

# Pershing County



## Standard Specifications For Road Construction

## **Section 101**

### **Definitions and Terms**

#### **101.0    Types and Classes of Roads**

**Principal Arterial**: A primary route used for access from one general area to another or a link between an area and a state highway that may, in the future, be used as a part of the state highway system.

**Major and Minor Collectors**: Roads used by through traffic (present or future) usually located on section lines.

**Local**: Roads used by local traffic only and will not be used by through traffic either presently or in the future.

#### **101.10   Widths of Roads for P.U.D. and Subdivisions**

P.U.D. or subdivision with lots greater than one (1) acre and greater, road widths shall be a minimum of twenty -four feet (24') in width and constructed to county standards.

P.U.D. or subdivisions with lots of one (1) acre or less, road widths shall be a minimum of twenty four feet (24') in width and constructed to county standards.

P.U.D. or subdivisions with lots ten thousand eight hundred fifty square feet (10,850 sq. ft.) or less with municipal or quasi-municipal water and septic systems, road widths shall be a minimum of forty two feet (42') in width and constructed to county standards with utility access on both sides of roadways.

#### **101.20   Terms**

**Developer**: Person or persons proposing to construct roads, approach connections, drainage structure, that are presently or intend to become a part of the county road system.

**County**: Pershing County Road Department or any authorized representative thereof.

**Roadway**: A public way for the purposes of vehicular travel, including the entire area within the right-of-way.

## **SECTION 105** **CONTROL OF WORK**

- 105.10 PLANS AND WORKING DRAWINGS-** The Developer will submit plans showing details of all structures, lines, grades and typical cross section of roadway to Pershing County Road Department for review, prior to construction.
- 105.20 INSPECTION-** The County reserves the right to inspect any and all work at any time during its progress, and to take samples and make tests as necessary to determine quality of materials and methods of construction.
- 105.30 SAFETY-** The Developer will be responsible for the safety of the public during any construction whether it be on a dedicated right-of-way or not.
- 105.40 FINAL ACCEPTANCE-** Upon written notice from the Developer of presumptive completion, the County will make an inspection. The Developer will be notified in writing of any unacceptable work or materials within five (5) working days after such inspection.

The Board of County Commissioners will make final acceptance of the road. At that time the Developer shall provide the County with a letter stating all materials and work used in the construction of the roadway meet the standard specifications set by the County, and that the Developer further guarantees the roadway to be free from defects for a period of one year from the date of acceptance. The developer shall, also at this time, furnish the County with a surety bond, or cash, equal to 10% of the cost of constructing the road as a guarantee that any defects should they occur, will be repaired or replaced. If the roadway should prove to be defective within this period of time, the Developer shall, at no cost to the county, repair or replace such defects immediately upon notification.

The County Commissioners may, at their option, waive the requirement of the bond or cash guarantee on minor projects.

**SECTION 302**  
**AGGREGATE BASE COURSES**

- 302.10**    **3" MINUS PITRUN GRAVEL-** This aggregate shall conform to the following requirements

<b><u>Sieve Size</u></b>	<b><u>Percent by Weight Passing Sieve</u></b>
3"	100
1 1/2 "	90-100
1/4"	35-65
No. 16	15-40
No. 200	2-10

The plastic Index shall not exceed six (6) maximum.

- 302.20**    **TYPE 2, Class "B" Aggregate Base-** this aggregate shall conform to the following requirements:

<b><u>Sieve Size</u></b>	<b><u>Percent by Weight Passing Sieve</u></b>
1"	100
3/4"	90-100
1/4"	35-65
No. 16	15-40
No. 200	2-10

The plastic Index shall not exceed six (6) maximum.

- 302.30**    **SUBGRADE PREPARATION-** Any ruts, holes defects, or soft yielding places which occur in the sub-grade or sub-base for any cause whatsoever shall be corrected and compacted to required density and stability before an aggregate base course is placed thereon. 90% compaction-minimum per silver book.

- 302.40**    **SPREADING AGGREGATE BASE COURSES-** The aggregate will be uniformly distributed over the surface of the approved sub-grade in sufficient quantity to provide the depth specified on the plans.

The aggregate will be thoroughly mixed and water added in sufficient quantities to prevent segregation and assist in compaction. After the aggregate has been properly mixed it will be spread to the required depth and cross section and compacted to 95% relative maximum density.

**SECTION 401**  
**BITUMINOUS PAVEMENTS**

**401.01    GENERAL**- This section shall include constructing one or more courses of bituminous pavement on a prepared base or road surface. This section shall include all types of bituminous pavements whether they are mixed on site or at a central mixing plant and it shall also include both "hot mix" and "cold mix" types.

**401.10    COMPOSITION OF MIXTURE**-The bituminous pavement shall be composed of a mixture of aggregate and bituminous material uniformly graded and combined in such proportions that will prevent raveling or bleeding of finished surface.

The aggregate used for bituminous pavements shall conform to the following specifications:

<u>Sieve Size</u>	<u>Percent by Weight Passing Sieve</u>
1 1/2"	90-100
3/4"	55-85
No. 4	25-55
No. 16	10-35
No. 200	3-9

Crushed particles .....50% minimum  
Plastic Index.....6% maximum  
Liquid Limit.....30% maximum

The bituminous material shall be of a type and grade that will allow proper mixing, handling and placing of the mixture. The bituminous material shall be added to the aggregate at a proportion as near as possible to the optimum and shall not deviate from the optimum percentage neither plus nor minus 0.5%.

**401.20    SPREADING AND FINISHING**- after the aggregate and the bituminous material have been combined and thoroughly mixed to a uniform homogeneous texture, it shall be spread uniformly over the area to be surfaced to the proper width and to such depth as will compact to the required thickness.

The material shall be rolled and compacted in a manner that will result in a relative density of at least 95% of maximum. The surface shall conform as near as possible to the designed cross section of the roadway and shall have a maximum deviation of 1/2 inch vertically and 1/2 foot horizontally.

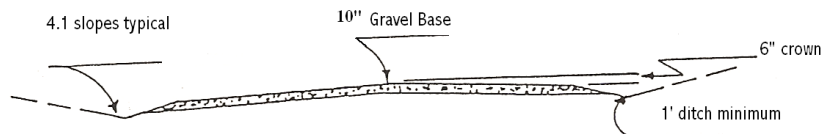
# Typical Section of County Road

R/W

60' - LOCAL  
80' - MAJOR AND MINOR COLLECTORS  
100' - PRINCIPAL ARTERIAL  
R/W WIDTH

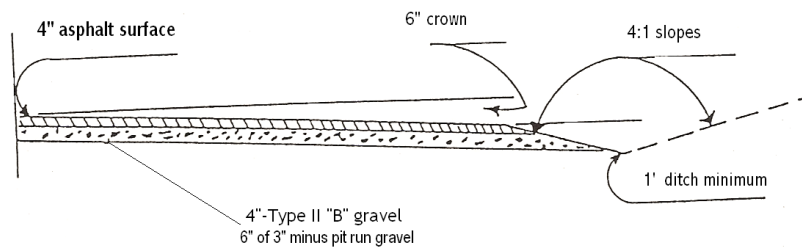
R/W

Road Widths  
24' Minimum- Local  
24' Minimum- Major and Minor Collectors  
Principal Arterial to be determined by the  
County Commissioners.



## Graveled Surface

\*The top 4" of gravel base shall be type 2 class "B" aggregate base. The remaining 6" shall be 3" minus pit run or better.



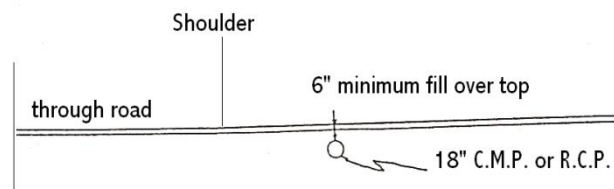
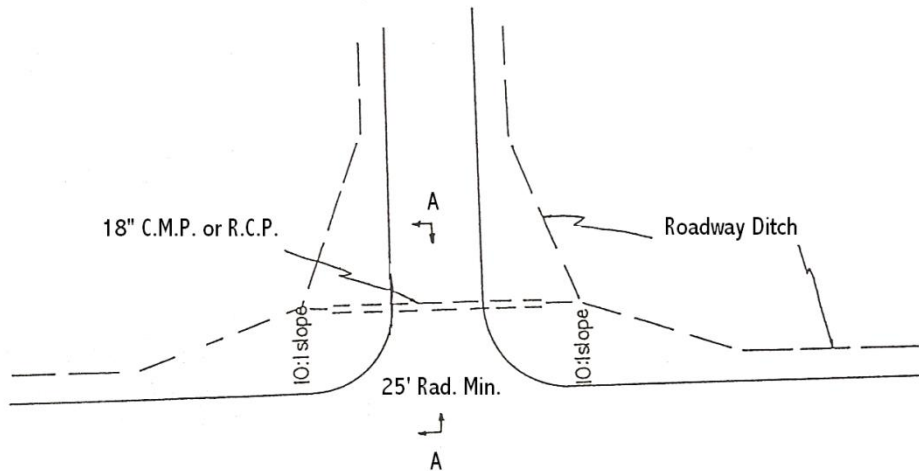
\* 3" of plant mix may be used where gravel base has an R-value of 60 or greater.

## Asphalt Surface

Note: The Pershing County Commissioners shall determine the location of the Right of Way.

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# Type "A" Approach (Culvert)



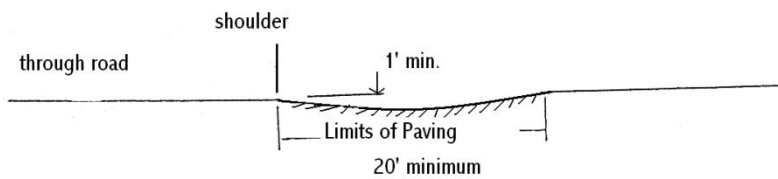
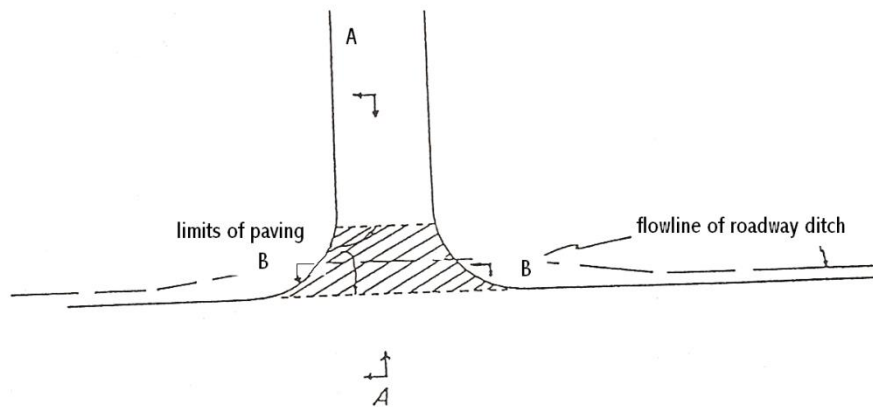
Section A-A

\* Note: 18" pipe is minimum size. Larger pipe may be required depending on size of ditch, amount of water, ect.

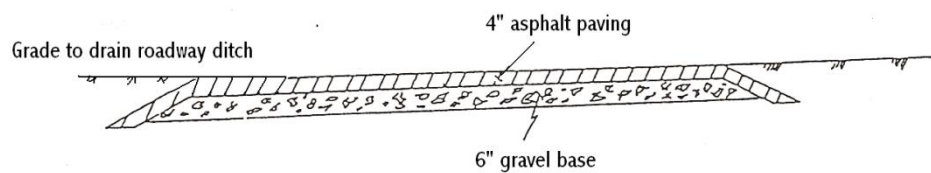
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# Type "B" Approach

(Paved Dip)



Section A-A



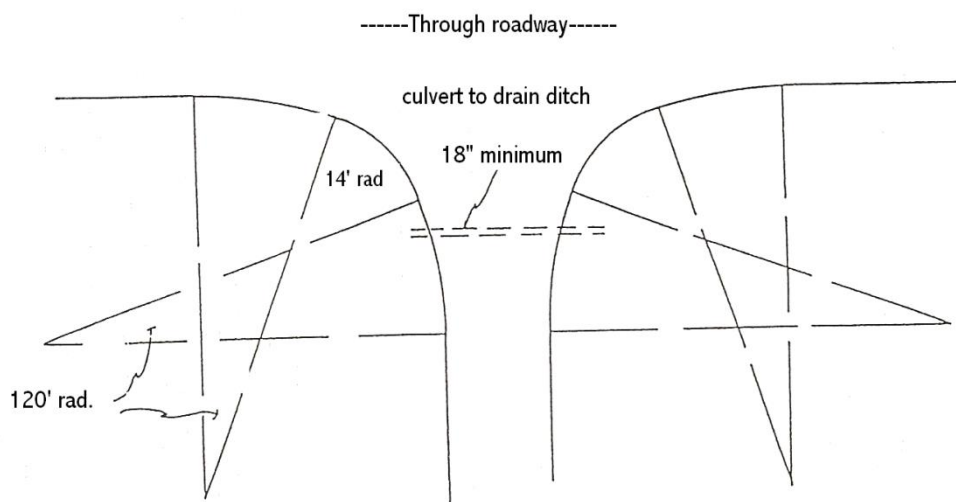
Section B-B

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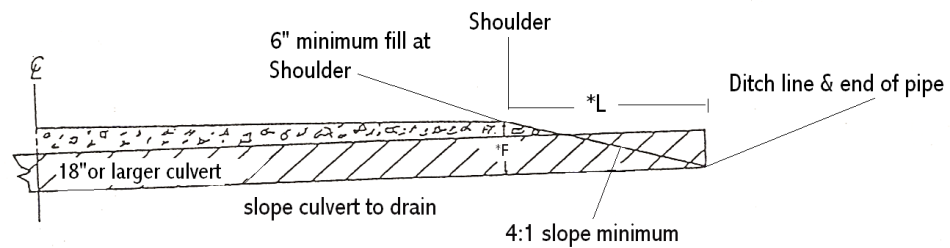
# Type "AA" Approach

(Large Truck-Commercial)

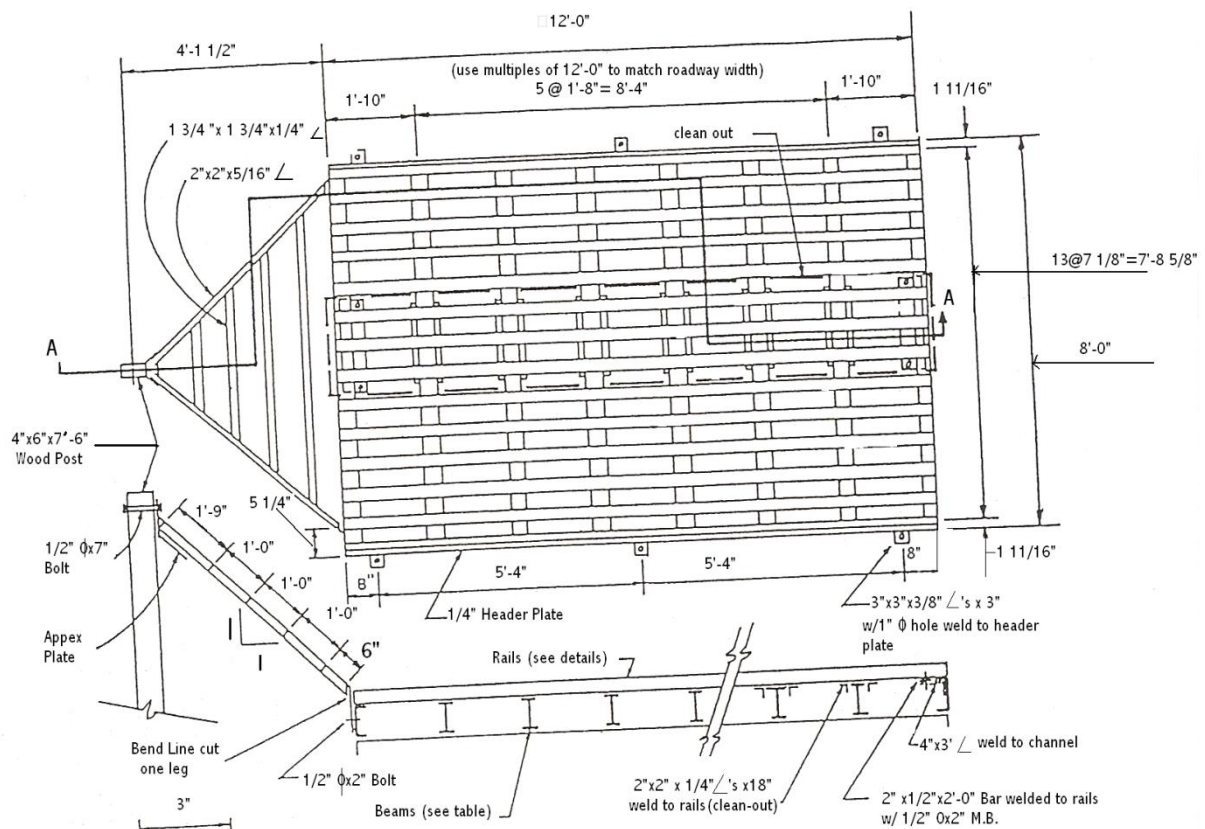


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# Typical Culvert Installation

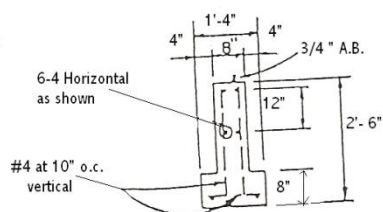


- \* F = fill from culvert flow line to finished shoulder.
- L = length of culvert beyond shoulder.
- L = F x slope



Section AA

Rail Section  
Cold Rolled- A 36 Steel



Footing section

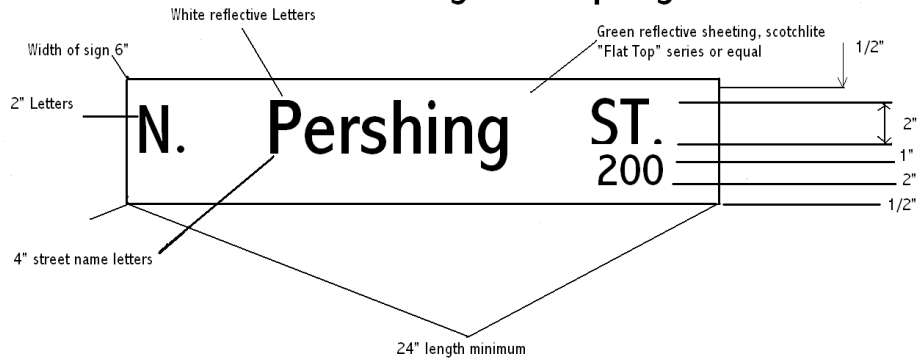
Loading	H 10	H 15	H 20
Beam	C 7 x 9.8	W 8x10 C 8x11.5	W 8x15
Rail	10 GA	10 GA	8 GA

Notes:

1. Cattleguard by Powder River or approved equal.
2. Footing to be Class AA or DA conc. (3000 psi) and have lifting hooks 1'-6" from each end.
3. For different loads or additional details, consult with cattleguard company.

# Steel Cattleguard

## Street Name Sign & Stop Sign



### Notes:

- 1.) Street Name sign shall be in conformance with the latest edition of the M.U.T.C.D
- 2.) Reflective materials shall be mounted on extruded aluminum No. 6063-T6 (see details below)
- 3.) Stop signs to be 36"x36" unless approved otherwise.

