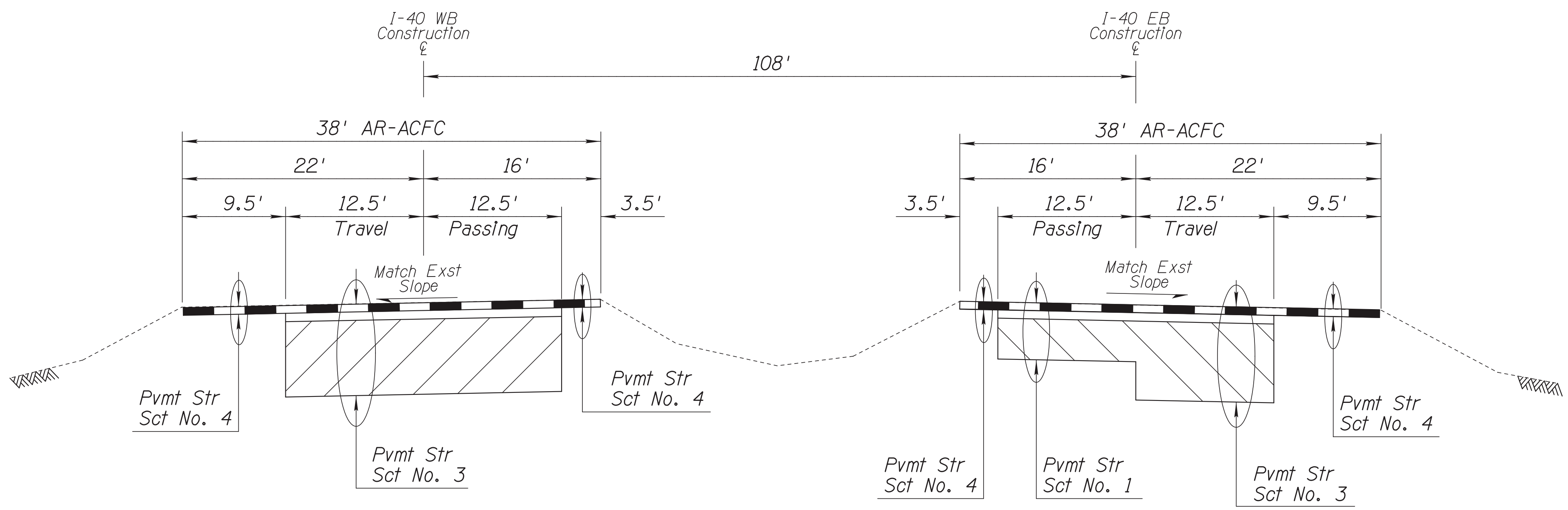
TYPICAL SECTION

WESTBOUND

Sta 2569+44.00 to 2723+38.10 BK
Sta 2723+58.10 AHD to 2803+11.28 BK
Sta 2803+22.63 AHD to 2805+24.15

EASTBOUND

Sta 2569+44.00 to 2723+78.22 BK
Sta 2723+58.16 AHD to 2803+33.99 BK
Sta 2803+22.63 AHD to 2805+24.15



I-40 BRIDGE DECKS ◪			
		Beg Sta	End Sta
EB	Hawthorne T.I.	2610+05	2610+95
	Window Rock T.I.	2764+33	2764+67
	Grant/Lupton T.I.	2852+18	2852+52
WB	Hawthorne T.I.	2610+05	2610+95
	Window Rock T.I.	2764+33	2764+67
	Grant/Lupton T.I.	2852+18	2852+52

◪ All bridge decks to receive Pvmt Str Sct No. 1

TYPICAL SECTION

WESTBOUND

Sta 2805+24.15 to 2850+56.84 BK
Sta 2850+37.77 AHD to 2871+13.04 BK
Sta 2871+29.03 AHD to 2876+60.28

EASTBOUND

Sta 2805+24.15 to 2850+18.70 BK
Sta 2850+37.77 AHD to 2871+45.02 BK
Sta 2871+29.03 AHD to 2874+89.23

	NAME	DATE
DESIGN	JKF	12/15
DRAWN	CPG	12/15
CHECKED	ZK	12/15

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ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

DESIGN SHEET
TYPICAL SECTION

Expires 09/30/2017

ROUTE I-40 | LOCATION ALLENTOWN RD - STATE LINE

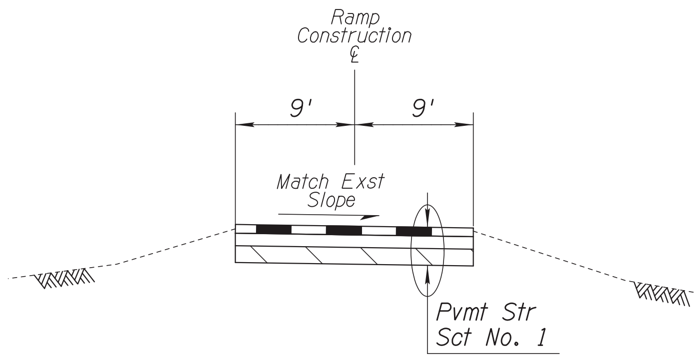
SHEET 4 OF 62

TRACS NO. H8781 01 C | NH-040-E(218)T

1/12/2016 T:\I-40\data\H8781_ds02.dgn

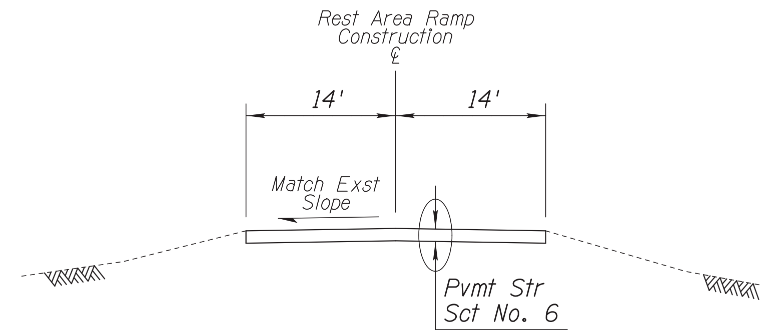
DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.
DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	5	62	4/3/2017
		040-AP-353			



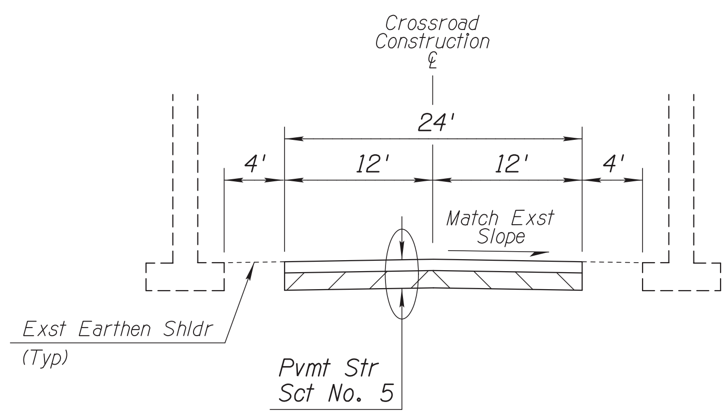
TYPICAL SECTION

Hawthorne, Window Rock &
Grant Rd/Lupton T.I. On and Off Ramps



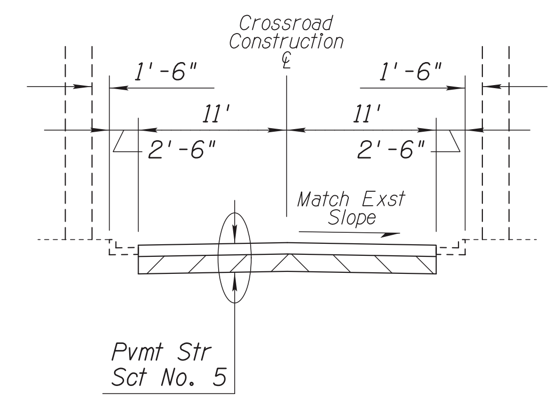
TYPICAL SECTION

I-40 Painted Cliffs Rest Area Ramps & Roads



TYPICAL SECTION

Hawthorne T.I. Crossroad



TYPICAL SECTION

Window Rock, Grant Rd/Lupton T.I. Crossroads

RAMP PAVING LIMITS

Ramp ℄	Begin Sta	End Sta
Hawthorne Rd TI		
EB Off-Ramp	4+24	10+97
EB On-Ramp	0+55	5+10
WB ~~On-Ramp~~ Off Ramp	0+57	7+47
WB ~~Off-Ramp~~ On Ramp	4+41	9+90
Window Rock TI		
EB Off-Ramp	5+24	11+31
EB On-Ramp	0+70	5+67
WB ~~On-Ramp~~ Off Ramp	0+67	7+78
WB ~~Off-Ramp~~ On Ramp	5+34	11+31
Grant/Lupton TI		
EB Off-Ramp	2+83	11+36
EB On-Ramp	0+55	12+15
WB ~~On-Ramp~~ Off Ramp	0+84	9+25
WB ~~Off-Ramp~~ On Ramp	5+62	9+56

CROSSROAD PAVING LIMITS

Crossroad	Begin Sta	End Sta
Hawthorne Rd	0+70	5+29
Window Rock/N12	17+81	22+16
Grant Rd	0+00	5+86

	NAME	DATE
DESIGN	JKF	12/15
DRAWN	CPG	12/15
CHECKED	ZK	12/15

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ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

DESIGN SHEET
TYPICAL SECTION

Expires 09/30/2017

ROUTE I-40 | LOCATION ALLENTOWN RD - STATE LINE

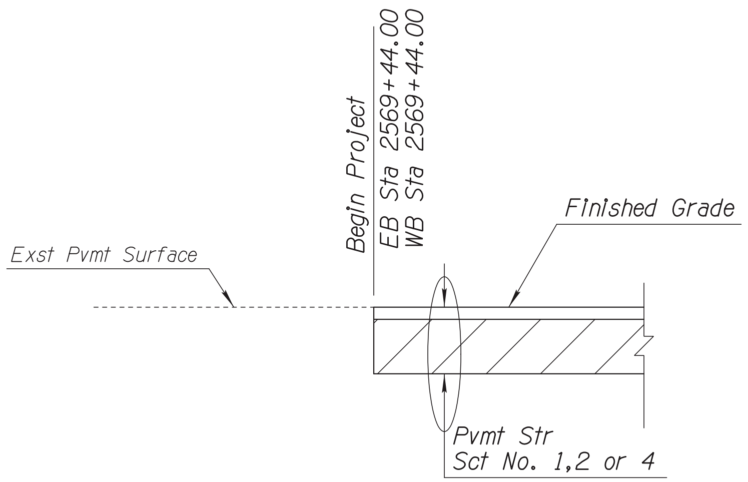
SHEET 5 OF 62

TRACS NO. H8781 01 C | NH-040-E(218)T

1/12/2016 T:\I-40\data\H8781_ds07.dgn

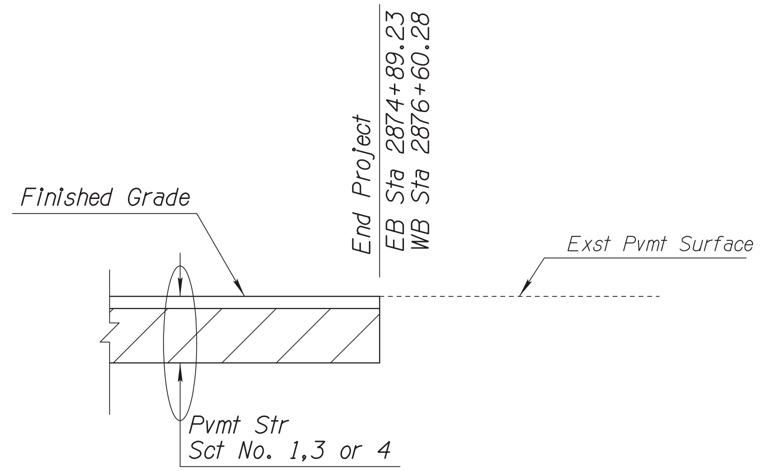
DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	6	62	4/3/2017
		040-AP-353			



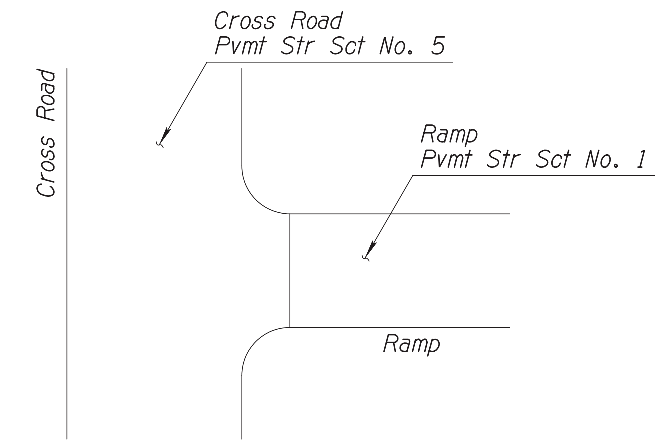
TREATMENT AT BEGIN OF PROJECT

I-40 Travel & Passing Lane, Shoulders

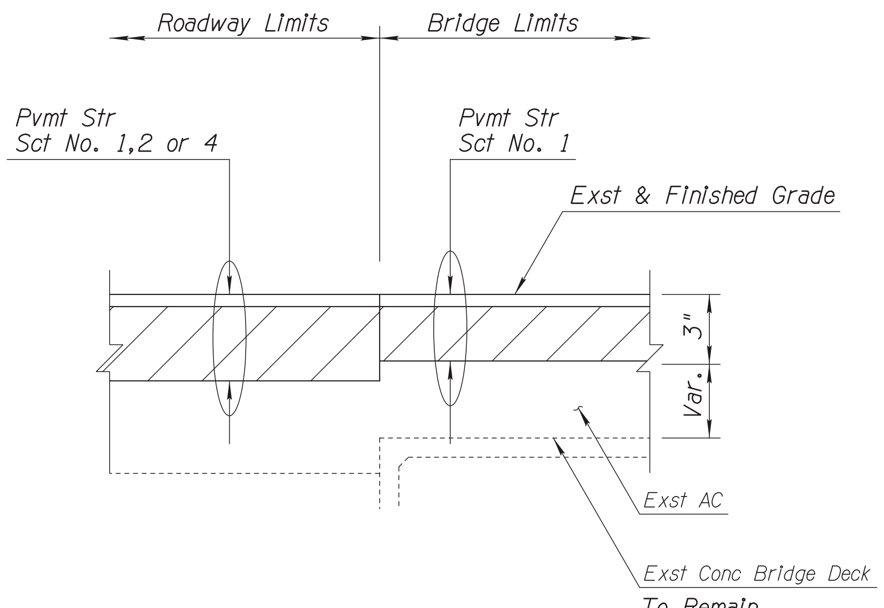


TREATMENT AT END OF PROJECT

I-40 Travel & Passing Lane, Shoulders

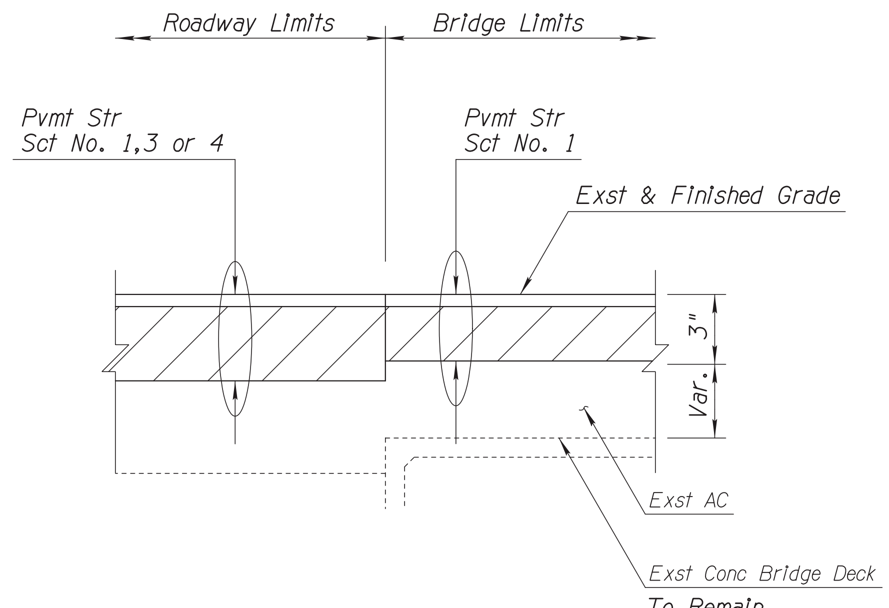


PAVEMENT TRANSITION
AT CROSS ROADS AND RAMPS



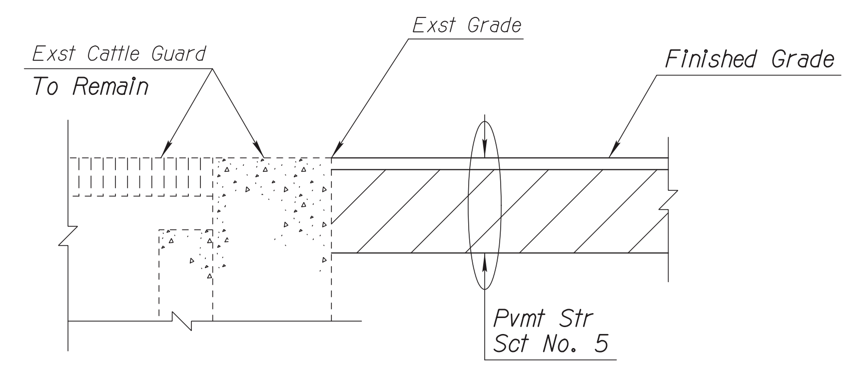
TREATMENT AT
HAWTHORNE & WINDOW ROCK
BRIDGE STRUCTURES

I-40 Travel & Passing Lane, Shoulders



TREATMENT AT
GRANT/LUPTON
BRIDGE STRUCTURES

I-40 Travel & Passing Lane, Shoulders



TREATMENT AT
GUARD (ALL CROSSROADS)

Note: The next several sheets will be omitted in this example to reduce file size and redundancy of information.

	NAME	DATE
DESIGN	JKF	12/15
DRAWN	CPG	12/15
CHECKED	ZK	12/15

PARSONS BRINCKERHOFF

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

DESIGN SHEET
PAVEMENT DETAILS

Expires 09/30/2017

ROUTE I-40 | LOCATION ALLENTOWN RD - STATE LINE

TRACS NO. H8781 01 C | NH-040-E(218)T

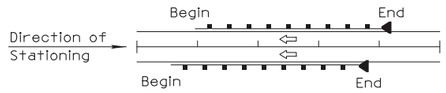
1/12/2016 T:\I-40\data\H8781_ds04.dgn

REVISIONS- LOCATION- DATE- SURVEY NO. FINISHED PLANS-

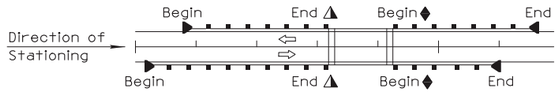
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	9	62	4/3/2017

040-AP-353

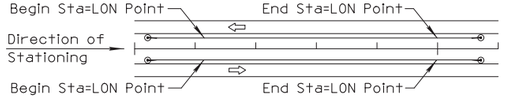
ONE-WAY ROADWAY



TWO-WAY ROADWAY WITH STRUCTURE ◒



DIVIDED ROADWAY WITH HIGH TENSION MEDIAN CABLE BARRIER



LOCATION / BARRIER

Begin Station (Approximate) (0)	Plan Reference Number ◇	Type "A" C-10.01, Type "B" C-10.02	C-10.03 (Timber)	C-10.04 (Steel)	Detail	NEW GUARDRAIL: Length (Linear Feet) (0.0)	NEW GUARDRAIL: C-10.06 Nested W-Beam ▲ Length (Linear Feet) (0.0)	NEW GUARDRAIL: C-10.07 Bolted Anchor (Each)	NEW GUARDRAIL: Shop Curved Guardrail Length (Linear Feet) (0.0)	EXISTING GUARDRAIL: Reconstruct-Exst Post, Block Length (Linear Feet) (0.0)	EXISTING GUARDRAIL: Reconstruct-New Post, Block Length (Linear Feet) (0.0)	EXISTING GUARDRAIL: Remove and Salvage Length (Linear Feet) (0.0)	EXISTING GUARDRAIL: Construct from Salvage Length (Linear Feet) (0.0)	EXISTING GUARDRAIL: Remove Length (Linear Feet) (0.0)	CONCRETE BARRIER: Length (Linear Feet) (0.0)	C-10.40 (32" Median)	C-10.41 (42" Median)	C-10.50 (32" Half)	C-10.54 (32" Half at Piers)	C-10.55 (42" Half at Piers)	C-10.40 (32" Median Barrier)	Remove Existing Length (Linear Feet) (0.0)	CABLE: High-Tension Cable Barrier Length (Linear Feet) (0) ●	C-12.30 Chain-Link Cable Barrier Length (Linear Feet) (0.0)
I-40 EB 2586+25 Rt	1																							
I-40 EB 2605+02 Lt	2	A	X			~~437.5~~ 400																		
I-40 EB 2605+40 Rt	3	A	X			400.0	37.5																	
I-40 WB 2606+03 Lt	4	A	X			~~387.5~~ 325	~~37.5~~ 0																	
I-40 WB 2608+52 Rt	5	A	X			~~137.5~~ 75																		
I-40 WB 2611+15 Lt	6	A	X			~~450.0~~ 300	~~75.0~~ 37.5							450.0										
I-40 WB 2611+15 Rt	7	A	X			~~425.0~~ 375								412.5										
I-40 EB 2611+15 Lt	8	A	X			~~175.0~~ 75								125.0										
I-40 EB 2611+15 Rt	9	A	X			~~425.0~~ 300	37.5							425.0										
I-40 EB 2609+05 Lt	10																							
I-40 EB 2611+97 Lt	11																							
I-40 EB 2631+50 Rt	12																							
I-40 WB 2639+77 Lt	13	A	X			~~1087.5~~ 1050	37.5							1075.0										
Sheet Total						~~3925.0~~ 3300	~~225.0~~ 150							3950.0										

END TREATMENT

Begin Station (Approximate) (0)	Begin = Treatment at Beginning / End = Treatment at End	TRANSITION RAIL Each: C-10.30 Thrie Beam	TRANSITION RAIL Each: Reconstruct Rub Rail	TRANSITION CONC BARRIER Each: C-10.70 32" or C-10.72 42"	TRANSITION CONC BARRIER Each: C-10.74 42" to 32"	TRANSITION CONC BARRIER Each: Detail XX	NEW Each ◪: Tangent Details A and B	NEW: Flared Details and	NEW: End Anchor C-10.08 or Detail ◧	NEW: High-Tension Cable Terminal	NEW: Sand Barrels C-1 or Detail ■	NEW: Attenuator Detail	EXISTING Action: Reconstruct (See Special Prv)	EXISTING Action: Remove and Salvage	EXISTING Action: Construct from Salvage	EXISTING Action: Remove	EXISTING Each ◪: Tangent	EXISTING: Flared	EXISTING: End Anchor C-10.08 or Detail	EXISTING: High-Tension Cable Terminal	EXISTING: Sand Barrels C-1 or Detail ■	EXISTING: Attenuator Detail	EXISTING: BCT (L=12.5')	REMARKS
I-40 EB 2586+25 Rt	Begin																							TO REMAIN
	End																							NO WORK ANTICIPATED
I-40 EB 2605+02 Lt	Begin						1									1	1							REMOVE EXST RUB RAIL (25 LF) SEE BRIDGE SHEETS FOR BRIDGE SD 1.03 TRANSITION
	End	1																						
I-40 EB 2605+40 Rt	Begin						1									1	1							REMOVE EXST RUB RAIL (25 LF) SEE BRIDGE SHEETS FOR BRIDGE SD 1.03 TRANSITION
	End	1																						
I-40 WB 2606+03 Lt	Begin								1							1			1					SEE BRIDGE SHEETS FOR BRIDGE SD 1.03 TRANSITION
	End	1																						
I-40 WB 2608+52 Rt	Begin								1							1			1					SEE BRIDGE SHEETS FOR BRIDGE SD 1.03 TRANSITION
	End	1																						
I-40 WB 2611+15 Lt	Begin	1																						REMOVE EXST RUB RAIL (25 LF) SEE BRIDGE SHEETS FOR BRIDGE SD 1.03 TRANSITION
	End						1									1	1							
I-40 WB 2611+15 Rt	Begin	1																						REMOVE EXST RUB RAIL (25 LF) SEE BRIDGE SHEETS FOR BRIDGE SD 1.03 TRANSITION
	End						1									1	1							
I-40 EB 2611+15 Lt	Begin	1																						SEE BRIDGE SHEETS FOR BRIDGE SD 1.03 TRANSITION
	End								1							1			1					
I-40 EB 2611+15 Rt	Begin	1																						SEE BRIDGE SHEETS FOR BRIDGE SD 1.03 TRANSITION
	End								1							1			1					
I-40 EB 2609+05 Lt	Begin																							MEETS STD, TO REMAIN
	End																							ED
I-40 EB 2611+97 Lt	Begin																							AIN
	End																							ED
I-40 EB 2631+50 Rt	Begin																							
	End																							ED
I-40 WB 2639+77 Lt	Begin								1							1			1					
	End						1									1	1							
Sheet Total		8					5		5								5		5					

Note: The end treatment used in the project needs to be circled and the Detail sheet for the end treatment that was not used on the project needs to be "X'd" out (see the next page). If both end treatments were used, then this is not required.

Note: The next several sheets will be omitted in this example to reduce file size and redundancy of information.

THE ZEROS IN PARENTHESES (0.0) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN

▲ THE LENGTH OF NESTED W-BEAM IS FOR TYPES 2 OR 3 (37.5'). DETERMINATION OF TYPE (1, 2 or 3) TO USE IS MADE IN THE FIELD. THE PAY QUANTITY IS THE LENGTH INSTALLED PER STD. C-10.06 (25.0' or 37.5')

△ END STATION BEFORE BRIDGE TRANSITION

♦ BEGIN STATION AFTER BRIDGE TRANSITION

◒ SEE BRIDGE SHEETS FOR BRIDGE BARRIER DETAILS AND QUANTITIES

● LENGTH IS FROM LENGTH OF NEED (LON) POINT TO LON POINT. ACTUAL SEGMENT LENGTH VARIES DEPENDING ON TERMINAL TYPE. SEE SPECIAL PROVISIONS.

◪ ALLOWABLE END TREATMENT OPTIONS ARE INDICATED WITH THE NUMBER '1' IN THE SPACE. BLANK SPACES ARE NOT VIABLE ALTERNATIVES

■ ARRAY TYPE AND ANGLE IS NOTED UNDER 'REMARKS'

◧ FOR AS-BUILT PREPARATION - CIRCLE END TREATMENT INSTALLED

Page 9

	NAME	DATE
DESIGN	JKF	12/15
DRAWN	CPG	12/15
CHECKED	ZK	12/15

PARSONS BRINCKERHOFF

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

BARRIER SUMMARY SHEET

Date Signed 1/12/16
Expires 09/30/2017

ROUTE I-40
LOCATION ALLENTOWN RD - STATE LINE
TRACS NO. H8781 01 C
NH-040-E(218)T
SHEET 9 OF 62
16 OF 75

REV. DATE: 01/12/2015

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

1/12/2016 T:\I-40\data\H8781_bsum1.dgn

Note to Designer:
The information presented in this Roadway Plans Detail is for general use. Designer's should satisfy themselves that their project site conditions are appropriate for use of this drawing. Contents within the inner border shall not be altered, except for the addition of the Detail designation.

Date: 12/12/14

NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1			
2			
3			
4			

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	13	62	4/3/2017
		040-AP-353			

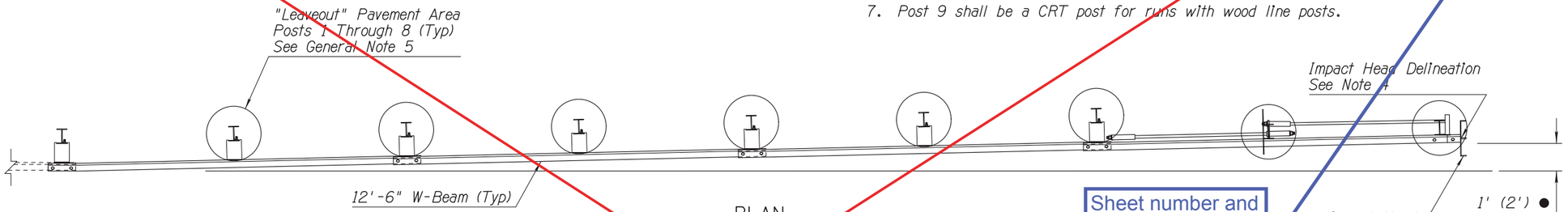
● FOR ELEVATIONS ABOVE 4,000', USE THE VALUES IN PARENTHESES

Note: This end treatment was not used on the project. The Contractor was given the option of Detail A or Detail B for an end treatment. Detail A was not used. The barrier summary sheet (the previous sheet to this sheet) was circled with the end treatment that was used. Detail B was used. This sheet is "X'd" out from corner to corner as shown.

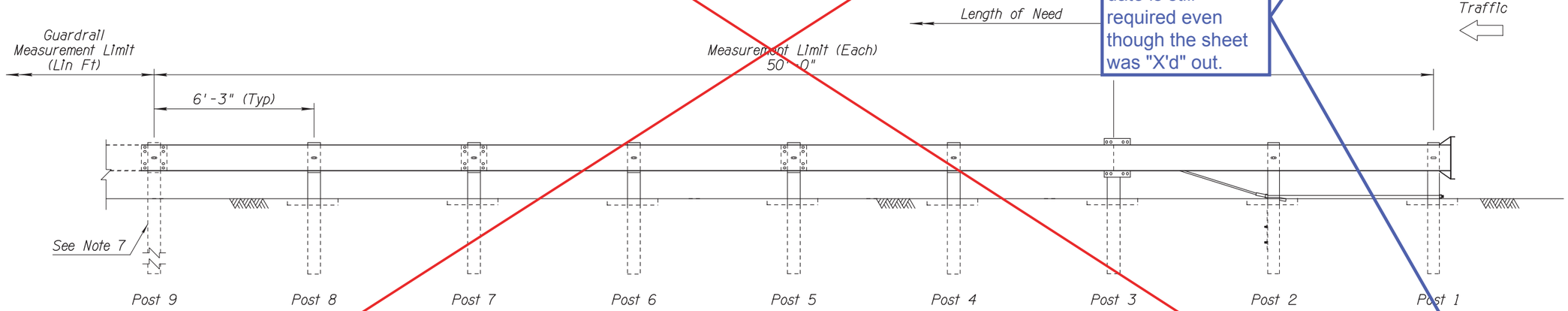
GENERAL NOTES

1. This detail is for roadway layout only.
2. The X-LITE shall be installed in accordance with the manufacturer's specifications and current approved drawings including all details, hardware, hardware quantities, and other information.

   The current manufacturer's approved drawing is number XLTSUS-50, 10/2014. Visit the Roadway Design web site to view and print the drawing.
3. The 50' W-Beam length shall consist of four 12'-6" sections.
4. See specifications and Traffic Signing and Marking Standard Drawings.
5. "Leaveouts" shall be provided in the AC pavement around guardrail posts 1 through 8. "Leaveouts" shall be filled flush to top of pavement with 3" (6" max) of CLSM grout having a 28 day compressive strength between 40 and 120 psi.
6. Posts 4 - 8 shall be steel line posts. Posts 1 - 3 are proprietary.
7. Post 9 shall be a CRT post for runs with wood line posts.



PLAN



ELEVATION

Sheet number and date is still required even though the sheet was "X'd" out.

DETAIL A

Sheet 1 of 2

LAYOUT FOR X-LITE
TANGENT
(AC PAVEMENT)

ADOT Standard Sheet not required

Note: PE stamp is not required on this sheet. This is a Standard Drawing.

DESIGN APPROVED: J.C. Cooper	ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION ROADWAY GROUP PLANS DETAIL
APPROVED FOR DISTRIBUTION: Annette Riley	DETAIL SHEET DETAIL A
ROUTE / LOCATION: ALLENTOWN RD - STATE LINE	SHEET 13 OF 62
TRACS NO. H8781 01 C	NH-040-E(218)T — 20 OF 75

Page 10

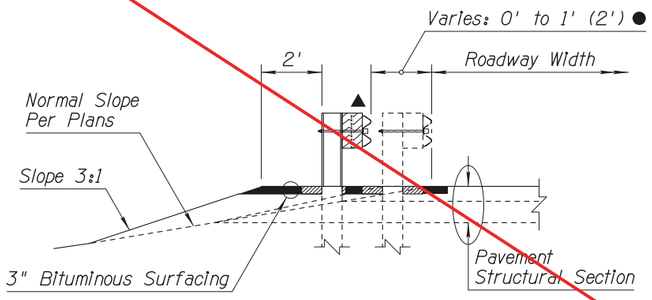
Note to Designer:
The information presented in this Roadway Plans Detail is for general use. Designers should satisfy themselves that their project site conditions are appropriate for use of this drawing. Contents within the inner border shall not be altered, except for the addition of the Detail designation.

Date: 12/12/14

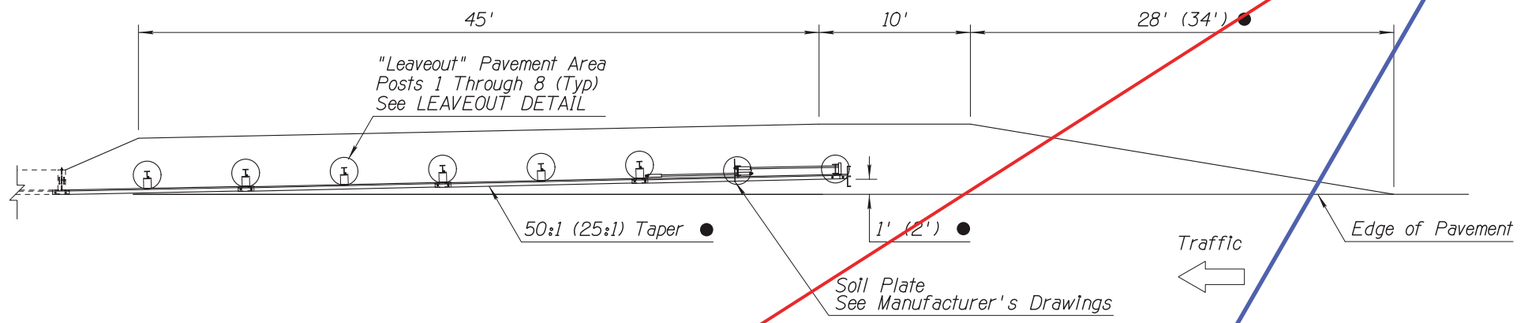
● FOR ELEVATIONS ABOVE 4,000 FT, USE THE VALUES IN PARENTHESES

▲ Top of Rail = 28"
See General Note 1
Std Dwg C-10.03

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	14	62	4/3/2017
		040-AP-353			



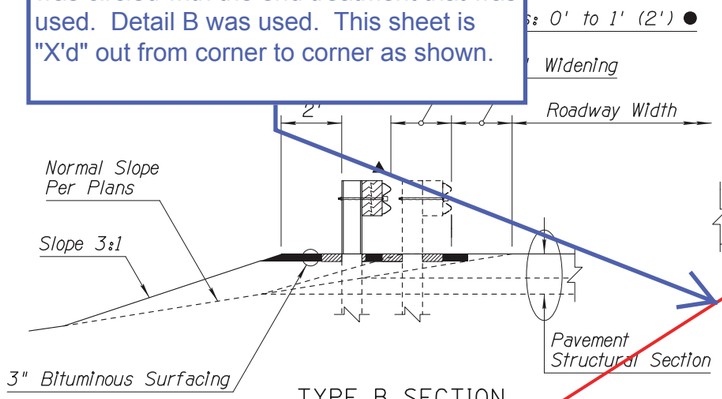
TYPE A SECTION



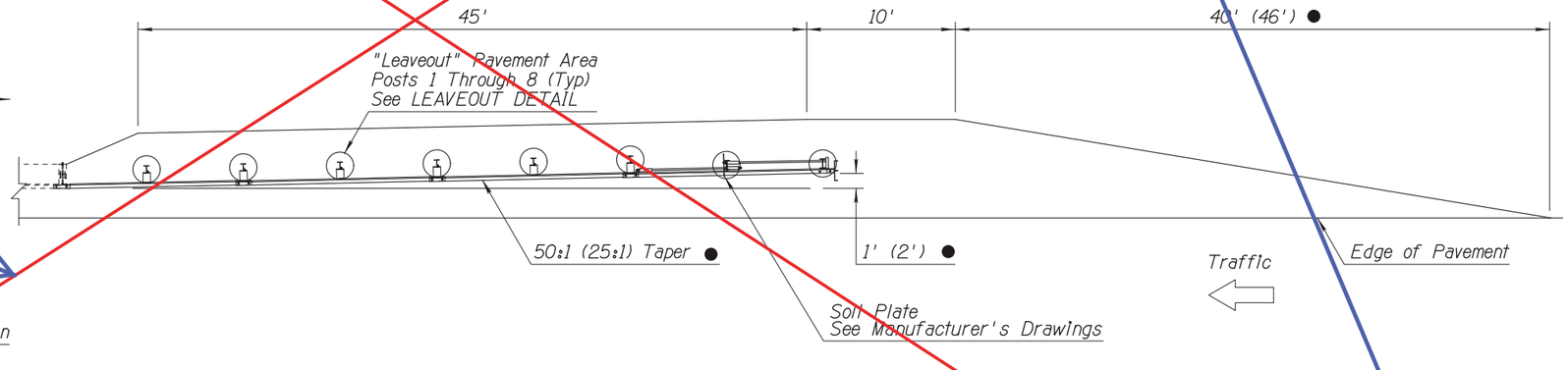
TYPE A GUARDRAIL INSTALLATION
(FACE OF RAIL AT EDGE OF PAVEMENT)

Note: This end treatment was not used on the project. The Contractor was given the option of Detail A or Detail B for an end treatment. Detail A was not used. The barrier summary sheet (sheet 16 of 75) was circled with the end treatment that was used. Detail B was used. This sheet is "X'd" out from corner to corner as shown.

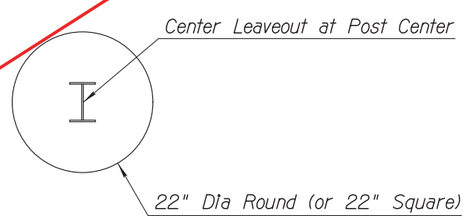
Sheet number and date is still required even though the sheet was "X'd" out.



TYPE B SECTION



TYPE B GUARDRAIL INSTALLATION
(FACE OF RAIL OFFSET 2' FROM NORMAL EDGE OF PAVEMENT)



LEAVEOUT DETAIL

DETAIL A

Sheet 2 of 2

LAYOUT FOR X-LITE
TANGENT
(AC PAVEMENT)

ADOT Standard Sheet not required

Note: PE stamp is not required on this sheet. This is a Standard Drawing.

DESIGN APPROVED: J.C. Cooper	ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION ROADWAY GROUP PLANS DETAIL
APPROVED FOR DISTRIBUTION: Annette Riley	DETAIL SHEET DETAIL A
ROUTE / LOCATION: ALLENTOWN RD - STATE LINE	SHEET 14 OF 62
TRACS NO. H8781 01 C	NH-040-E(218)T

21 OF 75

NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1			
2			
3			
4			

U:\ADOT_V8i\ADOT\users\flyj 1:51:22 PM 1/12/2016 T:\I-40\data\y11402.dgn

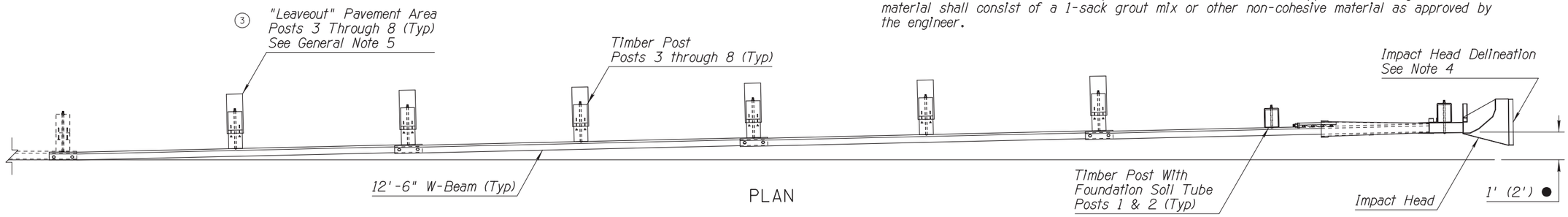
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	15	62	4/3/2017
		040-AP-353			

● FOR ELEVATIONS ABOVE 4,000', USE THE VALUES IN PARENTHESES

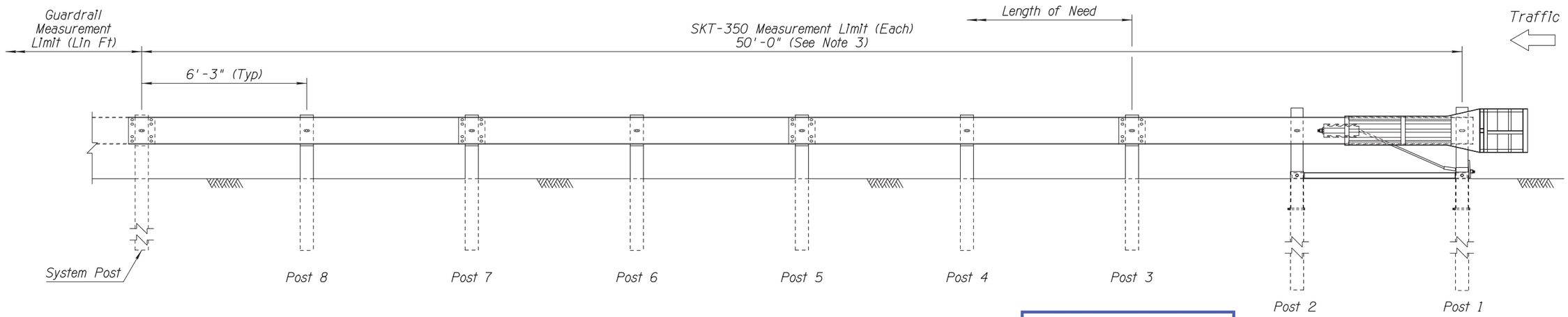
GENERAL NOTES

1. This detail is for roadway layout only.
2. The SKT-350 shall be installed in accordance with the manufacturer's specifications and current approved drawings including all details, hardware, hardware quantities, and other information.

   The current manufacturer's approved drawing is number SKT-W-2US-AZ, 06/04/11. Visit the Roadway Design web site to view and print the drawing.
3. The 50' W-Beam length shall consist of four 12'-6" sections, the end section being a proprietary split rail.
4. See specifications and Traffic Signing and Marking Standard Drawings.
5. ③ "Leaveouts" in asphaltic concrete shall be provided in the AC pavement around the guardrail posts at the locations and dimensions specified on the manufacturer approved drawings. "Leaveout" material shall consist of a 1-sack grout mix or other non-cohesive material as approved by the engineer.



PLAN



ELEVATION

This is the end treatment that was used on the project. This is noted in the summary sheet on page 16 of 75.

DETAIL B

Sheet 1 of 2

LAYOUT FOR SKT-350
2 FOUNDATION SOIL TUBES ①
(AC PAVEMENT)

Note: PE stamp is not required on this sheet. This is a Standard Drawing.

DESIGN APPROVED	ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION **ROADWAY GROUP PLANS DETAIL**
J.C. Cooper	
APPROVED FOR DISTRIBUTION Mary Viparina	DETAIL SHEET DETAIL B
ROUTE / LOCATION: ALLENTOWN RD - STATE LINE	SHEET 15 OF 62
TRACS NO. H8781 01 C	NH-040-E(218)T — 22 OF 75

Note to Designer:
The information presented in this Roadway Plans Detail is for general use. Designer's should satisfy themselves that their project site conditions are appropriate for use of this drawing contents, which the inner border shall not be altered, except for the addition of the Detail designation.

Date: 6/06/11

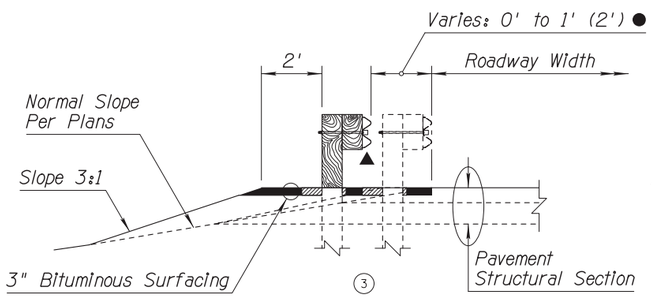
NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	REISSUED DRAWING WITH MODIFIED APPROACH TAPER	RLF	5/22/07
2	REVISED TITLE BLOCK NAME & DRAWING DATE	RLF	7/09/09
3	ADDED "LEAVEOUT" CALLOUT & NEW GENERAL NOTE 5	RLF	6/06/11
4			

Page 12

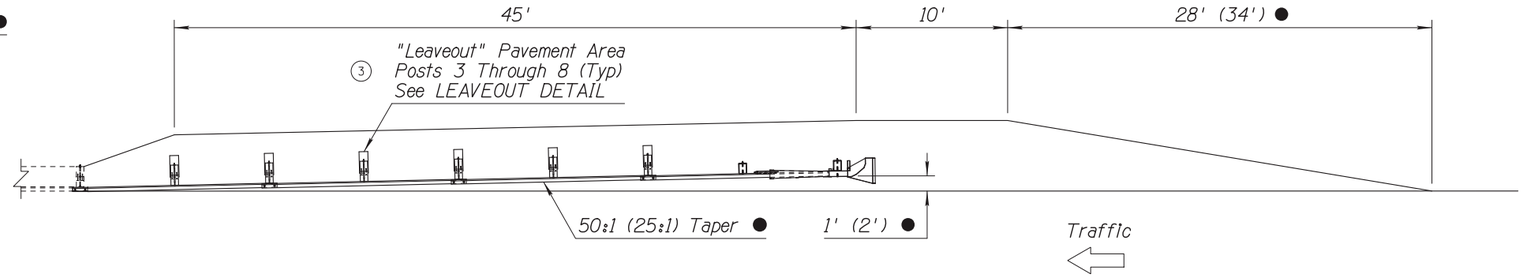
● FOR ELEVATIONS ABOVE 4,000 FT, USE THE VALUES IN PARENTHESES

▲ *Top of Rail = 28"*
See General Note 1
Std Dwg C-10.03

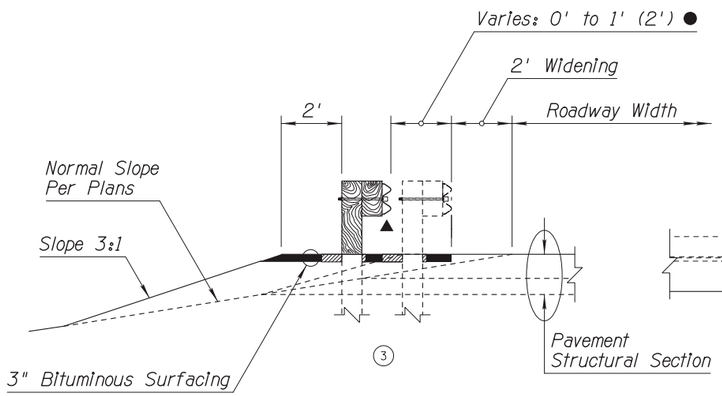
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	16	62	4/3/2017
		040-AP-353			



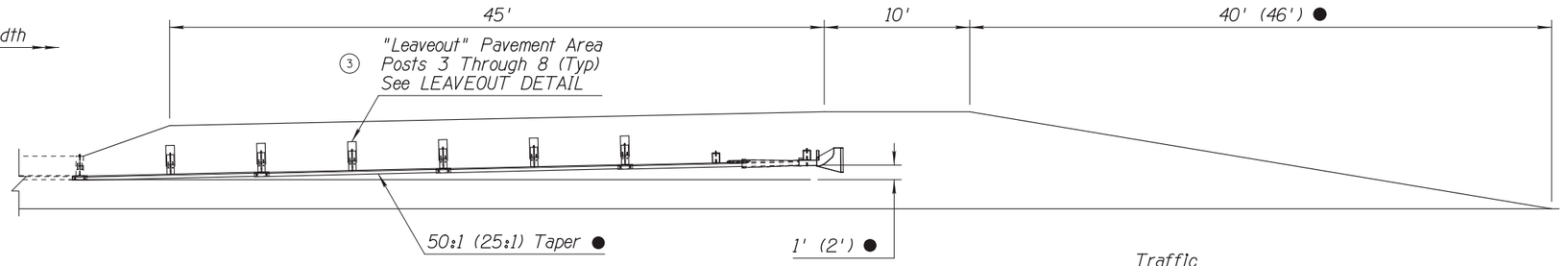
TYPE A SECTION



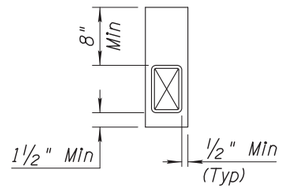
TYPE A GUARDRAIL INSTALLATION
(FACE OF RAIL AT EDGE OF PAVEMENT)



TYPE B SECTION



TYPE B GUARDRAIL INSTALLATION
(FACE OF RAIL OFFSET 2' FROM NORMAL EDGE OF PAVEMENT)



LEAVEOUT DETAIL
4

This is the end treatment that was used on the project. This is noted in the summary sheet on page 16 of 75.

DETAIL B

Sheet 2 of 2

LAYOUT FOR SKT-350
2 FOUNDATION SOIL TUBES
(AC PAVEMENT)

Note: PE stamp is not required on this sheet. This is a Standard Drawing.

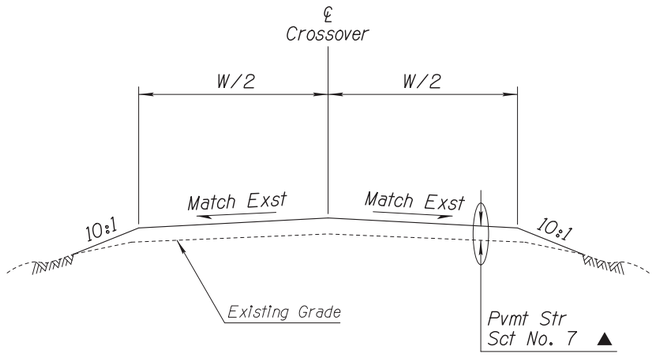
DESIGN APPROVED	ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION **ROADWAY GROUP PLANS DETAIL**
J.C. Cooper	
APPROVED FOR DISTRIBUTION Mary Viparina	DETAIL SHEET DETAIL B
ROUTE / LOCATION: ALLENTOWN RD - STATE LINE	SHEET 16 OF 62
TRACS NO. H8781 01 C	NH-040-E(218)T — 23 OF 75

Note to Designer:
The information presented in this Roadway Plans Detail is for general use. Designers should satisfy themselves that their project site conditions are appropriate for use of this drawing. Contents within the inner border shall not be altered, except for the addition of the Detail designation.

Date: 6/06/11

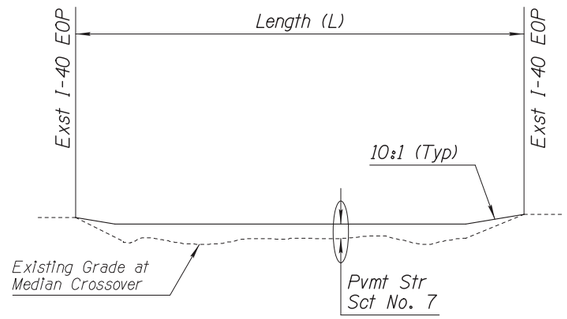
NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	REISSUED DRAWING WITH MODIFIED APPROACH TAPER	RLF	5/22/07
2	REVISED APPROACH TAPER CRITERIA	RLF	7/09/09
3	ADDED "LEAVEOUT" CALLOUT & REVISED SECTION VIEWS	RLF	6/06/11
4	ADDED "LEAVEOUT" DETAIL	RLF	6/06/11

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	17	62	4/3/2017
		040-AP-353			



SECTION A-A

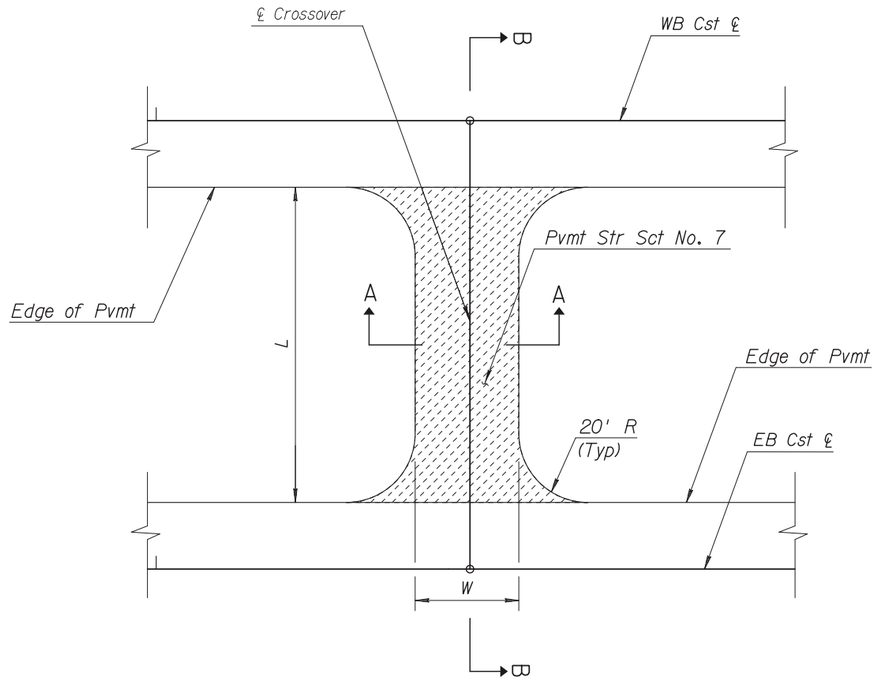
▲ Screen AC Millings to pass 1 - ½" screen prior to placement. See Special Provisions.



SECTION B-B

CROSSOVER SCHEDULE

⬭	Station	L	W	Area (SF)
1	2580+00	76	20	1,864
2	2700+85	76	20	1,864
3	2795+17	76	20	1,864
4	2874+69	76	20	1,864



PLAN

NOTE:

1. Contractor shall match exst elevations at the edge of I-40 shoulder.
2. Locations and dimensions above are approximate. Contractor shall verify measurements in the field.

DETAIL C

MEDIAN CROSSOVERS

	NAME	DATE
DESIGN	JKF	12/15
DRAWN	CPG	12/15
CHECKED	ZK	12/15

PARSONS BRINCKERHOFF

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

DETAIL SHEET
DETAIL C

ROUTE: I-40
LOCATION: ALLENTOWN RD - STATE LINE

TRACS NO. H8781 01 C | NH-040-E(218)T

Registered Professional Engineer
Date 11/12/16
ARIZONA U.S.A.
Expires 09/30/2017

SHEET 17 OF 62
24 OF 75

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

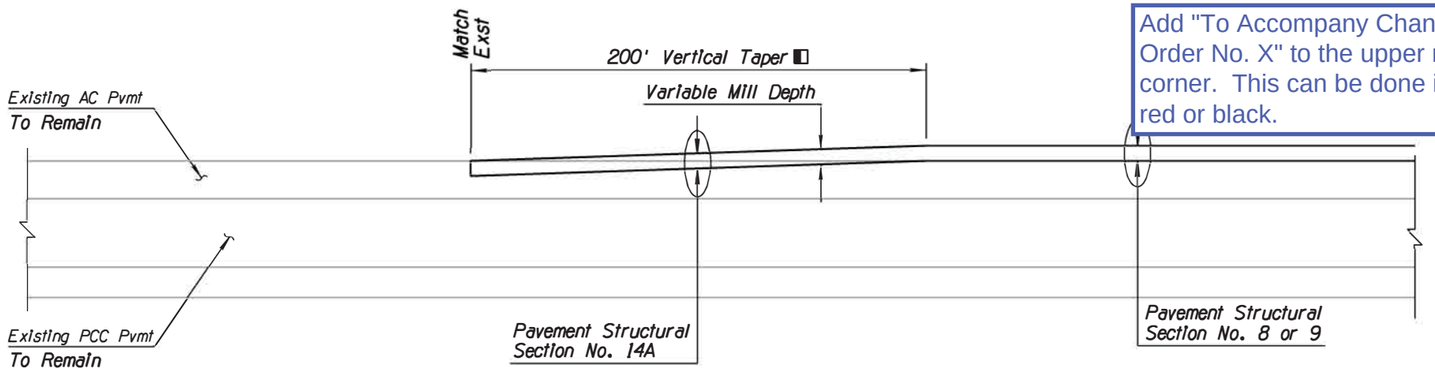
1/12/2016 T:\I-40\data\H8781_dt01.dgn

TO ACCOMPANY CHANGE ORDER NO. 1

REV NO.	LOCATION	DATE	BY
1	REVISED PHASING - EB ROADWAY FIRST	07/21/2017	DBK

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-C(225)T	21A	112	01/11/2019
		040 CN 156			

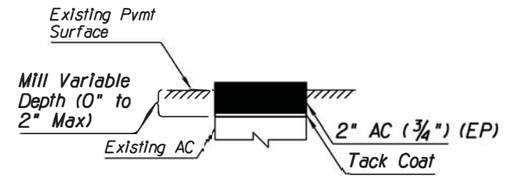
Add "To Accompany Change Order No. X" to the upper right corner. This can be done in red or black.



TREATMENT AT BEGIN/END WB OVERLAY
(CONSTRUCTION PHASE 1B)

NOTE:

See Dwg No. C-4.06 for notes.



Total Thickness = 2"

SECTION NO. 14A

This sheet is a change order sheet that was added and did not replace another sheet in the plans.

This sheet requires a new seal, signature and date.

DETAIL C

Sheet 2 of 2

PAVEMENT TREATMENTS

Cloud the title block and add the triangle with the addendum number. This must be done in red.

1

	NAME	DATE
DESIGN	DBK, RG	05/17
DRAWN	JK, ME, DS	05/17
CHECKED	KCH	05/17

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

Gannett Fleming

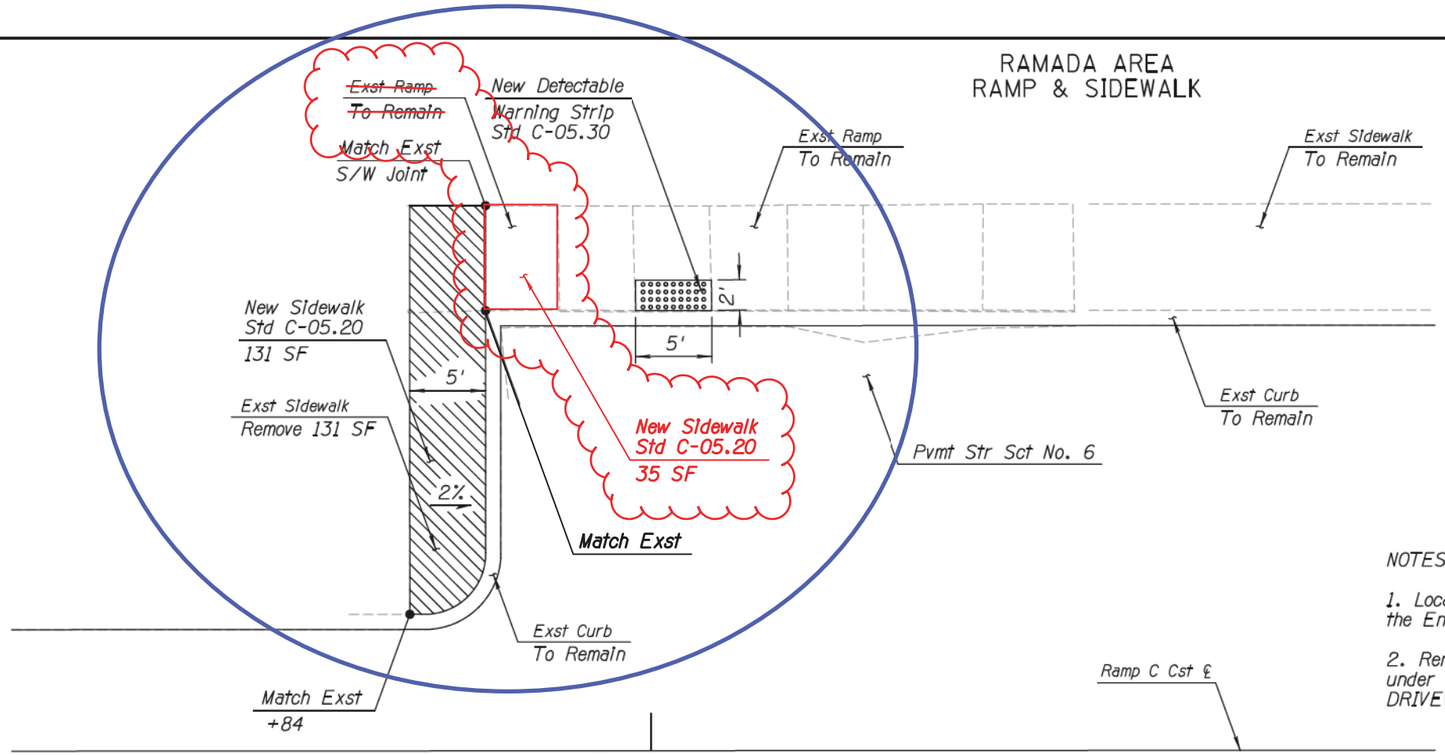
DETAIL SHEET
DETAIL C

ROUTE	LOCATION	DWG No.
I-40	DEVIL DOG - WILLIAMS	S-1.06A
TRACS NO. F0131 01C	040-C(225)T	38 OF 172

7/21/2017 c:\pwworking\gfpw01\dkelly\d0699353\F0131dtC2_RI.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	18	62	4/3/2017
		040-AP-353			

RAMADA AREA
RAMP & SIDEWALK

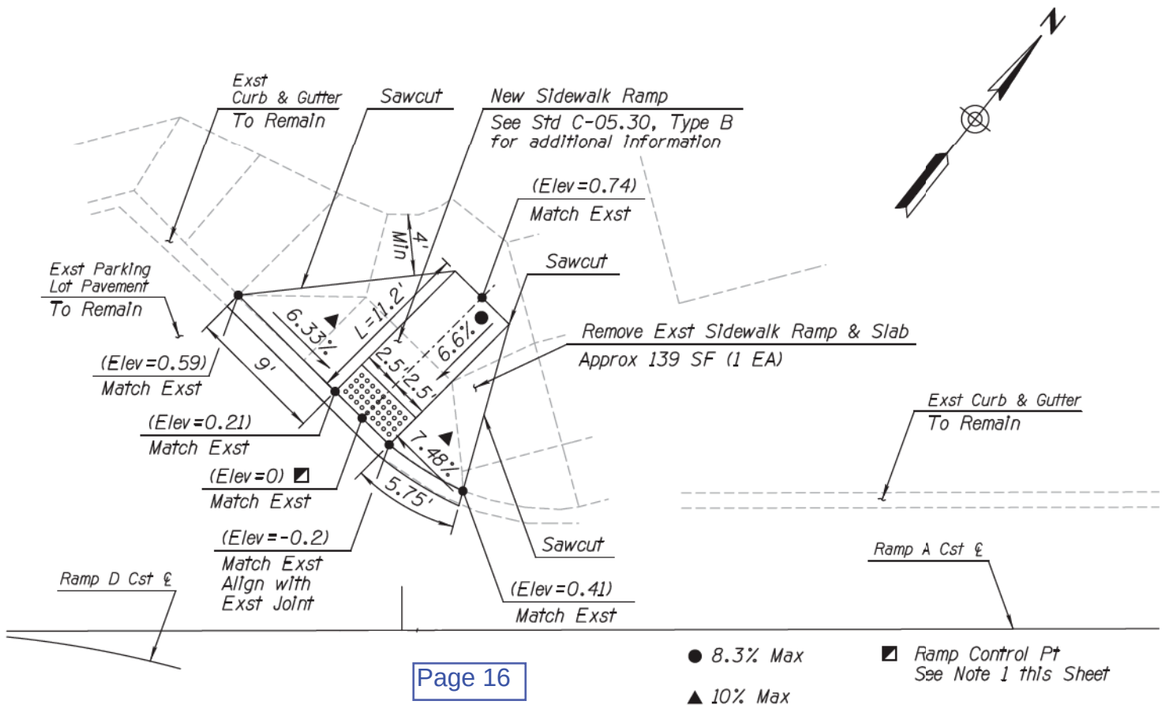


NOTES:

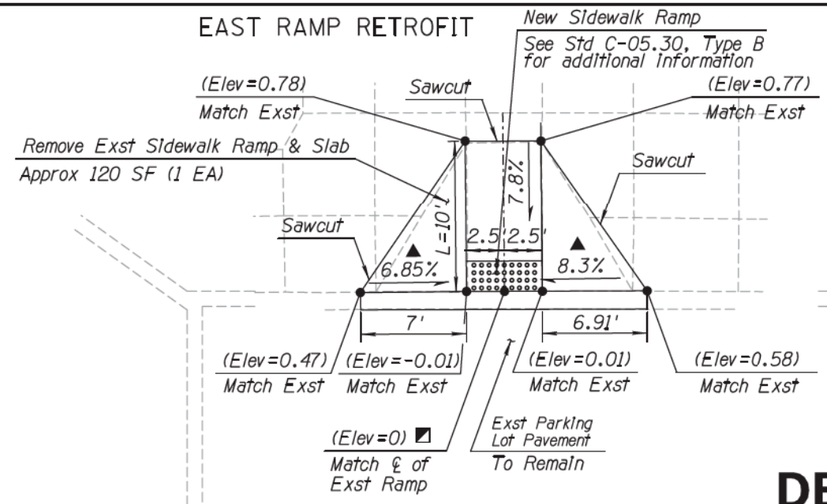
1. Locations of Detail D work shall be staked and verified by the Engineer prior to the start of work in the area.

2. Removal of sidewalk, ramps and slabs is to be paid for under ITEM 2020025 - REMOVAL OF CONCRETE SIDEWALKS, DRIVEWAYS AND SLABS.

WEST CURB RAMP RETROFIT



EAST RAMP RETROFIT



DETAIL D

REST AREA SIDEWALK & CURB RAMPS

	NAME	DATE
DESIGN	JKF	12/15
DRAWN	CPG	12/15
CHECKED	ZK	12/15

PARSONS BRINCKERHOFF

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

DETAIL SHEET
DETAIL D

ROUTE: I-40 | LOCATION: ALLENTOWN RD - STATE LINE

TRACS NO. H8781 01 C | NH-040-E(218)T

Expires 09/30/2017

SHEET 18 OF 62

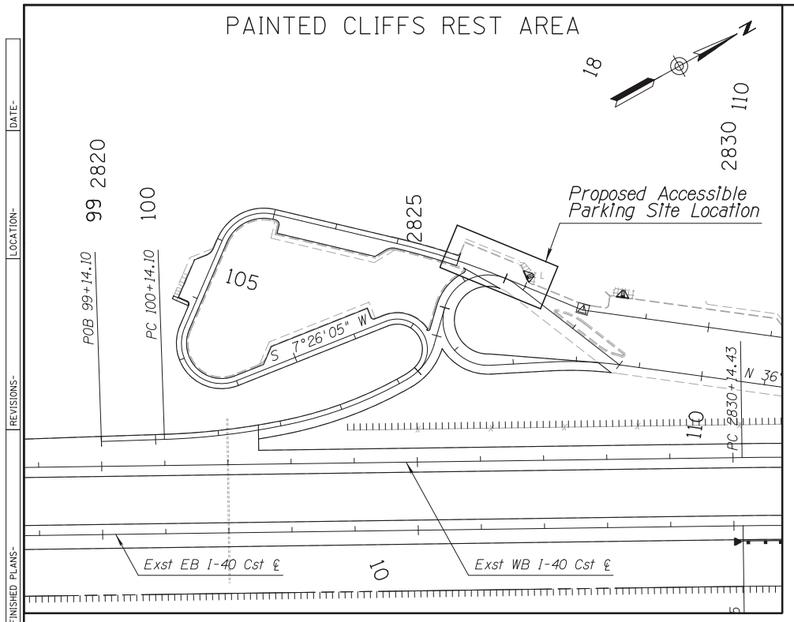
25 OF 75

1/12/2016 T:\I-40\data\H8781_dt02.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	19	62	4/3/2017
		040-AP-353			

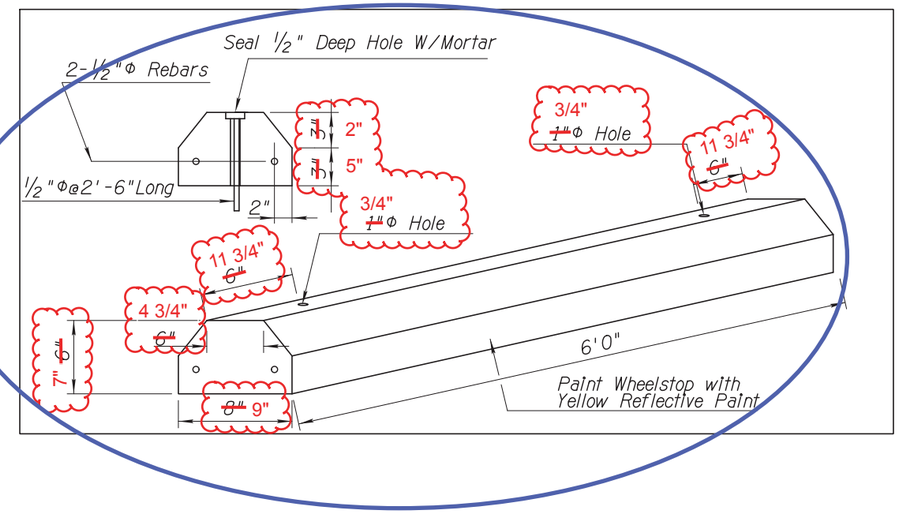
DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

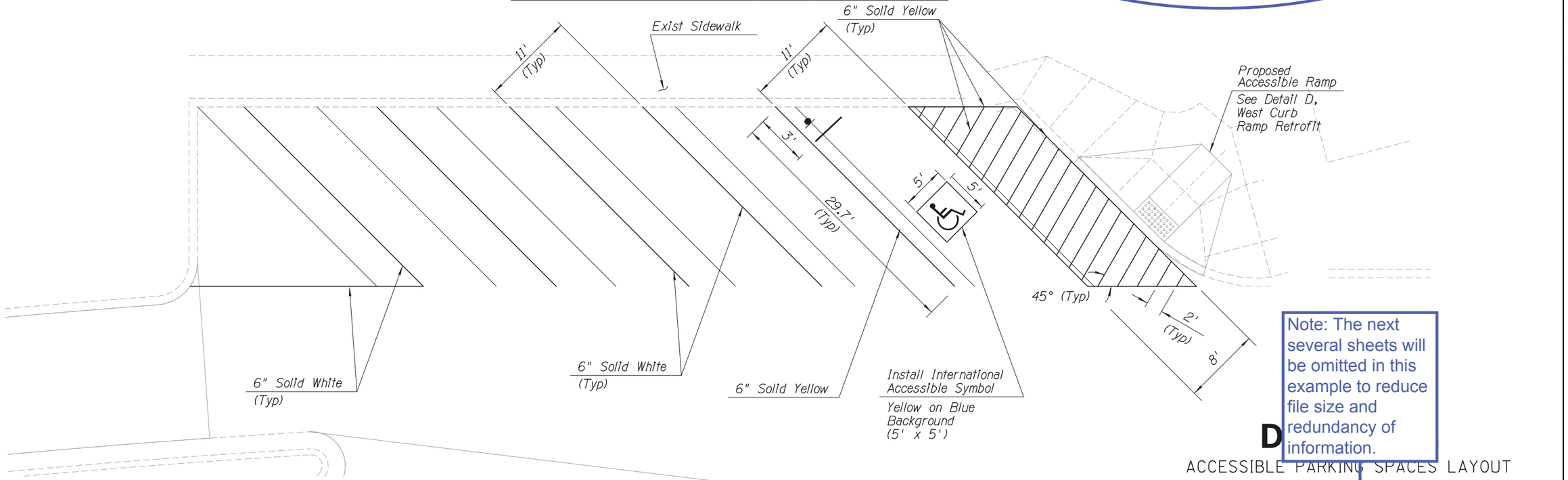
PAINTED CLIFFS REST AREA



Accessible Parking Approximate Quantities			
Description	Unit	Quantity	Item No
Warning, Marker or Regulatory Sign Panel	SQ.FT	3.00	6080005
Sign post perforated	L.FT	12.00	6070054
Foundation for Sign Post (Concrete)	EACH	1.00	6070060
Miscellaneous Work (Wheelstop)	EACH	1.00	9240119
Dual Component Epoxy 4" White Equivalent Pavement Marking	L.FT	390	7090001
Dual Component Epoxy 4" Yellow Equivalent Pavement Marking	L.FT	410	7090002
Permanent Pavement Marking 4" White Equivalent Pavement Marking	L.FT	195	7080001
Permanent Pavement Marking 4" Yellow Equivalent Pavement Marking	L.FT	275	7080011

WHEELSTOP DETAIL:





D

ACCESSIBLE PARKING SPACES LAYOUT

Note: The next several sheets will be omitted in this example to reduce file size and redundancy of information.

SYMBOL LEGEND:

●	New R7-8AZ 12" x 18" New R7-8P 18" x 12" Install new sign on square 2S type post. Install wheel stop in advance of the sign.
———	Wheelstop

	NAME	DATE
DESIGN	SG	12/15
DRAWN	CPG	12/15
CHECKED	HAO	12/15

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PARSONS BRINCKERHOFF

DETAIL SHEET
DETAIL E

Registered Professional Engineer — Date Signed 01-12-16 — ARIZONA U.S.A. — Expires 03/31/16

ROUTE	LOCATION	SHEET
I-40	ALLENTOWN RD - STATE LINE	SHEET 19 OF 62
TRACS NO. H8781 01 C	NH-040-E(218)T	26 OF 75

1/12/2016 T:\I-40\data\H8781_dt03.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	29	62	4/3/2017
		040-AP-353			

TRAFFIC CONTROL GENERAL NOTES:

1. *The traffic control plans represent a suggested method for traffic control during construction. The contractor may prepare another traffic control plan in accordance with Section 701 of the Specifications at no cost to the Department. All traffic control plans are subject to the approval of the Engineer before beginning construction.*
2. *Adjustments to the details of these traffic control plans and requirements may be necessary due to construction activities, as directed by the Engineer at no cost to the Department.*
3. *The contractor shall maintain two lanes of traffic on I-40 on weekends, holidays and as directed by the Engineer.*
4. *The contractor shall maintain traffic on a paved surface at all times.*
5. *All existing signs in conflict with the construction signs shall be removed, relocated or covered in place, as directed by the Engineer. The contractor shall store and reinstall items which have been removed or relocated in a manner approved by the Engineer at no additional cost to the Department.*
6. *Speed limit signing is preliminary and is subject to review and change by the Engineer as dictated by field conditions.*
7. *"WATCH FOR TRUCKS" signs shall be installed wherever truck ingress or egress is expected.*
8. *Use double fines signing when workers are present. See Figure SA-12 of the ADOT Traffic Control Design Guidelines 2010.*
9. *The retroreflective sheeting on all construction signs shall meet the minimum criteria established in Section 1007 of the Specifications.*
10. *All construction signs shall have black letters on a fluorescent orange background, except, as otherwise noted.*
11. *For signs installed on spring or rigid stands, sign mounting height shall be according to the sign manufacturer recommendation.*
12. *2 flags shall be mounted on top of all construction signs except the "END ROAD WORK THANK YOU" sign. Type "A" flashing warning lights shall be required on all night time construction signs except the "END ROAD WORK THANK YOU" sign.*
13. *Construction signs shall not be displayed to traffic no more than 24 hours prior to the actual start of construction. These signs may be installed sooner but they must be covered or turned away from traffic. The cost for covering or turning them shall be considered part of the sign installation cost. No further compensation will be made. These signs shall be removed within 24 hours after completion of the construction activities.*
14. *When traffic control devices are not in use, they shall be moved at least 30 feet from the roadway and covered or turned away from traffic.*
15. *Drums, Type 2 barricades and vertical panels shall be placed 40 feet on center in tapers and 80 feet on center in tangents, except as otherwise noted on the plans.*
16. *The contractor may substitute Type 1 barricades for Type 2 barricades as long as the reflective area on the top panel of the Type 1 barricade is equivalent or greater than the reflective area of a Type 2 barricade.*
17. *For night work, a Type C steady-burning yellow light shall be mounted on every drum, Type 2 barricade, and vertical panel when used for channelization only.*
18. *During nighttime the contractor shall not utilize cones for channelization devices unless otherwise directed by the Engineer.*
19. *The contractor shall utilize a flashing arrow panel in the sequential chevron mode for each closure of a through lane. The contractor shall not utilize a flashing arrow panel in connection with any shifting taper.*
20. *For temporary concrete barrier details, see Standard Drawing C-3. BM-1 (white) or BM-2 (yellow) barrier markers listed on the ADOT Approved Products List and conforming to Standard Drawings M-32 and M-33 shall be installed at 25 foot spacing. The installed price for the marker shall be considered a part of the barrier cost.*
21. *For sand barrel crash cushion details, see Standard Drawings C-1 and C-2.*
22. *All existing pavement markings in conflict with the traffic control striping plan shall be removed by methods approved by the Engineer. Painting over striping does not constitute stripe obliteration. For a daytime shift in traffic, the shift may be accomplished through channelizing devices with the existing pavement markings remaining in place.*
23. *No pavement marking obliteration work will be allowed on existing yellow pavement markings. The existing yellow left edge stripes shall be removed with the passing lane and ramp milling process (activities 2B and 2C).*
24. *When no longer required, temporary pavement markings shall be removed.*
25. *Existing pavement markers shall be removed when present along existing stripe obliteration at no cost to the Department.*
26. *The contractor shall clean the roadway surface to the satisfaction of the Engineer by sweeping and air-jet blowing, immediately prior to the placement of all temporary pavement markings. The roadway surface shall be dry.*
27. *At the completion of the new pavement surface each day, center lines, lane lines and stop bars shall be striped with one application of standard reflectorized traffic paint at the location of the permanent striping, or as directed by the Engineer.*
28. *All drawings are schematic only and not to scale. All dimensions are in feet, unless otherwise noted.*
29. *The contractor shall ensure the earthen material or aggregate base under the temporary sand barrel crash cushions, under the temporary concrete barrier and between the barrier and the roadway is 10:1 or flatter in each direction for setups off the pavement.*
30. *The Contractor shall provide flaggers and uniformed police officers (DPS) as directed by the Engineer during the installation, relocation or removal of Temporary Concrete Barrier.*
31. *For temporary concrete barrier markers, see ADOT Standard Drawing M-32 barrier markers. Markers shall be installed at 20 feet spacing. The installed price for the markers shall be ... the barrier cost.*

This sheet is "X'd" out because it was replaced as part of an addendum. The next sheet shows the addendum # 1 in the upper right corner.

... Uniform Traffic Control Devices Part 6, Temporary Traffic Control, 2009 Edition as amended by the January, 2012 ADOT Supplement.

Note: If this sheet is available, please provide it with the "X" through the sheet as shown. The "X" does not need to be in red. Red or Black "X" on this sheet is acceptable. If the sheet is not available it is not necessary to include it in the record drawings. The addendum sheet (see next sheet) must be present.

...raffic Control Design Guidelines, 2010.

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

	NAME	DATE
DESIGN	SG	01/16
DRAWN	CPG	01/16
CHECKED	HAO	01/16

PARSONS BRINCKERHOFF

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

TRAFFIC CONTROL GENERAL NOTES

Registered Professional Engineer (Civil) CERTIFICATE NO. Date Signed 01-12- ARIZONA U.S.A. Expires 03/31/16

ROUTE I-40 LOCATION ALLENTOWN RD - STATE LINE

SHEET 29 OF 62

TRACS NO. H8781 01 C NH-040-E(218)T

1/12/2016 T:\I-40\Trfcnt\T8781_tcn1.dgn

TO ACCOMPANY ADDENDUM NO. 1

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	29	62	4/3/2017
		040-AP-353			

TRAFFIC CONTROL GENERAL NOTES:

1. The traffic control plans represent a suggested method for traffic control during construction. The contractor may prepare another traffic control plan in accordance with Section 701 of the Specifications at no cost to the Department. All traffic control plans are subject to the approval of the Engineer before beginning construction.

2. Adjustments to the details of these traffic control plans and requirements may be necessary due to construction activities, as directed by the Engineer at no cost to the Department.

3. The contractor shall maintain traffic on I-40 on weekends and holidays as specified in Maintenance of Traffic sheets or as directed by the Engineer. △1

4. The contractor shall maintain traffic on a paved surface at all times.

5. All existing signs in conflict with the construction signs shall be removed, relocated or covered in place, as directed by the Engineer. The contractor shall store and reinstall items which have been removed or relocated in a manner approved by the Engineer at no additional cost to the Department.

6. Speed limit signing is preliminary and is subject to review and change by the Engineer as dictated by field conditions.

7. "WATCH FOR TRUCKS" signs shall be installed wherever truck ingress or egress is expected.

8. Use double fines ... SA-12 of the ADOT Traffic Control Design Guidelines ...

9. The retroreflecti... the minimum criteria established in Section 1007 of ...

10. All construction signs shall have black letters on a fluorescent orange background, except, as otherwise noted.

11. For signs installed on spring or rigid stands, sign mounting height shall be according to the sign manufacturer recommendation.

12. 2 flags shall be mounted on top of all construction signs except the "END ROAD WORK THANK YOU" sign. Type "A" flashing warning lights shall be required on all night time construction signs except the "END ROAD WORK THANK YOU" sign.

13. Construction signs shall not be displayed to traffic no more than 24 hours prior to the actual start of construction. These signs may be installed sooner but they must be covered or turned away from traffic. The cost for covering or turning them shall be considered part of the sign installation cost. No further compensation will be made. These signs shall be removed within 24 hours after completion of the construction activities.

14. When traffic control devices are not in use, they shall be moved at least 30 feet from the roadway and covered or turned away from traffic.

15. Drums, Type 2 barricades and vertical panels shall be placed 40 feet on center in tapers and 80 feet on center in tangents, except as otherwise noted on the plans.

16. The contractor may substitute Type 1 barricades for Type 2 barricades as long as the reflective area on the top panel of the Type 1 barricade is equivalent or greater than the reflective area of a Type 2 barricade.

17. For night work, a Type C steady-burning yellow light shall be mounted on every drum, Type 2 barricade, and vertical panel when used for channelization only.

18. During nighttime the contractor shall not utilize cones for channelization devices unless otherwise directed by the Engineer.

19. The contractor shall utilize a flashing arrow panel in the sequential chevron mode for each closure of a through lane. The contractor shall not utilize a flashing arrow panel in connection with any shifting taper.

20. For temporary concrete barrier details, see Standard Drawing C-3. BM-1 (white) or BM-2 ...rrier markers listed on the ADOT Approved Products List and conforming to Standard ...M-32 and M-33 shall be installed at 25 foot spacing. The installed price ...rker shall be considered a part of the barrier cost.

21. ...barrel crash cushion details, see Standard Drawings C-1 and C-2.

22. ... pavement markings in conflict with the traffic control striping plan shall be ... methods approved by the Engineer. Painting over striping does not constitute ...eration. For a daytime shift in traffic, the shift may be accomplished through ...g devices with the existing pavement markings remaining in place.

23. No pavement marking obliteration work will be allowed on existing yellow pavement markings. The existing yellow left edge stripes shall be removed with the passing lane and ramp milling process (activities 2B and 2C).

24. When no longer required, temporary pavement markings shall be removed.

25. Existing pavement markers shall be removed when present along existing stripe obliteration at no cost to the Department.

26. The contractor shall clean the roadway surface to the satisfaction of the Engineer by sweeping and air-jet blowing, immediately prior to the placement of all temporary pavement markings. The roadway surface shall be dry.

27. At the completion of the new pavement surface each day, center lines, lane lines and stop bars shall be striped with one application of standard reflectorized traffic paint at the location of the permanent striping, or as directed by the Engineer.

28. All drawings are schematic only and not to scale. All dimensions are in feet, unless otherwise noted.

29. The contractor shall ensure the earthen material or aggregate base under the temporary sand barrel crash cushions, under the temporary concrete barrier and between the barrier and the roadway is 10:1 or flatter in each direction for setups off the pavement.

30. The Contractor shall provide flaggers and uniformed police officers (DPS) as directed by the Engineer during the installation, relocation or removal of Temporary Concrete Barrier.

31. For temporary concrete barrier markers, see ADOT Standard Drawing M-32 barrier markers. Markers shall be installed at 20 feet spacing. The installed price for the markers shall be considered part of the barrier cost.

...evices Part 6, Temporary Traffic Control, 2009 Edition ...ement.

...es, 2010.

TO ACCOMPANY ADDENDUM NO. XX must be shown. It does not need to be in red. Addendum's are typically inserted in the plans before construction begins.

The addendum information is typically shown clouded with a triangle number. Because this was done before construction, this does not need to be shown in red.

This sheet is the addendum sheet. This sheet replaces the original sheet. Addendum sheets must be included with the record drawings. If the original sheet is available, that sheet can be included with an "X" from corner to corner. If the original sheet is not available, it may be omitted.
If there are more than one addendum's on a sheet, as long as the final addendum shows all of the information from the previous addendum's, the previous addendum's do not need to be included. If the final addendum sheet does not show the information from previous addendum's those additional addendum's must be included.

	NAME	DATE
DESIGN	SG	01/16
DRAWN	CPG	01/16
CHECKED	HAO	01/16

PARSONS BRINCKERHOFF

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

TRAFFIC CONTROL GENERAL NOTES

Registered Professional Engineer (Civil) Certificate — Date Signed 02-16-16 — ARIZONA U.S.A. — Expires 03/31/16

ROUTE I-40 | LOCATION ALLENTOWN RD - STATE LINE

SHEET 29 OF 62

TRACS NO. H8781 01 C | NH-040-E(218)T

2/16/2016 T:\I-40\Trfcnt\T8781_tcnl.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	30	62	4/3/2017
		040-AP-353			

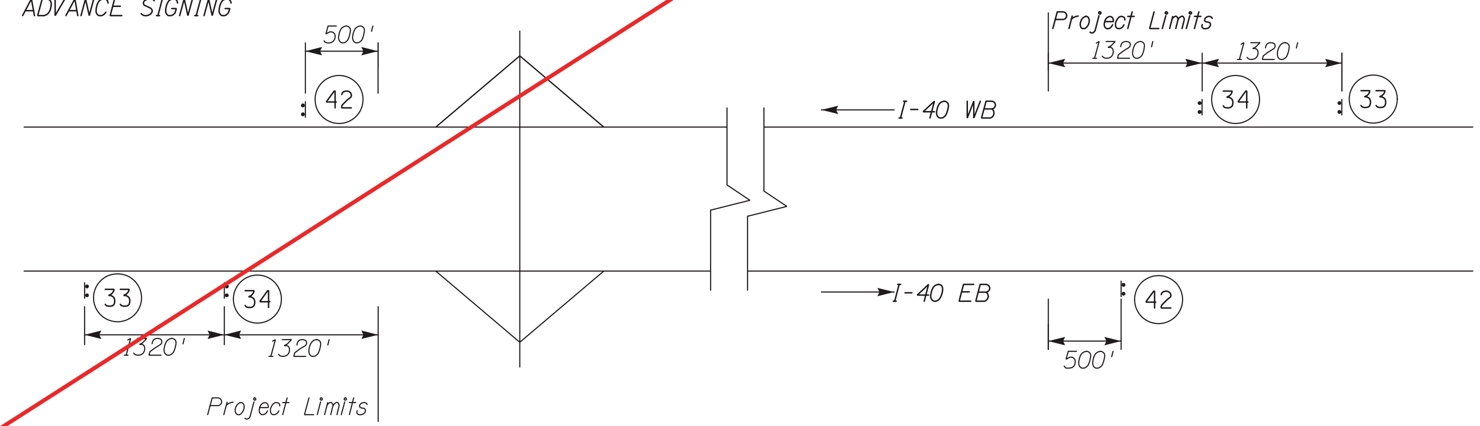
Another example of an addendum sheet.

MAINTENANCE OF TRAFFIC

ACTIVITY NO	CONSTRUCTION ACTIVIT[Y]	TRAFFIC CONTROL	COMMENTS
1	Advance signs	[...]cialty signs: "ROAD WORK (DATE) TO (DATE)" and "ROAD WORK NEXT 6 MILES" in advance of work zone. Provide "ROAD WORK AHEAD" sign on all ramps.	Signs are to remain in place for the duration of the project. The "ROAD WORK (DATE) TO (DATE)" sign should be installed at least 1 week before work begins.
2A	Mill and replace ramps	Temporarily close ramp and detour traffic per Sheets 35, of these plans and Figure SA-10 of Traffic Control Design Guidelines (TCDG). Use detour on Sheet 36 for Lupton Rd TI Ramp Closure.	Night work only at Grant Rd/Lupton TI. Day time work only at other TI's. Maintain traffic on weekends and holidays. Pavement replacement must be completed in milled areas on the same day before opening to traffic (see Note 1 below). Setup is to be taken down whenever work is not under way.
2B	Mill and replace travel lane and outside shoulder Install Guard Rail Install Loop Counter System	Maintain 1-lane traffic per Figure SA-5(R) of the Traffic Control Design Guidelines. Reduce speed to 45 mph. When working next to gore areas, temporarily close ramp and detour traffic per Sheets 35, 36 of these plans.	Maintain 2-lane traffic on weekends and holidays. Pavement replacement must be completed in milled areas on the same day before opening to traffic (see Note 1 below). Setup is to be taken down whenever work is not under way.
2C	Mill and replace travel lane (12" pavement) and outside shoulder. Install Guard Rail Install Loop Counter System	Maintain 1-lane traffic per sheet 34A. Reduce speed to 45 mph. When working next to gore areas, temporarily close ramp and detour traffic per Sheets 35, 36 of these plans.	Maintain 2-lane traffic on weekends and holidays.
2D	Mill and replace passing lane and inside shoulder Install Guard Rail Install Loop Counter System	Maintain 1-lane traffic per Figure SA-5(L) of the ADOT TCDG. Reduce speed to 45 mph.	Maintain 2-lane traffic on weekends and holidays. Pavement replacement must be completed in milled areas on the same day before opening to traffic (see Note 1 below). Setup is to be taken down whenever work is not under way.
2E	Mill and replace passing lane (12" pavement) and inside shoulder. Install Guard Rail Install Loop Counter System	Maintain 1-lane traffic per sheet 34B. Reduce speed to 45 mph.	Maintain 2-lane traffic on weekends and holidays.
2F	Mill and replace cross roads	Work shall be limited to one side of the roadway at a time. Maintain two-way traffic with a flagging operation. Traffic control shall be per MUTCD TA-10.	Maintain traffic on weekends and holidays. Pavement replacement must be completed in milled areas on the same day before opening to traffic (see Note 1 below). Setup is to be taken down whenever work is not under way.
2G	Mill and replace Rest Area Approach Road	Work shall be limited to one side of the roadway at a time. Maintain two-way traffic with a flagging operation. Traffic control shall be per MUTCD TA-10.	Day time work only. Maintain traffic on weekends and holidays. Pavement replacement must be completed in milled areas on the same day before opening to traffic (see Note 1 below). Setup is to be taken down whenever work is not under way.
2H	Mill and replace rest area	Maintain the traffic circulation inside the rest area. Work shall be phased such that there is access to parking spaces at all times.	Night time work only. Maintain traffic on weekends and holidays. Pavement replacement must be completed in milled areas on the same day before opening to traffic (see Note 1 below). Setup is to be taken down whenever work is not under way.

NOTES:
1. Areas of milled pavement shall be replaced the same day with required depth of AC pavement per the applicable pavement structural sections in the entire areas milled. There shall be no uneven lanes at the end of a day.
2. The order of construction activities does not constitute a sequence of construction. The contractor shall perform the work in the most expeditious manner consistent with the plans and special provisions with the approval of the Engineer. Any modifications to these plans shall require review and approval by the Engineer.

ADVANCE SIGNING



(42) G20-2AZ 48"X36"

(33) See Sheet No. 37 For Detail

(34) See Sheet No. 37 For Detail

	NAME	DATE
DESIGN	SG	01/16
DRAWN	CPG	01/16
CHECKED	HAO	01/16

PARSONS BRINCKERHOFF

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

TRAFFIC CONTROL PLAN
MAINTENANCE OF TRAFFIC
(1 OF 2)

Registered Professional Engineer (Civil) — Date Signed 01-12-16 — ARIZONA U.S.A. — Expires 03/31/16

ROUTE: I-40 | LOCATION: ALLENTOWN RD - STATE LINE | SHEET 30 OF 62

TRACS NO. H8781 01 C | NH-040-E(218)T | ~~38~~ OF 75

1/12/2016 T:\I-40\Trfcnt\T8781_mot01.dgn

TO ACCOMPANY ADDENDUM NO. 1

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	30	62	4/3/2017
		040-AP-353			

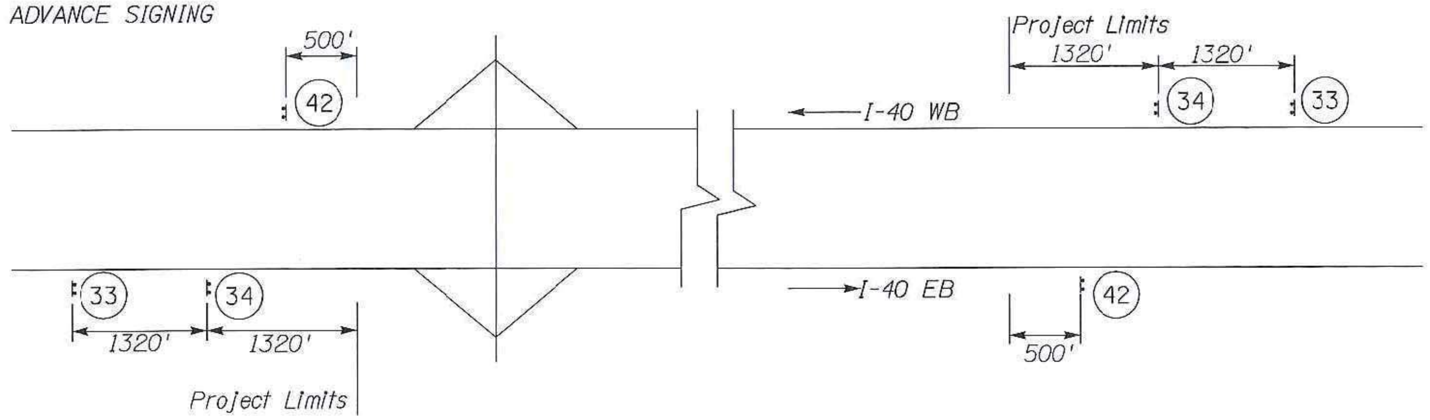
MAINTENANCE OF TRAFFIC

ACTIVITY NO	CONSTRUCTION ACTIVITY	TRAFFIC CONTROL	COMMENTS
1	Advance signs	Provide specialty signs: "ROAD WORK (DATE) TO (DATE)" and "ROAD WORK NEXT 6 MILES" in advance of work zone. Provide "ROAD WORK AHEAD" sign on all ramps.	Signs are to remain in place for the duration of the project. The "ROAD WORK (DATE) TO (DATE)" sign should be installed at least 1 week before work begins.
2A	Mill and replace ramps	Temporar[…] traffic per Sheets 35, of these plans and Figure S[…] Design Guidelines (TCDG). Use detour on Sheet[…]mp Closure.	Night work only at Grant Rd/Lupton TI. Day time work only at other TI's. Maintain traffic on weekends and holidays. Pavement replacement must be completed in milled areas on the same day before opening to traffic (see Note 1 below). Setup is to be taken down whenever work is not under way.
2B	Mill and replace travel lane and outside shoulder Install Guard Rail Install Loop Counter System	Maintain[…] SA-5(R) of the Traffic Control Design Guidelines. Reduce speed to 45 mph. When working next to gore areas, temporarily close ramp and detour traffic per Sheets 35, 36 of these plans.	Maintain 2-lane traffic on weekends and holidays. Pavement replacement must be completed in milled areas on the same day before opening to traffic (see Note 1 below). Setup is to be taken down whenever work is not under way.
2C	Mill and replace travel lane (12" pavement) and outside shoulder. Install Guard Rail Install Loop Counter System	Maintain 1-lane traffic per sheet 34A. Reduce speed to 45 mph. When working next to gore areas, temporarily close ramp and detour traffic per Sheets 35, 36 of these plans.	⚠1 One lane in each direction will be permitted over the weekends (not holidays) as approved by the Engineer
2D	Mill and replace passing lane and inside shoulder Install Guard Rail Install Loop Counter System	Maintain 1-lane traffic per Figure SA-5(L) of the ADOT TCDG. Reduce speed to 45 mph.	Maintain 2-lane traffic on weekends and holidays. Pavement replacement must be completed in milled areas on the same day before opening to traffic (see Note 1 below). Setup is to be taken down whenever work is not under way.
2E	Mill and replace passing lane (12" pavement) and inside shoulder. Install Guard Rail Install Loop Counter System	Maintain 1-lane traffic per sheet 34B. Reduce speed to 45 mph.	⚠1 One lane in each direction will be permitted over the weekends (not holidays) as approved by the Engineer
2F	Mill and replace cross roads	Work shall be limited to one side of the roadway at a time. Maintain two-way traffic with a flagging operation. Traffic control shall be per MUTCD TA-10.	Maintain traffic on weekends and holidays. Pavement replacement must be completed in milled areas on the same day before opening to traffic (see Note 1 below). Setup is to be taken down whenever work is not under way.
2G	Mill and replace Rest Area Approach Road	Work shall be limited to one side of the roadway at a time. Maintain two-way traffic with a flagging operation. Traffic control shall be per MUTCD TA-10.	Day time work only. Maintain traffic on weekends and holidays. Pavement replacement must be completed in milled areas on the same day before opening to traffic (see Note 1 below). Setup is to be taken down whenever work is not under way.
2H	Mill and replace rest area	Maintain the traffic circulation inside the rest area. Work shall be phased such that there is access to parking spaces at all times.	Night time work only. Maintain traffic on weekends and holidays. Pavement replacement must be completed in milled areas on the same day before opening to traffic (see Note 1 below). Setup is to be taken down whenever work is not under way.

Another example of an addendum sheet.

NOTES:
1. Areas of milled pavement shall be replaced the same day with required depth of AC pavement per the applicable pavement structural sections in the entire areas milled. There shall be no uneven lanes at the end of a day.
2. The order of construction activities does not constitute a sequence of construction. The contractor shall perform the work in the most expeditious manner consistent with the plans and special provisions with the approval of the Engineer. Any modifications to these plans shall require review and approval by the Engineer.

ADVANCE SIGNING



(42) G20-2AZ 48"X36"

(33) See Sheet No. 37 For Detail

(34) See Sheet No. 37 For Detail

	NAME	DATE
DESIGN	SG	01/16
DRAWN	CPG	01/16
CHECKED	HAO	01/16

PARSONS BRINCKERHOFF

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES
TRAFFIC CONTROL PLAN
MAINTENANCE OF TRAFFIC
(1 OF 2)

ROUTE I-40 LOCATION ALLENTOWN RD - STATE LINE

TRACS NO. H8781 01 C NH-040-E(218)T

Expires 03/31/16

SHEET 30 OF 62

39 OF 75

2/16/2016 T:\I-40\Trfcnt\T8781_mot01.dgn

MAINTENANCE OF TRAFFIC

ACTIVITY NO	CONSTRUCTION ACTIVITY	TRAFFIC CONTROL	COMMENTS
3	Bridge rail work	Close adjacent lane per Sheets 33, 34 of these plans. Protect work zone with TCB. Reduce speed to 45 mph.	Day time work only. Maintain traffic on weekends and holidays. All bridge rail work shall be constructed on one side of freeway at a time.
4A	AR-ACFC Ramps	Temporarily close ramp and detour traffic per Sheet 35 of these plans and Figure SA-10 of ADOT TCDG. Use detour on Sheet 36 for Lupton Rd TI Ramp Closure.	Night work only at Grant Rd/Lupton TI. Day time work only at other TI's. Maintain traffic on weekends and holidays. Setup is to be taken down whenever work is not under way.
4B	AR-ACFC overlay travel lane	Maintain 1-lane traffic per Figure SA-5(R) of the Traffic Control Design Guidelines. Reduce speed to 45 mph. When working next to gore areas, temporarily close ramp and detour traffic per Sheet 35, 36 of these plans.	Maintain 2-lane traffic on weekends and holidays. Setup is to be taken down whenever work is not under way.
4C	AR-ACFC overlay passing lane	Maintain 1-lane traffic per Figure SA-5(L) of the ADOT TCDG. Reduce speed to 45 mph.	Maintain 2-lane traffic on weekends and holidays. Setup is to be taken down whenever work is not under way.
4D	Apply Fogcoat on the cross roads	Work shall be limited to one side of the roadway at a time. Maintain two-way traffic with a flagging operation. Traffic control shall be per MUTCD TA-10.	Maintain 2-lane traffic on weekends and holidays. Setup is to be taken down whenever work is not under way.
4E	Fogcoat Rest Area Approach Road	Work shall be limited to one side of the roadway at a time. Maintain two-way traffic with a flagging operation. Traffic control shall be per MUTCD TA-10.	Day time work only. Maintain traffic on weekends and holidays. Setup is to be taken down whenever work is not under way.
4F	Fogcoat Rest Area	Maintain the traffic circulation in the rest area. Work shall be phased such that there is access to parking spaces at all times.	Night time work only. Maintain traffic on weekends and holidays. Setup is to be taken down whenever work is not under way.
5	Permanent Striping	Mobile operation per Figure SA-18 of ADOT TCDG.	
6	Rumble strips and miscellaneous work	Provide traffic control per MUTCD TA-4.	[illegible]n whenever work is not under way.

Note: The next several sheets will be omitted in this example to reduce file size and redundancy of information.

Note:
The order of construction activities does not constitute a sequence of construction.
The contractor shall perform the work in the most expeditious manner consistent with the plans and special provisions with the approval of the Engineer.
Any modifications to these plans shall require review and approval by the Engineer.

	NAME	DATE
DESIGN	SG	01/16
DRAWN	CPG	01/16
CHECKED	HAO	01/16

PARSONS BRINCKERHOFF

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

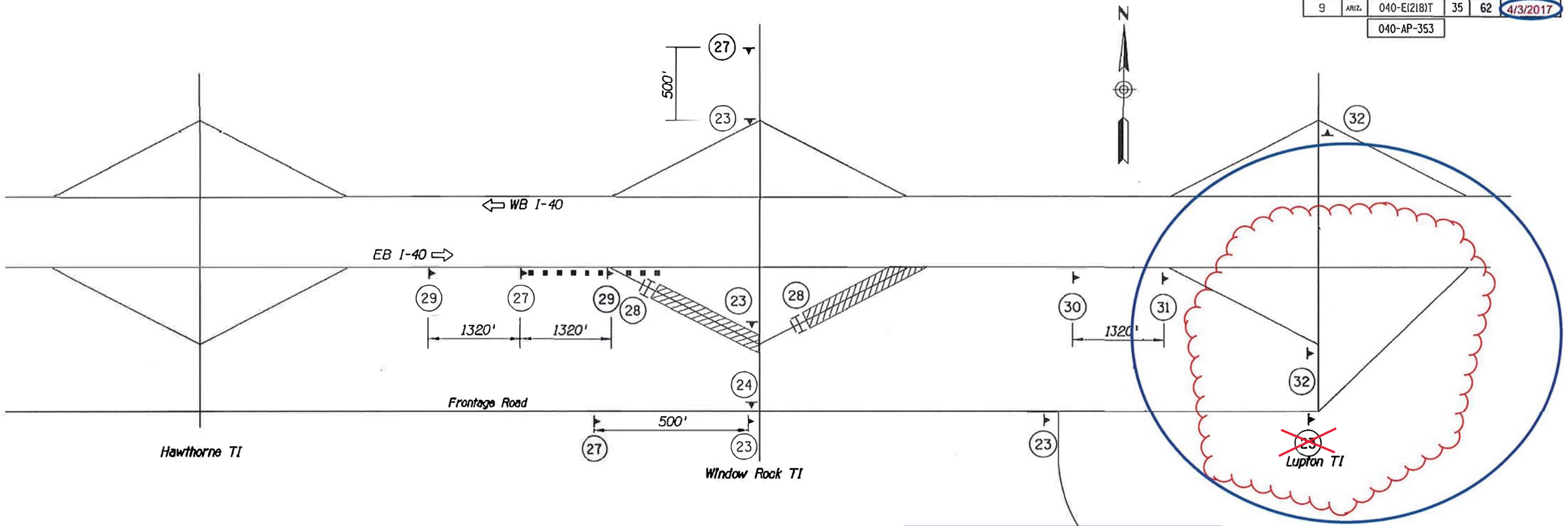
TRAFFIC CONTROL PLAN
MAINTENANCE OF TRAFFIC
(2 OF 2)

Expires 03/31/16

ROUTE I-40 | LOCATION ALLENTOWN RD - STATE LINE

TRACS NO. H8781 01 C | NH-040-E(218)T

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	35	62	4/3/2017
		040-AP-353			



This sheet is marked up due to a change order. The change order number and triangle are not required because this is the original sheet, it hasn't been re-issued.

SIGN LEGEND:

27


W20-3gAZ
48"x48"

28


R11-2
48"x30"
Black on White

29


SPECIAL
108"x48"

30


SPECIAL
120"x60"

31


SPECIAL
126"x60"

SPECIAL
90"x48"

23


M4-8
24"X12"
M3-2
24"X12"
M1-1a
24"X24"
M6-3
24"X18"

24


M4-8
24"X12"
M3-2
24"X12"
M1-1a
24"X24"
M6-1(L)
24"X18"

25


M4-8
48"X18"
M3-2
48"X24"
M1-1a
36"X36"
M6-1(R)
24"X18"

Note: The next several sheets will be omitted in this example to reduce file size and redundancy of information.

SYMBOL LEGEND:

	Sign on Spring Stand
	Sign on Rigid Stand
	Type II Barricade
	Type III Barricade w/ Sign
	Flashing Arrow Panel
	Direction of Travel
	Work Zone

NOTES:

1. Typical crossroad TI ramp closure is shown. Use similar setup for westbound ramp closures. Use the setup for Hawthorne TI and Window Rock TI. Use Sheet 36 for Lupton TI Detour.
2. Ramps shall be closed only in one direction at a time at each TI.
3. Two consecutive entrance or exit ramps shall not be closed at the same time.
4. All M1-1a signs shall be white on red and blue.

	NAME	DATE
DESIGN	SG	01/16
DRAWN	CPG	01/16
CHECKED	HAO	01/16

PARSONS BRINCKERHOFF

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

TRAFFIC CONTROL
TEMPORARY RAMP CLOSURES
TYPICAL DETAIL

ROUTE	LOCATION	SHEET
I-40	ALLENTOWN RD - STATE LINE	SHEET 35 OF 62
TRACS NO. H8781 01 C	NH-040-E(218)T	47 OF 75

Registered Professional Engineer — Expires 03/31/16 — ARIZONA U.S.A.

3/31/2016 I:\I-40\Irfcnt\18781_tcs05.dgn

MADE BY- SG DATE- 04/01/16
DESCRIPTION OF REVISIONS- Revise Detour Plan LOCATION- DATE-
NO. SURVEY NO. REVISIONS- FINISHED PLANS-

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-C(225)T	64	172	4/3/2017
		040 CN 156			

WB I-40 Cst ℄

Exst R/W

PC 694+53.41

WB-2 Cst ℄
Sta 43+25 30' Lt
Drainage Ditch
Elevation = 6882.70

Crossover WB-2 Cst ℄ Sta 44+73.12=
20.46' Lt EB I-40 Cst ℄ Sta 698+99.17

WB-2 Cst ℄
Sta 48+50 33.7' Lt
Drainage Ditch
Elevation = 6873.00

D8 401

Crossover WB-2 Cst ℄ Sta 50+36.72=
39.70' Rt WB I-40 Cst ℄ Sta 705+16.03

Exst Sewer Line (Williams)
To Remain

Exst Gas Line (UniSource)
To Remain

Exst Sewer Line (Williams)
To Remain

BE 310

N 63°03'20" E

Crossover WB-2 Cst ℄

C2

N 40°41'28" E

END CROSSOVER WB-2 CST ℄ STA 55+03.14=
12' RT WB I-40 CST ℄ STA 709+78.83

Exst OH Telephone (CTL)
To Remain

PC 693+35.14

WB-2 Cst ℄
Sta 40+00 to 50+36.72
2,286 SY New AC

Exst R/W

BE 309

EB I-40 Cst ℄

PT 48+41.92

E22

Exst Water Line (Williams)
To Remain

WB-2 Cst ℄
Sta 47+21 19.0' Rt
Drainage Ditch
Elevation = 6874.30

690 700 710 50 700 710

BEGIN CROSSOVER WB-2 CST ℄ STA 40+00.00=
EB I-40 CST ℄ STA 694+25.82

C2 CURVE DATA
PI Sta 44+25.76
N=1542541.710
E=609244.200
Δ=21°02'53" Lt
D=2°30'00"
R=2291.83'
L=841.92'
T=425.76'
Ext=39.21'

NOTE:
Asphalt Concrete shall be removed prior to the Winter Shutdown.

Match Exst | 44+81 | +0.023%ft Rt EP | +0.020%ft Rt EP | WB-2 Profile Grade & Axis of Rotation | -0.023%ft Lt EP | -0.020%ft Lt EP

PT 48+71.92
49+78

Match Exst | +0.043%ft Rt EP | -0.043%ft Lt EP

+0.06%ft
0.00%ft
-0.06%ft

6910 6900 6890 6880 6870 6860

SDh>1500'
110' VC

Exst EB I-40 Pavement Grade

-2.7075%

Finished Cst ℄ Grade

-1.6005%

CROSSOVER WB-2 STA 44+73.12
BEGIN PROFILE
Elev 6881.09

CROSSOVER WB-2 STA 50+36.72
END PROFILE
Elev 6871.44

Exst WB I-40 Pavement Grade

PI 45+30.00
Elev=6879.55
Corr=0.15'

Exst Ground Line

401 BE 309

40 45 50 55

This sheet was the original as-bid sheet. There was a Change Order that required major changes so a new sheet was developed with a new seal, signature and date as shown on the next sheet Page 25.

	NAME	DATE
DESIGN	DBK, RG	05/17
DRAWN	JK, ME, DS	05/17
CHECKED	KCH	05/17

Gannett Fleming

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

PLAN AND PROFILE
CROSSOVER WB-2

ROUTE I-40 | LOCATION DEVIL DOG - WILLIAMS

TRACS NO. F0131 01C | 040-C(225)T

DWG No. C-2.14

Registered Professional Engineer (Civil) Date Signed 06/30/17 Arizona, U.S.A. Expires 9/30/19

102 OF 172

Page 24

6/27/2017 c:\pwworking\gfpw01\dkelly\d0699353\F0131dr2.dgn

SURVEY NO. | FINISHED PLANS | REVISIONS | LOCATION | DATE

TO ACCOMPANY CHANGE ORDER NO. 1

The changes are shown on this sheet in black for the Change Order information that was done during construction, that REQUIRED a new sealed sheet to replace the original as-bid sheet. This includes the information in the upper right corner identifying the change order number and also black clouding around the changes.

REV NO.	LOCATION	DATE	BY
1	REVISED PHASING - EB ROADWAY FIRST	07/21/2017	DAS

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-C(225)T	64	112	01/11/2019
		040 CN 156			

WB I-40 Cst ℄
Exst R/W
PC 694+53.41
Elevation = 6882.70
Drainage Ditch
Elevation = 6873.00
D8 to Remain
401
Crossover EB-2
Remove 2183 SY AC Pvmt
Crossover WB-2 Cst ℄
N 63°03'20" E
C2
Exst OH Telephone (CTL)
To Remain
PC 693+35.14
WB-2 Cst ℄
Sta 40+00 to 50+36.72
2,286 SY New AC
Exst R/W
690
BEGIN CROSSOVER WB-2 CST ℄ STA 40+00.00=
EB I-40 CST ℄ STA 694+25.82
WB-2 Cst ℄
Sta 47+21 19.0' Rt
Drainage Ditch
Elevation = 6874.30
PT 48+41.92
700
50
710
Crossover WB-2 Cst ℄ Sta 50+36.72=
39.70' Rt WB I-40 Cst ℄ Sta 705+16.03
Exst Sewer Line (Williams)
To Remain
Exst Gas Line (UniSource)
To Remain
Exst Sewer Line (Williams)
To Remain
BE 310
N 40°41'28" E
END CROSSOVER WB-2 CST ℄ STA 55+03.14=
12' RT WB I-40 CST ℄ STA 709+78.83
BE 309
EB I-40 Cst ℄
E22
Exst Water Line (Williams)
To Remain

C2 CURVE DATA
PI Sta 44+25.76
N=1542541.710
E=609244.200
Δ=21°02'53" Lt
D=2°30'00"
R=2291.83'

This sheet is the new sheet that was developed because of a Change Order. The original as-bid sheet is shown on Page 24 (previous sheet).

NOTE:
Asphalt Concrete shal

Match Exst
44+81
+0.023%ft Rt EP
+0.020%ft Rt EP
WB-2 Profile Grade &
Axis of Rotation
-0.023%ft Lt EP
-0.020%ft Lt EP
PT 48+71.92
49+78
Match Exst
+0.043%ft Rt EP
-0.043%ft Lt EP

+0.06%ft
0.00%ft
-0.06%ft
6910
6900
6890
6880
6870
6860

SDs>1500'
110' VC
PI 48+00.00
Elev=6875.40
Corr=-0.09'
Finished Cst ℄ Grade
Exst EB I-40 Pavement Grade
-2.8129%
1.3260%
-1.6010%
CROSSOVER WB-2 STA 44+73.12
BEGIN PROFILE
Elev 6880.58
PI 45+30.00
Elev=6878.98
Corr=0.20'
Exst Ground Line
250' VC
SSDs>1500'
401
BE 309
CR
END PROFILE
Elev 6871.61
Exst WB I-40 Pavement Grade

This sheet replaces the previous sheet and has a new seal, signature and date for the Change Order.

The title block needs to be clouded in red.

	NAME	DATE
DESIGN	DBK, RG	05/17
DRAWN	JK, ME, DS	05/17
CHECKED	KCH	05/17

Gannett Fleming

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

PLAN AND PROFILE
CROSSOVER WB-2

ROUTE I-40 | LOCATION DEVIL DOG - WILLIAMS | DWG No. C-2.14

TRACS NO. F0131 01C | 040-C(225)T | 103 OF 172

Registered Professional Engineer (Civil) Date Signed 07/21/17 Arizona, U.S.A. Expires 3/31/20

40 45 50 55

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7/21/2017 c:\pwworking\gfpw01\dasmith\d0699353\F0131dr2-R2.dgn

TO ACCOMPANY CHANGE ORDER NO. 1

REV NO.	LOCATION	DATE	BY
1	REVISED PHASING - EB ROADWAY FIRST	07/21/2017	DAS

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-C(225)T	64	112	01/11/2019
		040 CN 156			

WB I-40 Cst ℄

Exst R/W

PC 694+53.41

WB-2 Cst ℄
Sta 43+25 30' Lt
Drainage Ditch
Elevation = 6882.70

Crossover WB-2 Cst ℄ Sta 44+73.12=
20.46' Lt EB I-40 Cst ℄ Sta 698+99.17

WB-2 Cst ℄
Sta 48+50 33.7' Lt
Drainage Ditch
Elevation = 6873.00

D8 to Remain 401

Crossover WB-2 Cst ℄ Sta 50+36.72=
39.70' Rt WB I-40 Cst ℄ Sta 705+16.03

Exst Sewer Line (Williams)
To Remain

Exst Gas Line (UniSource)
To Remain

Exst Sewer Line (Williams)
To Remain

1 Crossover EB-2
Remove 2183 SY AC Pvmt

N 63°03'20" E

Crossover WB-2 Cst ℄

C2

N 40°41'28" E

BE 310

Exst OH Telephone (CTL)
To Remain

PC 693+35.14

WB-2 Cst ℄
Sta 40+00 to 50+36.72
2,286 SY New AC

Exst R/W

BE 309

EB I-40 Cst ℄

PT 48+41.92

END CROSSOVER WB-2 CST ℄ STA 55+03.14=
12' RT WB I-40 CST ℄ STA 709+78.83

E22

Exst Water Line (Williams)
To Remain

WB-2 Cst ℄
Sta 47+21 19.0' Rt
Drainage Ditch
Elevation = 6874.30

C2 CURVE DATA
PI Sta 44+25.76
N=1542541.710
E=609244.200
Δ=21°02'53" Lt
D=2°30'00"
R=2291.83'
L=841.92'
T=425.76'
Ext=39.21'

690 700 710 700 50 710

BEGIN CROSSOVER WB-2 CST ℄ STA ~~40+00.00~~=
EB I-40 CST ℄ STA ~~694+25.82~~
693+15.43

39+68.00

Changes after the new sealed sheet has been released (See Page 25) are shown and clouded in red. The previous sheet (Page 25) will require a red "X" through the sheet.

NOTE:
Asphalt Concrete shall be removed prior to the Winter Shutdown.

Match Exst
+0.023'/ft Rt EP
44+81
+0.020'/ft Rt EP
e Grade &
Rotation
.020'/ft Lt EP
PT 48+71.92
49+78
Match Exst
+0.043'/ft Rt EP
-0.043'/ft Lt EP

+0.06'/ft
0.00'/ft
-0.06'/ft

6910 6900 6890 6880 6870 6860

SDs>1500'
110' VC
PI 48+00.00
Elev=6875.40
Corr=-0.09'
Finished Cst ℄ Grade
Exst EB I-40 Pavement Grade
-2.8129%
1.3260%
-1.6010%
CROSSOVER WB-2 STA 50+36.72
END PROFILE
Elev 6871.61
Exst WB I-40 Pavement Grade
CROSSOVER WB-2 STA 44+73.12
BEGIN PROFILE
Elev 6880.58
PI 45+30.00
Elev=6878.98
Corr=0.20'
Exst Ground Line
250' VC
SSDs>1500'
401
BE 309

40 45 50 55

	NAME	DATE
DESIGN	DBK, RG	05/17
DRAWN	JK, ME, DS	05/17
CHECKED	KCH	05/17

Gannett Fleming

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

PLAN AND PROFILE
CROSSOVER WB-2

ROUTE I-40 | LOCATION DEVIL DOG - WILLIAMS | DWG No. C-2.14

TRACS NO. F0131 01C | 040-C(225)T | 103 OF 172

7/21/2017 c:\pwworking\gfpw01\dasmith\d0699353\F0131dr2-R2.dgn

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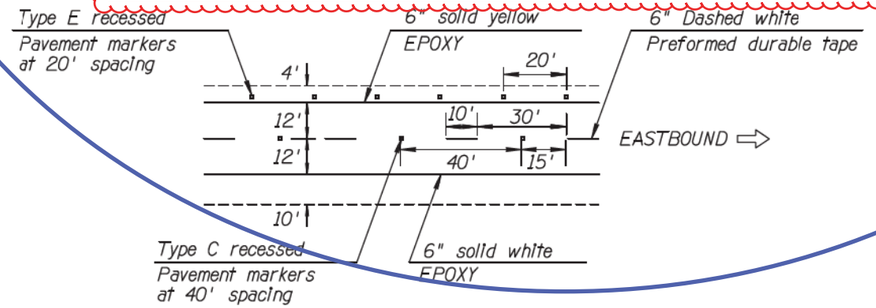
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	38	62	4/3/2017
		040-AP-353			

GENERAL PAVEMENT MARKING NOTES:

1. All striping shall be in compliance with the current ADOT Signing and Marking Standard Drawings and the Manual on Uniform Traffic Control Devices (MUTCD 2009 Edition as amended by the January 2012 ADOT Supplement).
2. The pavement marking details are schematic only and not to scale. The contractor shall follow all dimensions, details and standards when installing pavement markings and markers.
3. See the following ADOT standard drawings for striping details: M-15, M-16, M-18 and M-19.
4. All dimensions are in feet unless otherwise noted on the plans or the detailed drawings.
5. All striping dimensions are to the face of curb or edge of pavement, unless otherwise noted.
6. The dimensions shown to pavement striping are to the center of the striping or in the case of double striping to the center of the double striping.
7. The permanent pavement marking layout may be modified as directed by the Engineer.
8. It is the contractor's responsibility to develop an "as-built" plan of the existing striping and have the plan approved by the Engineer before any construction activities.
9. At the completion of the final pavement surface each day, edge lines, center lines, lane lines, and stop bars covered by the new pavement shall be striped with one application of 4" wide standard reflectorized traffic paint at the location of the permanent striping. The paint shall have a maximum thickness of 15 mils wet (10 mils dry).
10. It is the contractor's responsibility to ensure that the final surface course is placed so that the striping is offset one foot clear of the construction joint, unless otherwise directed by the Engineer.
11. The contractor shall be responsible for the layout and installation of permanent pavement markings on the final surface course following control points that have been set no more than 50 feet apart along the lines to be striped.
12. The contractor shall clean the roadway surface to the satisfaction of the Engineer, by sweeping and air-jet blowing, immediately prior to the placement of all pavement markings. The roadway surface shall be dry. The air and pavement temperatures shall not be less than 40°F and the air temperature wind chill factor shall not be less than 35°F for the placement of epoxy pavement marking.
13. The final striping shall be two-part epoxy pavement marking placed at a minimum of 30 calendar days after completion of initial striping, or as directed by the Engineer. All other markings shall be applied at the same time. The two-part epoxy material shall conform to the specifications.
14. Freeway arrows shall be installed in accordance with Std Dwg M-12.
15. All final stop bars, pavement arrows, and transverse lines shall be two-part epoxy pavement markings.
16. All pavement markers shall have an abrasion-resistant coating on the face of the prismatic reflectors and shall conform to the details of Standard Drawing Number M-19. They shall be installed with a bituminous adhesive which is on the ADOT Approved Products List.
17. Where pavement markers are placed along solid striping, the nearest edge of each marker shall be offset from the nearest edge of the striping. Recessed pavement markers placed between double yellow striping shall be centered in the 6 inch gap between the lines.
18. All pavement markers shall be installed so that the reflective face of each marker is facing the direction of traffic and is perpendicular to the direction of traffic flow. Type C pavement markers shall be installed so that the clear reflective face of each marker is facing approaching traffic and perpendicular to the direction of traffic flow. Type E pavement markers shall be installed so that the yellow reflective face of each marker is facing approaching traffic and perpendicular to the direction of traffic flow.
19. The Contractor shall install ground-in rumble strips wherever the existing rumble strip is obliterated by milling or overlay work, except on concrete surfaces or on bridges with less than a half inch of AR-ACFC. The ground-in rumble strips shall conform to the details shown on Std Dwg M-22.
20. The Contractor shall delineate all new guard rail end treatments in accordance with Std Dwg M-34. There shall be no measurement or payment for the guard rail end treatment delineation.
21. The Contractor shall preserve all signs, roadway object markers, milepost markers and delineators and replace those signs, markers and delineators damaged as a result of the construction at the Contractor's expense.
22. All dashed lane lines and solid gore lines shall be preformed durable tape, see Special Provisions. ~~The tape shall not be placed in a groove.~~ The tape shall be placed in a groove.

APPROXIMATE PAVEMENT MARKING QUANTITIES

Description		Unit	Quantity	4" Equivalent	Item No.
Permanent pavement marking (painted)	4" white 80,025	L.FT.	~~274,145~~	~~274,145~~	7080001
	4" yellow 63,437	L.FT.	~~122,875~~	~~122,875~~	7080011
	Parking symbol	EACH	2		7080111
Dual component EPOXY pavement marking	6" white	L.FT.	83,140	124,710	7090001
	6" yellow	L.FT.	78,586	117,890	7090002
Dual component EPOXY transverse pavement marking	18" white	L.FT.	216	972	7090005
	Freeway arrow	EACH	8		7090012
	Parking symbol	EACH	2		7090012
Pavement Marker	Type C, recessed	EACH	1,585		7060100
	Type D, recessed	EACH	150		7060101
	Type E, recessed	EACH	3,080		7060102
Ground-in rumble strip	12"	L.FT.	126,720		9280037
Delineator (Flexible with concrete foundation)	Single white	EACH	194		7030026
	Single yellow	EACH	72		7030026
	Double white	EACH	8		7030026
	360° white	EACH	48		7030026
	360° Double yellow	EACH	24		7030026
Object marker	(M-23) (Type 2)	EACH	5		7030082
Preformed durable tape	6" white	L.FT.	15,820	23,730	7050022
	12" white	L.FT.	9,750	29,250	7050022
Sawcut Groove for Striping (Diamond Blade) (Grooves are 1/2" Wider & 1 foot longer than recessed stripe	6" White	L.FT.	17,401	28,364	9240210
	12" White	L.FT.	10,725	33,569	9240210



TYPICAL STRIPING DETAIL

	NAME	DATE
DESIGN	SG	01/16
DRAWN	CPG	01/16
CHECKED	HAO	01/16

PARSONS BRINCKERHOFF

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PAVEMENT MARKING QUANTITIES AND GENERAL NOTES

ROUTE	LOCATION
I-40	ALLENTOWN RD - STATE LINE

TRACS NO. H8781 01 C | NH-040-E(218)T

Expires 03/31/16

SHEET 38 OF 62

51 OF 75

SURVEY NO. | DATE | LOCATION | REVISIONS | FINISHED PLANS | SURVEY NO. | DATE

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1/12/2016 T:\I-40\Tfcnt\T8781_pmn.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	040-E(218)T	39	62	4/3/2017
		040-AP-353			

PART 1 - To be completed by the Landscape Architect or Design Engineer

I. PROJECT DESCRIPTION

A. Owner Name, Address and IRS Employee Identification Number (EIN):

Arizona Department of Transportation
205 South 17th Avenue
Phoenix, Arizona 85007-3213

IRS Employee Identification Number (EIN) for ADOT: 86-6004791

B. Project TRACS Number: H8781 01 C

C. Project Location: I-40 & Allentolon Rd

City: Lupton County: Apache

Beginning Latitude (NAD 83): 35° 17' 38.4" N
Beginning Longitude (NAD 83): 109° 08' 41.5" W
Ending Latitude (NAD 83): 35° 21' 47.5" N
Ending Longitude (NAD 83): 109° 02' 47.0" W

D. Project Description: Pavement preservation, on and off Ramps and Cross Roads at Three TI's Guardrail Installation, curb embankment replacement and bridge railing replacement, spillway replacement

II. HYDROLOGIC INFORMATION

A. Project Size:
Length (Mi.) 5.81
Area (Ac.) 288.74

B. Area to be Graded (Ac.) *: 1.45

* Blading of the shoulder build-up area is considered as grading and ground disturbance and should be covered by stormwater and/or other environmental regulations.

C. Percentage of the site that is impervious before and after construction:
Percentage before Construction: 22.8%
Percentage after Construction: 22.8%

D. Receiving Water(s), refer to the AZ Department of Water Resources Web Link below (USGS Topo):
https://gisweb.azwater.gov/WellRegistry/Default.aspx

III. PRESERVAT[...]

A. In accordance [...] existing vege[...] Clearing limits [...] that require [...] outside the b[...] area shall be [...] construction [...] the area to b[...] and protected [...]

> Typically if more than 1 acre is being disturbed or graded, Part 2 of the SWPPP sheet needs to be filled in. If this information is not available or is not required, an "X" through Part 2 of this sheet needs to be placed in red to indicate the information was not provided, available or not required.

IV. SOIL STABI[LIZATION MEASURES]

A. All disturbed soil, which will not be paved, riprapped or otherwise covered to prevent erosion, will be revegetated and/or landscaped in accordance with the project plans and specifications.

B. Scheduling of the revegetation effort can be found on PART 2 of this sheet under SCHEDULE OF MAJOR ACTIVITIES.

V. MEASURES TO CONTROL EROSION AND SEDIMENT

A. Temporary Erosion and Sediment Controls: (Refer to the SWPPP Site Plan and Specifications)

- ___ Erosion Control Mattings
- ___ Temporary Diversion Dikes
- ___ Check Dams
- ___ Rock Inlet/Outlet Protection
- ___ Sediment Control Berms
- X Silt Fences
- X Wattles (Excelsior/Straw)
- ___ Excelsior Logs / Sediment Logs
- ___ Seeding (Class II with mulch)
- X Others Describe:

Construction Entrance

B. Permanent Erosion and Sediment Controls and Post-construction Storm Water Management Measures: (Refer to SWPPP Site Plan and Specifications)

- ___ Crown Ditch/Dike
- X Rock Protection
- ___ Rock Riprap Channel Lining
- ___ Sediment Basin
- ___ Embankment Curb
- ___ Spillways and Downdrains
- ___ Minibenching
- X Seeding established as a perennial vegetative cover with a density of 70% of the native background vegetative cover.
- ___ Others Describe:

VI. MAINTENANCE AND INSPECTIONS

A. Frequency of Inspections:

Regular Inspection Frequency:

___ At least once every 7 calendar days (weekly), OR

[...] 4 calendar days (biweekly) and [...] hours of a rainfall of 0.25 in. [...]r.

[...] Sensitive) Waters Inspection:

[...] alendar days and within 24 hours [...] fall of 0.25 in. or greater.

[...] UGE TO BE KEPT ON- [...] ERMINE DEPTH OF RAINFALL

B. Inspection Procedure:
ADOT's Contractor's Inspection Log a[...] Compliance Evaluation Report (CER) wi[...] be completed by the contractor or [...] representative and will be kept on f[...] 3 years. A signed copy of the CER w[...] sent to the ADOT resident engineer. [...] repairs are necessary, they shall be [...] within 24 hours of the inspection re[...]

> Note: The remaining sheets have been omitted in this example to reduce file size and redundancy of information.

PART 2 - To be completed by ADOT & CONTRACTOR

Refer to: *http://cfpub.epa.gov/npdes/stormwater/msgpenol.cfm*
http://cfpub.epa.gov/npdes/stormwater/swppp.cfm#guide

I. SCHEDULE OF MAJOR ACTIVITIES

A. Project Schedule: See SWPPP

Start Date: 4/11/2016

End Date: 8/14/2017

B. Construction Sequencing Schedule: (Attach Additional Sheets) Construction Activities

II. INVENTORY OF POLLUTANTS

A. The materials or substances checked below are expected to be onsite during construction:

X Concrete	X Asphalt
X Paints	X Fertilizer
X Herbicides	X Wood
X Fuel	X Oil
X Others, List:	

III. POLLUTION CONTROL MEASURES

A. Other Best Management Practices:

- X Wind Erosion and Dust Control
- X Solid Waste Management
- X Equipment Maintenance Procedures
- X Designated Concrete Washout Areas (Leak proof pits/containers are included.)
- X Stabilized Construction Entrance
- X Protected Chemical and Material Storage Area
- ___ Other, Describe:

IV. SPILL PREVENTION AND RESPONSE

A. Spill Prevention:
The procedures outlined in the Best Management Practices listed under Pollution Control Measures will be followed to prevent and contain spills of hazardous material. These preventative action include BMP's on equipment maintenance and proper handling, storage and disposal of chemicals and materials. All manufacturer's recommendations for usage, clean-up and disposal shall be followed.

[B. Spi]ll Response:
[In] the event of any accidental spill of [ch]emicals or hazardous materials, [co]ntact the ADOT Traffic Operations [Ce]nter at 800-379-3701. If a reportable [qu]antity is discharged into the storm [w]ater, ADOT shall contact the National [Re]sponse Center and document the spill [t]o the EPA. ADOT's Hazardous Materials [Sp]ecialist shall provide instructions.

V. CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

A. This Storm Water Pollution Prevention Plan (SWPPP) has been prepared in accordance with the latest updated version of ADOT's EROSION AND POLLUTION CONTROL MANUAL FOR HIGHWAY DESIGN AND CONSTRUCTION, published by ADOT Intermodal Transportation Division.

X SWPPP is in compliance with other Federal, State Laws, or Local Regulations.

VI. POLLUTION PREVENTION PLAN CERTIFICATION

A. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Applies to VI. B., C., and D)

B. The operator/contractor as defined in NPDES should sign the SWPPP in accordance with CGP Part 7.2.15 and retain the SWPPP on-site at the construction site or other location easily accessible during normal business hours.
Signature: (operator/contractor) [signature]
Date: 3/23/2016
Name: Andrew Rice
Title: Environmental Director
ADOT District: Fann Contracting, Inc.

C. ADOT Resident Engineer
Signature: (owner) [signature]
Date: 04/13/16
Name: Carl Enlicutes
Title: Senior Resident Engineer
ADOT District: Northeast

D. MUNICIPALITY for Municipal Separate Storm Sewer System (MS4)
Signature:
Date:
Name:
Title:
Municipality:

VII. OTHER REQUIREMENTS

A. A copy of the General Permit and NOI should be attached.

B. A copy of the page from the environmental clearance for the project that discusses endangered or threatened species should be attached.

C. Use the process in NPDES General Permit Appendix C (ESA Review Procedures) to determine eligibility prior to submittal of the Notice of Intent (NOI) for Endangered and Threatened Species and Critical Habit Protection.

D. A seven-day waiting/review period between NOI submittal and authorization to begin construction will be used by U.S. Fish and Wildlife Service and National Marine Fisheries Service to screen proposed construction activities for potential impacts on endangered species.

	NAME	DATE
DESIGN	ACH	10/15
DRAWN	CPG	10/15
CHECKED	BGS	10/15

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PARSONS BRINCKERHOFF

NPDES SWPPP INDEX SHEET

ROUTE: I-40 LOCATION: ALLENTOWN RD STATE LINE

TRACS NO. H8781 01 C NH-040-E(218)T

Registered Professional Engineer seal, ARIZONA U.S.A., Expires 6/30/16

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