

RAILROAD BRIDGE SAFETY MANAGEMENT PROGRAM

***Governing Bridges on the NMRX Railroad System owned by the
New Mexico Department of Transportation***

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Prepared In Fulfillment of 49 CFR Part 237--Bridge Safety Standards

Revision History

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SECTION 1 Introduction

The New Mexico Department of Transportation (NMDOT) is committed to maintaining the structural integrity and safe load capability of all our bridges across the NMRX (NMDOT-owned) railroad system with the protection of passengers, railroad employees and the surrounding public and environment foremost in mind. NMDOT has in place an internal comprehensive program to manage the safety and preservation of our railroad bridges that has been established under accepted railroad industry standards and practices, existing NMDOT inventory practices, as well as guidance previously put forth by the Federal Railroad Administration (FRA).

The FRA has issued a Final Rule requiring that railroad track owners adopt a bridge safety management program. NMDOT, being owner of a passenger commuter railroad and track segments which are part of the general railroad system of transportation and which carry more than ten scheduled passenger trains per week, herein formally presents its Railroad Bridge Management Program pursuant to CFR 49 Part 237 not later than the compliance date established under §237.31(b).

System Description

The NMRX railroad system consists of the Albuquerque, Santa Fe, and El Dorado Subdivisions.

The Albuquerque Subdivision is former BNSF (former ATSF) track and right-of-way purchased by NMDOT and is maintained and operated by Herzog Transit/Contracting Services. BNSF and Amtrak are both tenant railroads on the Albuquerque Subdivision.

The Santa Fe Subdivision is a combination of the construction of new track (18 miles), built under supervision of NMDOT in 2008, and former Santa Fe Southern Ry (former ATSF) track and right-of-way (5 miles). This Subdivision is also maintained and operated by Herzog Transit/Contracting Services. Santa Fe Southern Railway is a tenant railroad on the eastern end of this subdivision. The El Dorado Subdivision is former Santa Fe Southern Railway (former ATSF) track (13 miles) maintained and operated by Santa Fe Southern Railway. SFS is the exclusive operator on this segment.

NMDOT is responsible for overseeing bridge inspection and repair on all NMRX bridges. NMDOT works with Herzog to coordinate and approve the selection and scheduling of contract bridge engineers for annual bridge inspection as well as designs/repairs conducted on the Albuquerque and Santa Fe Subdivisions. NMDOT performs annual bridge inspections directly on the El Dorado Subdivision and coordinates with Santa Fe Southern Railway for maintenance and repairs. NMDOT is also responsible for conducting emergency bridge inspections on all subdivisions.

NMDOT is responsible for ensuring that all bridges are capable of safely carrying rail traffic, and for determining and specifying the maximum loads that may be operated over each bridge,

as well as ensuring that loads are not operated over bridges that exceed weight/height/width restrictions that are in effect. On the Albuquerque and Santa Fe Subdivisions, restrictions shall be issued as a General Track Bulletin by the NMRX dispatcher until such time as a General Order is issued as necessary. BNSF trainmasters shall be advised as well. For the El Dorado Subdivision, the Santa Fe Southern Railway shall be informed of any weight/height/width restrictions. SFS will convey the information to their crews through a track bulletin until a General Order is issued as necessary.

SECTION 2 Definitions (49 CFR §237.5)

2.1 GENERAL DEFINITIONS

ALBUQUERQUE SUBDIVISION: Segment of NMRX track formerly owned by BNSF, formerly ATSF between MP 932.2 and MP 834. Controlled by the NMRX dispatcher in Albuquerque NM.

BNSF: BNSF Railway

BRIDGE ENGINEER: A professional engineer licensed in the State of New Mexico with the requisite education, experience, and knowledge of railroad bridge design and operation. (§237.51 and § 237.57).

BRIDGE MODIFICATION: A change to the configuration of a railroad bridge that affects the load capacity of the bridge.

BRIDGE REPAIR: Remediation of damage of deterioration which has affected the structural integrity of a railroad bridge.

EDMS: Electronic Data Management System, which includes Pontis which is an electronic database that stores NMDOT bridge inspection data.

EL DORADO SUBDIVISION: A segment of NMRX track formerly owned by Santa Fe Southern Railway, formerly ATSF track, between MP 0.3 and 13.5, maintained and operated by Santa Fe Southern Railway (not under control of NMRX dispatcher).

HERZOG CONTRACTING: Provider of Track, Signal and Structure Maintenance and Inspection for NMRX-Controlled track through Operating Agency.

MAINTENANCE-OF-WAY (MOW) CONTRACTOR: a contractor hired by the New Mexico Department of Transportation for the purpose of maintaining the track right of way, including bridges.

NMDOT: New Mexico Department of Transportation

NMRX: NMDOT-owned railroad system (New Mexico Rail Runner Express)

NMRX-CONTROLLED: NMDOT-owned railroad system under the control of the NMRX dispatcher in Albuquerque, NM (i.e. Albuquerque and Santa Fe Subdivisions)

NMRX OPERATING AGENCY: Rio Metro Regional Transit District (RMRTD)

NMRX RAIL OPERATIONS CENTER: Train dispatcher for the NMDOT-owned rail system

RAILROAD BRIDGE: Any structure with a deck, regardless of length, which supports one or more railroad tracks, or any other under grade structure with an individual span length of 10 feet or more located at such a depth that it is affected by live loads. (§ 237.5)

RIO METRO REGIONAL TRANSIT DISTRICT (RMRTD): Operating Agency of the NMRX Railroad for NMDOT.

SFS: Santa Fe Southern Railway

SANTA FE SUBDIVISION: A segment of NMRX track consisting of new track and right-of-way constructed in 2008, and the former SFS right-of-way and track, formerly ATSF track, between MP 0.0 and MP 23.4. Controlled by the NMRX dispatcher in Albuquerque, NM.

TRACK OWNER: New Mexico Department of Transportation (pertains to 49 CFR §237.3)

2.2 BRIDGE DEFINITIONS

ARCH: A curved structure element primarily in compression, producing at its supports reactions having both vertical and horizontal components. Span type of a railroad bridge in bridge records.

BRIDGE: Any structure that carries a roadway (railroad) over a depression or obstacle, consisting of a distinct substructure; a distinct superstructure that directly supports the roadway (track structure) and is independent of length.

BRIDGE - BALLAST DECK: A bridge with a solid floor provided with drains and covered with ballast, to provide normal and uniform support for track and conforming generally to standard construction used in the same tracks as constructed on roadbed.

BRIDGE – OPEN DECK: A bridge in which the track is carried on top of the stringers (girders) or trusses.

BRIDGE RATING: The determination of the safe load capacity of a structure using Cooper E ratings based upon the lowest rating primary load carrying component.

CULVERT: A structure that provides an opening beneath an embankment. A culvert has a continuous cross-sectional perimeter (sidewalls, ceiling, and floor are continuous). Does not include conduits (utility, etc) and under-track drains.

ENGINEER: An NMDOT employee or qualified consultant competent through training and experience in the area of railroad bridge engineering.

EQUIPMENT RATING: The determination of a vehicle's equivalent Cooper E rating based on its axle weights and spacing

INSPECTOR: A NMDOT employee or qualified consultant competent through training and experience to detect and record deficiencies of structures.

INVENTORY: The active railroad structural asset list as maintained in PONTIS.

OBSERVATION: A visual check of a structure against established standards for proper utility. If a deficiency is noted an inspection is required.

OVERHEAD BRIDGE: Any structure passing over the track(s) constructed for the purpose of carrying railroads, highways, pedestrians, pipelines or other miscellaneous purposes and is supported by structural elements on one or both sides of the track(s). Signal Bridges are not included.

PONTIS: The computer database used by NMDOT to maintain all railroad bridge records.

PROFESSIONAL ENGINEER: Registered or or licensed engineers in the United States who render engineering services to the public.

RECORDS: The documentation of structural asset history, layout, design, construction, inspection, and maintenance of the structure. These records may be either in electronic or paper form.

RETAINING WALL: A structure is designed and constructed to restrain and support a mass of earth that is subject to railroad loading.

SPAN: The out to out length of span for simple spans or the distance center to center of intermediate supports for continuous spans. For arches, span length is the measured horizontal distance between spring lines.

STRAIN: The distortion of a body produced by the application of one or more external forces and measured in units of length. In common usage, this is the proportional relation of the amount of distortion divided by the original length.

STRESS: The resistance of a body to distortion when in a solid or plastic state and when acting in an unconfined condition. Stress is produced by the strain (distortion) and holds in equilibrium the external forces causing the distortion. It is measured in pounds or tons. Within the elastic limit the strain in a member of a structure is proportional to the stress in that member.

STRUCTURE: An asset of the infrastructure such as a bridge that is built and designed to sustain a load.

SUBSTRUCTURE: The abutments, piles, piers, or other constructions built to support the span or spans of a bridge superstructure.

SUPERSTRUCTURE: The entire portion of the bridge structure that primarily receives and supports traffic loads and in turn transfers the loads of the bridge substructure.

TRESTLE: A bridge structure consisting of beam, girder or truss spans supported upon bents. The bents may be of the piled or of the frame type. When of framed timbers, metal or reinforced concrete they may involve two or more tiers in their construction. Trestle structures are designated as "wooden", "frame", or "framed", "metal", "concrete", "wooden pile", "concrete pile", etc., depending upon or corresponding to the material and characteristics of their principal members.

TRUSS: A jointed structure having an open built web construction so arranged that the frame is divided into a series of triangular figures with its component straight members primarily stressed axially only. The triangle is the truss element and each type of truss used in bridge construction is an assemblage of triangles. The connecting pins are assumed to be frictionless.

2.3 BRIDGE COMPONENT DEFINITIONS

For Bridge Component definitions, refer to Section 4.2.2.

SECTION 3 Designation and Qualification of Individuals

3.1 NMDOT RAILROAD BRIDGE MANAGEMENT ADMINISTRATION

NMDOT has designated the following individuals to administer the NMDOT Bridge Safety Management Program:

Ray Trujillo P.E., NMDOT

*Railroad Bridge Engineer; Chief-Bridge Bureau; Railroad Bridge Design Engineer
Registered Professional Engineer. 13 years experience with bridge design, bridge inspection
program oversight and bridge load capacity ratings. Completed Railroad Bridge Inspection
Training.*

Jeff Vigil P.E., NMDOT

*Railroad Bridge Program Manager
Registered Professional Engineer. 6 years bridge management experience. Completed
Railroad Bridge Inspection Training.*

Gary Kinchen, P.E. NMDOT

*Railroad Bridge Load Engineer
Registered Professional Engineer. Over 15 years experience with bridge design, bridge
inspection program oversight and bridge load capacity ratings. Completed Railroad Bridge
Inspection Training.*

Ruben Padilla, NMDOT

*Railroad Bridge Inspector
30 Years of bridge inspection experience; 3.5 years in railroad bridge inspection and
management. Completed Railroad Bridge Inspection Training.*

William Craven, NMDOT

Acting Rail Manager

Rob Fine, NMDOT

*Rail Engineering Coordinator
16 years railroad operation experience; train operations, track inspection and maintenance,
and railroad bridge inspections. Completed University of Tennessee Railroad Bridge
Inspection Course.*

3.2 QUALIFICATION & DESIGNATION OF RAILROAD BRIDGE ENGINEERS (49 CFR §237.51)

NMDOT will designate individuals as a Bridge Engineer who meets the following criteria:

- a) Competent to determine forces and stresses in railroad bridges and bridge components;
- b) Can prescribe the safe loading conditions for railroad bridges;
- c) Can prescribe inspection and maintenance procedures for railroad bridges;
- d) Can design repairs and modifications to railroad bridges;
- e) Has a degree in Civil Engineering-with an emphasis on structural engineering-from an accredited engineering curriculum;
- f) Currently registered as a Professional Engineer in New Mexico

The following individuals are designated by NMDOT as Railroad Bridge Engineers:

Ray Trujillo P.E., NMDOT
Railroad Bridge Engineer; Manager-Bridge Bureau; Bridge Design Engineer

Jeff Vigil P.E., NMDOT
Railroad Bridge Program Manager

Gary Kinchen P.E., NMDOT
Railroad Bridge Load Rating Engineer

Dave Fitzwater, Wilson & Co.
Senior Railroad Engineer

Thelma Castro, Wilson & Co,
Railroad Bridge Engineer

Andy Leifheit, Wilson & Co.
Railroad Bridge Inspector

3.3 QUALIFICATION AND DESIGNATION OF RAILROAD BRIDGE INSPECTORS (49 CFR §237.53, §237.57)

NMDOT will designate an individual as Railroad Bridge Inspector who is determined by NMDOT to be technically competent to view, measure, report and record the condition of a railroad bridge and its components. Such person shall be designated to authorize or restrict train movement over the bridge according to its present condition or state of repair.

NMDOT and consultant railroad bridge inspectors must be capable of the following:

- Understand and carry out the inspection procedure
- Ability to access inspection points on each bridge

- Ability to measure condition of bridge components
- Ability to articulate and describe bridge conditions
- Have requisite experience and past history of bridge inspection and repair
- Ability to detect a potential bridge hazard to safe train operation
- Recommend to the proper authority that appropriate restrictions be placed on the operation of railroad traffic until a railroad bridge engineer has performed a review of the hazard, when necessary

The following individuals are designated by NMDOT as Railroad Bridge Inspectors:

Ray Trujillo P.E., NMDOT
State Bridge Engineer; Manager-Bridge Bureau; Bridge Design Engineer

Jeff Vigil P.E., NMDOT
Bridge Program Manager
Ruben Padilla, NMDOT
Bridge Inspector, Analyst

Gary Kinchen P.E. ,NMDOT
Bridge Load Rating Engineer

Dave Fitzwater, Wilson & Co.
Senior Railroad Engineer

Thelma Castro, Wilson & Co.
Railroad Bridge Engineer

Andy Leifheit, Wilson & Co.
Railroad Bridge Inspector

3.4 QUALIFICATION AND DESIGNATION OF RAILROAD BRIDGE SUPERVISORS (49 CFR §237.55, §237.57)

NMDOT will designate individuals as a Railroad Bridge Supervisor who meets the following criteria:

An individual who is determined by NMDOT to be technically competent to supervise construction, modification or repair of a railroad bridge in conformance with standard or particular specifications, plans and instructions. Such person will be designated to authorize or restrict train movement over a bridge according to its present condition or state of repair.

The following individuals are designated by NMDOT as Railroad Bridge Supervisors pursuant to qualifications set forth in §237.55:

Ray Trujillo P.E., NMDOT
State Engineer; Manager- Bridge Bureau; Bridge Design Engineer

Jeff Vigil, P.E., NMDOT
Railroad Bridge Program Manager

Gary Kinchen, P.E., NMDOT
Railroad Bridge Load Rating Engineer

Ruben Padilla, NMDOT
Railroad Bridge Inspector

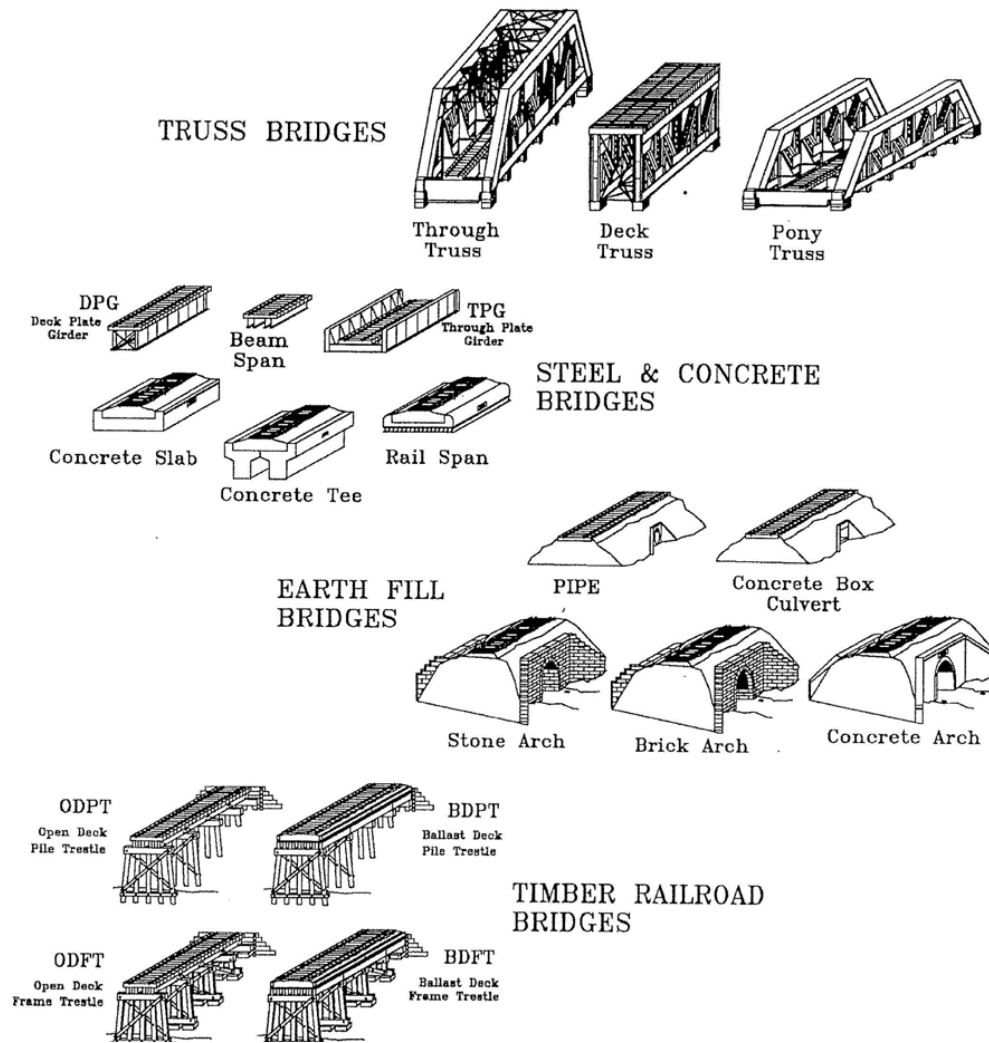
Ted Keener, Herzog Contracting Inc.
Project Manager

SECTION 4 Bridge Types and Components

4.1 BRIDGE STRUCTURE TYPES

Pictured below are various types of railroad bridge structures that may be found on the NMRX system. These Structure names are adopted for use in this Program. They are used within, but not limited to, documents such as bridge inventories and bridge inspections.

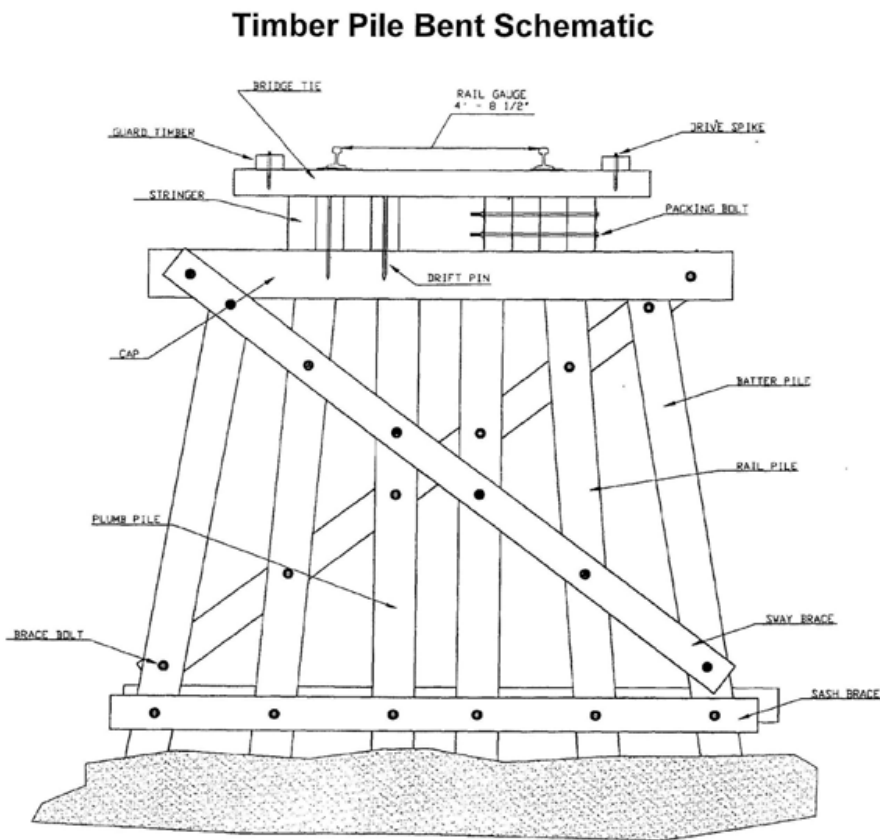
Common Types of Railroad Bridges



4.2 BRIDGE COMPONENTS

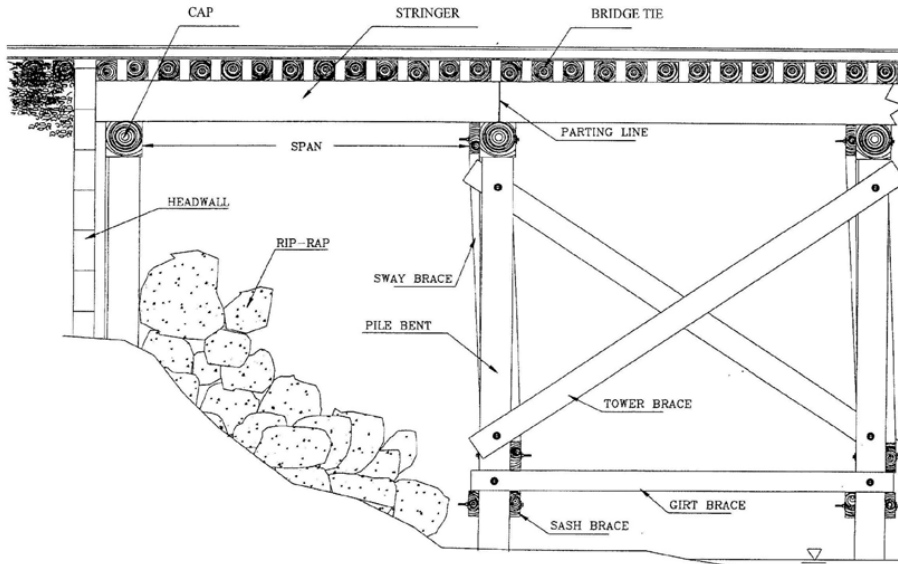
4.2.1 Bridge Diagrams

The following figures provide labeling of specific bridge components and are adopted and used in this Bridge Program. This labeling will be used by NMDOT to identify bridge components within, but not limited to, documents such as bridge inventories and bridge inspections.

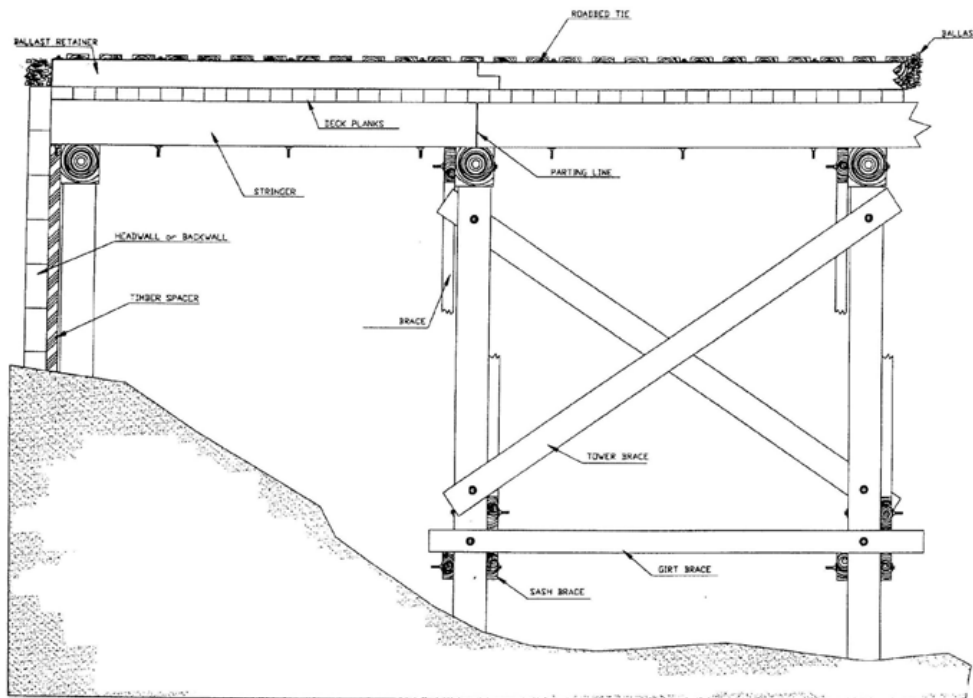


BRIDGE DIAGRAM

OPEN DECK PILE TRESTLE



Ballast Deck Bridge Profile



4.2.2 Bridge Component Definitions

ABUTMENT: A substructure composed of stone, concrete, brick or timber supporting the end of a single span or the extreme end of a multispan superstructure and, in general, retaining or supporting the approach embankment placed in contact with it. (See also Retaining Walls, Wing Wall.)

BATTER PILE: A support pile driven in an inclined position to resist forces which act in other than a vertical direction. When located in a stream, river or other waterway, it sometimes functions as a cutwater in dividing and deflecting floating ice and debris.

BENT: A supporting unit of a trestle made up of vertical members connected at the top by a cap.

BRIDGE BEAM: A portion of the bridge structure receiving and transmitting vertical, transverse, or oblique stresses produced by externally applied loads, when supported at its end or at intermediate points and ends. The beam resists the development of internal bending or flexural stresses. It could be rolled metal I-shaped or H-shaped. An I-shaped piece or member composed of plates and angles or other structural shapes united by bolting, riveting or welding. In general, those types of pieces or members are described as built-up beams.

CAP: The top, horizontal member of a bent. It holds the vertical members in their proper place and distributes the superstructure load to them.

CHECK: A small lengthwise crack or separation of wood fibers, caused by superficial shrinkage of a timber

CHORD: A group of stringers between bents or piers that are fastened to each other.

DEFER TREATMENT: Bridge timbers that do not contain enough decay at this time to warrant treatment, but should be considered in 5-10 years.

DELAMINATION: Separation and flaking off of the grain on a heavy corroded piece of steel. It can lead to very heavy section loss to the member because as one section of corroded steel flakes off, it exposes the underlying steel to further corrosion.

DEPTH, BALLAST: The depth from the bottom of tie to top of sub ballast or sub grade.

DRIFT: Brush, logs, and other debris carried by high water. If it accumulates against a bridge, it should be removed to reduce fire hazards and pressure against the bridge.

DUMP BENT: The end bent of a bridge. There is usually a retaining wall or backwall next to the dump bent.

EFFLORESCENCE: Lime deposits on the surface of concrete caused by water leaching through cracks and porous concrete.

GIRT BRACING: A horizontal member which spans from bent to bent and is usually fastened to a Sash Brace near the top of the piles or posts.

GROUNDLINE: In bridge piling, the portion from 2 -3 feet below the ground level to 1-2 feet above. Rapid decay growth can take place.

LONGITUDINAL BRACING: Horizontal structural members which span from bent to bent and are usually fastened to a sash brace, normally 11 to 15 feet down from the cap.

PACK RUST: Corrosion that has occurred between two joined pieces of steel. This corrosion expands and deforms the two adjoining pieces of steel apart.

PILE: A vertical structure member that has been driven into the ground.

POSSIBLE REJECT: Refers to members not decayed or damaged sufficiently to be classified as rejects, but are deteriorated enough to be considered for replacement.

POST (POSTING): Replacing a defective portion of a pile with a new section.

PUMPING BEARING: Bearing is moving up and down under load.

RAIL ANCHOR: A device attached to a rail to keep it from moving longitudinally as a result of temperature change or under traffic. Also called Anti-creeper.

REJECT: A member that is severely damaged or decayed.

RIPRAP: Large stones, boulders, blocks of concrete, etc. placed around piles or piers to prevent scour.

SASH BRACE: Horizontal member fastened to piles or posts of a bent to provide rigidity.

SETTLEMENT CRACK: A crack in a structure caused by differential settlement, or movement of various portions of the substructure. Repairs to these cracks should not be performed until the settlement problem has been corrected.

SILL: Horizontal member supporting the posts of the bent.

SPALLING: General deterioration and breaking up of the surface of the concrete due to age, reactive aggregates, water damage, freeze-thaw action, abrasion, or impact damage.

STRINGER: A longitudinal bridge girder for supporting part of a deck or railroad track between bents or piers.

STRUCTURAL CRACK: A crack that has progressed in magnitude, either in width, depth or both, to the point that the structural integrity of the members is in jeopardy.

SURFACE CORROSION: Corrosion to upper surface of the steel. It is usually minor and in most cases does not result in heavy section loss.

SURFACE CRACK: A crack that extends only a few inches into the member, but not of sufficient magnitude to be of immediate concern. Without repair, though, a surface crack could progress into a Structural Crack.

SWAY BRACE: Diagonal member fastened to piles or posts of a bent to provide rigidity.

TELESCOPING BEARING: Bearing plate has beaten down into the concrete or stone bridge seat causing damage to the concrete or stone.

WING WALL: An extension wall of an abutment wall which retains adjacent earth and/or deflects or guides a stream into pipes, culverts, and the waterway of a bridge.

WORKING CRACK: A structural crack that has divided the member into two or more components in which movement can be detected when load is applied, and could possibly permit differential settlement.

SECTION 5 Bridge Inspections

5.1 TYPES OF RAILROAD BRIDGE INSPECTIONS

5.1.1 Annual Railroad Bridge Inspections

This inspection is performed by the Railroad Bridge Inspector to determine the assessment of the railroad bridge condition by inspecting every railroad bridge component to identify deficiencies as well as the overall environment of the railroad bridge such as scour, drift, fire hazards, etc. The Inspection will result in reporting and recording deterioration and deficiencies before they present a hazard to safe train operation.

- Results of these inspections are recorded on the Annual Bridge Inspection Form and entered into the PONTIS Bridge Management Data Base.
- The PONTIS Bridge Management Program provides an opportunity to create and review the Railroad Bridge Inventory as well as develop Priority Listing for replacement or rehab.
- Detailed inspection procedures are to be conducted for every type of Railroad Bridge as described in the AREMA Bridge Inspection Handbook.
- All components for timber bridges including piles, timber sills, girders and all other timbers associated with the bridge shall be sounded with a hammer and areas showing any distresses will be identified and documented and measured for any loss of section.
- Any deficiencies noted previously or newly discovered that need monitoring will be photographed and sketched and included in the bridge inspection report and reviewed by the Railroad Bridge Engineer and will serve as a record on any change of condition between inspections.
- If a deficiency is found that makes the railroad bridge unsafe for train operations, the Railroad Bridge Inspector must call the Dispatcher and Railroad Bridge Supervisor to stop the train operations until the railroad bridge is made safe for either normal or reduced train operations.
- If an area of a railroad bridge is not accessible at the time of inspection, the Railroad Bridge Inspector must note this condition on the inspection form and notify a Railroad Bridge Supervisor to make arrangements to provide adequate access.

5.1.2 Routine Railroad Bridge Inspections

This inspection is performed by the Maintenance of Way Contractor during track inspections during normal day-to-day activities that place them at any given railroad bridge.

- Each time the Maintenance Of Way Contractor is within a railroad bridge, he will make a visual observation of the bridge and environment and assess the condition.
- If during a Routine Railroad Bridge Inspection a deficiency is found that makes the railroad bridge unsafe for trains, Maintenance Of Way Contractor must call the Dispatcher and Railroad Bridge Supervisor to stop the train operations until the railroad bridge is made safe for either normal or reduced train operation.

5.1.3 Interim Railroad Bridge Inspection

- When the Annual Railroad Bridge Inspection identifies a substandard condition that is determined to allow train operations at reduced speeds or load restrictions, an Interim Bridge Inspection will be performed to review each deficiencies noted and define a frequency of inspection. The purpose of the Interim Railroad Bridge Inspection is to monitor identified deficiency at a railroad bridge component.
- The Railroad Bridge Inspector will visually observe and document the changes if any occur from previous inspections including photos.
- Inspection procedures are to be performed as detailed in the AREMA Bridge Inspection Handbook.
- If during a Interim Railroad Bridge Inspection a deficiency is found that makes the railroad bridge unsafe for trains, The Railroad Bridge Inspector must call the Dispatcher, Maintenance Of Way Contractor and the Railroad Bridge Engineer to stop the train operations until the railroad bridge is made safe for either normal or reduced train operations.
- The Interim Railroad Bridge Inspection Report shall be included in the PONTIS Bridge Management Data Base and filed with the bridge report.

5.1.4 Special Railroad Bridge Inspections

If a specific type of data or information is requested for a certain railroad bridge, the Railroad Bridge Inspector or The Railroad Bridge Engineer will perform the Special Railroad Bridge Inspection and inventory the requested data or information.

Examples of Special Railroad Bridge Inspections are as Follows:

- Updating Railroad Bridge Inventory data such as dimensions or types of existing or new components.
- Determining load ratings.
- Movement of heavy or dimensional loads.

5.1.5 Emergency Railroad Bridge Inspections

These of Emergency Railroad Bridge Inspections are performed when a railroad bridge has been damaged by vehicle traffic impact, fire, high waters, washouts, weather or derailment of any other conditions. The procedure and depth of inspection is dictated by the severity of the incident and shall be determined by the Railroad Bridge Engineer. Detailed inspection procedures are detailed in the AREMA Bridge Inspection Handbook.

5.1.5.1 Accidents or Collision impacts railroad bridge over highway

- Train operation will be suspended until the bridge has been inspected and evaluated under the supervision of the Railroad Bridge Engineer or Railroad Bridge Inspector.
- Rail operation will resume normal operation when the Railroad Bridge Inspector or the Railroad Bridge Engineer determines that is safe to do so.

5.1.5.2 Train Derailment involving a railroad bridge

- Rail operation over the bridge will suspended until the bridge has been inspected.
- Rail operation occurs either normal or restricted only after consultation between the Railroad Bridge Inspector, Railroad Bridge Engineer, Railroad Bridge Supervisor, and Maintenance Of Way Contractor.

5.1.5.3 Floods or High Water events

- During, or shortly after a major storm event, the Railroad Bridge Inspector shall notify the Railroad Bridge Supervisor and the Railroad Bridge Engineer to alert the Dispatcher for possible high water getting into the ballast or over rails, any misalignment of rail or erosion along the embankments.
- The speed of trains shall be reduced as to permit safe operations until emergency inspection can be performed and conducted by Railroad Bridge Inspector or Railroad Bridge Engineer and it is determined that a hazard on longer exist.

- When performing an Emergency Inspection due floods or high water the Railroad Bridge Inspector must observe closely the following:
 - Railroad bridges with abutments piers (bents) on soil must be checked for scour especially spread footings or mud sills.
 - Check for piles driven into granular soils if penetration is limited.
 - Check for scour and erosion around abutments due to channel alignment and also check for drift and or debris.

5.1.5.4 Fires On Or Beneath Bridges

- Rail operation will be suspended until a determination of the structural integrity is made by the Railroad Bridge Engineer of the Railroad Bridge Inspector. Return to normal operation can occur when it was determined that the fire was such a minor nature that no primary load carrying members or components were compromised or affected.

5.2 SCHEDULING OF BRIDGE INSPECTIONS (49 CFR §237.101)

5.2.1 Annual Inspection (§237.101(a))

NMDOT shall schedule, or have scheduled, an inspection for each NMRX bridge at least once in each calendar year, with not more than 540 days between any successive inspections.

5.2.2 Deteriorated Condition (§237.101(b))

NMDOT shall inspect, or arrange to be inspected by a qualified individual, a bridge more frequently than specified above when a railroad bridge engineer determines that such inspection frequency is necessary considering the conditions noted on prior inspections, the type and configuration of the bridge, and the weight and frequency of traffic carried on the bridge.

5.2.3 Compromising Event (§237.101(c))

NMDOT shall inspect, or have inspected, each bridge immediately after notification of an event which may have compromised the integrity of the bridge, including but not limited to flood, fire, earthquake, derailment, or a vehicular impact. In the event of such events, all trains shall be halted until it can be determined if trains can safely pass over affected bridge or bridges at a speed determined to be safe.

5.2.4 Out of Service Bridge (§237.101(d))

NMDOT shall inspect, or have inspected, any railroad bridge by a Bridge Engineer that has not been in railroad service and not inspected in accordance with this section within the previous 540 days, prior to resuming railroad traffic over the bridge.

5.3 BRIDGE INSPECTION PROCEDURES (49 CFR PART §237.103)

Procedures for inspection of bridges will be specified by NMDOT Bridge Bureau and will be tailored to the configuration, conditions, traffic, and vulnerability of each bridge.

- When a structure requires routine maintenance, the inspector will document an exception in the inspection report and notify the maintenance-of-way manager.
- When an inspection reveals an unusual or critical condition, the inspector will immediately notify a Bridge Supervisor and the NMDOT Bridge Bureau. Appropriate protection for the bridge will be immediately established, as described in Section 5.3.2. If necessary, the bridge will be reviewed by additional engineers.
- Inspection methods to be used include visual, NDT (Non-Destructive Testing), Arms Length and Hands-On. Ladders will be used as needed.
- Means of access for bridge inspectors include Hands-On inspections at Arms Length. When required, additional access equipment such as snooper trucks will be used.
- Inspections will detect, report, and protect deterioration and deficiencies of the bridge before it presents a hazard to safe train operation.
- Inspections will be conducted in accordance with the most current edition of the AREMA Bridge Inspection Handbook.
- Bridge inspection will be performed with safety procedures set forth in the AREMA Bridge Inspection Handbook.
- A list of bridges requiring more frequent inspection will be developed and maintained. The frequency of inspection will be determined by a NMDOT Bridge Engineer.
- Route Clearances will be measured in order to determine clearance on all bridges from any limiting horizontal or vertical obstructions. Route Clearances will be measured from centerline of track every five years. Data will be forwarded to tenant railroads operating over the line.
- Inspection records will be kept by the NMDOT Bridge Bureau and are available for review by the MOW contractor and the NMRX Operating Agency.

5.3.1 Bridge Component Identification

Railroad Bridge Units, Spans, and Individual Components shall be specifically identified within a Railroad Bridge Inspection Report by the following numbering system.

Bents, Spans, Stringers, Piles and other components shall be numbered sequentially (i.e. 1,2,3, 4...) in the direction toward increasing mileposts, and then from left to right while facing in the direction of increasing mileposts. Timetable Direction shall be used to identify the orientation of the railroad bridge. Timetable direction and increasing milepost direction for each subdivision is determined by the following:

SUBDIVISION	ENDPOINTS	GEOGRAPHICAL DIRECTION	TIMETABLE DIRECTION	MILEPOSTS
Albuquerque	Lamy	North	East	Decreasing
	Belen	South	West	Increasing
Santa Fe	Santa Fe	North	East	Increasing
	CP Madrid	South	West	Decreasing
El Dorado	CP Hondo	North	North	Increasing
	Lamy	South	South	Decreasing

5.3.2 Remedial Actions

The following defines appropriate remedial actions for conditions revealed during bridge inspections.

TYPE OF DEFECT	REMEDIAL ACTION
3 consecutive reject bridge ties on steel spans	Limit to 25mph until condition corrected
Over 6 consecutive feet of bridge open deck with missing tie anchor bolts	Limit to 25 mph until condition corrected
Broken stringers; 3 ply chord in same chord (maximum 14'6" span)	For 1 broken stringer, limit speed to 10mph until stringer is replaced or helper stringer is placed. For 2 broken stringers, take bridge out of service until stringers are replaced or helper stringers are placed.
Broken stringers; 4 ply chord in same chord (maximum 14'6" span)	For 2 broken stringers (larger than 8"x16", limit speed to 10mph until stringers are replaced or helper stringer are placed. For 2 broken stringers (8" x 16" or less) take bridge out of service until stringers are replaced or helper stringers are placed
Broken stringers: 5 ply chord in same chord (maximum 14'6" span)	For 3 broken stringers (larger than 8"x16"), limit speed to 10mph until stringers are replaced or helper stringers are placed. For 3 broken stringers (8"x16" or smaller) take bridge out of service until stringers are replaced or helper stringers are replaced.
Spaced stringers under ballast decks	For 2 adjacent broken stringers on 7 stringer spans, take bridge out of service until stringers are replaced or helper stringers are placed.
Spaced stringers under ballast decks	For 2 nonadjacent broken stringers on 7 stringer spans, limit speed to 25 mph until stringers are replaced or helper stringers are placed.
Spaced stringers under ballast decks	For 3 adjacent broken stringers on 9, 10, or 11 stringer spans, take bridge out of service until stringers are replaced or helper stringers are placed.
Structural defect in Caps	If effective height of cap is reduced 2" under load or there is vertical split of 1" wide, or cap has lost 50% of bearing on piling, take appropriate action up to and including taking bridge out of service.

5.4 EMERGENCY EVENTS (49 CFR §237.105)

In the event of a natural or accidental event or other adverse condition where a railroad bridge may be adversely impacted, the NMRX Rail Operations Center will promptly notify designated Maintenance of Way Contractor personnel to inspect track and bridges. When a structure has been reported as being damaged in any way, the first competent individual to reach the site will immediately investigate the incident and will report back to the Dispatcher and immediate supervisors. The supervisor will in turn report the incident to the NMRX Operations Manager and Railroad Bridge Supervisor and who will in turn immediately notify the NMDOT Bridge Bureau and NMDOT Rail Manager. The NMDOT Rail Manager will report the incident to the NMDOT Risk Management Director.

If the initial inspection establishes that the damage does not affect the bridge's load carrying capacity, the NMDOT Railroad Bridge Engineer may authorized traffic to resume across the bridge. If the Railroad Bridge Inspector or Engineer is not readily available on site, a competent employee may convey information to them for assessing damage and load carrying capacity for placing track back in service. A follow-up inspection will be made.

If it is determined after initial inspection that traffic cannot be authorized for maximum authorized speed because of bridge damage, an appropriate remedial action will be taken or slow order be placed. The NMDOT Railroad Bridge Engineer will be contacted for technical assistance and further instructions if damage warrants.

If the Railroad Bridge Supervisor determines that the bridge is unsafe for passage of trains, they will notify the NMDOT Bridge Bureau and will immediately inform the NMRX Rail Operations Center that traffic over the bridge shall be immediately suspended until repairs that are necessary to restore the integrity of the bridge have been performed. Notifications will be properly documented and issued in current General Track Bulletins as necessary.

Resumption of traffic operations over the bridge cannot commence until inspection and review of the bridge repairs by the Bridge Engineer has been performed. Traffic over the bridge may resume only after the NMRX Rail Operations Center has received authorization from the Bridge Engineer, and will be noted on the Current General Track Bulletin.

Bridges with critical problems that must be monitored on a monthly or weekly basis will be tabulated for the bridge inspector's records. The frequent inspections will be performed until the problems have been repaired or the bridge has been replaced. If during one of these inspections, the bridge is determined to be unsafe, traffic over the bridge will be immediately suspended until repairs necessary to restore the integrity of the bridge are performed.

Fires

If a fire has damaged a bridge, traffic will not be allowed over the bridge until a qualified person has inspected the bridge.

Earthquakes

In the event of an earthquake being reported, the epicenter and magnitude must be determined.

If the magnitude is 5 or less, inspection is not required.

If the magnitude is 5 or greater, inspections must occur of each bridge for the distances contained in the following table. Coordination must be established with the NMRX Rail Operations Center and the NMRX Operations Manager, Maintenance-of-way Manager, NMDOT Bridge Bureau, NMDOT Rail Manager, and NMDOT Risk Manager must be contacted immediately.

MAGNITUDE	RESPONSE	DISTANCE RADIUS
Less than 5.0	No inspection required	N/A
5.0 to 5.99	Trains proceed at Restricted Speed until bridges have been inspected	40 miles
6.0 to 6.49	Trains stop until bridges have been inspected.	80 miles
6.5 to 6.99	Trains stop until bridges have been inspected	140 miles
7.0 to 7.49	Trains stop until bridges have been inspected	300 miles
7.5 or greater	Trains stop until bridges have been inspected	500 miles

Personnel permitted to authorize train operations over a bridge following an adverse event will include the following:

- 1) Railroad Bridge Inspector
- 2) Railroad Bridge Supervisor
- 3) Railroad Bridge Engineer

5.4 COMPONENTS SUBMERGED/SUBJECT TO WATER FLOW (49CFR §237.105(b))

Bridge Inspections will include the detection of scour or deterioration of bridge components that are submerged, or that are subject to water flow. Inspections of bridges will include measuring and recording the condition of substructure support at locations subject to erosion

from moving water. Underwater inspections are not required on NMRX railroad bridges as water depth does not require such inspections.

5.5 CONDUCT OF BRIDGE INSPECTIONS (49 CFR §237.107)

Bridge Inspections will be conducted under the supervision of an NMDOT-designated Railroad Bridge Inspector. The inspector will be responsible for ensuring the accuracy of the inspection and the compliance with this program.

5.6 BRIDGE INSPECTION REPORTS/RECORDS (49 CFR §237.109)

The record of each bridge inspection will be prepared from notes recorded the day of the inspection by the Bridge Inspector. The inspection will be supplemented with sketches and photographs as needed. The NMDOT Bridge Inspection Form contains a template of bridge structures to facilitate recording of notes and deficiencies. A sample is included in Appendix D.

- The inspection will be dated at the time the physical inspection is conducted.
- The inspection must be signed by the Bridge Inspector.
- The NMDOT Bridge Inspection Form includes the following in accordance with §237.109:
 - Precise identification of the bridge. Milepost numbers will be placed or painted on each bridge.
 - The condition of components inspected sufficient to adequately describe and interpret the report. The form contains condition rating criteria for consistent evaluations.
 - The date of the inspection.
 - The signature of the Bridge Inspector.
 - The type of inspection performed.
 - Identification of any item that would require review by the Railroad Bridge Engineer.
 - Identification of any restriction placed on the bridge at the time of inspection.
 - When an inspection does not encompass the entire bridge, the portions of the bridge which were inspected will be identified in the report.

- Each inspection report will be placed in the NMDOT PONTIS System; hard copy and electronic copy saved in EDMS electronic file net system within 30 days, but no later than 120 days, following completion of the bridge inspection.
- Consultant inspectors shall confirm inspection of a bridge with the NMDOT Bridge Bureau within 7 days after the actual bridge inspection.
- Consultant inspectors shall prepare and submit final inspection reports to NMDOT Bridge Bureau within 30 days.
- Once then NMDOT Bridge Bureau has received field inspection reports, All information will be recorded in the PONTIS System within seven days. Level of detail to be recorded is shown by a sample bridge inspection form is included in Appendix D.
- Record Retention: The retention period for bridge inspection records will be kept in the Department's Document Control System permanently.
- Records of underwater inspections will be retained at least until the completion and review of the next underwater inspection for each bridge.
- If the Bridge Inspector, Bridge Supervisor, or Bridge Engineer discovers a deficient condition on a bridge that affects the immediate safety of train operations, that person will report the condition promptly to the NMRX Rail Operations Center. This notification will be made for the purpose of ensuring the safety of train operations.
- A sample Bridge Inspection Form to be used for all NMDOT Railroad Bridge inspections is included in the Appendices of this document.

5.7 REVIEW OF BRIDGE INSPECTION REPORTS (49 CFR §237.11)

- A NMDOT Bridge Engineer shall review inspection reports for adherence to both schedule and inspection procedures.
- A NMDOT Bridge Engineer shall evaluate whether any items on the inspection report present a potential hazard to safety.
- The Bridge Engineer may prescribe any necessary modifications to the inspection procedures or inspection frequency for a particular bridge.
- NMDOT, through its contractor, will schedule any necessary repairs or modifications to a particular bridge required to maintain its structural integrity. This work will either be performed by contractors hired by NMDOT or the Rio Metro Maintenance of Way contractor.

SECTION 6 Bridge Inventory

6.1 BRIDGE INVENTORY CONTENTS (49 CFR §237.33(a))

The New Mexico Department of Transportation is responsible for ensuring that bridge inventory records are complete and accurate. Each bridge is assigned the following: (Refer to 'Appendix C' for Inventory Form sample):

- Milepost location and subdivision
- Bridge Location with geographic coordinates
- Name of feature crossed by the bridge
- Number of tracks
- Number of bridge spans
- Lengths of spans
- Substructure type of construction
- Superstructure type of construction
- Deck type of construction
- Overall bridge length
- Dates of construction (if known)
- Dates of major renovation (if any)
- Dates of strengthening/repair work (if any)
- Names of companies responsible for maintenance of the bridge, or last known repairs
- Bridge Safe Load Capacity, including when and who made the determination, and what method was used
- Photograph(s) of the bridge

SECTION 7 Bridge Load Capacities

7.1 DETERMINATION OF BRIDGE LOAD CAPACITY (49 CFR §237.71, §237.33(b))

The NMDOT is responsible for determining the safe load capacity of each NMRX bridge in operation throughout all subdivisions of The New Mexico Department of Transportation's rail operation. Safe load capacities shall be expressed as load ratings and shall be calculated and documented in accordance with this section.

The load ratings shall be documented in this Bridge Management Program, along with the method by which the capacity was determined. REFER TO "RAILROAD BRIDGE RATING FORM" IN APPENDIX C FOR EXAMPLE RATING FORM.

The design records for bridge replacement or new bridge construction shall state the load ratings that are achieved by the design and construction.

Load ratings are to be determined by a Railroad Bridge Engineer licensed in the State of New Mexico. All load rating methods shall be in accordance with latest edition of the AREMA Manual for Railway Engineering, published by the American Railway Engineering and Maintenance of Way Association.

Load rating calculations shall be based on the existing design plans and any modification records, only if the bridge configuration substantially conforms to these records. In all other cases, the load capacity shall be based on actual member measurements and properties, or other acceptable methods as determined by a Railroad Bridge Engineer.

Existing wooden trestle bridges may be load rated by a Railroad Bridge Engineer through accepted industry means using engineering judgment in lieu of structural calculations. In such cases, the Railroad Bridge Engineer will first inspect the bridge.

The New Mexico Department of Transportation has load rated all bridges pursuant to 49 CFR Part 237.71(e).

Any actions or conditions that substantially alter a bridge member's load capacity shall be cause for determining new load ratings. Normally, the decision of whether or not to update a bridge's load ratings will be based on information from the annual bridge inspection. Where an inspection reveals that, in the determination of the Railroad Bridge Engineer, the condition of a bridge or a bridge component might adversely affect the ability of the bridge to carry the traffic being operated, a new load rating shall be determined. New load ratings shall be considered if a member condition rating drops to "4" or below.

Load capacity ratings shall be determined at both normal and maximum load conditions as defined by AREMA.

Load capacity ratings shall be expressed in terms of an equivalent Cooper loading. Operation of equipment that produces forces greater than the normal capacity shall be subject to any restrictions or conditions that may be prescribed by the Railroad Bridge Engineer. These restrictions and/or conditions will be issued as specified in Section 7.2.

7.2 LOAD CONTROL FOR BRIDGES (49 CFR §237.73)

NMDOT will issue bridge weight and size restriction instructions to the NMRX Dispatcher and BNSF through the NMRX operations manager to prevent the operation of cars, locomotives and other equipment that would exceed the capacity or dimension of NMRX bridges. The NMRX dispatcher shall include restrictions under General Track Bulletins issued until such time as a General Order can be published as necessary. General Track Bulletins and General Orders will be issued to personnel at NMRX, BNSF, and Amtrak responsible for configuration and operation of trains over NMRX bridges on the Albuquerque and Santa Fe Subdivisions. Restrictions will also be updated through the BNSF Clearance Bureau. NMDOT will issue bridge restrictions on the El Dorado Subdivision to management personnel at Santa Fe Southern Railway who will in turn be responsible for issuing restrictions to their operating personnel.

- The instructions regarding weight will be expressed in terms of maximum equipment weights, and either minimum equipment lengths or axle spacing, as determined by the Bridge Engineer.
- Dimensions will be expressed in terms of feet and inches of cross section and equipment length.
- Dimensions of equipment will also include height above top-of-rail for each cross section, as well as the width of the car of the shipment at that height.

Route Clearances will be measured in order to determine clearance on all bridges from any limiting horizontal or vertical obstructions. Route Clearances will be measured from centerline of track on an annual basis. Clearances will be forwarded to tenant railroads operating over the line.

7.2.1. Weight Capacity

Weight Allowances per car length are described in the following table, as found in the BNSF System Special Instructions. Each subdivision or segment of the NMRX system shall be assigned a Restriction Class. Each train operating over such subdivision or segment of track shall comply to the assigned restriction. Restrictions for each subdivision are noted and referenced in the NMRX Employee Timetable, Item 2. Weight restrictions are determined or evaluated based upon current bridge load ratings.

Weight Restrictions

Car length	Axle	Typical Car Type	Maximum Weight Restriction Class (tons)							
			A	B	C	D	E	F	G	H
< 35'0"	4	Hopper	89	P	89	P	P	P	P	P
35'0" – 36'11"	4	Hopper, Tank	134	117	134	117	110	110	110	110
37'0" – 38'11"	4	Hopper, Tank	141	123	141	123	117	117	117	117
39'0" – 40'11"	4	Hopper, Tank	143	131.5	143	131.5	123	123	123	123
41'0" – 42'11"	4	Hopper, Tank	143	143	143	143	134	134	134	131.5
43'0" – 44'10"	4	Hopper, Tank	143	143	143	143	136	136	134	131.5
44'11" – 49'5"	4	Hopper, Tank, Gondola	143	143	143	143	143	136	134	131.5
≥ 49'6"	4	Hopper, Flat, Tank, Box, Gondola	143*	143*	143	143	143	136	134	131.5
Various	6	Flat, Tank	197	197	197	197	197	197	185	P
Various	6	Flat	197	197	185	185	185	178	175	P
Various	6	Flat	185	185	170	170	170	165	160	P
< 55'0"	8	Flat	220	195	220	195	180	180	180	P
55'0" – 79'11"	8	Flat, Tank	263	255	263	255	235	235	235	P
≥ 80'0"	8	Flat, Tank	263	263	263	263	235	235	235	P

P = Prohibited unless specially authorized

*** Up to 143 tons allowed for multiple car movements, and 143+ tons (up to 157.5 tons) allowed for a Single Car movement.**

Single Car Movement: A 143+ car separated from locomotive or other 143+ car by at least one car weighing not more than 143 tons. Maximum of ten 143+ cars up to 157.5 tons allowed in a single train.

Subdivision Restrictions

Subdivision	Milepost Segment	Weight Restriction Class
Albuquerque	834.0 – 915.0	B
Albuquerque	915.0 – 932.1	A
Santa Fe	0.0 – 22.3	A
El Dorado	0.33 – 13.5	E

Rail Cars that exceed the restrictions set forth above will be considered excessive-weight cars. Before any excessive-weight loads can be moved in a train over NMDOT-owned track, a prior authorization must be granted by the Bridge Engineer. Tenant freight railroads must notify the NMRX Operations Manager who will forward to the NMDOT Bridge Unit for evaluation.

Albuquerque Subdivision

BNSF (the sole tenant freight railroad over NMRX Albuquerque Subdivision) must determine that proper authorization has been granted for movement over the NMRX system. BNSF shall notify NMRX operations manager of all inbound and outbound excessive-weight loads that are scheduled to move over NMDOT-owned track. NMRX will in turn copy the NMDOT Rail Unit and NMDOT Bridge Unit of all excessive-weight loads for further evaluation.

El Dorado Subdivision

SFS (the sole tenant freight railroad operating over the El Dorado Subdivision) shall be notified by BNSF, the interchanging freight railroad, of all inbound excessive-weight loads for interchange with SFS. SFS will in turn notify the NMDOT Rail Unit and NMDOT Bridge Unit of all excessive-weight loads scheduled to move over the El Dorado Subdivision.

Santa Fe Subdivision

Freight movements are prohibited on the Santa Fe Subdivision between MP 0.0 and 17.9. Between MP 17.9 and MP 22.3, Procedures will be followed as specified for the El Dorado Subdivision.

7.2.2. Dimension Capacity

Maximum width and height dimensions for normal loads shall be 11 feet wide and 17' above the rail for the NMRX system. Loads that exceed these dimensions shall be considered excessive-dimension, or dimensional loads. Dimensional loads shall not move over the NMRX system without prior authorization from the Railroad Bridge Engineer.

Albuquerque Subdivision

Before any dimensional or special shipment requiring clearance verification can be moved in a train over the Albuquerque Subdivision, BNSF (the sole tenant freight railroad over NMRX Albuquerque Subdivision) must determine that proper authorization has been granted for movement over NMDOT-owned railroad track (bridges). BNSF shall notify NMRX of all inbound and outbound dimensional loads that are scheduled to move over NMDOT-owned track. NMRX will in turn copy the NMDOT Rail Unit and NMDOT Bridge Unit of all dimensional loads for further evaluation. In the event that authorization is granted, the NMRX dispatcher will be notified.

El Dorado Subdivision

SFS (the sole tenant freight railroad operating over the El Dorado Subdivision) shall be notified by BNSF, the interchanging freight railroad, of all inbound dimensional loads for interchange with SFS. SFS will in turn notify the NMDOT Rail Unit and NMDOT Bridge Unit of all dimensional loads scheduled to move over the El Dorado Subdivision.

Santa Fe Subdivision

Freight movements are prohibited on the Santa Fe Subdivision between MP 0.0 and 17.9. Between MP 17.9 and MP 22.3, Procedures will be followed as specified for the El Dorado Subdivision.

NMRX will approve the movement of dimensional loads over the Albuquerque Subdivision with consultation from the NMDOT Bridge Unit when required. SFS will approve the movement of dimensional loads over the El Dorado Subdivision with consultation from the NMDOT Bridge Unit when required.

SECTION 8 Repair and Modification of Bridges

8.1 DESIGN (49 CFR §237.131)

Projects involving repair or modification which change the capacity of a bridge or the stresses in any primary load-carrying component of a bridge or the replacement of existing bridges will be designed by a Bridge Engineer. The work shall be performed by the MOW contractor.

- Bridge records will be updated by the NMDOT Bridge Bureau to reflect the work performed through these contracts.
- The design will specify the manner in which railroad traffic or other live loads will be permitted on the bridge while it is being modified or repaired.
- Standards and procedures for designs or modifications will be developed by a Bridge Engineer.
- Oversight and quality control of major modifications or bridge replacements will be the responsibility of both the MOW contractor and NMDOT.
- The design Bridge Engineer will review construction in accordance with his obligation as the Engineer-of-Record.
- Records of repairs, modifications, or replacements will be made and kept of each bridge.
- The Bridge Inventory for each bridge will be updated within 30 days of receipt of repair records.
- New bridge capacity ratings will be determined following major repairs to an existing bridge.
- All bridge records of repair or modification shall be maintained by the NMDOT Bridge Bureau. This will include the following:
 - Engineering Design Documents
 - As-built construction plans
 - Records of modifications or repair by MOW contractors

- Bridge documents will be filed by subdivision and milepost, and contain all notes and plans as well as reports discussing any aspect of a bridge

Routine ongoing repairs: The bridge crews managed by MOW contractors as part of their regular maintenance of the timber bridges consisting of minor repairs and replacement of a limited number of structural members will use standard details as provided by the Railroad Bridge Engineer. These repairs will be approved or authorized by the NMDOT Bridge Engineer.

8.2 SUPERVISION OF REPAIRS AND MODIFICATIONS (49 CFR §237.133)

Each modification of repair will be performed under the immediate supervision of a Bridge Supervisor designated by NMDOT per criteria put forth in Section 3 of this Program. The Bridge Supervisor will ensure that railroad traffic or other live loads permitted on the bridge under repair are in conformity with the specification of the design.

Following completion of bridge repairs, modifications or replacement, the Bridge Supervisor will notify the NMRX Rail Operations Center of the time and conditions the bridge is ready to receive traffic. The bridge will remain under the continual supervision of a Bridge Supervisor and temporary speed restrictions until such time as the Bridge Supervisor determines normal track speed can safely be established.

SECTION 9 Documents, Records, and Audits

9.1 DOCUMENTS AND RECORDS (49 CFR §237.155)

- NMDOT shall create and maintain all the required records in the NMDOT PONTIS Bridge Management System.
- Electronically generated reports in the bridge management program shall be available in the PONTIS system. These records shall be monitored by NMDOT bridge bureau to ensure a high degree of accuracy.
- All bridge records will be made available for inspection by the Federal Railroad Administration upon request.

9.2 SYSTEM SECURITY OF CONTROLLED DOCUMENTS (49 CFR §237.155(b))

- NMDOT maintains proper security for the Records Management System.
- The PONTIS system has a secure account user access feature. Access is only gained through a proper username and password.
- Amendments can be made to the document without altering the original document. The amendments are stored as separate documents. Each amendment to a record will automatically identify the person making the amendment.
- The NMDOT PONTIS system provides for the maintenance of records as originally submitted without corruption or loss of data.

9.3 AUDITS

9.3.1 Audit of bridge inspection reports and records (49 CFR §237.153)

- The MOW Contractor will perform yearly inspections of the bridges and forward documentation of the inspections to the NMDOT Bridge Bureau.
- NMDOT Bridge Bureau Bridge Engineer will review the results of the inspections and in conjunction with the MOW Contractor will determine priorities for bridges repairs and/or replacement that may be necessary.
- NMDOT Bridge Bureau will conduct periodic audits of inspection reports by sampling reports to determine whether the reports accurately describe the condition of the bridges and whether the program itself is effectively providing for the continued safety of

the bridge. A yearly audit of 10 percent of NMDOT Bridge Bureau bridges will be sampled and tested.

- Bridge Personnel from the NMDOT Bridge Bureau will sample bridges to assure the quality and accuracy of the inspection report provided by the MOW contractor is intact. A record of each audit will be placed in the file for the bridge audited. An audit report will be generated by the NMDOT Bridge Bureau and presented to and discussed with the MOW contractor, including the Bridge Inspector. If required, changes to the inspection report resulting from the audit will be agreed upon, with the revised inspection report becoming the official record for that bridge, replacing the former inspection report. If necessary, changes to inspection procedures will also be applied as corrective improvement to the inspection program.
- Each bridge inspection will also serve to corroborate the accuracy of the inventory for that bridge.

9.3.2 Audit of operations regarding weight and configuration (49 CFR §237.151)

NMDOT Bridge Bureau will conduct periodic audits of railroad operation records to ensure restrictions are in place concerning the movement of railroad equipment of exceptional weight or configuration.

9.3.3 Overall program audit (49 CFR §237.151)

NMDOT Bridge Bureau will annually conduct an audit to determine the effectiveness of the Bridge Safety Management Plan. Key performance indicators will be tracked and evaluated for program compliance, including:

- Meeting program schedules for annual inspections without exceeding time-between-inspections;
- Accuracy and completeness of inspection records as determined thru engineering sampling of bridge reports;
- Timely repairs to bridges within recommended timeframes as determined by the Bridge Engineer.
- Sampling of Document Control System storage and retrieval records via a ten percent sampling.
- Evaluation of safe load capacities due to deteriorating conditions.

**APPENDIX A
NMDOT RAILROAD BRIDGE REHAB/REPLACEMENT
PRIORITIZATION LIST SAMPLE**

RAILROAD - BRIDGE PRIORITIZATION STATUS LISTING														
By: Bridge Bureau														
Ranking	Bridge No.	Facility Carried	Siding	Feature Intersected	Location	Length	Width	Deck Area	Material	Design	Deck	Superstr	Substr	Culvert
1	AB0922.00	Abuquerque Sub.	Los Lunas	Los Lunas Acequia	25 MI N OF NM-6	14	14	123	Timber	Stringer/Girder	4	3	3	N
2	AB0900.00	Abuquerque Sub	Los Candelarias	None High Water Crossing	14 MI S OF Candelaria	28	14	214	Steel	Stringer/Girder	3	5	5	N
3	AB0931.01	Abuquerque Sub	Belen Siding	Old Belen Acequia	87.0 N OF Molina Rd	19	12	117	Steel	Stringer/Girder	4	6	3	N
4	AB0918.70	Abuquerque Sub	Bosque Farms	Freder Ditch	3.48 MI S OF NM 317 & 314	13	9	119	Timber	Stringer/Girder	4	4	3	N
5	AB0877.34	Abuquerque Sub	San Felipe Pueblo Land	High Water Crossing	1.46 MI N OF NM 315	80	16	960	Concrete	Slab	5	3	5	N
6	AB0913.60	Abuquerque Sub	Islaleta Pueblo	High Water Crossing	22 MI S OF Tribal Road	80	14	1938	Concrete	Slab	6	4	5	N
7	AB0913.90	Abuquerque Sub	Islaleta Pueblo	Indian Lateral	0.5 N OF NM 147	10	14	100	Steel	Stringer/Girder	5	6	4	N
8	AB0974.15	Abuquerque Sub	San Felipe Pueblo	San Felipe Arroyo	0.30 MI N OF Hagon Road	499	14	7111	Timber	Stringer/Girder	5	4	4	N
9	AB0900.40	Abuquerque Sub	Los Candelarias	None High Water Crossing	0.2 MI N OF Menaul Blvd	37	14	124	Steel	Stringer/Girder	5	6	5	N
10	AB0901.43	Abuquerque Sub	Abuquerque	None High Water Crossing	10 MI N OF Mountain Rd	14	14	196	Steel	Stringer/Girder	6	7	6	N
11	AB0969.70	Abuquerque Sub	Santo Domingo Pueblo Land	Unnamed Wide Arroyo	0.16 MI N OF San Felipe	182	14	2702	Timber	Stringer/Girder	4	4	4	N
12	AB0870.80	Abuquerque Sub	San Felipe Pueblo Land	Unnamed Wide Arroyo	0.16 MI N OF San Felipe	126	15	1838	Timber	Stringer/Girder	4	4	4	N
13	AB0864.55	Abuquerque Sub	Domingo	Unnamed Waterway	94 mi E Ind Savy Rt 88	42	14	610	Timber	Stringer/Girder	4	4	4	N
14	AB0868.90	Abuquerque Sub	Sandia Pueblo Land	High Water Crossing	4.5 MI N OF Baca Farm Rd	70	14	975	Timber	Stringer/Girder	4	4	5	N
15	AB0916.20	Abuquerque Sub	Islaleta Pueblo Siding	Belen High Canal	1.021 S OF NM 317 & 314	56	14	803	Timber	Stringer/Girder	5	4	4	N
16	AB0969.50	Abuquerque Sub	Kewa Pathway	Pedestrian Pathway	At Santo Domingo Pueblo					Steel/Culvert				
17	AB0878.00	Abuquerque Sub	Algodones	High Water Crossing	1.76 MI N OF NM 315	16	16	192	Concrete	Single Spread Box	4	4	5	N
18	AB0873.80	Abuquerque Sub	San Felipe Pueblo	High Water Crossing	0.67 mi. N. of Hagon Rd.	48	16	603	Concrete	Multiple Box Beam	5	4	5	N
19	AB0931.70	Abuquerque Sub	Belen Siding	Sausal Drain	6407 S Of Valentine Rd	42	14	602	Timber	Stringer/Girder	5	5	4	N
20	AB0939.53	Abuquerque Sub	Abuquerque Subdivision	High Water Crossing	30 MI N OF Candelaria Rd	28	28	396	Steel	Stringer/Girder	4	6	5	N
21	AB0932.02	Abuquerque Sub	N. Of Islaleta Pueblo	High Water Crossing	10 MI S OF E Along RR	14	14	197	Timber	Stringer/Girder	4	5	4	N
22	AB0932.02	Abuquerque Sub	Belen	Garota Acequia	1407 S Of E Aragon Rd	14	14	188	Timber	Stringer/Girder	4	6	4	N
23	AB0938.33	Abuquerque Sub	Los Grillos Siding	High Water Crossing	13 MI N OF Montano Rd	42	30	1368	Timber	Stringer/Girder	4	4	5	N
24	AB0938.20	Abuquerque Sub	Los Grillos Siding	High Water Crossing	25 MI N OF Montano Rd	41	30	1324	Timber	Stringer/Girder	5	5	4	N
25	AB0969.24	Abuquerque Sub	Santo Domingo Pueblo	Unnamed Arroyo	1.64 MI N OF San Felipe x	63	14	883	Steel	Stringer/Girder	4	6	6	N
26	AB0922.07	Abuquerque Sub	Domingo	Rio Galisteo	3.88 MI E Of Indian Rd 88	64	16	896	Steel	Girder/Floorbeam	5	5	5	N
27	AB0963.82	Abuquerque Sub	Domingo	Unnamed Wide Arroyo	1.92 MI Of Indian Rd 88	91	14	1294	Steel	Stringer/Girder	5	5	5	N
28	AB0928.30	Abuquerque Sub	Belen Siding	Los Chavez Acequia	195 S. Of Las Lives Lane	10	14	90	Steel	Stringer/Girder	5	6	5	N
29	AB0986.01	Abuquerque Sub	Los Ranchos De Albuquerque	High Water Crossing	0.8 MI N OF Ranchoes Rd	19	14	268	Steel	Stringer/Girder	5	5	5	N
30	AB0988.60	Abuquerque Sub	Sandia Pueblo Land	Unnamed Waterway	0.52 mi s of Sandia Bos R	174	14	2436	Timber	Stringer/Girder	5	5	5	N
31	AB0982.82	Abuquerque Sub	Rivajana	High Water Crossing	North Of Bemalillo	81	14	1136	Steel	Stringer/Girder	5	6	5	N
32	AB0984.30	Abuquerque Sub	El Llanto	Unnamed Arroyo	0.67 MI N OF US-550	71	14	982	Timber	Stringer/Girder	6	5	5	N
33	AB0982.86	Abuquerque Sub	Alameda Siding	Sandia Acequia	556 & NM 47 lot	14	14	186	Steel	Stringer/Girder	5	6	5	N
34	AB0937.20	Abuquerque Sub	Lee Acres	Gardens Irrigation Ditch	22 MI N Of Osuna Road	41	14	715	Steel	Stringer/Girder	6	6	5	N
35	AB0928.80	Abuquerque Sub	Belen Siding	Irrigation Ditch	Between Los Chavez & Saus	10	14	90	Steel	Stringer/Girder	5	6	5	N
36	AB0946.27	Abuquerque Sub	W. of Galisteo Basin	Unnamed Arroyo	1.8 MI E Gener Goodwin Rd	50	14	704	Steel	Stringer/Girder	6	6	5	N
37	AB0953.61	Abuquerque Sub	Waldo	Unnamed Arroyo	1.75 MI W OF NM-14	77	14	1079	Steel	Stringer/Girder	5	6	5	N
38	AB0872.70	Abuquerque Sub	El Llanto	High Water Crossing	0.44 MI S OF Dove Road	84	14	1181	Timber	Stringer/Girder	5	5	5	N
39	AB0966.70	Abuquerque Sub	San Felipe Pueblo	Unnamed Wide Arroyo	1.07 MI N OF Hagon Rd	238	14	3377	Timber	Stringer/Girder	5	6	5	N
40	AB0966.30	Abuquerque Sub	Santo Domingo Pueblo	Unnamed Arroyo	0.79 MI West Of Hwy 22	70	15	1034	Timber	Stringer/Girder	5	5	5	N
41	AB0908.70	Abuquerque Sub	Domingo	Unnamed Arroyo	0.38 MI E OF HWY 22	69	14	1028	Timber	Stringer/Girder	5	5	5	N
			Mountain View Siding	High Water Crossing	0.33 MI N OF Desert Road	70	14	978	Timber	Stringer/Girder	5	5	5	N

**APPENDIX B
NMDOT RAILROAD BRIDGE INVENTORY**

BRIDGE NO	SUBDIVISION	SIDING	FEATURE INTERSECTED	LOCATION	LENGTH	MATERIAL/MAIN	DESIGN/MAIN	DECK	SUPER	SUB	CULVERT
A80636 70	Albuquerque Sub	Lenny	Unname'd Arroyo	0.9 ME OF HWY 285	32	Steel	Culvert	N	N	N	6
A80637 70	Albuquerque Sub	Spies	High Water Crossing	3.98 Miles West of Hwy 28	12	Steel	Culvert	N	N	N	6
A80642 00	Albuquerque Sub	Gallisteo	Arroyo de los Angeles	3.7 ME of Cam Los Abalos	225	Steel	Grader	6	6	6	N
A80643 40	Albuquerque Sub	E. of Gallisteo Basin	Unname'd Arroyo	64 ME W Cam Los Abalos	21	Conc. Concrete	Culvert	N	N	N	6
A80646 27	Albuquerque Sub	W. of Gallisteo Basin	Unname'd Arroyo	1.8 ME Greer Goodwin Rd	50	Steel	Stringer	6	6	5	N
A80646 70	Albuquerque Sub	W. of Gallisteo Basin	Unname'd Arroyo	1.39 ME General Goodwin	32	Conc. Concrete	Culvert	N	N	N	6
A80648 17	Albuquerque Sub	E. of Los Cerillos	General Goodwin Rd & Av	2.15 ME From HWY 14	133	Concrete	Box Beam	6	7	7	N
A80649 05	Albuquerque Sub	E. of Los Cerillos	Crossed Sabers Ranch Rd	3.05 ME From HWY 14	64	Timber	Stringer	6	6	5	N
A80650 90	Albuquerque Sub	Los Cerillos	Unname'd Arroyo	1.85 miles east of Hwy 14	169	PS Concrete	Box Beam	7	7	7	N
A80652 44	Albuquerque Sub	Los Cerillos	Unname'd Arroyo	3.66 miles east of Hwy 14	10	Concrete	Culvert	N	N	N	6
A80653 40	Albuquerque Sub	Waldo	San Marcos Arroyo, Access	65 ME W Of NM 14	163	Steel	Stringer	5	5	5	N
A80653 81	Albuquerque Sub	Waldo	Unname'd Arroyo	1.57 miles west of Hwy 14	10	Concrete	Culvert	N	N	N	6
A80654 80	Albuquerque Sub	W. of Waldo	Unname'd Arroyo	1.75 ME W Of NM-14	77	Steel	Stringer	5	6	6	N
A80655 50	Albuquerque Sub	W. of Waldo	Unname'd Arroyo	2.96 miles west of Hwy 14	34	Steel	Culvert	N	N	N	6
A80655 80	Albuquerque Sub	W. of Waldo	Unname'd Arroyo	3.64 miles west of Hwy 14	14	Steel	Culvert	N	N	N	6
A80657 50	Albuquerque Sub	W. of Waldo	Unname'd Arroyo	3.92 miles west of Hwy 14	34	Steel	Culvert	N	N	N	6
A80659 51	Albuquerque Sub	Waldo	Tom Payne Gulch	3.29 ME Of I-25	21	Steel	Culvert	N	N	N	6
A80660 00	Albuquerque Sub	Santo Domingo Pueblo Land	Tribal Road to Rosario	5.17 ME of Domingo Rd	242	Steel	Grader	6	6	6	N
A80660 30	Albuquerque Sub	E. of Domingo	Unname'd Arroyo	3.11 ME of Domingo Rd	152	Steel	Stringer	6	6	6	N
A80660 50	Albuquerque Sub	E. of Domingo	Unname'd Arroyo	3.49 miles east of I-25	12	Steel	Culvert	N	N	N	6
A80662 07	Albuquerque Sub	Domingo	Gallisteo Creek	0.31 miles east of I-25	11	Steel	Culvert	N	N	N	6
A80662 70	Albuquerque Sub	Domingo	Unname'd Arroyo	3.68 ME Of Indian Rd 88	64	Steel	Grader	5	5	5	N
A80663 82	Albuquerque Sub	Domingo	Unname'd Arroyo	3 ME Of Indian Rd 88	10	Steel	Culvert	N	N	N	7
A80664 00	Albuquerque Sub	Domingo	Unname'd Wide Arroyo	1.92 ME Of Indian Rd 88	91	Steel	Stringer	5	5	5	N
A80664 55	Albuquerque Sub	Domingo	Drainage Ditch	1.3 ME Of Indian Rd 88	84	PS Concrete	Box Beam	7	7	7	N
A80664 75	Albuquerque Sub	Domingo	Unname'd Waterway	94 ME E. Ind. Serv Rd 88	42	Timber	Stringer	4	4	4	N
A80665 90	Albuquerque Sub	Domingo	Gallisteo Creek	3.0 ME Of Indian Rd 88	452	Steel	Stringer	5	6	6	N
A80666 70	Albuquerque Sub	Santo Domingo Pueblo	Unname'd Arroyo	3.8 ME Of HWY 22	33	Concrete	Culvert	N	N	N	5
A80667 00	Albuquerque Sub	Santo Domingo Pueblo	Unname'd Arroyo	3.38 ME Of HWY 22	69	Timber	Stringer	5	5	5	N
A80667 50	Albuquerque Sub	Santo Domingo Pueblo	Unname'd Arroyo	3.07 ME West Of Hwy 22	70	Timber	Stringer	5	5	5	N
A80668 45	Albuquerque Sub	Santo Domingo Pueblo	Access Ditch Road	3.96 ME W Of HWY 22	12	Concrete	Culvert	N	N	N	6
A80669 24	Albuquerque Sub	Santo Domingo Pueblo	Unname'd Waterway	1.82 miles west of Hwy 22	280	PS Concrete	Box Beam	7	7	7	N
A80670 00	Albuquerque Sub	Santo Domingo Pueblo Land	Unname'd Arroyo	1.64 ME N of San Felipe x	63	Steel	Stringer	4	6	6	N
A80671 00	Albuquerque Sub	San Felipe Pueblo Land	Unname'd Wide Arroyo	1.16 ME N Of San Felipe	152	Timber	Stringer	4	4	4	N
A80671 10	Albuquerque Sub	San Felipe Pueblo	Small Drainage Area	0.16 ME N Of San Felipe	126	Timber	Stringer	4	4	4	N
A80671 90	Albuquerque Sub	San Felipe Pueblo	Abandoned Irrigation can	3.05 ME S Of Indian Rd 84	11	Concrete	Culvert	N	N	N	6
A80672 30	Albuquerque Sub	San Felipe Pueblo Land	High Water Crossing	16 mts Parol Rd (ba 84)	39	Steel	Culvert	N	N	N	6
A80672 70	Albuquerque Sub	San Felipe Pueblo Land	High Water Crossing	92 ME S Of Parol Road	55	Timber	Stringer	5	5	5	N
A80672 80	Albuquerque Sub	San Felipe Pueblo Land	High Water Crossing	Access Rd Indian Rd 84	66	PS Concrete	Box Beam	7	7	7	N

BRIDGE NO	SUBDIVISION	SIDING	FEATURE INTERSECTED	LOCATION	LENGTH	MATERIAL/MAIN	DESIGN/MAIN	DECK	SUPER	SUB	CULVERT
AB00372.70	Albuquerque Sub	San Felipe Pueblo	Arroyo De La Vega De Los	1.79 MIN OF Hagon Rd	238	Timber	Stringer	5	6	5	N
AB00373.80	Albuquerque Sub	San Felipe Pueblo	High Water Crossing	0.87 mi. N. of Hagon Rd.	48	Concrete	Box Beam	5	4	5	N
AB00374.15	Albuquerque Sub	San Felipe Pueblo	Arroyo Tongue: HWD	0.30 MIN OF Hagon Road	499	Timber	Stringer	5	4	4	N
AB00374.70	Albuquerque Sub	San Felipe Pueblo	San Felipe East Ditch	1.8 MS OF Hagon Road	11	Steel	Stringer	5	6	6	N
AB00375.40	Albuquerque Sub	San Felipe Pueblo	Algodones Lateral	.93 MS OF Hagon Road	11	Steel	Stringer	5	6	6	N
AB00376.40	Albuquerque Sub	San Felipe Pueblo Land	High Water Crossing	.60 MS OF Reswood Dr	30	Concrete	Slab	7	7	7	N
AB00377.34	Albuquerque Sub	San Felipe Pueblo Land	Arroyo De San Francisco	1.46 MIN OF NM 315	80	Concrete	Slab	5	3	5	N
AB00378.00	Albuquerque Sub	Algodones	High Water Crossing	.76 MIN OF NM 315	16	Concrete	Box Beam	4	4	5	N
AB00378.28	Albuquerque Sub	Algodones	Rio Tuerto	1 MIN W/OF NM 313	140	Concrete	Slab	7	7	7	N
AB00378.50	Albuquerque Sub	Algodones	Sandia Area Ditch	.34 MIN OF Algodones E/H	33	Concrete	Box Beam	7	7	7	N
AB00379.53	Albuquerque Sub	Algodones	Access Road 313 to Bosqui	Between Bosque Rd NM 313	10	Masonry	Arch	N	N	N	6
AB00379.95	Albuquerque Sub	Algodones	Access Road 313 to Bosqui	.03 MI W/OF NM 313	14	Masonry	Arch	N	N	N	6
AB00380.00	Albuquerque Sub	Albuquerque Sliding	Hwy 313	S. OF Algodones ON NM 131	50	Steel Const.	Stringer	6	6	5	N
AB00380.37	Albuquerque Sub	Algodones	Las Huertas Creek	1.6 MS OF NM 315 & 313	90	Steel	Girder	6	6	5	N
AB00382.10	Albuquerque Sub	Ranchito	Arroyo Agua Santa: access	Between Beam. & Algodones	56	Timber	Stringer	5	5	5	N
AB00382.82	Albuquerque Sub	Ranchito	High Water Crossing	North Of Beam afflo	81	Steel	Stringer	5	6	5	N
AB00383.50	Albuquerque Sub	El Llano	High Water Crossing	0.44 MS OF Dove Road	84	Timber	Stringer	5	5	5	N
AB00384.30	Albuquerque Sub	El Llano	Unnamed Arroyo	0.67 MIN OF US-550	71	Timber	Stringer	6	5	5	N
AB00384.62	Albuquerque Sub	Sernafflo	High Water Crossing	0.31 MIN OF US-550	164	Timber	Stringer	5	5	5	N
AB00387.75	Albuquerque Sub	Sandia Pueblo Land	High Water Crossing	0.1 MIN OF N Farm Cross	28	Timber	Stringer	5	5	5	N
AB00388.20	Albuquerque Sub	Sandia Pueblo Land	Sandia Wash	1.4 MS OF Sandia Bosque	70	Timber	Stringer	5	5	5	N
AB00388.60	Albuquerque Sub	Sandia Pueblo Land	Unnamed Waterway	0.32 mi. S of Sandia Bos R	174	Timber	Stringer	5	5	5	N
AB00388.90	Albuquerque Sub	Sandia Pueblo Land	High Water Crossing	.45 MI N Of Boca Farm Rd	70	Timber	Stringer	4	4	5	N
AB00391.40	Albuquerque Sub	Sandia Pueblo Land Sliding	High Water Crossing	.31 MIN Sandia Lakes Rd	56	Steel	Stringer	6	6	6	N
AB00392.86	Albuquerque Sub	Alameda Sliding	Sandia Aopagala	.556 & NM 47 Jct	14	Steel	Stringer	5	6	5	N
AB00392.89	Albuquerque Sub	Alameda	Alameda Lateral	.556 & NM 47 Jct	14	Steel	Stringer	5	5	5	N
AB00393.45	Albuquerque Sub	Albuquerque	AMAFCA North Channel	1.4 MIN of Alameda Blvd	108	Steel	Stringer	5	6	6	N
AB00396.01	Albuquerque Sub	Los Ranchos De Albuquerque	High Water Crossing	0.8 MIN OF Ranch box Rd	19	Steel	Stringer	5	5	5	N
AB00397.20	Albuquerque Sub	Lee Acres	Gardens Irrigation Ditch	.22 MIN OF Osuna Road	41	Steel	Stringer	6	6	5	N
AB00398.20	Albuquerque Sub	Los Grifos Sliding	High Water Crossing	.25 MIN OF Morisano Rd	41	Timber	Stringer	5	5	4	N
AB00398.33	Albuquerque Sub	Los Grifos Sliding	High Water Crossing	.13 MIN OF Morisano Rd	42	Timber	Stringer	4	4	5	N
AB00399.53	Albuquerque Sub	Albuquerque Subdivision	High Water Crossing	.30 MIN OF Candelaria Rd	28	Steel	Stringer	4	6	5	N
AB00400.00	Albuquerque Sub	Los Cando beres	None High Water Crossing	.14 MS OF Cando beres	28	Steel	Stringer	3	5	5	N
AB00400.40	Albuquerque Sub	Los Cando beres	None High Water Crossing	.02 MIN OF Me nead Blvd	37	Steel	Stringer	5	6	5	N
AB00401.43	Albuquerque Sub	Albuquerque	None High Water Crossing	.10 MIN OF Mountain Rd	14	Steel	Stringer	6	7	6	N
AB00402.10	Albuquerque Sub	Albuquerque Sliding	Tijeras Ave.	4th Downtown Over Tijeras	44	Steel Const.	Stringer	6	6	6	N
AB00402.15	Albuquerque Sub	Albuquerque	Tijeras Ave.	Downtown over Tijeras Av	108	PS Concrete	Box Beam	6	7	6	N
AB00402.30	Albuquerque Sub	Albuquerque Sliding	Central Ave.	Downtown over Tijeras Av	73	Steel	Stringer	6	7	6	N
AB00406.40	Albuquerque Sub	Kinney	San Jose Drain	1.3 MS OF Rio Bravo & 2	28	Steel	Culvert	N	N	N	6

BRIDGE NO	SUBDIVISION	SIDING	FEATURE INTERSECTED	LOCATION	LENGTH	MATERIAL/MAIN	DESIGN/MAIN	DECK	SUPER	SUB	CULVERT
AB0906.70	Albuquerque Sub	Kinney Siding	San Jose La Real	0.4 mi. South of Rio Bravo	11	Steel	Culvert	N	N	N	7
AB0907.55	Albuquerque Sub	Albuquerque	AAA/CA South Channel	1.2 MI S of Rio Bravo	98	Steel	Stringer	5	5	6	N
AB0908.70	Albuquerque Sub	Mount air View Siding	High Water Crossing	0.3 MI N of Drees Road	70	Timber	Stringer	5	5	5	N
AB0910.20	Albuquerque Sub	Los Padillas	High Water Crossing	0.12 MI. S. Safida Sandi	42	Steel	Stringer	5	5	6	N
AB0911.60	Albuquerque Sub	N. Of Isleta Pueblo	Highwater Crossing	10 MI S Of I-25 Along RR	14	Timber	Stringer	4	5	4	N
AB0913.10	Albuquerque Sub	Isleta Pueblo	Rio Grande	1.25 MI S of Tibbal RD 16	664	Steel	Girder	7	6	6	N
AB0913.60	Albuquerque Sub	Isleta Pueblo	High Water Crossing	22 MI. S Of Tibbal Road	80	Concrete	Slab	6	4	5	N
AB0913.90	Albuquerque Sub	Isleta Pueblo	Belen High Line Canal	0.5 N Of NM 147	10	Steel	Stringer	5	6	4	N
AB0916.20	Albuquerque Sub	Isleta Pueblo Siding	Belen High Canal	1.02 IS Of NM 317 & 314	56	Timber	Slab	5	4	4	N
AB0918.70	Albuquerque Sub	Bonanza Farms	Isleta Drain	3.48 MI S of NM 317 & 314	13	Timber	Stringer	4	4	3	N
AB0922.00	Albuquerque Sub	Los Lunas	Los Lunas Arroyo	25 MI N Of NM 46	14	Timber	Stringer	4	3	3	N
AB0928.30	Albuquerque Sub	Belen Sid Ing	Los Chavez Arroyo	195' S. Of Las Lunas Lane	10	Steel	Stringer	5	6	5	N
AB0928.80	Albuquerque Sub	Belen Sid Ing	Los Chavez Ditch	Between Los Chavez & Saus	10	Steel	Stringer	5	6	5	N
AB0931.01	Albuquerque Sub	Belen Sid Ing	Old Belen Arroyo	870' N Of Molina Rd	19	Steel	Stringer	4	6	3	N
AB0931.70	Albuquerque Sub	Belen Sid Ing	Sausal Drain	840' S Of Valentine Rd.	42	Timber	Stringer	5	5	4	N
AB0932.02	Albuquerque Sub	Belen	Granje Arroyo	140' S Of E Arroyo Rd	14	Timber	Stringer	4	6	4	N
LY0000.90	Lamy Subdivision	Lamy	Unnamed Arroyo	0.2 miles north of Hwy. 5	84	Timber	Stringer	5	4	5	N
LY0002.20	Lamy Subdivision	Lamy	Unamed Arroyo	0.7 miles west of Hwy 28	83	Timber	Stringer	5	4	4	N
LY0003.20	Lamy Subdivision	Eldorado	Unamed Arroyo	0.15 miles south of Spar	81	Timber	Stringer	5	4	5	N
LY0003.90	Lamy Subdivision	Eldorado	Cerrada De Los Alamos	0.59 miles north of Spar	70	Steel	Stringer	6	6	6	N
LY0004.80	Lamy Subdivision	Eldorado	Unamed Arroyo	0.09 MI S of Ave Eldorado	42	Steel	Stringer	5	6	5	N
LY0005.20	Lamy Subdivision	Eldorado	Grassy Drainage Area	0.28 MI N of Ave Eldorado	28	Timber	Stringer	5	6	3	N
LY0005.70	Lamy Subdivision	Eldorado	Grassy Drainage Area	0.81 MI N of Ave Eldorado	69	Timber	Stringer	5	6	5	N
LY0006.10	Lamy Subdivision	Eldorado	Pueblo Canon	0.36 MI South Ave Vis Gr	42	Timber	Stringer	6	5	5	N
LY0007.10	Lamy Subdivision	Eldorado	Canon Ancho	57 MI N Ave Vista Grande	97	Timber	Stringer	5	5	5	N
LY0007.40	Lamy Subdivision	Eldorado	Grassy Drainage Area	8 MI N Ave Vista Grande	14	Masonry	Culvert	N	N	N	5
LY0008.10	Lamy Subdivision	Eldorado	Arroyo Gallina	1.5 MI N Ave Vista Grand	55	Timber	Stringer	6	6	5	N
LY0009.40	Lamy Subdivision	Selton Village	Cerrada Ancha	0.5 MI S Of New Mile Rd	155	Timber	Stringer	6	6	4	N
LY0010.00	Lamy Subdivision	Selton Village	Unamed Arroyo	5 MI S Of Leasing Powder	68	Timber	Stringer	4	6	5	N
LY0010.40	Lamy Subdivision	Selton Village	Cerrada De Los Minnes	16 MI S Of Leasing Rd	19	Masonry	Culvert	N	N	N	6
LY0010.60	Lamy Subdivision	Selton Village	Cienega Creek	25 MI N Leasing Powder	68	Timber	Stringer	4	6	5	N
LY0012.60	Lamy Subdivision	Santa Fe	Arroyo Honda	55 MI S Of Rabbit Rd	134	Timber	Stringer	5	6	5	N
SF0000.77	Santa Fe Sub	Waldo	Unamed Arroyo & Ditch	0.95 MI W Of Waldo rd	20	Steel	Culvert	N	N	N	8
SF0000.91	Santa Fe Sub	Waldo	Drainage Ditch Track	0.80 Miles West of Waldo	20	Steel	Culvert	N	N	N	7
SF0001.09	Santa Fe Sub	Waldo	Drainage Ditch	0.62 MI W Of Waldo Canyon	21	Steel	Culvert	N	N	N	8
SF0001.15	Santa Fe Sub	Waldo	Ranch Arroyo Rd	0.56 MI W Of Waldo Rd	16	Concrete	Culvert	N	N	N	7
SF0001.54	Santa Fe Sub	Waldo	Drainage Ditch	0.17 Miles West of Waldo	20	Steel	Culvert	N	N	N	7
SF0001.71	Santa Fe Sub	Waldo	Waldo Canyon Rd.	Form 1-25, Waldo ext.	229	PS Concrete	Stringer	7	7	7	N
SF0002.10	Santa Fe Sub	Waldo	Local Drainage	0.39 MI E Of Waldo Rd	18	Steel	Culvert	N	N	N	7

BRIDGE NO	SUBDIVISION	SIDING	FEATURE INTERSECTED	LOCATION	LENGTH	MATERIAL/MAIN	DESIGN/MAIN	DECK	SUPER	SUB	CULVERT
SF0002.96	Santa Fe Sub	Waldo	Local Drainage	0.65 MI E Of Waldo Rd	19	Steel	Culvert	N	N	N	7
SF0003.57	Santa Fe Sub	Waldo	Local Drainage	1.86 MI E Of Waldo Rd	25	Steel	Culvert	N	N	N	8
SF0006.22	Santa Fe Sub	Santa Fe	Bonanza Creek	At Bonanza Creek	188	PS Concrete	Stringer	7	7	7	N
SF0011.09	Santa Fe Sub	Santa Fe	MM Route 599 (SF Relief)	RR Over MM 599	221	PS Concrete	Stringer	7	7	7	N
SF0013.44	Santa Fe Sub	Santa Fe	Route 14 Mainline	RR Over MM-14	215	PS Concrete	Stringer	7	7	7	N
SF0013.59	Santa Fe Sub	Santa Fe	Route 14 Ramp B	RR Over MM-14 Ramp B	125	PS Concrete	Stringer	7	7	7	N
SF0014.20	Santa Fe Sub	Santa Fe	Local Drainage	0.53 MI South of W. Zia R.	27	Steel	Culvert	N	N	N	7
SF0014.50	Santa Fe Sub	Santa Fe	Drainage Ditch	0.22 miles south of W.Zia	171	PS Concrete	Box Beam	7	8	8	N
SF0015.00	Santa Fe Sub	Santa Fe	Local Drainage	0.2 miles south of W.Zia	106	Concrete	Box Beam	7	8	8	N
SF0015.99	Santa Fe Sub	Santa Fe Sid Ing	Local Drainage	0.34 MI Sh of S. Michael	17	Steel	Culvert	N	N	N	7
SF0015.68	Santa Fe Sub	Santa Fe	S Richardson Ave.	RR Over S Richardson Ave.	183	PS Concrete	Stringer	7	7	7	N
SF0015.60	Santa Fe Sub	Santa Fe Sid Ing	Local Drainage	10 MIS of St. Michaels	14	Concrete	Culvert	N	N	N	8
SF0016.90	Santa Fe Sub	Santa Fe	Local Drainage	0.2 MI W Of San Mateo Rd	23	Steel	Culvert	N	N	N	7

APPENDIX C
NMDOT RAILROAD BRIDGE INSPECTION REPORT (PONTIS)

New Mexico Department Of Transportation						
Bridge Management Section		Railroad Bridge Inspection Report				
Bridge Number: AB0891.40		Inspection Date (90): 3/25/2011				
NMDOT District No. = District 3	County = 43 SANDOVAL	Town/City = Unknown				
Facility Carried = Albuquerque Sub	Mile Post = 891.398 mi	Siding = Sandia Pueblo Land Sid				
Structure Length = 55.8 ft	Frequency = 12 months	Next Inspection = 03/25/2012				
Deck Area = 782. sq. ft	Skew = 0.00 °	Lanes Under =				
Posting status = A Open, no restriction	Latitude = 35d 13' 54"	Longitude = 106d 35' 07"				
Scour Critical = 6 Calcs not made	Year Built = 1954	Year Reconstructed = Unknown				
Type of Service on = 2 Railroad	Type Service under = 5 Waterway					
Location = .31 Mi N Sandia Lakes Rd						
Feature Intersected = High Water Crossing						
DESCRIPTION:						
4 - Simple Spans at 13'-4", 14'- 0 1-4", 13'-11 3/4", and 13'-4" span length. Ballast Timber Deck, Steel Rolled Beams On Steel Caps And Timber Piles. Main Load Carrying Members: 4 Steel Stringers						
Culvert Fill (Inches) =		Depth Of Ballast (Inches) = 6				
CONDITION						
Deck = 6 Satisfactory	Superstr. = 6 Satisfactory	Substr. = 6 Satisfactory				
Channel/Channel Protection = 6 Bank Slumping	Culvert = N N/A (NBI)					
Waterway Adequacy = 6 Equal Minimum	Scour Critical = 6 Calcs not made					
Underclearance, Vertical and Horizontal = N						
LOAD RATING AND POSTING						
Inventory Rating Method (65) = 1 LF Load Factor	Operating Rating Method (63) = 1 LF Load Factor					
Normal Rating = 54.22	Maximum Rating = 82.67					
Design Load = 8 Railroad	Posting = 5 At/Above Legal Loads					
Width Curb to Curb = 14.0 ft	Width Out to Out = 14.0 ft	Approach Track Width = 14.0 ft				
Curb/Sdwlk Wdth L = 0.5 ft	Curb/Sidewalk Width R = 0.5 ft					
Owner = State Highway Agency	Custodian = State Highway Agency					
Main Span Material/Design = 3 Steel	Main Span Material/Design = 02 Stringer/Girder					
Number of Spans Main Unit = 4	Length Max Span = 14.0 ft					
<hr/> <table style="width: 100%; border: none;"> <tr> <td style="width: 25%; text-align: center;">Team Leader</td> <td style="width: 25%; text-align: center;">Date</td> <td style="width: 25%; text-align: center;">Reviewed By</td> <td style="width: 25%; text-align: center;">Date</td> </tr> </table>			Team Leader	Date	Reviewed By	Date
Team Leader	Date	Reviewed By	Date			

New Mexico Department Of Transportation	
Bridge Management Section	Railroad Bridge Inspection Report

FC Frequency = NA	UW Frequency = NA	SI Frequency = NA
FC Inspection Date = NA	UW Inspection Date = NA	SI Date = NA
Element Frequency = 12 months	Next UW Inspection = NA	Next SI = NA
Element Inspection Date = 03/25/2011	Next Elem. Insp. Due = 03/25/2012	Next FC Inspection = NA
Historical Significance = 3 Possibly eligible for		Deck Type = 8 Wood or Timber
Wearing Surface = 8 Gravel		Membrane = 0 None
Deck Protection = None		Number of Approach Spans = 0
Approach Span Material =		Approach Span Material =
Minimum Vertical Clearance Over Bridge = 328.1 ft		Minimum Vertical Underclearance = 0.0 ft
Minimum Vertical Underclearance Reference = N Feature not hwy or RR		
Minimum Lateral Underclearance Reference R = N Feature not hwy or RR		
Minimum Lateral Underclearance R = 0.0 ft		Minimum Lateral Underclearance L = 0.0 ft
Stay In Place Forms = No		Stay In Place Forms Type = N/A

SIP Notes:

Approach Track Condition:

Embankment is satisfactory condition. 132 lb rail on timber ties. Timber ties are weathered and some are split. Track pumping over Span #2. Gauge distance from centerline of track to edge of deck on the TTNorth side is 7'-0 1/2" at Bent #1, 7'-0" at the middle, and 6'-11 1/2" at Bent #5. In satisfactory condition. Shoulders in satisfactory condition.

Channel and Channel Protection:

No channel - High water crossing. Appears to be location where water ponds. No signs or high water detectors

Recommendations and Inspection Notes:

Long Term: 1. Continue to monitor the condition of the bridge.

Notes:

Bridge over water ponding area. There is no defined channel. Recommend replacing structure with culvert sized for the drainage.

New Mexico Department Of Transportation	Railroad Bridge Inspection Report
Bridge Management Section	

ELEMENT CONDITION STATE DATA

Structure	Str Unit	Elem/Env	Description	Units	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4	% in 5	Qty. St. 5
	Ur	31/2	Timber Deck	(SF)	782	0 %	0	100 %	782	0 %	0	0 %	0	0 %	0
	Ur	112/2	Unpnt Stl Stringer	(LF)	223	100 %	223	0 %	0	0 %	0	0 %	0	0 %	0
	Ur	206/2	Timber Column	(EA)	30	0 %	0	100 %	30	0 %	0	0 %	0	0 %	0
	Ur	230/2	Unpnt Stl Cap	(LF)	70	0 %	0	100 %	70	0 %	0	0 %	0	0 %	0
	Ur	311/2	Moveable Bearing	(EA)	32	0 %	0	100 %	32	0 %	0	0 %	0	0 %	0

Structure	Str Unit	Elem/Env	Description	Element Notes
	Ur	31/2	Timber Deck - Bare	Ballast deck; timber deck planks. Creosote leaching from the deck. Some checks on the deck planks (14 ft deck width). In satisfactory condition. 6.0" of ballast. Depth from bottom of tie to top of deck. Ballast is low. In fair condition. One timber curb per span; 12 1/4" high. Minor checks and splits, and broken curb at TTEast end. In satisfactory condition.
	Ur	112/2	Unpainted Steel Stringer	4 Steel stringers (rolled beam sections) spaced at 3 ft on center. No signs of fatigue cracks. Some surface rust. Welded wedges to top of bearing stiffeners and beam top flange. In satisfactory condition. diaphragms. Near the ends of spans, there are no clips between the deck and the beams. Bolted steel plate diaphragms. Some surface rust. In satisfactory condition.
	Ur	206/2	Timber Column or Pile Extension	14 1/8" Depth steel caps on six timber pilings. No signs of fatigue cracks. Minor checks and splits on the timber piles. Pile #6 at Bent #2 is split. At Bent #3, Piles #2, #3 and #6 are split. Piles #2, #3, #5 & #6 on Bent #4 are split. In satisfactory condition.
	Ur	230/2	Unpainted Steel Cap	14 1/8" Depth steel caps on six timber pilings. No signs of fatigue cracks. Some surface rust on the caps. In satisfactory condition.
	Ur	311/2	Moveable Bearing (roller, sliding, etc)	1 1/2" thick metal bearing plates. Some surface rust. In satisfactory condition.

New Mexico Department Of Transportation
Bridge Management Section **Railroad Bridge Inspection Report**

PAST INSPECTION

Inspection Date: 03/25/2011 Type: 1 Regular NBI
Inspector: RPADI06 Pontis User Key: RPADI06 - RUBEN PADILLA

Scope:
NBI: Other: Element:
Underwater: Fracture Critical:

INSPECTION NOTES

Inspected By Wilson & Co. J. DiGiacomo, Thelma Castro.

PAST INSPECTION

Inspection Date: 03/10/2010 Type: 1 Regular NBI
Inspector: RPADI06 Pontis User Key: RPADI06 - RUBEN PADILLA

Scope:
NBI: Other: Element:
Underwater: Fracture Critical:

INSPECTION NOTES

Inspected By Wilson & Co. Wayne W. Patras, Thelma Castro.

New Mexico Department Of Transportation
Bridge Management Section **Railroad Bridge Inspection Report**

PAST INSPECTION

Inspection Date: 02/16/2009

Type: 1 Regular NBI

Inspector: rpadi06

Pontis User Key: RPADI06 - RUBEN PADILLA

Scope:

NBI:

Other:

Element:

Underwater:

Fracture Critical:

INSPECTION NOTES

Inspected By Wilson & Co. Wayne W. Patras, Thelma Castro.

INSPECTOR WORK CANDIDATES

APPENDIX D
BRIDGE CONDITION CODES

NMDOT Railroad Condition Ratings

CODE DEFINITION

- N NOT APPLICABLE
- 9 EXCELLENT
- 8 VERY GOOD - no problems noted.
- 7 GOOD - some minor problems.
- 6 SATISFACTORY - structural elements show minor deterioration.
- 5 FAIR - primary structural elements are sound-may have minor section loss, cracking, spalling or scour.
- 4 POOR - advanced section loss, deterioration, spalling or scour.
- 3 SERIOUS - loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
- 2 CRITICAL - advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
- 1 IMMINENT FAILURE - major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
- 0 FAILED - out of service - beyond corrective action.

**APPENDIX E
PONTIS WORK ORDER**

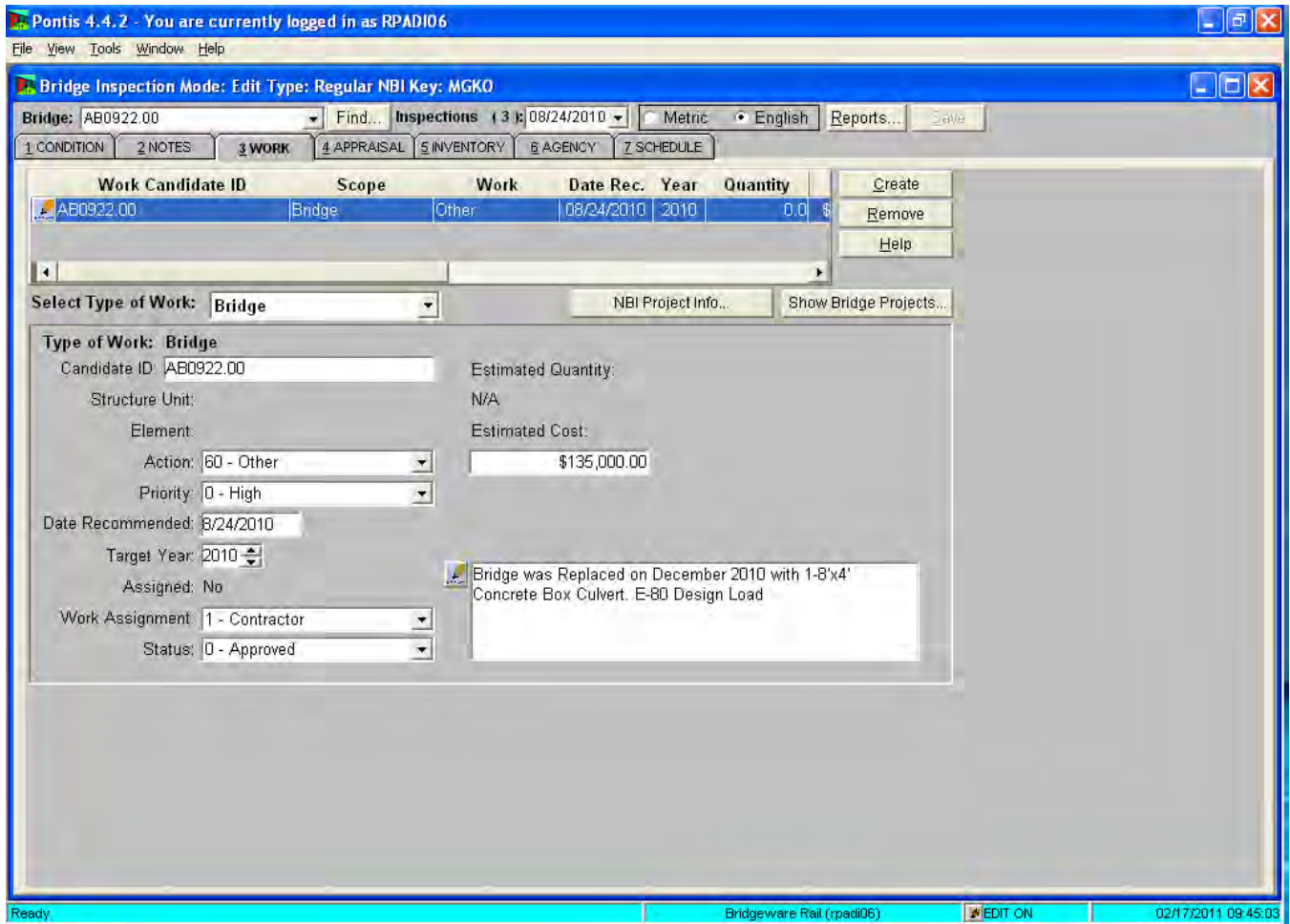
NBI Project Data

Bridge: Metric English

Proposed Work (75A):	<input type="text" value="31 Repl-Load Capacity"/>
Work To Be Done By (75B):	<input type="text" value="1 Contract"/>
Improvement Length (76):	<input type="text" value="200 ft"/>
Improvement Cost (94):	<input type="text" value="\$175,000.00"/>
Roadway Improvement Cost (95):	<input type="text" value="\$0.00"/>
Total Cost (96):	<input type="text" value="\$175,000.00"/>
Year of Estimate (97):	<input type="text" value="2011"/>

This input screen shows how data for the repair or replacement of a bridge is input into the Pontis Database system. This input is used for scheduling and estimating the cost for repair or replacement projects.

APPENDIX F
PONTIS COMPLETED WORK ORDER



This report shows an output from the NMDOT Pontis Bridge Record tracking system that tracks the completed repairs or replacement of bridges on the NMDOT rail system.

APPENDIX G
RAILROAD BRIDGE LOAD RATING FORM

New Mexico Department of Transportation RAILROAD BRIDGE RATING FORM

Today's date: *Sept. 29, 2009*

Name of Person Completing Form: *Thelma A. Castro*

BRIDGE INFORMATION

Structure Number: <i>AB0872.30</i>	Feature Intersected: <i>None/ High Water Crossing & Access Dirt Road</i>	Location Latitude/Longitude: <i>35.4606d N - 106.4111d W</i>	
Plan Number: <i>(As Built)</i>	Year Built: <i>2001</i>	Span No.: <i>three</i>	Total Len.: <i>65.75</i>
Location MP: <i>872.30</i>	Subdivision: <i>Albuquerque</i>	County: <i>Sandoval</i>	Town: <i>San Felipe Pueblo Land</i>
Main Load Carrying Member: <i>2 - 20" Precast Concrete Slabs</i>			

RATING APPROACH SUMMARY

Rating Method: ASR LFR LRFR

Live Loads Checked: Cooper E80 Alternative Live Load
 Other—Identify:

Original Rating Re-Rating ... Reason:

Criteria Used in Rating-----

Structure Type	<input type="checkbox"/> Deck Girder	<input type="checkbox"/> I-Beam	<input type="checkbox"/> Thru Girder	<input type="checkbox"/> Thru Truss	<input type="checkbox"/> Deck Truss
	<input type="checkbox"/> Trestle	<input type="checkbox"/> Concrete	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel	<input checked="" type="checkbox"/> Prestressed Concrete
Pedestrian Walkway	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	One side/both sides:	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2
Ballast	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	Depth (in): <i>9.5</i>		
Deck	<input type="checkbox"/> Timber	<input checked="" type="checkbox"/> Concrete	<input type="checkbox"/> Steel	Thickness (in): <i>20.0 (thickness of slabs)</i>	
Structure Conditions	Deck (58)= <i>7</i>		Super (59)= <i>7</i>	Sub (60)= <i>7</i>	

Notes, additional loads, comments or deviation from general rating practice: *Live load is assumed to be equally distributed to the slabs.*

CALCULATION TOOLS OR METHODS USED: *Structural calculations prepared in Mathcad (according to American Railway Engineering & Maintenance-of-Way Association, AREMA).*

Quality Control Method, if any—Describe: *An evaluator extracted information from bridge inspection reports and design data from plans, then prepared structural calculations. Ratings checked and approved by Stephen M. Dick.*

CONTROLLING RATING

Controlling Element Stringer Floor Beam Girder or I-Beam Truss Member Substructure

Controlling Limit State: *Bending* Controlling Span Length (ft): *20.92*

LFR or ASR Rating	Normal Rating Factor (E80)	$R_f = 1.044$	NORMAL RATING	Cooper E <i>83.5</i>
	Maximum Rating Factor (E80)	$R_f = 1.741$	MAXIMUM RATING	Cooper E <i>139.3</i>
	Normal Rating Factor (Alt)	$R_f =$	NORMAL RATING	Cooper E
	Maximum Rating Factor (Alt)	$R_f =$	MAXIMUM RATING	Cooper E

	Print Name	Signature	Date
Rated By (P.E. in substantial charge)	<i>Stephen M. Dick</i>		<i>9/30/09</i>
Rating Organization	<i>Wilson & Company, Inc., Engineers & Architects</i>		
NMDOT Approval		P.E.	
NMDOT Bridge Management Unit			

PLANS AND FILES

Electronic Files Used to Model and Rate Bridge Available at, or delivered to:
 OR Paper Documentation for Bridge Rating Available at, or delivered to: CD and Bridge Rating Forms delivered via UPS addressed to Ray M. Trujillo, State Bridge Engineer, September 30, 2009.

Plans Available at, or delivered to: Plans delivered via UPS addressed to Ray M. Trujillo, State Bridge Engineer, September 30, 2009.

Structure Number: *AB0872.30*