

Reconnaissance Inspection Checklist

This inspection checklist is organized to follow the general format of a standard reconnaissance report. Items shown in red, such as project number, existing facilities, design standards, etc., should be included in a pre-inspection report or checklist and made available to the Programs and Sections that will be participating in the inspection.

LOCATION and DESCRIPTION: *Name, section & county. Give local context of project.*

FIELD INSPECTION: *Date of field inspection.*

INSPECTION PERSONNEL: *Name, title & location.*

ROUTE:

DISTRICT:

PROJECT LIMITS AND LENGTH OF PROJECT: *RM to RM, overall length in miles.*

FUNCTIONAL CLASSIFICATION: *Per AASHTO*

HIGHWAY SYSTEM:

CHARACTER OF WORK:

PROGRAMMED FUNDING: *Federal aid.*

CONSTRUCTION YEAR: *FY (per current STIP).*

EXISTING FACILITIES: *Identify existing elements and substandard features.*

Construction History: *Past project number, RM, Year, Work type*

Traffic Data: *Existing AADT, projected AADT, percent trucks*

Posted Speed Limit:

Highway Geometrics - Horizontal Alignment: *List the horizontal curves. Include location, degree, radius, existing superelevation, and design speed. Note any substandard features.*

Highway Geometrics - Vertical Alignment: *List type of terrain and maximum percentage of profile grade. Use AASHTO K-values to check the stopping sight distance for each crest and sag*

vertical curve. List location (RM to RM), curve type (sag or crest), K-value, and the maximum design speed of all curves that do not meet the recommended design speed.

Highway Geometrics – Roadway Widths: *List existing widths to include travel lanes, passing lanes, climbing lanes, shoulder widths, median widths, etc., and attach existing typical section.*

Median Width: *List median widths and types of barriers present.*

Clear Recovery Area/Clear Zone: *Identify if there are steep slopes (with or without guardrail), high cuts and fills, and sections that may warrant guardrail.*

Interchanges and Interchange Ramps: *Type of interchange, ramps and x-road widths (traveled lane and shoulders), acceleration and deceleration lanes, structure clearance, etc. Provide inside shoulder, traveled way, and outside shoulder for all ramps.*

Acceleration and Deceleration Lanes: *List lengths of tapers, acceleration lanes, and deceleration lanes.*

Access Control:

Service Roads: *If applicable.*

Roadway Lighting:

Traffic Signals:

Surfacing: *List the pavement type (plant mix or concrete), rut depth if any, and pavement thickness.*

Structures: *List minor structures to include structure type, length, year constructed, condition, etc. List major structures to include structure type, clear roadway widths, length, year constructed, inventory rating, alignment or geometric problems, surface condition, design loading, deck overlay, etc.*

Safety Management System – Safety Screening, Evaluations, and Recommendations: *List the Safety Index Rating and any actions or considerations required. Mention any safety issues such as the following. Record natural or manmade fixed objects in the Right of Way. Slopes must be traversable with recovery zones at bottom. List the condition of the pavement, if it has rutting, skid resistance, and drainage, especially ponding or sheet flow. Note the potential for falling objects such as rocks. Check horizontal and vertical sight distance. Check signing and delineation and pavement markings. At intersections, look for abrupt grade changes and provide advanced warning and pedestrian provisions as required. At railway crossings provide advance*

warning and crossing protection.

Safety History: *Total crashes, total injury crashes, total fatal crashes.*

Right-of-Way: *List right-of-way widths and if asymmetrical or symmetrical about centerline.*

Utilities: *List buried utilities: phone, fiber optics, cable TV, gas, electric power, water, sanitary sewer, storm sewer, etc. Note if crossing or parallel. List aerial utilities such as electric power, phone, fiber optics, cable TV, etc. Note if crossing or parallel.*

Land Use: *Type of land use along the corridor, ranching, farming, industrial, housing, etc.*

Environmental Concerns: *List natural resources, wetlands, and waters of the U.S.*

Terrain: *Mountainous, rolling, level.*

RECONNAISSANCE REPORT RECOMMENDED PROJECT TYPE: *Describe project intent based on current WYDOT design guides. Include justification for selected type, either preservation, rehabilitation, or reconstruction.*

RECONNAISSANCE REPORT RECOMMENDATIONS: *Include all pertinent information to address the project intent. The following is a help list of key items to consider during the inspection. Delete or add items as necessary for the specific project.*

Recommended Project Type/Character of Work: *Type of project based on WYDOT design guides and types of work expected.*

Purpose and Need for Project: *Coordinate statement with environmental services to match project environmental documents.*

Project Limits: *Note recommended changes in the project length.*

Posted Speed and Design Speed:

Horizontal Alignment: *Address any alignment issues including changes, modifications, design speed, superelevation, etc.*

Vertical Alignment: *Address any alignment issues including changes, modifications, design speed, stopping sight distance, etc.*

Proposed Typical Section: *Lane and shoulder widths, pavement tapers widths, clear zones, turn lanes, passing lanes, medians (raised or depressed), traffic barriers (end treatment), curb*

and gutter, double gutter, sidewalk, bicycle facilities, wheelchair ramps, frontage roads, cross roads, and ramps. Attach proposed typical section.

Median Widths: *Address any issues with median widths.*

Interchanges and Intersections: *List proposed modification in reference to ramps and cross roads interchange type, acceleration and deceleration lanes, structure clearance, guardrail needs, etc.*

Auxiliary Lanes: *List any auxiliary lanes that are present or required.*

Grading Requirements: *Borrow or waste material, dead haul, side slopes (barn roof or flat slope), slope stability, erosion concerns, soft areas, water source, and snow considerations.*

Drainage: *Existing problems, culverts (extend or replace), storm sewers (inlets type, manhole type and spacing), type of pipe (concrete or metal), trunk line location, outlet location, irrigation (ditches, siphons, and structures), storm water pollution separators, detention ponds, etc.*

Pavement Recommendations: *Preliminary surfacing recommendation and thicknesses design (use for estimating).*

Material Source and Plant Site: *Identify materials source, plant site, dead haul, stripping requirement, and special conditions (wet pits, reclamation, and environmental concerns).*

Barrier Rail: *Roadside guardrail, median, or shoulder barrier.*

Roadside and Median Barriers: *New locations, replacements, removals, type, end treatments, temporary protection, etc.*

Structures Requirements: *Bridges and box culverts, extensions, repairs, upgrades, etc.*

Traffic Signing, Signals and Roadway Lighting:

Traffic Control: *Detours, cross overs, slip ramps, temporary signals, and temporary guardrail.*

Right-of-Way and Construction Permits: *Is existing right-of-way adequate, new right-of-way requirements (isolated or extensive takings), relocation (likely or possible), land use (agricultural, pasture, irrigated, residential, commercial, or industrial), railroad crossings, etc.*

Environmental Concerns: *Wetlands, cultural resources, threatened and endangered species (habitat, raptor nests, sage grouse, black-footed ferrets), waters of the U.S., etc.*

Construction Phasing: *If needed.*

Miscellaneous: *Enhancement improvements, scenic turnouts, truck parking, etc.*

Attachments: *Location map, proposed typical sections, cost estimate TEQ, reference documents, utilities database list, etc.*

RECOMMENDED SCHEDULE: *FY 20??*

CONSTRUCTION COST ESTIMATE BASED ON RECONNAISSANCE REPORT RECOMMENDATIONS:

PROJECT ESTIMATE

ROADWAY	\$	
STRUCTURES	\$	
P.E. (___%)	\$	
C.E. (___%)	\$	_____
SUBTOTAL	\$	
<u>INFLATION</u>	\$_____	(___years at ___% per year)
TOTAL	\$_____	(FY 20?? dollars)

Note: Include estimates for each design alternative if applicable. Contact Contracts and Estimates program for correct inflation rate.

DESIGN VALUES

REFERENCE DOCUMENTS:

AASHTO, A Policy on Geometric Design of Highways and Streets, 2018