Chapter 1100 Design Matrix Procedures

1100.01 General

The *Design Manual* provides guidance for three levels of design for highway projects: basic, modified, and full design levels. The design matrices in this chapter are used to identify the design level(s) for a project and the associated processes for allowing design variances. The matrices address the majority of Preservation and Improvement projects and focus on those design elements that are of greatest concern in project development.

The design matrices are five tables that are identified by route type. Two of the matrices apply to Interstate highways; the other three apply to non-Interstate highways and address Preservation and Improvement projects.

A design matrix is used to determine the design level for the design elements of a project. Apply the appropriate design levels and document the design decisions as required by this chapter and Chapter 300.

1100.02 Selecting a Design Matrix

Selection of a design matrix (see Exhibit 1100-1) is based on highway system (Interstate, NHS excluding Interstate, and non-NHS) and location (main line and interchange).

Highway System	Location	
	Main Line	Interchange Area
Interstate	Matrix 1	Matrix 2
NHS*	Matrix 3	Matrix 4
Non-NHS	Matrix 5	Matrix 4

* Except Interstate.

Design Matrix Selection Guide
Exhibit 1100-1

(1) Interstate System

The Interstate System (Matrices 1 and 2) is a network of routes selected by the state and the FHWA under terms of the federal-aid acts. These routes are the principal arterials that are the most important to the economic welfare and defense of the United States. They connect, as directly as practicable, the following:

- Principal metropolitan areas and cities
- Industrial centers
- International border crossings

The Interstate System includes important routes into, through, and around urban areas; serves the national defense; and (where possible) connects with routes of continental importance. It also serves international and interstate travel and military movements.

The Interstate System is represented on the list of NHS highways (see Exhibit 1100-3) with the letter "I" before the route number.

(2) National Highway System (NHS)

The National Highway System (Matrices 3 and 4) is an interconnected system of principal arterial routes and highways, including toll facilities, that serves the following:

- Major population centers
- International border crossings
- Industrial centers
- Ports
- Airports
- Public transportation facilities
- Other intermodal transportation facilities
- Other major travel destinations

The NHS includes the Interstate System and the Strategic Highway Corridor Network (STRAHNET) and its highway connectors to major military installations (Interstate and non-Interstate).

The NHS meets national defense requirements and serves international, interstate, and interregional travel (see Exhibit 1100-3).

(3) Non-NHS Highways

The Non-NHS highways (Matrices 4 and 5) are state routes that form a highway network that supplements the NHS system by providing for freight mobility and regional and interregional travel. Non-NHS highways are not shown on Exhibit 1100-3. They are shown on the Washington State Department of Transportation (WSDOT) Official State Highway Map.

1100.03 Using a Design Matrix

The design matrices and associated notes are shown in Exhibits 1100-4 through ~~1100-8~~1100-9. Follow *Design Manual* guidance for all projects except as noted in the design matrices (and elsewhere as applicable). The definitions presented in this chapter are meant to provide clarification of terminology used in the *Design Manual*. There is no assurance that these terms are used consistently in references outside the *Design Manual*.

(1) Project Type

For project types (such as unstable slopes) not listed in the design matrices see Design Manual section 330.04 and~~,~~ consult the Headquarters (HQ) Design Office for guidance.

In the design matrices, row selection is based on Project Type. The Project Summary (see Chapter 300) defines the purpose and needs for the project and describes the project. For NHS and non-NHS routes (Matrices 3, 4, and 5), the project's program/

subprogram might provide sufficient information to identify the Project Type. (See the *Programming Manual* for details about budget programs and subprograms.)

The various sources of funds for these subprograms carry eligibility requirements that the designers and project developers must identify and monitor throughout project development. This is especially important to ensure accuracy when writing agreements and to avoid delaying advertisement for bids if the Project Type changes.

Some projects involve work from several subprograms. In such cases, identify the various limits of the project that apply to each subprogram. Where the project limits overlap, apply the higher design level to the overlapping portion.

Project Types (in alphabetical order) are:

At Grade: Safety Improvement projects on NHS and non-NHS highways (45 mph or higher) to build grade-separation facilities that replace the existing intersections.

Bike Routes (Shldrs): Main line economic development Improvement projects to provide a statewide network of rural bicycle touring routes with shoulders a minimum of 4 feet wide.

Bike/Ped. Connectivity: Improvement projects to provide bicycle/pedestrian connections, along or across state highways within urban growth areas, to complete local networks.

Bridge Deck Rehab: Structures Preservation projects that repair delaminated bridge decks and add protective overlays to provide a sound, smooth surface, prevent further corrosion of the reinforcing steel, and preserve operational and structural integrity.

Bridge Rail Upgrades: Safety Improvement projects to update older bridge rails to improve strength and redirectional capabilities.

Bridge Repl. (Multilane): Non-NHS main line structures Preservation projects that replace bridges on multilane highways to improve operational and structural capacity.

Bridge Replacement: NHS and two-lane non-NHS (main line and interchange) structures Preservation projects that replace bridges to improve operational and structural capacity.

Bridge Restrictions: Main line economic development Improvement projects that remove vertical or load capacity restrictions to benefit the movement of commerce.

BST/Basic Safety: Roadway Preservation projects that resurface highways at regular intervals and restore existing safety features, to protect the public investment.

Collision Analysis Locations (CALs), Collision Analysis Corridors (CACs), Intersection Analysis Locations (IALs): Sites identified through a system-wide analysis that have a high-severity collision history. These sites are created with the intent to modify, where appropriate, specific highway elements that are focused on addressing the contributing factors of the identified high-severity collisions.

Corridor: Main line Improvement projects to reduce and prevent vehicular, nonmotorized, and pedestrian collisions (within available resources).

Diamond Grinding: Grinding a concrete pavement, using gang-mounted diamond saw blades, to remove surface wear or joint faulting.

Comment [TLB1]: This will potentially be needed for other types of projects, developer projects or local agency projects.

Comment [lbp2]: How are these two different? Except we might use 'Corridor" for a local agency project.

Dowel Bar Retrofit: Reestablishing the load transfer efficiencies of the existing concrete joints and transverse cracks by cutting slots, placing epoxy-coated dowel bars, and placing high-early strength nonshrink concrete.

Four-Lane Trunk System: NHS economic development Improvement projects to complete contiguous four-lane limited access facilities on a trunk system consisting of all Freight and Goods Transportation Routes (FGTS) with a classification of 10,000,000 tons/year.

Freight & Goods (Frost Free): Main line economic development Improvement projects to reduce delay from weather-related closures on high-priority freight and goods highways.

Guardrail Upgrades: Safety Improvement projects limited to the specified roadside design elements. These projects focus on W-beam with 12-foot-6-inch spacing and on guardrail systems with concrete posts. The length of need is examined and minor adjustments are made. Removal is an option if guardrail is no longer needed. ~~For Interstate main line, address length of need as specified in Chapter 1610~~. For non-Interstate routes, additional length of more than 5% of the existing length is beyond the intent of this program. In these instances, consider funding in accordance with priority programming instructions and, if the length of need is not met, document to the Design Documentation Package (DDP) that the length of need is not addressed because it is beyond the intent of this program.

Comment [lbp3]: This line is not on the Interstate Mainline matrix.

HMA Overlays: An HMA pavement overlay that is placed to minimize the aging effects and minor surface irregularities of the existing HMA pavement structure and to protect the public investment.

HOV: Main line mobility Improvement projects completing the freeway Core HOV lane system in the Puget Sound region and providing level of service C on HOV lanes (including business access transit lanes) within congested highway corridors. For Interstate see New/Reconstruction.

HOV Bypass: NHS and non-NHS ramp mobility Improvement projects to improve mobility within congested highway corridors by providing HOV bypass lanes on freeway ramps. Congested highway corridors have high congestion index values as described in the Highway System Plan (footnote in text for Improvement/Mobility). For Interstate see New/Reconstruction.

Intersection: Safety Improvement projects to reduce and prevent collisions, increase the safety of highways, and improve pedestrian safety (within available resources).

Comment [TLB4]: This line is for developer or local agency type projects that were not generated using the CAL, CAC or IAL process

Comment [lbp5]: Same question as "Corridor".

Median Barrier: Limited safety Improvement projects: mainly new median barrier, with a focus on cable barrier, to reduce median crossover collisions.

Milling with HMA Inlays: Removing a specified thickness of the existing HMA pavement, typically from the traveled lanes, and then overlaying with HMA at the same specified thickness.

New/Reconstruction projects include the following types of work:

- Capacity changes: add a through lane, convert a general-purpose (GP) lane to a special-purpose lane (such as an HOV lane), or convert a high-occupancy vehicle (HOV) lane to GP.
- Other lane changes: add or eliminate a collector-distributor or auxiliary lane (a rural truck-climbing lane that, for its entire length, meets the warrants in Chapter 1270 is not considered new/reconstruction).
- New interchange.
- Changes in interchange type such as diamond to directional or adding a ramp.
- New or replacement bridge (on or over, main line or interchange ramp).

Non-Interstate Freeway (mobility): On non-NHS and NHS interchanges and on NHS main line, these are mobility Improvement projects on multilane divided highways with limited access control within congested highway corridors.

Non-Interstate Freeway (safety): NHS and non-NHS (main line and interchanges) safety Improvement projects on multilane divided highways with limited access control to increase the safety within available resources.

PCCP Single Lane Rehab: Rehabilitation projects that removes a contiguous single lane of PCCP and replaces with PCCP in excess of ½ mile. Short sections of PCCP rehab should be considered preventative maintenance.

Preventive Maintenance: Includes roadway work such as pavement patching, crack sealing, restoration of drainage system, panel replacement, and joint and shoulder repair, and bridge work such as crack sealing, joint repair, slope stabilization, seismic retrofit, scour countermeasures, and painting. Preventive maintenance projects must not degrade any existing safety or geometric aspects of the facility. Any elements that will be reconstructed as part of a preventive maintenance project are to be addressed in accordance with full design level for NHS Routes and modified design level for non-NHS Routes.

Replace HMA w/PCCP at I/S (intersections): NHS and non-NHS main line roadway Preservation projects that restore existing safety features and replace existing HMA intersection pavement that has reached the point of lowest life cycle cost (11–15 years old) with PCCP that has about a 40-year life cycle.

Rest Areas (New): NHS and non-NHS main line economic development and safety Improvement projects to provide rest areas every 60 miles and some RV dump stations.

Comment [lbp6]: Does this include Interstate?

~~**Risk: Realignment:** Improvement projects intended to improve alignment at specific locations where the Risk program has identified a high probability of collisions.~~

~~**Risk: Roadside:** Improvement projects intended to mitigate roadside conditions at specific locations where the Risk program has identified a high probability of vehicular encroachment.~~

~~**Risk: Roadway Width:** Improvement projects intended to adjust the roadway width at specific locations where the Risk program has identified a high probability of a vehicle leaving its lane of travel.~~

~~**Risk: Sight Distance:** Improvement projects intended to improve sight distance at specific locations where the Risk program has identified a high probability of collisions.~~

Rural: Mobility Improvement projects providing uncongested level of service on rural highways within congested highway corridors. (See HOV Bypass for cross reference regarding “congested.”)

Urban: NHS and two-lane non-NHS (main line and interchange) mobility Improvement projects within congested urban highway corridors. (See HOV Bypass for cross reference regarding “congested.”)

Urban (multilane): Non-NHS mobility Improvement projects within congested urban multilane highway corridors. ~~(See HOV Bypass for cross reference regarding "congested.")~~

Comment [lbp7]: Isn't it more like this builds a multilane corridor? That's the way I treat it for my designers. Otherwise you are allowing them to use the other lines which mainly propose modified design level to build the facility and then if they want to improve it more you bump it up to full design level. That's just mean.

(2) Design Elements

The column headings on a design matrix are **Design Elements**. Not all potential design elements have been included in the matrices.

The design elements that are included are based on the following thirteen Federal Highway Administration (FHWA) controlling design criteria: design speed, lane width, shoulder width, bridge width, structural capacity, horizontal alignment, vertical alignment, grade, stopping sight distance, cross slope, superelevation, vertical clearance, and horizontal clearance. For the column headings, some of these controlling criteria have been combined (for example, design speed is part of horizontal and vertical alignment).

If using a design element that is not on the assigned matrix, use full design level as found elsewhere in this manual.

Comment [TLB8]: That is the intent

If using a design element that is not covered in this manual, use an approved manual or guidance on the subject and document the decision and the basis for the decision.

Comment [lbp9]: I've always gone with the premise then that if using full design level for a feature not assigned to the matrix it is a deviation for not providing full design level. But I'm not sure this approach is consistent across the State. I also use the guidance in 300.04(2) that allows the use of modified design level for non-NHS.

The following elements are shown on the design matrices. If the full design level applies, see the chapters listed below. If the basic design level applies, see Chapter 1120, and if the modified design level applies, see Chapter 1130.

Horizontal Alignment: The horizontal attributes of the roadway, including horizontal curvature, superelevation, and stopping sight distance: all based on design speed. (See Chapter 1210 for horizontal alignment, Chapter 1250 for superelevation, Chapter 1260 for stopping sight distance, and Chapters 1140 or 1360 for design speed.)

Vertical Alignment: The vertical attributes of the roadway, including vertical curvature, profile grades, and stopping sight distance: all based on design speed. (See Chapter 630 for vertical alignment, Chapters 1130, 1140, 1220, and 1360 for grades, Chapters 1130 and 1260 for stopping sight distance, and Chapters 1130, 1140, or 1360 for design speed.)

Lane Width: Defined in Chapter 1140 (also see Chapters 1130, 1230, 1240, and 1360).

Shoulder Width: Defined in Chapter 1140 (also see Chapters 1130, 1230, and 1360). For shy distance requirements when barrier is present, see Chapter 1610.

Lane Transitions (pavement transitions): The rate and length of transition of changes in width of lanes (see Chapter 1210).

On/Off Connection: The widened portion of pavement at the end of a ramp connecting to a main lane of a freeway (see Chapter 1360).

Median Width: The distance between inside edge lines (see Chapters 1140 and 1230).

Cross Slope: Lane: The rate of elevation change across a lane. This element includes the algebraic difference in cross slope between adjacent lanes (see Chapters 1130 and 1230).

Cross Slope: Shoulder: The rate of elevation change across a shoulder (see Chapters 1130 and 1230).

Fill/Ditch Slopes: The downward slope from edge of shoulder to bottom of ditch or catch (see Chapters 1130 and 1230).

Access: The means of entering or leaving a public road, street, or highway with respect to abutting private property or another public road, street, or highway (see Chapter 520 and 1340).

Clear Zone: The total roadside border area, starting at the edge of the traveled way, available for use by errant vehicles. This area may consist of a shoulder, a recoverable slope, a nonrecoverable slope, and/or a clear run-out area. The median is part of a clear zone (see Chapter 1600).

Signing, Delineation, Illumination, ITS: Signs, guideposts, pavement markings, lighting, and intelligent transportation systems equipment. (See Chapters 720 for bridge signs and 1020 for signing, Chapter 1030 for delineation, Chapter 1040 for illumination, and Chapter 1050 for ITS.)

Basic Safety: The list of safety items is in Chapter 1120.

Vertical Clearance: Defined in Chapter 720.

~~**Basic Safety:** The list of safety items is in Chapter 1120.~~

Bicycle and Pedestrian: Defined in Chapter 1510, Pedestrian Design Considerations, Chapter 1515, Shared-Use Paths, and Chapter 1520, Roadway Bicycle Facilities.

Bridges: Lane Width: The width of a lane on a structure (see Chapters 720, 1130, 1140, 1230, 1240, and 1360).

Bridges: Shoulder Width: The distance between the edge of traveled way and the face of curb or barrier, whichever is less (see Chapters 720, 1130, 1140, 1230, and 1360; also see Chapter 1610 for shy distance requirements).

Bridges/Roadway: Vertical Clearance: The minimum height between the roadway, including shoulder, and an overhead obstruction (see Chapter 720).

Bridges: Structural Capacity: The load-bearing ability of a structure (see Chapter 720).

Intersections/Ramp Terminals: Turn Radii: Defined in Chapter 1310.

Intersections/Ramp Terminals: Angle: Defined in Chapters 1130 and 1310.

Intersections/Ramp Terminals: Intersection Sight Distance: Defined in Chapter 1310, Intersections at Grade, and Chapter 1360, Interchanges.

Barriers: Terminals and Transition Sections:

- Terminals: Crashworthy end treatments for longitudinal barriers that are designed to reduce the potential for spearing, vaulting, rolling, or excessive deceleration of impacting vehicles from either

Comment [lbp10]: Should this also include channelization transitions as found in chapters 1310, 1320 or 1360?

Comment [TLB11]: Chris to check into this.

Comment [TLB12]: Different class of highway and approvals

Comment [lbp13]: Why is this treated differently on the Interstate Mainline from the way it is treated on the other matrices?

direction of travel. Impact attenuators are considered terminals. Beam guardrail terminals include anchorage.

- Transition Sections: Sections of barriers used to produce a gradual stiffening of a flexible or semirigid barrier as it connects to a more rigid barrier or fixed object (see Chapters 1600, 1610, and 1620).

Barriers: Standard Run: Guardrail and other barriers as shown in the *Standard Plans for Road Bridge and Municipal Construction*, excluding terminals, transitions, attenuators, and bridge rails (see Chapter 1610).

Barriers: Bridge Rail: Barrier on a bridge, excluding transitions (see Chapter 1610).

(3) Design Level

The design levels of basic, modified, and full (B, M, and F) were used to develop the design matrices. Each design level is based on the investment intended for the highway system and Project Type. (For example, the investment is greater for an Interstate overlay than for an overlay on a non-NHS route.)

(a) **Blank Cell**

A blank cell in a design matrix row signifies that the design element will not be addressed because it is beyond the scope of the typical project. In rare instances, a design element with a blank cell may be included if that element is linked to the original need that generated the project and is identified in the Project Summary or a Project Change Request Form.

(b) **Basic Design Level (B)**

Basic design level preserves pavement structures, extends pavement service life, and maintains safe highway operations. (See Chapter 1120 for design guidance.)

(c) **Modified Design Level (M)**

Modified design level preserves and improves existing roadway geometrics, safety, and operational elements. (See Chapter 1130 for design guidance.) Use full design level for design elements or portions of design elements that are not covered in Chapter 1130.

(d) **Full Design Level (F)**

Full design level improves roadway geometrics, safety, and operational elements. (See Chapter 1140 and other applicable *Design Manual* chapters for design guidance.)

(4) Scoping Safety Improvement Projects

In an effort to provide the greatest safety benefit with limited funding, it is WSDOT policy to focus highway safety project modifications on improvements that have the greatest potential to reduce severe or fatal injuries. The intent of this policy is to:

- Address the elements that are associated with severe-injury crashes.
- Consider a range of solutions that include minor operational modifications, lower-cost improvements such as channelization, and higher-cost improvements such as roundabouts, signalization and widening.
- Recognize the substantial tradeoffs that must be made with the numerous competing needs and costs a highway designer faces in project development.

Because these projects are developed on a "~~need~~substantive safety" basis, a matrix approach is not the most efficient method of scoping them. Conduct a ~~project analysis~~collision data analysis to determine the contributing factors associated with the collisions. Once the contributing factors are identified,

countermeasures should be identified that range from low cost to high cost. A benefit cost analysis should be completed to determine what countermeasure will be selected. Based on the selected countermeasure, ~~to~~ determine and document those design elements and levels to be included in the project. ~~This project analysis will:~~ See Safety Project Scoping process flowchart. The following documentation should be completed:

- Include an analysis of the crash history to identify contributing factors.
- Identify which of the 4 E's (Engineering, Enforcement, Education and Emergency Services) will best address the contributing factors, if Engineering solutions are selected to address the contributing factors, then consider countermeasures that include operational, low-cost, and high-cost solutions.
- ~~Propose~~ Select the ~~appropriate~~ recommended ~~solution~~ countermeasure based on a benefit/cost analysis ~~as part of the project analysis~~.

Tools that are available for use in selecting recommended countermeasures include, HSM, Safety Analyst, Road Safety Assessments (RSA's), Interactive Safety Design Model (IHSDM), and the Crash Modification Clearinghouse. New and other tools will be assessed for use as they become available.

Comment [lbp14]: What chapter can this be found in?

(a) **Sites With Potential for Improvement (SWPIs)**

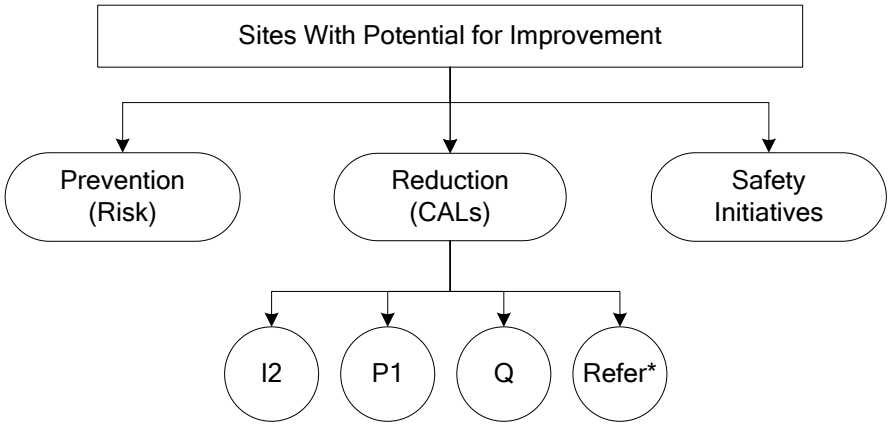
Sites With Potential for Improvement are developed for the purpose of identifying potential project locations. These sites are identified through a system-wide analysis. Only the sites with correctible contributing factors, traffic movements, or locations will be addressed. The SWPIs that may benefit from a safety-focused highway modification include the following:

- Collision Prevention
- Collision Reduction (including Collision Analysis Locations [CAL])
- System Improvements (such as safety initiatives)

All SWPIs are analyzed incorporating additional collision and risk data to determine contributing factors. Proposed countermeasures are developed to specifically address those contributing factors and locations.

Analyze the SWPIs and proposed countermeasures using the project analysis early in the scoping process. Ensure there is enough detail for a reasonable cost estimate, and have scoping reviewed by the responsible approval authorities for the Design or Traffic offices. Those projects identified through the process above will fall under several categories, as shown in Exhibit 1100-2:

- For I2-funded projects, see the Design Matrices.
- For spot improvements in P1, see Chapter 1120.
- For Q projects, see Chapter 1110.



* Some locations without a highway improvement solution will be referred to Enforcement and Education agencies for consideration.

Sites With Potential for Improvement
Exhibit 1100-2

(5) Design Variances

Types of design variances are design exceptions, evaluate upgrades, and deviations. (See Chapter 300 regarding the Design Variance Inventory System (DVIS).)

(a) **Design Exception (DE)**

A design exception in a matrix cell indicates that WSDOT has determined the design element is usually outside the scope of the Project Type. Therefore, an existing condition that does not meet or exceed the design level specified in the matrix may remain in place unless a need has been identified in the Highway System Plan and prioritized in accordance with the programming process. (See Chapter 300 regarding documentation.)

(b) **Evaluate Upgrade (EU)**

An evaluate upgrade in a matrix cell indicates that WSDOT has determined the design element is an item of work that is to be considered for inclusion in the project. For an existing element that does not meet or exceed the specified design level, an analysis is required to determine the impacts and cost-effectiveness of including the element in the project. The EU analysis must support the decision regarding whether or not to upgrade that element. (See Chapter 300 regarding documentation.)

(c) **Deviation**

A deviation is required when an existing or proposed design element differs from the specified design level for the project and neither DE nor EU processing is indicated. (See Chapter 300 regarding documentation.)

Comment [TLB15]: We only want them to improve something if it is worthwhile and it gives us some improvement.

Comment [lbp16]: I still don't see this approach. I usually only see documentation when upgrading is not selected. More like a region approved deviation. With the way the DM is written it's hard to get around the concept that improving to guidelines is not a good thing.

(d) **DE or EU with /F or /M**

DE or EU with /F or /M in a cell means that the design element is to be analyzed with respect to the specified design level. For instance, a DE/F is analyzed with respect to full design level and might be recorded as having an existing design element that does not meet or exceed current full design level. An EU/M is analyzed to decide whether or not to upgrade any existing design element that does not meet or exceed the current modified design level.

(6) Terminology in Notes

F/M Full for freeways/Modified for nonfreeway uses the word **freeway** to mean a divided highway facility that has a minimum of two lanes in each direction, for the exclusive use of traffic and with full control of access. For matrix cells with an F/M designation, analyze freeway routes at full design level and nonfreeway routes at modified design level.

The **Access Control Tracking System** mentioned in note [3] in Design Matrices 3, 4, and 5 is a database list related to highway route numbers and mileposts. The database is available at: www.wsdot.wa.gov/design/accessandhearings. (See Chapter 520 for access control basics and Chapters 530 and 540 for limited and managed access, respectively.)

The **corridor or project analysis** mentioned in notes [2] and [4] in Design Matrices 3, 4, and 5 is the documentation needed to support a change in design level from the indicated design level and to support decisions to include, exclude, or modify design elements. The first step is to check for recommendations for future improvements in an approved route development plan or other approved study. If no approved plans or studies are available, an analysis can be based on route continuity and other existing features. (See Chapter 300 regarding documentation.) A project analysis is also used for multiple related design variances. Check with the HQ Design Office before using this approach. A corridor analysis is also used to establish design speed, as discussed in Chapters 1130 and 1140.

~~Note [21] **Analyses required** appears only on Design Elements for Risk projects on Design Matrices 3, 4, and 5. These design elements are to be evaluated using benefit/ cost (B/C) to compare and rank each occurrence of the design element. The B/C evaluation supports engineering decisions regarding which proposed solutions are included in a Risk project.~~

~~Most components of a Risk project will have a B/C of 1.0 or greater. Proposed solutions with a B/C ratio less than 1.0 may be included in the project based on engineering judgment of their significant contribution to corridor continuity. Risk program size, purpose and need, or project prioritization may lead to instances where design elements with a ratio greater than 1.0 are excluded from a project. The analysis, design decisions, and program funding decisions are to be documented in the Design Documentation Package. Decisions regarding which design elements to include in a project are authorized at the WSDOT region level.~~