

PROJECT ENGINEERING RECORD (New Construction and Reconstruction)

FEDERAL/STATE PROJECT NO.: _____

SPONSOR PROJECT NO.: _____

SPONSOR: _____

In accordance with the *Design Criteria for New Construction and Reconstruction (Section 4)* found in the ALDOT [LPA Road Design Policy](#), the following information is submitted. Items in **bold text** are elements that will require a formal design exception for values outside the ranges shown in the 2018 AASHTO Green Book.

Guideline 1: General Design Considerations

Functional Classification: Local Road Collector Arterial

Setting: Rural Urban

Terrain: Level Rolling Mountainous

Project Type: Bridge Replacement Realignment Adding Through Lane(s)

Route Type: NHS Non-NHS

Estimated Cost of Improvements: \$ _____

Project Description:

Design Speed _____ MPH

Present Traffic Count/ Year: _____

Design Traffic Count/ Year (20 Year): _____

Truck Percentage: _____

Maximum Grade (%): _____

Normal Crown Cross Slope (%): _____

Will **superelevation** and **superelevation transition lengths** be provided to meet current standards per the applicable ALDOT Standard Drawings and/or AASHTO's *A Policy on Geometric Design of Highways and Streets?* Yes No

Minimum Rate of Vertical Curvature for crests (K): _____

Minimum Rate of Vertical Curvature for sags (K): _____

Waiver Request(s) and/or Comments Concerning General Design Considerations:

Guideline 2: Cross-Sectional Elements

Required Traveled Way Width(s) (ft): _____

Required Number of lanes: _____

Required Lane Width(s) (ft): _____

Required Shoulder Width(s) & Type(s) (ft): _____

Existing ROW Width (ft): _____

Will additional ROW and/or easements be required? Yes No

Acres of ROW, TCE, or permanent easements needed: _____

Are there any utilities in conflict with this project? Yes No

Are there any existing pedestrian crossings within the project limits that require upgrades to be American with Disabilities Act (ADA) compliant? Yes No

Will any new bicycle/pedestrian facilities be installed? Yes No

Waiver request(s) and/or Comments Concerning Cross-Sectional Elements:

Guideline 3: Structures

Are there any existing bridges, bridge culverts or box culverts to be replaced within the project limits? Yes No

If yes, provide the following information for the **required** structure(s):

Bridges

BIN	Begin Station	End Station	Skew Angle (Degrees)	Length	Curb to Curb Width	Bridge Type (AASHTO, Precast, Etc.)

Note: All required bridge structures require guardrail and/or end anchor installation to meet MASH standards.

Culverts

BIN	◇ Begin Station	◇ End Station	Skew Angle (Degrees)	△ Culvert Width	○ Guardrail Required? (Yes/No)

- ◇ The difference in stations should reflect the centerline length of the structure, which does not include the outer walls (opening to opening).
- △ Measured from inside of parapets 90 degrees to centerline
- All required culvert structures that do not have adequate clear zone require guardrail and/or end anchor installation to meet MASH standards.

Are there any vertical restrictions or required vertical clearances associated with this project? Yes No

If yes, what restrictions are present?

Waiver Request(s) and/or Comments Concerning Structures:

Guideline 4: Roadside Design

Minimum Clear zone or lateral offset width proposed in project limits (ft): _____

Maximum (steepest) front slope proposed (3:1, 2:1, etc.): _____

Note: Proposed slopes steeper than 3:1 should be evaluated for guardrail protection and be stabilized to control erosion.

Comments Concerning Roadside Design:

Guideline 5: Intersection Design

Will any of the following improvements be performed in this project?

Add/lengthen turn lane(s) Install/upgrade traffic signals Roundabout(s)

Other _____

Design Vehicle: _____

Will adequate sight distance be provided based on the applicable “cases” of intersection control from Section 9.5.3 of the 2018 AASHTO Green Book? Yes No

Angle(s) of intersection between major and minor roads (degrees):

Comments Concerning Intersection Design:

Note: Attach the Autoturn, Capacity, and Fastest Path Analyses as applicable.

Guideline 6: Railroad-Highway Grade Crossings:

Is there a railroad crossing within the project limits or adjacent to the project?

Yes No

If a new Railroad-Highway Grade Crossing is being installed, please provide the following information:

Angle(s) of intersection and location between the road and the railroad track(s) (degrees):

Comments Concerning Railroad-Highway Grade Crossings:

Non-Contract Items of Work

Will the sponsor perform any items of work at no cost to the project, prior to project authorization? Yes No

Description of item(s):

Additional comments:

Note: Other chapters and/or sections of AASHTO’s *A Policy on Geometric Design of Highways and Streets*, current edition should be reviewed and may apply.

SUBMITTED FOR APPROVAL: _____ Date: _____
LPA Representative

- Attachments:
- Location Map (Required)**
 - Autoturn Analysis
 - Synchro Analysis
 - Roundabout Capacity Analysis
 - Fastest Path Analysis
 - Other _____

APPROVED: _____ Date: _____
State Local Transportation Engineer