HIGHWAY STANDARDS

AND

ROADWAY DEVELOPMENT PROCEDURES

FOR

BANNOCK COUNTY

POCATELLO, IDAHO

AUGUST 2021

BANNOCK COUNTY ROAD & BRIDGE Department

Manual for

HIGHWAY STANDARDS

AND

ROADWAY DEVELOPMENT PROCEDURES

August 2021

ADOPTED BY:

Ernie Moser	8/31/21 DATE	CHAIR
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Highway Standards and Development Procedures
for the
Bannock County
Road and Bridge Department

August 2021

Signature Page

Per Idaho Code 54-1218, a licensed Professional Engineer must prepare the plans and specifications for public works projects as well as supervise or conduct construction observation. Therefore, it is the sole responsibility of the licensed Professional Engineer who is referencing or using these standards for a specific project to ensure that the specifications and drawings are appropriate for this specific use, use the specifications and drawings appropriately under all circumstances, and if appropriate, modify (with the approval of the Road and Bridge Department) as necessary in order to prepare final specifications, drawings, or plans.

Prepared For: Bannock County

Approved By: Bannock County Commissioners
Bannock County Public Works Director
Bannock County Engineer

Prepared by: Paragon Consulting, Inc.

FORWARD

The Bannock County Road and Bridge Department (RBD) has promulgated these Standards and Procedures for the construction of public roads, by developers, within the County's boundary. A public road constructed by a developer in accordance with these Standards and Procedures may be included in the County's road system and would be eligible for permanent maintenance and repair. Variances to these Standards may be allowed where extraordinary circumstances exist by reason of terrain, safety, or other site characteristics. Each variance will be determined on its own merits. The RBD has adopted the Idaho Standards for Public Works Construction (ISPWC), 2020 edition, as its basic construction standard as modified in Section 4000. Copies of that document may be purchased from the Local Highway Technical Assistance Council (LHTAC). The Highway Standards and Development Procedures contained herein are to be used in conjunction with the ISPWC. In the event of conflict, this Manual shall take precedence. The Highway Standards and Development Procedures have been developed with the assistance of PARAGON Consulting, Inc. This Manual has been completed as part of an ongoing effort to apply the best transportation standards and practices.

CONTACT INFORMATION

Bannock County Road and Bridge Department
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Highway Standards and Development Procedures
for the
Bannock County
Road and Bridge Department
MANUAL UPDATE REQUEST FORM

Although significant effort has been put forth in the preparation of the Highway Standards and Development Procedures, not all conditions of development, site characteristics or unusual circumstances can be addressed within this manual. Therefore, this form is included to provide an avenue for Manual users to request updates, revisions, or corrections. To request a revision to this manual, submit this completed form to the Road and Bridge Department for their consideration. Periodically the revision requests will be reviewed and if appropriate, manual updates will be prepared.

Date: _____

Revision Requested by: _____

Manual Section Number of Revision Request: _____

Manual Page Number of Revision request: _____

Revision Request:_____

_____

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_____

Reason / Justification for Revision _____

_____

_____

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TABLE OF CONTENTS

SECTION 1000

INTRODUCTION

SECTION 1000

INTRODUCTION

1010. Authority

1010.010. The roadway authority of Counties within the State of Idaho is outlined in Title 31 and Title 40 of the Idaho Code, as amended.

1010.020. The County Road & Bridge Department (RBD) has adopted these Highway Standards and Roadway Development Procedures (HSRDP) to construct public roads within the County by Developers.

Current maps are available from the RBD showing the jurisdictional boundaries and the roadways under their jurisdiction.

1010.030. If any section, subsection, sentence, clause, phrase, or portion of these Standards is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portions shall be deemed a separate, distinct, and independent provision, and such holdings shall not affect the validity of the remaining portions thereof.

1020. Need for Control and Uniformity

1020.010. All roadways within the RBD are classified under the Highway Functional Classification System developed for roadways in the United States. The function of each roadway in the system has been defined, and maps showing their Functional Classification are available for review at the RBD's office.

1020.020. These Highway Standards and Development Procedures include modifications to other standards, as identified in each respective Section

1020.030. The intent of this manual is to provide consistent roadway standards and procedures for the construction of quality roads.

1020.040. Variation from these Standards may be allowed by the RBD. Nothing herein shall be construed to impose an obligation or duty upon the RBD to construct, reconstruct or improve existing roadways to comply with these Standards. The RBD may or may not meet or exceed these standards on any new projects or maintenance activity depending on funding available, time, or any other relevant constraints.

1020.050. The type of surfacing allowed for each roadway within subdivisions or other developments is specified in Section 3000 of these Standards.

1030. Forms and Fees

1030.010. The RBD has its own approved set of forms and fee schedule, which may be obtained by contacting the RBD office.

SECTION 2000

GENERAL

PROCEDURES

AND CONDITIONS

SECTION 2000

GENERAL PROCEDURES AND CONDITIONS

2010. Subdivision and Development Process

2010.010. General: All proposed subdivisions and developments within the Road and Bridge Department (RBD) shall receive approval from the RBD prior to constructing the Development or recording of the Final Subdivision Plat.

2010.015. Conditional Use, Variance, and Subdivision Requests: These requests are submitted to the RBD by the Planning & Development Department (PDD), or other Land Use Agency, for the RBD's review and comment. The RBD will respond to the PDD with the RBD requirements and a recommendation to be included in the county's action.

2010.020. Land Use Applications:

A. Pre-application Process: For projects which require a traffic impact study (TIS – per Section 3130), the dedication of right-of-way, frontage improvements, or changes to the existing roadway(s), including access, the Applicant shall request a pre-application meeting with the RBD to discuss the proposed concept plan and/or TIS parameters, prior to submitting a land-use application to the County, or other Land Use Agency.

B. If a TIS is required, the RBD shall review and accept the Applicant's preliminary TIS findings prior to land use or construction plan approval by the County or other Land Use Agency.

2010.030. Preliminary Subdivision Plat: The RBD shall be allowed to review and comment on all Preliminary Subdivision Plats submitted to the County or other Land Use Agency. The RBD shall review such Preliminary Plats for general compliance with these Standards and may recommend conditions for approval.
RBD staff may review the proposed street layout for continuity and adequate connection with existing and proposed streets next to the proposed development. They may also check conformity with the current Functional Street Classification Plan.

2010.040. Final Subdivision Plat: All Final Subdivision Plats within the RBD shall be submitted for review and consideration. The authorized signature of the RBD shall appear on all accepted Final Subdivision Plats prior to presentation for recording with the County Recorder. Such signature shall certify the RBD's acceptance of the Final Plat and does not constitute acceptance of any roadway depicted on the plat.

2010.050. Construction Drawings: Construction drawings shall be submitted for review of compliance with these standards on all developments within the RBD, requiring roadway improvements. The RBD shall outline conditions for acceptance of the construction plans and any requirements for acceptance of improvements into the RBD's System. Acceptance of drawings for construction shall expire two (2) years from the date of acceptance. The Applicant may request an extension of the construction plans acceptance from the RBD if the improvements have not been completed within two (2) years by completing the required extension request form. If the extension is not granted by the RBD or the expiration date has passed, the Applicant shall be required to resubmit the drawings to the RBD for review.

A. Time of Review: Construction plan review will normally be completed in approximately 14 calendar days from the date all required materials, as determined by the RBD, are submitted to the RBD. Complex developments, and those which differ from established Policy, may take longer. The RBD will consult with the County Engineer and may assign a construction plan review to an on-call Consulting Engineer.

   i. If the RBD expects the review time to exceed 14 calendar days, staff will estimate a completion date and inform the Applicant as soon as practical after receiving the plans.

   ii. The time required for acceptance of construction plans may vary due to required changes or corrections to the plans. If changes or corrections are required, the RBD will normally review the revised plans within 14 calendar days after receipt of a complete re-submittal package.

B. Responsibility of Design Engineer: The Registered Engineer who signs and stamps the construction plans is responsible for the proper design and function of the improvements. Acceptance of the construction plans by the RBD does not relieve the design Engineer of this responsibility.

2010.060. Construction: The RBD requires the construction of all roadways and drainage improvements within the development and improvements to the roadway and drainage system contiguous to the Development's frontage in accordance with these standards. At the RBD's discretion, the Applicant of any development may deposit the cost (as estimated by the Applicant and approved by the RBD) of the frontage improvements with the RBD for the RBD's use in completing the frontage improvements at a later date. Developments along a section or quarter section line shall be required to construct arterial and/or collector roadways within or contiguous to the development's frontage unless otherwise determined by the RBD. Where there is no existing public road along a section or quarter section line within or contiguous to the frontage of the development, the development shall be responsible for constructing one-half the roadway width. See SD-101 thru SD-103 for roadway width information.

2010.070. Irrigation Entities: An irrigation entity or owner must approve or accept all irrigation conveyance system alterations, including, but not limited to, design, construction, piping, moving of structures, and/or the discharge of drainage into the irrigation system before the RBD acceptance of the construction drawings. The Developer shall follow the requirements of the affected irrigation entity and make a reasonable effort to obtain an approval letter from the entity. If the irrigation entity is not responsive to the Developer's requests for review and approval of the development, the Developer shall provide the RBD with a detailed submittal and correspondence log documenting the efforts put forth to achieve irrigation entity review and approval. State & Federal regulatory entity approval associated with the proposed improvement will also apply.

2010.080. Temporary Access Requirements: The RBD acknowledges that ownership and timing issues may impact the Developer's ability to fully comply with the roadway spacing policy identified in section 3000. Therefore, the RBD may permit temporary accesses for development under the following conditions:

A. The Developer demonstrates that he has contacted the adjacent property owner(s) and has been unable to obtain the necessary access to a public road.
B. Any adjacent public road development is scheduled for completion at least one (1) year later than the development's proposed completion date.
C. The development's roadway network is designed so that future developments can connect to the network and provide local area continuity.
D. The temporary access can be removed by the Developer or owner(s) without affecting the continuity of the roadway network and without damage to adjoining properties or improvements in the RBD's right-of-way.
E. There is a note on the face of the plat indicating that the access is temporary and will be removed by the Developer or owner(s) once an adjacent public road connection is made.

2020. Right-of-Way Dedication

2020.010. By Subdivision Plat: All rights-of-way intended for use by the public and maintenance by the RBD, as set forth by the criteria in these Standards, shall be dedicated to the public in accordance with provisions set forth by Idaho State Code and by Resolution from the Board of County Commissioners.

2020.020. Other Than by Subdivision Plat: Any public rights-of-way to be created which are not within a recorded subdivision plat may be transferred to the RBD by deed in a form acceptable to the RBD. Acceptable roadway construction drawings, all right-of-way instrument recording fees, and the required Financial Guarantee Agreement shall be provided when new roads or other improvements are to be constructed by persons other than the RBD. A statement of acceptance of such right-of-way dedication must appear in the RBD official records prior

to any obligation by the RBD to maintain the new road or other improvements. Upon acceptance of a deed for a public right-of-way, such instrument shall be submitted by the RBD to the County for recording.

2020.030. Approach Permits: Approach Permits providing ingress-egress to an existing roadway shall not be issued unless additional right-of-way adjacent to the existing roadway is transferred to the RBD as may be needed to satisfy the classification of the roadway under Section 3030.010. Dedication shall be in the form as outlined in Section 2020.010 or 2020.020. Changes or expansions in land use of an existing parcel or through development that alters the use or character of an existing approach are required to obtain an approach permit under this section.

2020.040. Private Roads: Private Roads with more than two dwellings shall be built to Standard Drawing No. 101. In addition, new private roads shall not have direct access to any roadway designated as collectors, or higher, as provided for in Section 3000. Private roadways in Subdivisions may become a public road provided the roadway can be documented to have been constructed in accordance with these Standards, or after improvements to bring the roadway into compliance with these Standards have been completed and appropriate right-of-way is dedicated to the RBD in a form as outlined in Section 2020.010 or 2020.020.

2030. RBD Additional Application Requirements and Content

2030.010. Name Changes: If the name of a subdivision is changed after submittal to the County, the Developer shall notify the RBD staff of the name change in writing within seven (7) days of the name change.

2030.020. Out-Parcels. Out-parcels are created when a land development is constructed around a remnant parcel of land. The lack of dedicated right-of-way and improvements along the frontage of the out-parcel creates gaps in widened roadway sections, as well as curbs and sidewalks that can take years to complete, often at public expense.

The following Policy applies to right-of-way dedication and improvements in front of out-parcels that are contiguous with development. If five (5) or more of the following conditions are present, right-of-way dedication and improvements will not be required in front of any out-parcel.

A. The out-parcel was created legally, as a one-time split of the original parcel as defined by the Zoning Ordinance of the County, except when a condition is noted in the letter of acknowledgment provided by the RBD at the time of the lot split which requires the right-of-way dedication at the time any portion of the original parcel is subdivided.
B. The out-parcel was created more than twelve (12) months before the application.

C. The Applicant is not the original purchaser of the land being developed.
D. There is no other curb and sidewalk on the fronting street or intersecting streets within 1,400 feet of the out-parcel.
E. There is not an elementary school within one mile measured along streets by the most direct route.
F. The installation of improvements will not cause a blockage of street or roadway drainage.
G. There will not be high utility relocation costs (as determined by the RBD) involved with the improvements.
H. Dedication of right-of-way would reduce existing dwelling setbacks from the street to less than required by the zoning ordinance of the County.
I. The number of dwellings in the proposed project, if residential, is three (3) or fewer.

2030.030. Construction Plans: The RBD requires complete and clear plans for proper review and/or understanding of the proposed construction and shall meet the subdivision requirements contained in the County's Subdivision Ordinance.

2040. Coordination with Utilities and the RBD

2040.010. Arrangements and Location of Utilities. The Developer is responsible for notifying all utilities, including municipal-owned utilities, about utility work needed to serve a proposed development. This applies to on-site and off-site work.
Private utilities that the PUC does not control shall be located in a fifteen (15) foot easement adjacent to the public right-of-way unless otherwise approved by the RBD. For development within a mile of a city's limits, utilities may be located in accordance with the city's utility corridor.

All affected utilities shall be moved at the direction of the owner of the facility.

No utility facilities shall be installed on or above the top of bridge or culvert structures. Utilities may only be attached to the side of or underneath bridge or culvert structures with special permission from the RBD.

2040.020. Responsibility for Relocation. The Developer is responsible for relocating existing utilities and RBD facilities according to applicable sections of these standards.

2040.030. License Agreements. The Developer is responsible for executing a License Agreement for any private utilities located within the Right-of-Way that releases the RBD from any and all responsibility for maintenance of the utility.

2050. Financial Guarantee Agreements

2050.010. Prior to acceptance by the RBD of new roadways, the Applicant shall enter into a Financial Guarantee Agreement, approved by the RBD, of either form as prescribed in the Appendix. After the acceptance of the roadway(s) by the RBD, the agreement shall extend for one (1) year and be in an amount equal to 50 percent of the construction costs.

2050.020. When final plat acceptance by the RBD is requested, prior to acceptance of the public roads for maintenance, the Applicant shall enter into a Financial Guarantee Agreement approved by the RBD. The agreement shall provide a surety in the amount equal to 125 percent of the construction costs, which shall remain in effect until the RBD accepts the roads. At such time as the RBD accepts the roads, the surety shall be reduced to an amount equal to 50 percent of the construction costs for a period of one (1) year from the date of acceptance of the roads. If roadway condition is still acceptable to the RBD at one (1) year from the date of acceptance of the roads, the surety shall be released or returned to the Developer. The RBD will not sign or accept a final plat unless the public roads are acceptable for maintenance in accordance with these standards.

2060. Construction

2060.010. All construction for improvements intended for acceptance by the RBD shall be completed in accordance with the 2020 edition of the Idaho Standards for Public Works Construction (ISPWC) as supplemented by these standards unless otherwise approved by the RBD.

2060.020. Failure to follow the procedure as outlined in Section 2060.010 may result in non-acceptance of the completed roadway facility for maintenance by the RBD. It may further result in corrective action by the RBD under the terms of the Financial Guarantee Agreement.

2070. Construction Observation

2070.010. Observation of all construction completed within the RBD for facilities that will be maintained by the RBD and constructed by persons other than the RBD and/or its designated representatives shall be the responsibility of the Applicant.

2070.020. The Applicant shall retain a Professional Engineer, licensed by the State of Idaho, who shall supervise construction observation and verify, by submission of the Engineer's Statement (included in Section 5000), that all improvements were constructed in accordance with the RBD accepted construction drawings and adopted

Standards. All deviations from said construction drawings and standards shall be noted and accepted by the RBD prior to RBD's acceptance of the roadway and improvements for maintenance.

2070.030. All construction observations shall be in accordance with Section 5000 of this Manual.

2070.040. Record Drawings/Electronic Record. A set of reproducible record drawings and an electronic copy of those record drawings shall be submitted to the RBD following completion of the construction of all public improvements and prior to final acceptance of the improvements and release of any surety agreements and letters of credit held by the RBD. Record submittals shall include the subdivision plat as filed for recording with the County Recorder.

2080. Fees for Plan Review and Construction Observation

2080.010. The Applicant will be charged for all costs incurred by the RBD in reviewing Land Use Applications, Preliminary Plats, Final Plats, Construction Drawings, Construction Observation, Testing, and any other items associated with the development or permit. All charges will be based on the RBD's actual costs or reasonable fees adopted by the RBD. The charges will include the RBD's Engineer's fees, the RBD's Agent's hourly wage rate, and any other costs associated directly with the Applicant's project. The fees shall be payable when billed to the Applicant. The roadway's final acceptance and improvements into the RBD system will not be granted until all fees are paid in full.

2090. Testing

2090.010. All testing required by the RBD shall be the responsibility of the Applicant and/or their Agent.

2090.020. Any testing required by the RBD (other than Supplemental Tests) but not provided by the Applicant may be completed by the RBD, and all costs associated therewith shall be paid by the Applicant.

2090.030. If the minimum testing requirements have been met by the Applicant, but the RBD feels Supplemental Tests need to be taken, the Applicant shall make such additional tests. The cost for the Supplemental Tests shall be borne by the Applicant for all failing tests and by the RBD for passing tests.

2100. Area of City Impact

2100.010. When construction of a new roadway or modification to an existing roadway occurs within the area of city impact, the RBD may apply the standards and specifications of the City at the RBD's discretion and shall afford the appropriate City an opportunity to provide comments on the Subdivision or Development and may incorporate any City comments into the RBD's Approval Requirements.

2100.020. Developments in an area of city impact may be required to include city utilities (i.e., sewer, water, pressure irrigation, etc.), either "active" or "dry" lines, along with Urban Street Sections, as part of the construction improvements. Inspection and testing of utility lines shall not be the responsibility of the RBD. Trench backfill and compaction within the public road right-of-way shall meet the requirements of the RBD. Testing and inspection shall conform to the requirements of this Policy. Unless maintained under a separate permit/license agreement with the City requiring the utilities, these utilities shall be the responsibility of the Developer/Homeowner's Association under a permit/license agreement entered into with the RBD.

Waterline, sewer line, or other utility construction proposed for a development outside of a city's area of impact and/or not accepted for maintenance by a City or public utility company shall be located in a fifteen-foot easement adjacent to the public right-of-way unless otherwise approved by the RBD. All utility crossings require a license agreement for construction within the public right-of-way. The specific construction requirements will be identified in the license agreement.

2110. Acceptance into RBD System

2110.010. No roadway or other improvements will be built on an existing public right-of-way without a permit, License Agreement or FCO to build the road to RBD standards for acceptance by the RBD for continuous maintenance. An FCO is a Finding of Fact, Conclusion of Law, and Order of Decision.

2110.015. No roadway will be accepted into the RBD system for continuous maintenance until the conditions of Section 2110.020 have been met or a variance granted to it.

2110.020. A request for acceptance of a roadway shall be filed with the RBD. It must establish that the request meets the following requirements and/or is accompanied by the following:

A. Payment of all fees.
B. An Engineer's Statement of roadway completion with required submittals (test results, record drawings, construction diaries) establishing that the roadway has been constructed in accordance with the specifications and Standards of the RBD.

C. Final review and acceptance by the RBD.

D. Financial Guarantee Agreement.

2110.030. In any newly platted undeveloped subdivision with public roads, only one residential approach permit shall be granted until the roads within the subdivision have been constructed in accordance with the requirements for acceptance as outlined in Section 2110.020.

2110.040. Limitations on Time of Recording. The RBD will not accept roads into the Highway System for maintenance until the applicable, final plat has been accepted by the RBD, approved by the County or other Land Use Agency, and recorded with the County Recorder. When the RBD accepts the final plat, the Developer shall record it within twelve (12) months, or a lesser time as specified by the RBD. Otherwise, the RBD's acceptance of the final plat and roads becomes void, and the Developer shall be required to resubmit the final plat for RBD approval or start a new platting process.

2120. Special Permits

2120.010. Since the RBD has the administrative responsibility for the use of public road rights-of-way, any use of the rights-of-way for purposes other than vehicular travel and parking in approved locations along the main roadway shall be by permit only, obtained from the RBD. Such uses will include, but not be limited to, driveways, non-public approach roads, buried utilities, signs, utility poles, conduits, landscaping, etc. The use of the right-of-way for other than vehicular travel shall be in accordance with the State of Idaho Transportation Department's latest edition of A Policy for The Accommodation of Utilities Within the Right-of-Way of The State Highway System in The State of Idaho and the appropriate Standard Drawings contained in the Appendix of this manual.

2120.020. Fees for special permits shall be in accordance with the Fee Schedule established by resolution of the governing board.

2120.030. At utility/culvert crossings, all utilities shall be installed, a minimum depth of 24" under culverts unless otherwise approved by the RBD.

2120.040. At the RBD's discretion, major underground utility facilities, including gas, power, or fiber optics, within the right-of-way shall be installed at a minimum depth of 48" or 6" below the bottom of the subbase (whichever is greater). Minor underground utility facilities may have a minimum depth of 36" or 6" below the bottom of the subbase, whichever is greater. Other facilities require specific approval by the RBD.

2120.050. Roadway-related improvements and private utilities may be located in the public road right-of-way at the RBD's discretion. Roadway-related improvements include sidewalks, streetlights, or other facilities as determined by the RBD. Utilities include pressure irrigation crossings, domestic water system crossings, and sanitary sewers. If permitted by the RBD, the uses provided for herein shall meet the conditions set forth by the RBD, be maintained by the Developer, Homeowners, or Homeowner's Association under a License/Permit to Use Right-of-Way entered into and approved by the RBD, and subject to the General Provisions of the Application and Permit to Use Right-of-Way Approaches and Other included herein.

2120.060 The following uses of the public right-of-way may be allowed, subject to the General Provisions of the Application and Permit to Use Right-of-Way Approaches and Other included herein, without a Special Permit:

A. Landscaping. Landscaping meeting the following requirements:
   1. Landscaping rock, drain rock, or perma-bark, three (3) inches or smaller in size (passing a three (3) inch screen or sieve), up to the shoulder of the roadway or two (2) feet from the edge of the pavement, whichever is greater. Use of wood bark for landscaping is not allowed.
   2. Lawn up to the shoulder of the roadway or two (2) feet from the pavement's edge, whichever is greater.
   3. Ground cover plants not exceeding six (6) inches in height, located beyond the bottom of the borrow ditch or eight (8) feet from the edge of the pavement, whichever is greater.
   4. Irrigation sprinklers placed outside the right-of-way may spray into the right-of-way to irrigate turf or ground cover; however, the spray may not extend onto the roadway shoulder or pavement. No irrigation piping, sprinklers, or related components shall be permitted within the right-of-way.
   5. Any landscaping located within the right-of-way not complying with these requirements or otherwise creating a safety or maintenance concern may be removed by the RBD without notice.

B. Signs.
   1. Political signs and real estate signs meeting the following requirements:
      a. Political Signs shall be erected no more than three (3) weeks prior to the date of the election and/or ballot measure and shall be removed not more than one (1) week after the date of the election and/or ballot measure. Political signs shall only indicate a candidate, position sought, date of the election, slogan, or voting preference on a ballot issue.
      b. Shall not exceed twenty-four (24) inches in height by thirty-six (36) inches in width.
      c. Shall be constructed of paper, wood, plastic, or similar material and supported by a single four (4) inch by four (4) inch wood post or two (2) metal posts or rods not exceeding one (1) inch diameter.
      d. Shall be located beyond the bottom of the borrow ditch or eight (8) feet from the edge of the

pavement, whichever is greater and shall not be located in the sight triangle for intersecting highways, roads, streets, or approaches determined in accordance with the currently adopted Highway Standards and Development Procedures.

e. Any sign located within the right-of-way not complying with these requirements or otherwise creating a safety or maintenance concern may be removed by the RBD without notice. Removed signs shall be held at the RBD Administrative Office or other location determined by the Governing Board for a period of not more than thirty (30) days. After this time, the RBD may dispose of the sign(s) in a manner determined by the RBD.

2. Traffic signs installed on the approach of a private road or commercial approach as required by the RBD or in accordance with the currently adopted Highway Standards and Roadway Development Procedures.

C. Mailboxes. Mailboxes shall be installed in accordance with the following:

1. For Local Roads, the nearest face of the mailbox shall be located at or behind the back of the curb or at the outside edge of the shoulder, or other greater distance required by the U.S. Postal Service. For Collector Roads, the mailbox and mailbox turnout shall be as shown on ISPWC Standard Drawing SD-808.
2. Mailboxes shall be installed on a four (4) inch by four (4) inch wood post, two (2) inch diameter steel pipe with a maximum wall thickness of 0.095 inches, or equivalent support system approved by the RBD. Mailboxes installed on mounting or support systems determined unacceptable by the RBD, including, but not limited to, brick, masonry, concrete, rock, or heavy gauge metal, shall be relocated outside the right-of-way at the owner's expense. See SD-110 for more information.
3. Any mailbox located within the right-of-way not complying with these requirements or otherwise creating a safety or maintenance concern may be removed by the RBD without notice.

2120.070 The following uses of the public highway right-of-way may be allowed, subject to the following:

A. General. Uses provided for in this section shall only be permitted when the following criteria are satisfied:

1. Roadway Criteria
   a. Uses shall only be permitted on subdivision roads and streets, which are defined as:
      i. Local roads or streets that primarily provide access to adjacent lots or parcels
      ii. Do not serve as rural collector roads or urban arterial roads
      iii. Have posted speeds of 25 mph or less
      iv. Have rolled or vertical concrete curb along the street
   b. Uses shall be located outside the sight triangle requirements set forth in Standard Drawings SD-107 and SD-107A applicable to any intersection or approach.

2. Permit/License Agreement

a. Uses provided for herein shall be maintained by the Developer, Homeowners, or Homeowner's Association under a License/Permit to Use Right-of-Way entered into and approved by the RBD, and subject to the General Provisions of the Application and Permit to Use Right-of-Way Approaches and Other included herein.

b. Any use within the right-of-way not complying with these conditions, the provisions of the Permit/License Agreement, or otherwise creating a safety or maintenance concern may be removed by the RBD without notice.

B. Trees. Tree planting meeting the following requirements and Standard Drawing SD-107 thru SD-108 included herein:

1. Tree Species

a. Only trees listed in the PDD list of approved trees and meeting the requirements set forth herein shall be used in the right-of-way.

b. Classification of Trees

i. Class I, Small trees which do not generally reach over 25'-30' in height and width. Spacing, 20'-30'between trees. Good for under power lines or smaller planting areas.

ii. Class II, Medium sized trees mostly planted for their shade and excellent use in the landscape and parkway plantings. Reaching 30'-40+' height and width. Spacing, 30'-40' between trees.

iii. Class III, Large long-lived trees that attain large height and trunk diameter. Ensure there is ample room to accommodate it at maturity. May reach 70'+ in height and width. Spacing, 40'-60' between trees.

2. Placement of Trees

a. Offset

i. Class I, II, and III trees shall be placed to provide a minimum five (5) foot offset from the edge of the curb and/or sidewalk when the sidewalk is attached or non-existent.

b. Planter Widths

i. No tree planting is allowed in planters less than eight (8) feet wide.

ii. Minimum planter width of six (6) feet is for Class II trees only with the installation of root barriers installed on both the curbside and the sidewalk side. Root barriers are required to extend at least eighteen (18) inches below the subgrade on the sidewalk side and twenty-four (24) inches below the subgrade on the curbside. Root barriers shall extend two (2) inches above the ground and key into the road feature that they are designed to protect on both the curb and sidewalk side. Root barrier product shall be approved by the RBD.

iii. Class II trees shall be allowed within planters with a minimum width of eight (8) feet.

iv. Class I and III trees shall be allowed in planters with a minimum width of ten (10) feet.

c. Other Placement Requirements

i. Only Class I trees may be planted under or within ten (10) lateral feet of any overhead utility wire.

ii. Tree planting of any type shall be prohibited within ten (10) feet of a drain inlet, fire hydrant, and/or utility box.

iii. Sight triangle requirements apply. See SD-107 thru SD-108.

C. Landscaping Features. Landscaping features, including waterfalls, fountains, columns, signs, landscaping rocks, or other similar features as determined by the RBD, meeting the following requirements:

1. All landscape features located within the public right-of-way shall be a minimum of 1.5 feet behind the face of the curb or the minimum clear zone distance measured from the traveled way in accordance with the American Association of State Highway and Transportation Official's (AASHTO) Roadside Design Guide, latest edition (Table 3.1), whichever is greater.
2. Six (6) inch vertical curb shall be used at all locations where landscape features are permitted.

2130. Road Names and Signs

2130.010. All names for new roads constructed within the RBD shall be approved by the County or other appropriate Land Use Agency.

2130.020. Road name signs shall be installed at all new road intersections by the Applicant. All signs shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), latest edition, as adopted by the State of Idaho or as modified by the RBD and shall conform to the current version of the ISPWC as modified by Section 4000 of these specifications.

2130.030. Stop signs and other traffic control signs, as may be required to properly control traffic in a safe manner, shall be installed by the Applicant and shall be according to the MUTCD, latest edition adopted by the State of Idaho and shall conform to the 2020 version of the ISPWC as modified by Section 4000 of these specifications.

2130.040. Signage at private road intersections with public roads shall meet the requirements of Sections 2130.020 and 2130.030.

2140. Variances

2140.010. Purpose: The RBD may grant variances to prevent or lessen such practical difficulties and unnecessary physical hardships, which may result from a literal interpretation and enforcement of the regulations prescribed by these Standards. A variance may be heard by the PDD Council, or Board of County Commissioners, with a staff report provided by RBD.

A variance shall not be considered a right or special privilege but may be granted to an Applicant only upon showing 1) undue hardship because of special characteristics applicable to the site, and 2) the variance is not in conflict with the public interest. Hardships must result from special site characteristics, geographic, topographic, or other physical conditions, population densities, existing street locations, or traffic conditions.

The purpose of a variance is to provide fair treatment and see that individuals are not penalized because of site characteristics beyond their control.

2140.020. Findings Required for Variance:

A. The RBD may grant a variance if, based on application, investigation, and evidence submitted, the governing board makes the following findings:
   1. That literal interpretation and enforcement of the regulation would result in practical difficulty or unnecessary physical hardship inconsistent with the objectives of these Standards.
   2. That there are extraordinary site characteristics applicable to the property involved or to the intended use of the property, which does not generally apply to other properties.
   3. That literal interpretation and enforcement of the regulation would deprive the Applicant of privileges enjoyed by the owners of other properties.
   4. That the granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on other properties.
   5. That the granting of the variance will not be detrimental to the public health, safety, or welfare or be materially injurious to properties or improvements in the vicinity.

B. The RBD may grant variances for the location of fences, walls, or hedges, based on a substitute plan, which provides equal safety or aesthetic qualities by other means. The substitute plan must:
   1. Provide adequate vision clearance for vehicles, both those passing on the street and those leaving the development site.
   2. Not be detrimental to the public health, safety, or welfare, or be materially injurious to properties or improvements in the vicinity.

2140.030. Duration of Approval: The use or construction permitted under the terms of any variance shall be commenced within a six (6) month period. If such use or construction has not commenced within such time period, the variance shall no longer be valid. Prior to the expiration of the six (6) month period, the RBD, upon request of the Applicant, may extend the variance for up to an additional six (6) months, resulting in a total of twelve (12) months from the original date of approval. No additional extensions will be allowed.

2140.040. Application: Application for a variance shall be filed with the RBD on a form prescribed by the RBD, which shall include any information the RBD deems necessary.

The application shall be accompanied by an accurate scale drawing of the site and all adjacent property affected, showing all existing and proposed locations of streets, property lines, uses, structures, driveways, pedestrian walks, off-street parking, off-street loading facilities, and landscaped areas.

The application shall be accompanied by the appropriate fee established by the RBD and is nonrefundable.

2150. Vacation of Public Right-of-Way

2150.010. Vacation of any public right-of-way within the boundaries of the RBD shall be in accordance with procedures outlined in Idaho Code §40-203. All applications will be taken by the Road & Bridge Department.

2150.020. Application for vacation shall be filed with the RBD. An accurate scale drawing of the area and adjacent properties affected showing all property lines and methods of access to other properties should the vacation be granted shall be required by the RBD. The application shall be accompanied by the appropriate fee established by the governing board resolution and is nonrefundable.

2150.030. A public hearing on the vacation request will be held in accordance with Idaho Code. Such a hearing will be scheduled with the Board of County Commissioners with reasonable promptness by the RBD. The cost of the Public Hearing shall be borne by the Applicant regardless of the outcome.

2160. Surface Restoration

2160.010 Any disturbed area within the public right-of-way shall be restored in accordance with these standards within 30 days (or as approved by the RBD) from the commencement of surface disturbing activities. Prior to surface disturbing activities, a surface restoration schedule must be submitted and approved by the RBD. When utility work is being performed, surface restoration shall occur within 30 days of commencing construction on any pipe or cable run. A run shall be considered placement of pipe or cable between structures, valves, or

boxes, but in any case, not more than 500 feet in length.

When existing roadway pavement is disturbed temporarily, the disturbed areas open to local traffic or providing access to properties or emergency services vehicles shall be suitable to support the vehicle loads and maintained in a smooth, drivable condition.

When weather conditions do not permit plant mix pavement restoration within 30 days, a minimum two (2) inch thickness of cold mix or Class IV Hot Mix patch shall be temporarily provided until weather conditions permit restoration. The temporary patch shall be maintained in a smooth, drivable condition by the Developer, Applicant, or Contractor.

SECTION 3000

DESIGN CRITERIA

SECTION 3000

DESIGN CRITERIA

3010. General Design Criteria

3010.010. General: These Standards provide guidance for the development and preparation of Roadway, bridge, storm drain, and other development improvements. Developers and their engineers are expected to have enough flexibility within these requirements, to develop cost-effective, efficient, and safe projects compatible with the terrain and adjacent developments.

3010.020. Design Function: These Standards coordinate County-wide planning, design, and construction activities, aid in resolving conflicts, design exceptions, and assures the County Road and Bridge Department (RBD), Local, State, and AASHTO standards have been met.

3010.030. Design Standards and Specifications: The design policies and standards serve as the basic RBD guide in design and construction. The standards represent minimum values and are not a substitute for engineering knowledge, experience, or judgment.

3010.040. Roadway Design Standards: Roadway planning and design for the public road system shall conform to the following guidelines and referenced specifications. Use the most current edition unless otherwise specified.

A. American Association of State Highway Transportation Officials Policy on Geometric Design of Highways and Streets (AASHTO Greenbook).

B. AASHTO Geometric Design of Very Low Volume Local Roads (ADT ≤ 400).

C. AASHTO Roadside Design Guide.

D. Idaho Transportation Department Standard Drawings, Specifications, and Current Supplemental (only where applicable).

E. Idaho Standards for Public Works Construction (ISPWC), 2020 Edition.

F. AASHTO Materials Testing and Sampling Methods.

G. American Society for Testing and Materials (ASTM) Specifications.

H. Traffic Engineering Handbook from Institute of Transportation Engineers.

I. Manual on Uniform Traffic Control Devices (MUTCD), as adopted by the State of Idaho.

3010.050. Bridge Design Standards: Bridge and structure planning and design for the public road system shall conform to the following guidelines and referenced specifications. Use the most current edition unless otherwise specified.

A. AASHTO Bridge Design
B. ITD Standard Drawings, Specifications, and Current Supplemental (only where applicable)
C. Idaho Transportation Department Bridge Design LRFD Manual

3011. Survey

3011.010. General: All plans shall reference at least two Section/Quarter corners, and vertical control shall be tied to a NAVD 88 Benchmark. The project coordinates and elevations of these points shall be listed on the plans.

Subdivisions with 25 or more lots shall set two or more, depending on size, control monuments (aluminum/brass caps) within the subdivision with NAVD 88 elevations. The project coordinates and elevations of these points shall be listed on the plans.

All work identified in Idaho Code §54-1202(12) will be completed by an Idaho Licensed Land Surveyor.

3020. Roadway Classification

3020.010. Functional Classification: All roadways within the RBD are classified in accordance with the Intermodal Surface Transportation Efficiency Act of 1991. All roads are classified as Collectors, Local Roads, or Low-Volume Local Roads. It shall be the prerogative of the RBD having Jurisdiction over the area to be developed to define the roads within subdivisions and their classification as Collectors, Local Roads, or Low-Volume Local Roads. Functional Classification shall be based on the Planning Functional Classification Map adopted by the RBD or, when such map has not been adopted by the RBD, the Planning Functional Classification Map for the RBD. The developer shall request the most recent version of the Functional Classification Map from the RBD. For future planning, all section and quarter section line roads or boundaries are considered potential collector highways. Section line and quarter section line roads will require a 80-foot right-of-way unless the RBD otherwise determines. Some other roads may also be similarly designated. Presently these roads, where established, serve as farm-to-market and/or commuter routes. The RBD desires to preserve the integrity of these routes by designating them as potential collectors. For this reason, it is also deemed advisable to restrict the number of access points (driveways, etc.) to reduce safety problems and allow traffic to flow expeditiously and unimpeded.

3030. Right-of-Way

3030.010. The required width of right-of-way for each classification is shown in the Standard Drawings. Additional widths may be required for the accommodation of extreme cut or fill sections, turn bays, or other site characteristics. See SD-101 thru SD-103.

3030.020. Cul-de-sacs shall have a minimum right-of-way of a 60-foot radius with additional right-of-way as needed to accommodate unusual cut and fill sections. Cul-de-sacs of a temporary nature may be allowed, providing each right-of-way is shown on the plat and approved by the RBD. A standard cul-de-sac layout is shown in Standard Drawing 104 in the Appendix. The maximum length of a cul-de-sac on any roadway is 500 feet and servicing no more than 20 lots.

3030.030. Unless otherwise shown in the Standard Drawings: All intersecting rights-of-way lines and edges of pavement at low-volume (ADT≤400) local road intersections and at cul-de-sac bulbs shall be connected by a curve having a minimum radius of 20 feet. Local Roads shall have a minimum 30-foot radius curve connecting intersecting right-of-way lines and edges of pavement. All intersecting right-of-way lines and edges of pavement at collector intersections shall be connected by a curve having a minimum radius of 40 feet.

3040. Alignment

Horizontal and vertical alignment should complement each other and be considered in combination to achieve appropriate safety, capacity, and appearance. Topography, traffic volume, and right-of-way are controlling features.

3040.010. Horizontal and vertical alignments shall conform to the AASHTO Green Book latest edition. Design speed shall conform to Section 3040.060, be listed on the plans, and be approved by the RBD. The alignment shall take into consideration the turning movements of the design vehicle and volumes for the development.

3040.020. Vertical grades shall be a minimum of 0.5 percent for rural and urban roadways. The maximum vertical grade for all roadway classifications is 8 percent. In difficult terrain on local roadways, maximum grades of 10 percent are allowed with prior approval of the RBD. If roadway grades greater than 8 percent are approved by the RBD, mitigation measures shall be required, including but not limited to providing permanent erosion control in the borrow ditches. Secondary roadway profiles, at intersections, are required to have a maximum of ±2.0 percent grade for 20-ft from the edge of pavement of the primary roadway. In addition, this maximum ±2.0 percent grade will be extended an adequate distance to accommodate the vertical alignment requirements of 3040.030, outside of the 20-ft minimum distance.

3040.030. Crest and vertical sag curves shall have sufficient lengths to conform to the AASHTO Green Book, or AASHTO Low-Volume Manual (where appropriate), for the designated design speed. Vertical curves are required when the algebraic difference in grade-on-grade breaks is greater than 1.0 percent.

3040.040. For horizontal curvature, the minimum radius (R), measured on the roadway centerline, shall conform to the AASHTO Green Book, or AASHTO Low Volume Manual (where appropriate), latest edition.

3040.050. The minimum tangent length between curves shall be in accordance with AASHTO but in no case less than 50 feet for local roads and 100 feet for collector roads.

3040.060. The following tables show the values for design speed and superelevation for the classes of roads to be designed. Modification by the RBD on an individual project by project basis may be accomplished under the appropriate procedures outlined in Section 2000 of these Standards.

A. Rural Roadways:

Classification	Design Speed	Maximum Superelevation	Minimum Curve Radii w/o Superel.
Collectors	45-55 mph*	6%	6480'-9410'
Local Roads	35 mph	6%	4100'
Low Volume Local Roads	25 mph	6% (Note 1)	2290' (Note 1)

*As determined by RBD

B. Urban/Suburban Roadways:

Classification	Design Speed	Maximum Superelevation	Minimum Curve Radii w/o Superel.
Collectors	35-45 mph*	4%	510'-1039'
Local Roads	35 mph	4%	510'
Low Volume Local Roads	25 mph	4%	200' (Note 1)

*As determined by RBD

Note 1: May be modified according to AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT≤400)

3050. Sight Distance

3050.010. All aspects of sight distance; 1) stopping sight distance, 2) passing sight distance, 3) decision sight distance, and 4) measuring sight distance; shall be designed in accordance with the current AASHTO Standards.

3060. Roadway Cross Section

3060.010. The Standard Roadway Details are included in the Appendix of these Standards. These details show the cross-section characteristics required for roadways within the RBD.

3060.020. For industrial-type subdivisions, the typical curb and gutter section shown on Standard Drawing 102 shall be used with a 38-foot minimum lip to lip of curb width. The asphalt thickness for all industrial developments shall be designed by a Professional Engineer in accordance with Section 3060.070 to meet the projected traffic level of the development.

3060.030. The typical curb and gutter section shown on the Standard Roadway Details is required on subdivisions within one mile of a city limit or when requested by the RBD.

3060.040. All irrigation facilities, except crossings, shall be removed and maintained outside RBD right-of-way. Highway ditches may not be used for conveying irrigation water of any type.

3060.050. The roadway cross-section outside the paved area and inside the remaining right-of-way on roads with design speeds over 40 mph shall conform in all aspects with the AASHTO Roadside Design Guide, latest edition. This Guide will be used to determine safety characteristics for any appurtenances such as signing, rock outcrops, or general hazards to the traveling public. Conformance to that will be based on a project-by-project basis. Roadways under 40 mph shall conform with AASHTO requirements for clearzone as modified by the RBD.

3060.060. When compliance with State and local platting laws is possible, the RBD may allow the use of raised medians (islands). Said medians might be platted as a lot to remain under the ownership of a property owners association or other acceptable dues-paying organization. The RBD shall be provided with a hold harmless agreement and/or rider to the dues-paying organization's liability policy which names the RBD as co-insured. Where a raised median is allowed by the RBD in the center of a cul-de-sac, the median shall have a radius of 5 feet to the face of the curb or as required by the RBD. Vertical curbs are required around the perimeter of all raised medians. Gutters shall slope away from the curb to prevent ponding. Intersection street lighting shall be provided at all raised medians. The lighting shall conform to ISPWC Section 1102. The property owner's association or other acceptable dues-paying organization shall be responsible for the electrical service charges and for maintenance of the lighting in good working order. Type 1 object markers shall be installed at both ends of all raised medians. Raised medians at intersections shall be constructed in accordance with Standard Drawing 108.

3060.070. The structural section of a Roadway shall be designed based on the soil characteristics determined in the geotechnical report or with the minimum section thickness as indicated in these Standards. The Structural Section Design Calculations must be submitted for approval by the RBD.

Structural Section Design Calculations shall follow the ITD Method contained in the ITD Materials Manual Section 510, as modified in the following tables:

Roadway Classifications	TI*	Minimum Thickness (in)			Maximum R Value		
		Pavement	Base	Subbase**	Base	Subbase	Subgrade***
Collector (over 2,000 ADT)	Determined by RBD	Determined by RBD	Determined by RBD	Determined by RBD	75	60	Determined by RBD
Collector (400 to 2,000 ADT)	9	4"	6”	21"	75	60	15
Collector (400 ADT & under)	8	3”	6”	21”	75	60	15
Local Road (over 2,000 ADT)	Determined by RBD	Determined by RBD	Determined by RBD	Determined by RBD	75	60	Determined by RBD
Local Road (400 to 2,000 ADT)	8	3”	6”	15"	75	60	15
Low Volume Local Road (250 to 400 ADT)*	6	3”	6”	12”	75	60	15

*Twenty-year minimum design life - may be adjusted based on a traffic study. For local roads ADT≤250, TI may be reduced to 5.7 & asphalt depth may be reduced to 2.5”.
** Or a minimum of 2 times the nominal maximum aggregate size, whichever requires the greatest thickness.
*** May be adjusted by a site-specific geotechnical report; however, in no case shall the R-value exceed 45. Additionally, the subbase substitution value shall be 0.75:1 unless documentation is provided demonstrating that the subbase R-value exceeds 60.

Asphalt binder shall be called out on the plans in accordance with the following criteria:

The asphalt shall be PG 58-34 in accordance with AASHTO MP-1, Standard Specification for Performance Graded Binder, except as follows:

a. Use PG 64-34 at intersections with any two approaches having a Traffic Index (TI) of 8.0 or higher, through the intersection and for a distance of 500 feet from the center of the intersection.
b. Use PG 64-34 on all roadways with a TI over 9.0.
c. Use PG 70-34 at intersections with any two approaches having a TI over 10.0, through the intersection and for a distance of 500 feet from the center of the intersection.

The classification of pavement for the construction of roadways shall be identified on the construction plans and based on the following criteria:

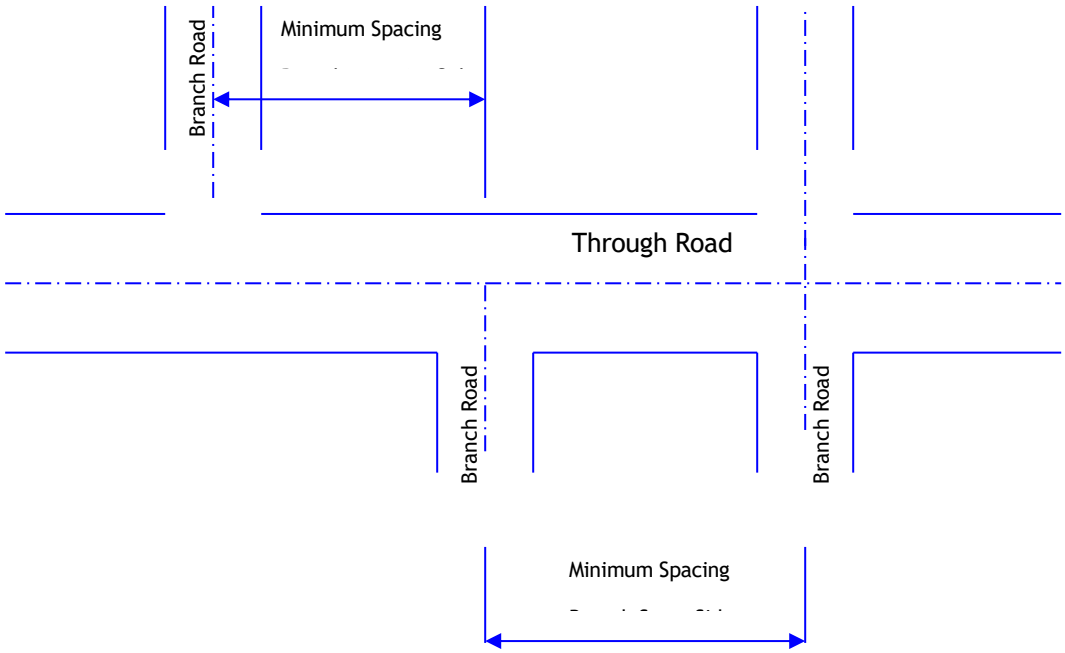
1. Class I/SP-5 - Required on all Roadways with a TI equal to or greater than 10.

2. Class II/SP-3 – Required on all Roadways with a TI greater than 8 and up to 10.
3. Class III/SP-2 – Required on all Roadways with a TI less than or equal to 8.
4. See Section 3150.129,000 Load Limits for additional requirements for 129,000 lbs. routes.

When a new development, or a change in nature and character of the land use, changes the definition or the demand on a RBD road by increasing the average daily traffic to the extent that the pavement section or design requirement moves to a higher category (e.g., LV Local Road to a Local Road between 400-2000 vpd, increases an existing gravel road's ADT over 250, etc.) The Developer may be required to participate in the cost of upgrading said roadway and the cost of obtaining right-of-way and/or easements (i.e., the developer is responsible for that portion of the cost caused by the increased traffic. In the case of gravel roads, if the development traffic causes the ADT to exceed 250 vpd, the development is required to pave the gravel roadway to the appropriate section identified in 3060.070). The level of participation will be determined by RBD at the preliminary plat stage for subdivisions and at the land-use change stage (rezone, conditional use permit, etc.) for other land use actions.

3061. Intersection and Approach Policy

3061.010. Roadway Spacing Policy: See Tables in sections A and B (below) for spacing rural and urban roadways requirements.



A. Rural Roadway Spacing (see spacing diagram above):

Through Roadway (see diagram)	**Branch Roadway (see diagram)**	**Minimum Spacing Branch on same side of Through Roadway**	**Minimum Spacing Branch on opposite side of Through Roadway**
Major Collector	Collector	1/4 mile	1/8 mile
	Local Road	1/8 mile	1/16 mile
	Private Road	No New Direct Access	No New Direct Access
Minor Collector	Collector	1/4 mile	1/8 mile
	Local Road	1/8 mile	1/16 mile
	Private Road	1/8 mile	1/16 mile
Local Roads	Local Road	1/8 mile	1/16 mile
	Private Road	1/8 mile	1/16 mile

B. Urban Roadway Spacing (see spacing diagram above):

Through Roadway (see diagram)	Branch Roadway (see diagram)	Minimum Spacing Branch on same side of Through Roadway	Minimum Spacing Branch on opposite side of Through Roadway
Major Collector	Collector	1300 feet	1300 feet
	Local Road	500 feet	250 feet
	Private Road	No New Direct Access	No New Direct Access
Minor Collector	Collector	1300 feet	500 feet
	Local Road	500 feet	250 feet
	Private Road	500 feet	250 feet
Local Roads	Local Road	250 feet	125 feet
	Private Road	250 feet	125 feet

3061.020. Driveway Spacing Policy:

A. Rural Roadway Driveway Spacing:

Roadway Classification	Minimum Driveway Spacing (in feet)		
	Minimum Use[a]	Minor Generator[b]	Major Generator[c]
Major Collector	No New Direct Access	No New Direct Access	No New Direct Access
Minor Collector	180	315	405
Local Road	140	270	360
Low Volume Local Road[d]	75	125	150

[a] less than 50 vehicle trips per day or 5 trips in the peak hour (two-way total).
[b] 51 to 2,000 vehicle trips per day or less than 500 trips in the peak hour (two-way total).
[c] over 2,000 vehicle trips per day or over 500 trips in the peak hour (two-way total).
[d] or County minimum (whichever is more restrictive).

B. Urban Roadway Driveway Spacing:

Roadway Classification	Minimum Driveway Spacing (in feet)		
	Minimum Use[a]	Minor Generator[b]	Major Generator[c]
Major Collector	No New Direct Access	No New Direct Access	No New Direct Access
Minor Collector	105	175	210
Local Road	50	100	125
Low Volume Local Road[d]	30	60	75

[a] less than 50 vehicle trips per day or 5 trips in the peak hour (two-way total).
[b] 51 to 2,000 vehicle trips per day or less than 500 trips in the peak hour (two-way total).
[c] over 2,000 vehicle trips per day or over 500 trips in the peak hour (two-way total).
[d] or County minimum (whichever is more restrictive).

Driveway spacing standards should be used to determine the minimum acceptable distance between driveways and between driveways and public streets. The spacing between intersections and driveways shall also be based on distances given in the tables.

Applying these guidelines requires considering adjacent existing and future land use in computing the generator size, including development across the Roadway.

On undivided roadways, access on both sides of the road should be aligned. Where this is not possible, driveways should be offset by at least 165 feet when two minor traffic generators are involved and 330 feet when two major traffic generators are involved.

3061.030. Driveways are not allowed direct access onto major collector roads or roads designated to be collectors in the future. If unusual conditions prevent approach locations as specified above, the Applicant may request a variance in accordance with Section 2140. Where a variance is granted, driveways shall be designed and constructed to provide forward vehicular movement for ingress and egress to the adjacent properties. Where double front lots are included in a development, a note shall be included on the plat stating that direct access is not allowed to the collector roadway.

3061.040. Circular Driveways with more than one access point are not allowed unless they meet the approach spacing requirements included in section 3061.020. Applicants desiring a circular driveway that does not meet the requirement of 3061.020 must place the circular portion of the driveway entirely outside of the right-of-way and maintain one access point complying with 3061.020.

3061.050. All approaches serving primarily truck traffic shall have a radius adequate to accommodate the truck turning movements, and the approach width shall be 40 feet unless otherwise approved or required by the RBD.

3061.060. All approaches shall conform to the requirements of Section 2020.030 of these Standards and Standard Drawings SD-105 and SD-106.

3062. Earthwork

3062.010. Geotechnical Engineering Report: All preliminary plat subdivision applications shall be accompanied by a geotechnical engineering report (Soils Report) documenting site soils and groundwater conditions and containing sufficient engineering information to verify adequate soil bearing capacities embankment requirements, and seasonal groundwater fluctuations.

3062.020. Mass Excavation and Placement Plan: A mass excavation and placement plan shall be included with excavation and/or embankments over 10-ft above or below the Roadway centerline construction plans.

3063. Trenching

3063.010. Utility Corridor: Private utilities that are not controlled by the Public Utilities Commission (PUC) shall be located in a fifteen (15) foot easement adjacent to the public right-of-way unless otherwise approved by the RBD. For development within a mile of a city's limits, utilities may be located in accordance with the city's utility corridor.

3063.020. Roadway Cuts: Cuts in roadways in existing pavements shall not be allowed unless specifically approved by the RBD. Utility service installations in these roadways shall be bored.

When a pavement cus is allowed, the contractor shall be responsible for the maintenance of a roadway for one (1) year after installation. PUC-regulated utilities shall be responsible for the maintenance for a period of three (3) years.

3064. Water

3064.010. General: Developments in an area of city impact may be required to provide water system improvements in accordance with that city's requirements. When water system improvements are required, the RBD shall submit the water system construction drawings to the city for review and comment. The RBD may then include the city's comments in the RBD's review and approval of the development.

Water valves shall not be located in the wheel paths on any collector roadway. Wheel paths are considered to be three (3) foot wide strips in each lane of traffic, centered at three (3) feet and ten (10) feet from the centerline or adjacent lane stripe.

All crossings shall be as close to 90 degrees to the roadway centerline as practical (zero skew). In no case shall the skew be greater than 20 degrees from perpendicular.

Proximity requirements to non-potable water systems will be managed as described in ISPWC Section 405.

3064.020. Conformance to Master Plan: New water system improvements shall conform to the appropriate city's current water system master plan. Developments adjoining existing public streets shall provide water system improvements in the Roadway as called for in the master plan or as required by the city. Trunk lines shall be extended to the boundary of the development in general conformance to the master plan or as required by the city for future extension.

3065. Sewer

3065.010. General: Developments in an area of city impact may be required to provide sewer system improvements in accordance with that city's requirements. When sewer system improvements are required, the RBD shall submit the sewer system construction drawings to the city for review and comment. The RBD may then include the city's comments in the RBD's review and approval of the development.

Manholes shall not be located in the wheel paths on any collector roadway. Wheel paths are considered to be three (3) foot wide strips in each lane of traffic, centered at three (3) feet and ten (10) feet from the centerline or adjacent lane stripe.
All crossings shall be as close to 90 degrees to the roadway centerline as practical (zero skew). In no case shall the skew be greater than 20 degrees from perpendicular.

Proximity requirements to non-potable water systems will be managed as described in ISPWC Section 405.

3065.020. Conformance to Master Plan: New sewer system improvements shall conform to the city's current sewer system master plan. Developments adjoining existing public roadways shall provide sewer system improvements in the Roadway as called for in the master plan or as required by the city. Trunk lines shall be extended to the boundary of the development in general conformance to the master plan or as required by the city for future extension.

3066. Irrigation

3066.010. All irrigation facilities, except crossings, shall be removed and maintained outside the RBD right-of-way.

3066.020. Irrigation and/or drain ditch culverts crossing roadways shall have cleanout boxes with minimum interior length and width dimensions of four feet on each side of the Roadway outside and adjacent to the right-of-way. Pressurized irrigation crossings shall be AWWA C-900 Class 150, ASTM C-2241 SDR 17 (Class 250) IPS water pipe or be placed in a casing to promote future removal for maintenance without disruption of the Roadway. Casings shall meet the requirements of ISPWC Section 308 and ISPWC SD-307, except that the annular space between the casing and carrier pipe shall not be filled. A water-tight seal shall be placed between or around the casing and carrier pipe at each end. End seals shall be closed-cell polyurethane or synthetic rubber boots with stainless steel bands. Casings shall extend to the right-of-way line. All crossings shall be as close to 90 degrees to the roadway centerline as practical (zero skew). In no case shall the skew be greater than 20 degrees from perpendicular.

Proximity requirements to non-potable water systems will be managed as described in ISPWC Section 405.

3070. Drainage

3070.010. All drainage features for the development shall be designed by an Idaho Registered Professional Engineer and approved by the RBD in conjunction with the roadway plans.

A. Hydrologic Procedures – The Rational Method shall be used for drainage areas up to 50 acres. For drainage areas between 50 and 200 acres, the Rational Method or the SCS TR-55 Method shall be used. For drainage areas greater than 200 acres, the SCS TR-55 Method shall be used. When the Rational Method is used, the approach and equations included in this section shall be used. When the SCS TR-55 Method is used, the methodology included in Natural Resource Conservation Service (formerly Soil Conservation Service) Technical Release 55 – Urban Hydrology for Small Watersheds shall be used.

B. Design Storm – The following design storm return periods shall be used with either the Rational Method or the SCS TR-55 Method:

Facility Type	Return Period
Conveyance System (Ditches, Pipes, Inlets, and Curb & Gutter)	25-Year
Secondary Conveyance Systems	100-Year
Detention Basins	25-Year
Retention Basins / Subsurface Disposal Systems	100-Year

C. Time of Concentration – Time of Concentration (Tc) shall be determined based on the most hydraulically remote point of the contributing drainage area to the point of analysis. Time of Concentration shall be the sum of the applicable travel times for saturation, sheet flow, shallow concentrated flow, pipe flow, and open channel flow. The components of the time of concentration shall be determined using the following equations:

1. Saturation Time - The time of saturation (T_s) shall be 10 minutes.

2. Sheet Flow Travel Time – The length of sheet flow (T_{sheet}) shall be less than 300 feet. Beyond 300 feet, the flow should be treated as shallow concentrated flow unless a defined open channel (i.e., ditch, gutter, pipe) exists, in which case Manning's equation for open channel formula shall be used.

$$T_{sheet} = \frac{0.933\ (nL)^{0.6}}{(I)^{0.4}\, s^{0.3}}$$

Where:

T_{sheet} = Sheet Flow Travel Time (minutes)

n = Manning's Roughness Coefficient for sheet flow (See Table)

L = flow length (feet)

I = Rainfall Intensity (inches/hour; use 1"/hour for calculations)

s = slope (feet/foot)

Manning's Roughness Coefficients for Sheet Flow

Surface Description	n
Smooth Surfaces (concrete, asphalt, gravel, or bare soil)	0.011
Fallow (no residue)	0.05
Cultivated Soils:	
Residue Cover ≤ 20%	0.06
Residue Cover > 20%	0.17
Grass	
Short Grass Prairie	0.15
Dense Grass	0.24
Bermuda Grass	0.41
Range (natural)	0.13
Woods:	
Light Underbrush	0.40
Dense Underbrush	0.80

3. Shallow Concentrated Flow Travel Time – The travel time of shallow concentrated flow (T_{con}) shall be determined using the following equation:

$$T_{con} = \frac{L}{60\ k\ s^{0.5}}$$

Where:

T_{con} = Shallow Concentrated Flow Travel Time (minutes)

k= Intercept Coefficient for Overland Flow (See Table)

L= flow length (feet)

s= slope (feet/foot)

Intercept Coefficients for Overland Flow

Surface Description	k
Short Grass Pasture	7.0
Cultivated Straight row	9.0
Grassed Waterway	15.0
Unpaved	16.1
Paved Area	20.3

4. Pipe Flow Travel Time (T_{pipe}) – Pipe flow velocity shall be determined using Manning's Equation, and the corresponding travel based on the length divided by the velocity. Alternatively, pipe flow velocity may be calculated using a velocity of 2 fps.

5. Open Channel Flow Travel Time ($T_{channel}$) – Open channel flow velocity shall be determined using Manning's equation, and the corresponding travel time based on the length divided by velocity. Alternatively, open channel flow may be calculated using a velocity of 1.5 fps.

D. Peak Runoff – The peak runoff rate (Q_p) when determined by the Rational Method shall use the following equation and coefficients:

$Q_p = C\ I\ A$

Where:

Q_p = Peak Runoff Rate (cubic feet per second)

C = Runoff Coefficient (See Table)

I = Rainfall Intensity (inches per hour)

A = Tributary Area (Acres)

The Runoff Coefficient shall be selected from the following table for the appropriate surface type. If more than one surface type is present within the drainage area, a composite Runoff Coefficient shall be determined based on the individual area and coefficient of each surface type.

Rational Method Runoff Coefficients

Surface Description	c
Pavement	
Asphalt and Concrete	0.95
Brick	0.85
Roofs	0.95
Lawns, Sandy Soil	
Flat (<2%)	0.10
Average (2% to 7%)	0.15
Steep (>7%)	0.20
Lawns, Heavy Soil	
Flat (<2%)	0.17
Average (2% to 7%)	0.22
Steep (>7%)	0.35

Table adapted from ACSE Design and Construction of Urban Stormwater Management Systems.

The intensity shall be determined from the Idaho Transportation Department's Intensity-Duration-Frequency Curves for the Zone where the development is located based on the time of concentration (duration) and frequency (return period).

E. Runoff Volume – Runoff volume (V) shall be determined using the triangular SCS unit hydrograph, based on the following equation:

$V = ½ Q_p (2.67 * T_c * 60)$

Where:

V = Volume (cubic feet)

Q_p = Peak Runoff Rate (cubic feet per second)

T_c = Time of Concentration (minutes).

The runoff volume shall be analyzed using the calculated T_c and 60 minutes (and corresponding Q_p values). Whichever produces the greater volume shall be used for design.

3070.020. Culverts: Culverts used for drainage purposes shall be of corrugated steel, aluminum, or concrete, with the thickness of the pipe being in conformance with the following table:

Diameter (in.) Required	Steel Thickness (in.)	Aluminized Steel Thickness (in.)	Concrete Class
18" – 36"	0.064	0.064	V

Other classes of concrete pipe may be used if the proper cover is provided in accordance with the manufacturer's recommendations and approval is obtained from the RBD. In no case shall PVC or HDPE pipe, or other flammable materials, be used for drainage on rural roadway sections.

Corrugated metal pipe shall have 2-2/3" x 1/2" corrugations. Culverts or multi-plate installations larger than 36 inches in diameter or any culvert under fills of 20-feet or greater in height shall have an HL-93 load rating. Collector roadways with high truck traffic shall also have an HL-93 load rating.

Culverts beneath public roadways shall be a minimum of 18 inches in diameter or the size necessary to accommodate the peak design storm flow, whichever is greater. Culverts under private roads or driveways shall have a minimum diameter of 12 inches and a length sufficient to accommodate the driveway width plus 4:1 slope (on each end) to the ditch bottom.

A 12-inch minimum cover from the bottom of pavement (top of base) is required on all pipe culverts, except for residential driveways, which may have a 6-inch minimum cover.

3070.030. Irrigation and/or drain ditch culverts crossing roadways shall have cleanout boxes with minimum interior length and width dimensions of four feet on each side of the Roadway.

3070.040. Drainage Easements: All necessary drainage easements for accommodating drainage structures and maintenance access shall be shown and recorded on the plat prior to approval. Drainage easements necessary for draining stormwater across private property shall be shown on the plat and recorded with the RBD by a letter from the Applicant describing the areas containing the easements, such as lot lines, blocks, etc.

3070.050. Borrow Ditches: Roadway or borrow ditches shall be designed to convey stormwater runoff and shall not be designed for stormwater disposal through infiltration. Interception of natural drainage ditches and the roadway ditch's subsequent use to convey the natural drainage will not be acceptable.

Roadway ditches shall be designed to convey the peak flow with a minimum of 0.5-feet of freeboard from the water surface to the edge of the roadway shoulder (top of foreslope).

Where flow velocities in ditches exceed two (2) fps, erosion protection measures shall be provided in the ditch. Use of six (6) inch layers of three (3) inch drain rock (per ISPWC) may be used to line ditches with velocities up to five (5) fps for erosion protection. For velocities greater than five (5) fps, the Applicant's Engineer shall design

erosion protection measures suitable for the velocities and submit to the RBD for approval or design a closed (piped) system for stormwater conveyance in these locations.

3070.060. Subsurface Stormwater Disposal: Subsurface stormwater disposal methods (including "dry wells" and seepage beds) may only be used in special circumstances when approved by the RBD. The RBD's approval shall be based on an analysis prepared by the Applicant's Engineer of all other possibilities for disposal of stormwater and determination that there is no feasible alternative to subsurface disposal. Subsurface infiltration facilities shall not be permitted where the native soil at the infiltration surface has an infiltration rate less than 0.25 inches per hour. Should subsurface stormwater disposal be allowed, it will be designed and sealed by a Registered Professional Engineer.

A. The following minimum criteria shall apply to the design of subsurface infiltration facilities when approved by the RBD:

1. Subsurface stormwater disposal systems shall be designed for a 100-year storm event and the tributary area's time of concentration or one (1) hour, whichever provides the greater runoff volume.

2. One (1) foot of freeboard shall be provided from the design water surface elevation in the subsurface facility to the top of the bed.

3. Design infiltration rates shall be based on percolation tests conducted by the Applicant's Engineer at the proposed subsurface drainage facility location, but in no case shall a rate exceeding eight (8) inches/hour be used.

4. The subsurface drainage facility shall be designed to drain entirely within 24-hours.

5. The bottom of any subsurface disposal system shall be located a minimum of three (3) feet above seasonal high groundwater level or bedrock.

6. Subsurface disposal systems shall be backfilled with 1½ - inch washed drain rock (void ratio 35%).

7. Perforated distribution piping shall be a minimum of 12" diameter and meet the requirements of ISPWC Section 601.

8. Filter fabric shall be placed on the sides and top of the drain rock, and all fabric joints shall be overlapped a minimum of 1-foot.

9. If the native material directly below the drain rock is not free draining sand or gravel, a layer of filter sand meeting the requirements of ISPWC Section 801 shall be placed to a depth of 3-feet below the drain rock.

10. If the native material directly below the filter sand or drain rock does not have an infiltration rate equal to or exceeding the design infiltration rate, 6" uncrushed aggregate, 3" uncrushed aggregate, sand, or filter sand meeting the requirements of ISPWC Section 801 shall be extended to a depth where material meeting the design infiltration rate is encountered.

11. A sediment and grease trap shall precede subsurface disposal systems. Sediment and grease trap shall be an API-type Oil/Water separator with a minimum volume of 1000 gallons. The maximum throat velocity shall be 1 fps.

12. A minimum of two (2) monitoring wells extending to four (4) feet below the infiltration basin floor shall be provided for each seepage bed, one within the bed and one within 10' of the seepage bed perimeter. The monitoring wells shall conform to the monitoring well requirements in Section 3070.100.

3070.070. Curb and Gutter: Curb and gutter roadway sections shall be designed to convey the design storm so that no more than ½ of the outside travel lane is covered with water during the peak storm design flow. Inlets shall be designed to intercept all gutter flow without bypassing flow, or the downstream drainage facilities and curb and gutter shall be designed to accommodate the bypassed flow. When a curb and gutter roadway section is proposed, a complete storm sewer system must be designed and constructed under a Registered Professional Engineer review. The RBD reserves the right to require curb and gutter at locations where, in its sole discretion, such is necessary to adequately control storm runoff or to address maintenance concerns.

3070.080. Storm Sewer Systems: Storm sewer system pipes shall be designed to convey the peak flow without surcharging. Manholes shall be placed at all junctions, changes in grade or alignment, and at no more than 400-foot spacing.

All piping and appurtenances for storm sewers shall conform to the ISPWC for materials, installation, and testing.

3070.090. Secondary Conveyance Systems: Secondary Conveyance Systems are roadways, open channels, overland flow, or other flow routes that convey flows in excess of the conveyance systems capacity. The Applicant's Engineer shall design the secondary conveyance systems to convey the 100-year storm while remaining within the right-of-way or drainage easements.

Any disruption of the area's normal drainage pattern must have special consideration to facilitate future drainage of the area. Continuation of an area's natural drainage pattern shall be accommodated in the design.

3070.100. Detention/Retention Facilities: Stormwater detention/retention facilities to store runoff shall be provided at a location outside the required minimum width of right-of-way for the type of Roadway as provided in Section 3030. Storage/infiltration of water in the roadside ditches is not allowed. Runoff volumes calculated for use in determining storage requirements shall be based on a storm duration of one (1) hour (or the time of concentration, whichever produces the greater volume) when using the rational method, or 24 hours when using the SCS method. Release rates of water from detention basins to downstream facilities shall be limited to the pre-development discharge rates. The facilities shall be located within a drainage easement. The drainage easement shall provide for the sole purpose of locating, establishing, constructing, and maintaining over and across the described real property the stormwater detention/retention facilities together with such rights of entry on, passage over, and storage of material and equipment on such stormwater detention/retention facilities as may be necessary or useful for the reconstruction, maintenance, cleaning out and repair of such stormwater detention/retention facilities. Ownership and regular maintenance responsibility of the property upon which the stormwater detention/retention facilities and drainage easement are located shall be in accordance with Section 3070.110.A. The following criteria shall apply to the design of all detention/retention facilities:

1. One (1) foot of freeboard shall be provided above the design water surface elevation.

2. Sideslopes shall be no steeper than 4 horizontals to 1 vertical (4:1).

3. Sideslopes shall be stabilized with irrigated turf grass or dryland grass.

4. Detention and surface infiltration facilities shall be designed to drain the design volume within 24-hours.

5. Scour protection shall be provided at the inlet and outlet pipes and may consist of concrete aprons or appropriately sized riprap/cobbles with filter fabric.

6. Emergency overflows shall be provided for all detention/retention facilities and shall be concrete or riprap with filter fabric.

B. The following criteria shall apply to the design of detention facilities:

1. Detention facilities shall be designed using a 25-year storm event and the tributary area's time of concentration or one (1) hour, whichever produces the greater volume.

2. The floor of any detention facility shall be located a minimum of three (3) feet above the seasonal high groundwater level.

3. The detention basin floor shall be sloped at 1 percent to the low flow outlet/orifice.

C. The following criteria shall apply to the design of surface infiltration (retention) facilities:

1. Surface infiltration facilities shall not be permitted where the native soil at the infiltration surface has an infiltration rate of less than 0.25 inches per hour.

2. Surface infiltration facilities shall be designed using a 100-year storm event and the tributary area's time of concentration or one (1) hour, whichever produces the greater volume. The storage volume shall be 115% of the design storm runoff volume.

3. Design infiltration rates shall be based on percolation tests conducted by the Applicant's Engineer at the location of the proposed infiltration facility, but in no case shall a rate exceeding 8 inches/hour be used.

4. The floor of any surface infiltration facility shall be located a minimum of three (3) feet above seasonal high groundwater level or bedrock.

5. The floor of surface infiltration facilities shall have a minimum depth of three (3) feet of filter sand meeting the requirements of ISPWC Section 801, unless there are four (4) feet or more of clearance to high groundwater, then the depth of filter sand may be reduced to eighteen (18) inches.

6. If the native material directly below the filter sand does not have an infiltration rate equal to or exceeding the design infiltration rate, 6" uncrushed aggregate, 3" uncrushed aggregate, sand, or filter sand meeting the requirements of ISPWC Section 801 shall be extended to a depth where material meeting the design infiltration rate is encountered.

7. A minimum of two (2) monitoring wells extending to four (4) feet below the infiltration basin floor shall be provided for each seepage bed, one within the bed and one within 10' of the seepage bed perimeter. The monitoring wells shall be in accordance with the ISPWC, including ISPWC SD-627.

3070.110. Maintenance: Maintenance of storm drainage facilities located outside the public right-of-way shall be the responsibility of the property owner or homeowner's association. Maintenance shall include non-routine or "heavy" maintenance and routine or "light" maintenance. Non-routine ("heavy") maintenance consists of rehabilitative activities necessary to correct deficiencies in the operation of a facility that are not normally performed on a regular basis. Routine ("light") maintenance consists of preventative activities generally performed on a regular basis to maintain the operation and aesthetics of a facility. A note shall be included on

the face of the final plat stating, “Storm drainage facilities outside the public right-of-way shall be the responsibility of the Homeowner’s Association or property owner on which the storm drainage facility is constructed if no homeowner’s association exists. Responsibility for storm drainage facilities includes all maintenance, both routine and non-routine.”

3080. Structures

3080.010. Bridges and Structures: Bridges and structures shall be designed in accordance with the AASHTO Standard Specifications for Highway Bridges, latest edition.

The design vehicle for bridges shall be a minimum HL-93 for collector roadways, as well as industrial subdivisions. The HL-93 design load may also be used on local roads and low-volume local roads.

The minimum width of a bridge structure from the face-to-face of the curb or the face-to-face of the guardrail or bridge rail shall be in compliance with the AASHTO Green Book, except for collectors and local roads, which require structures to extend from right-of-way to right-of-way.

The vertical clearance above waterways shall be 2 feet above the 50-year flood and 17 feet over other roadway surfaces.

Only structures of steel, or steel and concrete, shall be used without prior approval by the RBD.

3080.020. Retaining walls shall be either reinforced concrete, bin walls, reinforced earth, or concrete crib walls. All retaining wall structures shall be designed and sealed by a Registered Professional Engineer and shall be approved by the applicable RBD prior to their construction.

3080.030 A foundation investigation and recommendation shall be prepared for all bridges and retaining walls by a registered professional engineer and submitted to the RBD with the plans and specifications.

3090. Signing

3090.010. All permanent signing shall be shown on the design plans and shall be in conformance with the Manual on Uniform Traffic Control Devices (MUTCD), latest edition adopted by the State of Idaho, and shall conform with Section 4000 of these specifications. All public road street name signs shall have a green background, and all private road street name signs shall have a blue background.

3090.020. All signs shall be installed by the Applicant prior to the acceptance of the project by the RBD.

3090.030. All construction signing shall conform to the MUTCD, latest edition.

3100. Guardrail

3100.010. Guardrails may be necessary for certain areas depending upon the warrants for protecting the traveling public. The developer shall provide the applicable warrants for determining if a guardrail is needed, in accordance with the AASHTO Roadside Design Guide as supplemented by Section 570 of the ITD Design Manual. The RBD reserves the right to determine the need for a guardrail under each separate circumstance.

3100.020. The type of guardrail to be installed shall be determined by the RBD as the location dictates.

3100.030. The Test Level required for the guardrail can be determined from the following table:

Test Level	Highway Type	Design Speed	Traffic Type
1	Local Road	≤ 30 mph	Low Volume
2	Collector Road	30 mph ≤ 45 mph	Small Number of Heavy Trucks
3	All Road Classifications	≥ 45 mph	Low Mixture of Heavy Trucks
4	All Road Classifications	≥ 45 mph	High Mixture of Heavy Trucks

Increase one Test Level for any of the following unfavorable conditions:

- Reduced radius or curvature (Degree of Curve > 3°)
- Steep downgrade on curves (Grade > 3°)
- Variable cross slopes
- Adverse weather conditions

3110. Cattle Guards

3110.010. When determined necessary for stock control, a cattle guard may be installed on the RBD-controlled roads. The permitting application for the installation of cattle guards shall be in accordance with the following:

1. An approved encroachment permit will be required prior to the installation of the cattle guard.
2. Cattle guards shall be designed and installed to accommodate HS-25 loadings with concrete footings. Precast footings are allowed.
3. All costs of furnishing, installing, and maintaining the cattle guard shall be the responsibility of the permittee, except in the case of cattle guards located in herd districts, which will be IAW I.C. 25-2401.
4. The minimum width of the cattle guard shall be 28-feet, except as noted on the Standard Drawing in the Appendix.
5. Adequate drainage will be required for all installations.

6. The cattle guard shall be inspected and approved by the RBD to ensure that all standards have been met.
7. Failure to maintain the cattle guard in satisfactory condition will be justification for the removal of the cattle guard at the expense of the permittee.
8. Cattle guard shall not have a surface variance greater than ¼" from intersecting Roadway.

3120. Striping or Pavement Markings

3120.010. All Collector roads shall have centerline, lane separation, and fog line pavement markings. The RBD reserves the right to require pavement markings on local roads. All permanent striping or pavement markings shall be shown on the design plans and shall be in conformance with the Manual on Uniform Traffic Control Devices (MUTCD), the latest edition adopted by the State of Idaho.

3130. Traffic Impact Studies

3130.010. The RBD must consider the impacts of a proposed development on nearby land uses and transportation facilities. A study will be required if the proposed development anticipates a peak hour trip volume of more than 40 or an average annual daily trip volume greater than 400 (total in and out vehicular movements).

In addition to the threshold limits identified above, the RBD may require a traffic impact study for other types of actions that may be appropriate for evaluation, including but not limited to:

- Access Permits
- Conditional Use Permits
- Rezone Requests
- Preliminary Plat
- Final Plat
- Formation of special purpose districts
- Amendments to comprehensive plans
- Annexations.

The following table defines the initial extent of the TIS study area and the study analysis years, based on the size of the development. If the combined volumes of a multi-phase development meet TIS category thresholds, then a study shall be completed for all phases and submitted with the first phase. The RBD may, at its sole discretion, require expanded study areas and/or study years based on site-specific conditions or requirements.

TIS Study Criteria			
TIS Category	**Development Peak Hour Traffic**	**Minimum Required Study Area**	**Minimum Study Year(s)[1]**
Small	Fewer than 200 trips during any peak hour	First intersection each way[2] plus all intersections and access points[3] within 0.25 miles of a development site property line	Build-Out year
Medium	Between 201 and 500 trips during any peak hour	First intersection each way[2] plus all intersections and access points[3] within 0.5 miles of a development site property line	Build-Out year and five years after build-out
Large	Over 500 peak hour trips during any peak hour	First intersection each way[2] plus all intersections and access points[3] within 1.25 miles of a development site property line	Build-Out year, five years after build-out and ten years after build-out

[1] Multi-Phase developments shall include a phasing analysis to determine when identified mitigation measures are triggered
[2] For developments that include any quadrant of an intersection, "each way" will include the first intersection down all legs of the intersection
[3] "Access point" includes all accesses with five or more vehicle trips in any peak hour

For a development that generates between 40 and 100 new trips during any peak hour, the RBD may waive the requirements for a full TIS if the developer provides an acceptable, stamped Engineer's statement that includes the following minimum criteria (as supported by applicable analysis):

- The development approaches to the public roadway will function with negligible impact on traffic flow
- Development traffic will enter and exit the development within acceptable delay (LOS) criteria
- Development traffic will have negligible impact on adjacent private approaches and public roadway intersections within 0.25 miles of the development boundary
- The development approaches and traffic do not impose foreseeable safety concerns
- Special mitigation measures are not necessary to accommodate development traffic

The RBD may, at its sole discretion, waive the TIS requirements if the RBD determines there are no traffic issues that will be resolved, regardless of the outcome of the TIS.

3130.020. Prior to the initiation of a traffic impact study, the developer shall meet with the RBD to establish study parameters and discuss the requirements of the study. The purpose of this meeting will be to identify and approve:

- Scope of a traffic impact study
- Methodology & assumptions
- Study area and limits
- Other agencies who will be involved in the review process
- Review & response time limits
- Multi-modal considerations
- Cumulative development considerations and background traffic
- Deliverables (hard copies & electronic files)
- Other items identified by the RBD
- Report content

Traffic impact studies shall be conducted in conformance with accepted industry standards and shall be sealed by a registered Idaho Professional Engineer. The Institute of Transportation Engineers' Transportation Impact Analyses for Site Development, An ITE Recommended Practice, or other industry-accepted guidelines may be used as guidance in conducting traffic impact studies.

The minimum design Level of Service (LOS) shall be "C" for rural roadways and intersections and "D" for suburban and urban roadways and intersections. Rural developments are defined as located in the jurisdiction of the County and not within a Municipal Area of Impact. Suburban sites are in the County and are within a Municipal Area of Impact or 1 mile of City Limits. Urban sites have been or will be annexed at the time of application and may require additional TIS requirements based on the Annexing jurisdiction.

Traffic generated by each type of Land Use will be determined using the latest edition of the Institute of Transportation Engineers (ITE) publication, "Trip Generation Manual." The developer shall submit the traffic impact study to the RBD with the preliminary plat application unless a different submittal date is determined by the RBD.

Each traffic study shall consider the following:

A. The continuation of local, collector, and arterial roads. The study shall cover roadways from the development boundaries to an intersection with existing or proposed local, collector, or arterial roads.

B. Existing land use, roadways, traffic patterns, roadway volume, and turning movement volume within the study area. The study must consider local road's average daily traffic and traffic during at least the representative peak hour at all intersections and all collector and arterial roadways.

C. Existing levels of service within the study area. This will be determined using the methodologies contained in the latest edition of the Highway Capacity Manual (HCM).

D. Planned Road improvements and major land developments within the study area.

E. Forecasts of future traffic patterns, roadway capacity, and turning movements in the study area without consideration of the proposed development. This establishes “background traffic.” Traffic patterns and roadway capacity shall be forecast for the study years identified based on the TIS Category. Contact the RBD for known adjacent developments to be included in the study. Turning movements shall also be forecasted for the study years identified based on the TIS Category. The study shall include a reasonable rate of regional traffic growth. It shall also estimate the additional traffic likely to be generated by vacant land development in and surrounding the area. The basis of development projections shall be current zoning prepared with advice from RBD staff.

F. Trip generation and distribution are expected for the proposed development. This is “site traffic.”

G. Forecast of future traffic patterns, roadway capacity volumes, and turning movements in the study area after the proposed development is fully built and occupied. These numbers are “site traffic” plus “background traffic.”

H. Future levels of service in the study area, with “site traffic” plus “background traffic.” Forecast intersection levels of service at the development for the study years identified based on the TIS Category. Identify all roadway/intersection configurations and traffic control devices necessary to maintain the minimum design LOS.

I. For commercial or industrial developments, recommended roadway/pathway improvements and mitigation measures. This includes the location and design of driveways, intersections, and traffic control devices. Include potentially viable non-roadway measures, such as ridesharing, transit, bicycling incentives, and staggered or flexible work hours.

J. For any development within one (1) mile of an existing or proposed school, analyze all school crossings, safe routes to school, bikeways, and all collectors and arterials to and from school.

K. Evaluate the effects of the traffic from the proposed development on existing local roads and the effects of traffic from existing local streets on the proposed development.

L. Evaluate the need for right-turn and left-turn lanes at all intersections. At non-signalized intersections or approaches, left-turn lane and right-turn lane warrants shall be based on NCHRP Report 457 Evaluating Intersection Improvements: An Engineering Study Guide.

M. Average Daily Traffic (ADT). Estimate ADT for all roadway segments in the proposed development likely to have volumes exceeding 1,000 vehicles per day. These estimates will help select the proper road cross-section for each segment. Each proposed collector road should be broken into several segments. Base this evaluation on key intersections in the proposed street network. This will determine the length of collector-width road required and the extent of collector traffic levels into the development.

Compare projected volumes on streets that provide access to the development with the applicable threshold volumes. Use the RBD design policy and adopted planning thresholds as references.

Any development located on or near any midsection shall include provisions for ¼ mile or ½ mile Collector Road. The traffic study shall optimize the location and connectivity of ¼ collector roads through developments.

N. Trip Generation Rates. Trip generation rates used in the study shall be supported by appropriate data presented in the latest edition of the ITE publication, "Trip Generation Manual." Other studies recognized by the traffic engineering profession may be used and referenced within the study.

O. Preparation of Traffic Impact Study. A qualified Professional Engineer shall prepare and seal the traffic impact study.

3140. Transportation Plan and Connectivity

Public roads shall be designed and built to the specifications in this manual and in conformance with the following requirements:

3140.010. RBD Transportation Plan: All roadways in a subdivision must conform to the master transportation plan of the RBD and any adopted neighborhood roadway plans. Where a subdivision abuts or contains an existing or proposed arterial or collector street (including those in the State Highway System) or railroad, the RBD may require marginal access streets, reverse frontage with screen planning contained in a non-access reservation along with rear property line, frontage or backage roads, stub streets, and provisions to terminate temporary access when alternate access is provided, or such other treatment as may be necessary for the safety and capacity of the arterial Roadway, adequate protection of residential properties and to afford separation of through and local traffic.

3140.020. Stub Street: Where adjoining areas are not subdivided, the arrangement of roads in new subdivisions shall be such that said roads extend to the boundary line of the tract to make provision for the future extension of said roads into adjacent property areas in accordance with the RBD's master street plan or the RBD Engineer's requirement(s). A reserve strip may be required and held in public ownership between the tract boundary and the stub extension. Proper provision for a temporary or permanent turnaround at the end of the stub connection shall be made. Any such turnaround shall be subject to acceptance by the Fire Jurisdiction. A sign shall be installed at the subdivision boundary stating that the Roadway will be extended in the future. Temporary turnarounds shall meet SD-104 Standard Cul-De-Sac Layout, except that plant mix pavement is not required beyond the standard roadway section when two or fewer lots are served off the stub street.

3150. 129,000 Load Limits

3150.010. As identified in Idaho Code 49-1004A and 49-1004B (whichever is in force at the time of the application), RBDs may designate routes for the operation of vehicles in excess of 105,501 lbs. gross vehicle weight and not exceeding 129,000 lbs. gross vehicle weight (i.e., 129K routes). When considering the designation of 129K routes, the RBD (RBD) shall consider the structural and safety impacts of any proposed 129K route to its transportation facilities. Therefore, a 129K route study will be required if the proposed route is not currently designated or if additional users on a designated route would exceed the RBD's established criteria for the existing 129K route. The intent of the study is to identify and evaluate the structural capacity of roadways, bridges, and other appurtenances, as well as any additional maintenance incurred on the route and potential public safety concerns.

The RBD's 129,000 Load Policy is included in the Appendix.

3200. Vision and Signage Clearance

3200.040. Landscape plantings placed within clear vision triangle areas, as hereafter reiterated, shall be selected according to their ability to be easily maintained in compliance with the requirements of such areas.

3200.050. No plantings shall be placed within five (5) feet of a traffic sign associated with a subdivision or allowed to grow within two feet (2') of the same. No plantings shall be placed within three feet (3') of a fire hydrant.

3200.060. Any vegetation, fence, or other obstruction which creates a traffic hazard, interferes with pedestrian traffic, obscures traffic control signs, or creates a vision sight problem, may be deemed a nuisance and be subject to modification, removal, or otherwise according to the provisions of these Standards and Idaho Code.

3200.070. Trees in the vision clearance area shall be trimmed to at least ten feet (10') above the curb line or edge of pavement to provide clear visibility up to that height. Shrubs and site obscuring fences or walls in vision clearance areas shall not exceed three feet (3') in height above the curb line or edge of pavement or as required to maintain a clear line of sight. Landscaping amenities such as boulders and subdivision signs shall also comply with the clear vision clearance requirements, shown on Standard Drawings SD-107, SD-107a, and SD-108, as well as AASHTO clear zone requirements.

SECTION 4000

CONSTRUCTION

SPECIFICATIONS

SECTION 4000

CONSTRUCTION SPECIFICATIONS

STANDARD CONSTRUCTION SPECIFICATIONS

The Road and Bridge Department (RBD) has adopted the Idaho Standards for Public Works Construction (ISPWC), 2020 edition, as their standard construction specifications with the modifications listed in the following specifications. In the event of a conflict between the ISPWC and the RBD specifications, the RBD specifications shall govern.

MODIFICATIONS

The sections which follow replace, modify, or add to sections of like numbers in the ISPWC.

200 EARTHWORK

201.1.1.A.3 Clearing and Grubbing; add the following to the end of the last sentence:

… and approved by the RBD.

201.3.1.B.5 Removal and Disposal; delete the second sentence and replace it with the following:

Complete stripping 4 inches deep or as approved by the RBD.

201.3.1.B.8 Removal and Disposal; add the following item:

8. Clear and grub, in accordance with this section, all areas that will be utilized for construction of any permanent building, dwelling, roadway, driveway, sidewalk, or any other feature that may be damaged by settlement.

202.1.4 Submittals; add the following subparagraph:

C. Submit blasting plan and copies of all permits to the RBD prior to commencing blasting operations.

202.3.3.C.8 Controlled Blasting Provisions; add the following item:

8. In solid rock excavation, the rock shall be excavated a minimum of 6 inches below the finished subgrade elevation and backfilled with uncrushed aggregate in accordance with Section 801 and compacted to Class A Compaction.

202.3.5.H Subgrade; delete subparagraph H and replace with the following:

H. Obtain RBD approval of the subgrade, including borrow ditches, fill, and cut slopes, prior to placing subbase. The RBD shall have 24-hour notice. Observation by the RBD shall be during normal RBD working hours.

202.3.6.E Maintenance of Subgrade and Drainage; add the following subparagraph:

E. If conditions are encountered during excavation indicating the possibility of "pumping," the contractor shall implement procedures to minimize the effects of his operations on this condition. Methods may include using track-type equipment, avoiding tracking of successive trucks or other equipment, or modifying his operation to eliminate traffic on the "pumping" material while proceeding with the construction. If the condition worsens, other remedies may be implemented at the direction of the engineer.

The contractor shall be required to modify his equipment or operations to prevent damage to the exposed sub-grade, sub-base, and base. All costs associated with modifying equipment and construction methods to protect the underlying material shall be considered incidental to the project, and no separate payment will be made.

The contractor is responsible for maintaining the integrity of the exposed underlying material. Degradation due to his operations, the weather, or other factors shall be remedied under the guidance of the engineer at the contractor's expense.

202.3.7.C Excavation of Unsuitable Material; delete the second sentence and replace with the following:

The repair is to consist of the excavation and disposal of the existing soil and replacement with uncrushed aggregate base in accordance with section 801 and includes Class A compaction.

202.3.8.A.1 General; add the following sentence:

Embankment construction also consists of any construction fill upon which a permanent building, roadway, or feature intended to be delivered to the RBD for continuous operation and maintenance may be built.

202.3.8.A.8 General; add the following item:

8. Embankment construction must conform to the recommendations of the geotechnical engineer for allowable lift thickness and required compaction.

202.3.8.B.1 Construction Requirements; add the following sentence:

If the material used for constructing embankments meets the requirements of S2 or S3 soil in accordance with section 203, the material will not be required to meet the S.E. requirement.

202.3.8.B.3 Construction Requirements; add the following to the end of the first sentence:

… at the end of each shift or day.

202.3.9.B Classes of Compaction and Density Requirements; delete the sentence and replace with the following:

Class A Compaction is specified unless otherwise approved by the RBD.

202.3.12.C Erosion Control and Fencing; add the following subparagraph:

C. Provide a copy of the erosion control plan and Notice of Intent, submitted to the EPA, to the RBD prior to starting construction.

204.3.3.B.1 Construction Requirements; delete item 1 and replace it with the following:

1. Place no structure until the foundation has been approved by the RBD. The RBD shall have 24 hours' notice. Observation by the RBD shall be during normal RBD working hours.

205.1.4 Submittals; add the following subparagraph:

C. Submit a copy of the approved dewatering plan, including the required discharge permits, to the RBD prior to commencing dewatering activities.

206.2.7.D.3 Concrete Stabilized Riprap; delete item 3 and replace with the following:

3. To be used only when pre-approved by the engineer and the RBD.

206.3.1.C.2 Class of Seeding; delete item 2 and replace with the following:

2. At a minimum, Class B Seeding shall be used with the following seed mixture and fertilizer or as approved by the RBD.

SPECIES	Lbs. Bulk Seed Per Acre
"Sodar" Streambank W.G. (ELLAL)	6
Intermediate W.G. (THIN6)	6
Hard Fescue (FETR3)	2
Bottlebrush Squirreltail (SIHY)	8
Lodak Alfalfa (MESAL)	1
Silky Lupine (LUSE)	2
Nitrogen	based on available moisture
Phosphorous	1.2

206.3.3.A.3 Riprap; add the following to the end of the first sentence:

… by the RBD. RBD shall have 24-hour notice. Observation by the RBD shall be made during normal RBD working hours.

207.1.1.A Stormwater Filters; delete items 2, 4, and 5 (these items are not approved for use).

207.1.1.B Infiltration Facilities; modify item 1 as follows:

1. Infiltration Trench (allowed only in urban street sections).

207.1.1.B Infiltration Facilities; delete item 2 (this item is not approved for use).

207.1.1.C Detention Facilities; add the following to items 1, 2, 3, 4, 5, and 6:

… shall be pre-approved by the engineer and the RBD before use.

207.1.1.C Detention Facilities; delete item 5 (this item is not approved for use).

207.1.1.D Other Structural Controls; delete item 2 (this item is not approved for use).

300 TRENCHING

301.1.4.D Submittals; add the following subparagraph:

D. Submit a copy of the approved dewatering plan, including any required discharge permits, to the RBD prior to commencing dewatering activities.

301.1.6.B Project Record Documents; delete subparagraph B and replace with the following:

B. Provide a copy of record documents, approved by the engineer, to RBD prior to issuance of substantial completion.

301.3.14.A Tunneling; add the following to subparagraph A:

Backfill shall be lean concrete per Section 703 – Cast-in-Place Concrete.

301.3.16.B Watering for Dust Control; delete subparagraph B and replace with the following:

B. Correct deficient dust control within 4 hours after notification by the Engineer or RBD. If not corrected within 4 hours, the RBD may correct the deficiency at the Contractor's / Developer's expense.

302.1.4.G Submittals; add the following subparagraph:

G. Submit one copy of required documentation listed in paragraph 302.1.4.A. through 302.1.4.F to the RBD.

302.1.8.B Scheduling; add the following to the end of the last sentence:

… and approved by the RBD.

305.2.3 Type II Bedding; delete this paragraph (not approved for use).

305.3.10.A Compaction: modify subparagraph A as follows:

Change compaction requirements from 92% to 95%.

305.3.11.A.3 Bedding System Application; delete items 3 and 4, and replace with the following:

3. Pressure Sewer, Pressure Water, Pressure Irrigation: Use Class B-2 Bedding System.

306.3.3.B.1 Compaction Requirements; modify Item 1 as follows:

Change compaction requirements from 92% to 95%.

306.3.3.B.4 Compaction Requirements; delete Item 4 and replace it with the following:

4. Method; use the A-1 compaction technique as approved by the RBD.

306.3.3.C.4.b Type A-1 Compaction; modify Item a as follows:

Change compaction requirements from 92% to 95%.

306.3.7 Minimum Testing Frequency; add paragraph 3.7 - MINIMUM TESTING FREQUENCY as follows:

A. A minimum of one (1) compaction test per backfill layer is required for any trench backfill, including “Bell Holes.”

B. For all other trench backfills, compaction testing must be performed at the following frequency:

1. Two (2) tests at different locations for every trench less than 500 feet in length, but not less than once per day.

2. One (1) test per every 500 feet of additional trench and at locations where materials or construction procedures change, but not less than once per day.

3. At every location for 1 and 2 above, obtain a test at ½ of the total trench depth and one (1) test at the top of the trench backfill (test set).

307.1.4.C Submittals; add the following subparagraph:

C. Submit one copy of required documentation listed in paragraphs 307.1.4.A. and 307.1.4.B. to the RBD. Additionally, a utility permit must be obtained from the RBD prior to working in the public right-of-way.

307.3.1.B General Requirements; add the following to subparagraph B:

All trenches and bell holes that extend into the asphalt pavement shall include roadway removal and Type "P" Surface Restoration to the adjacent lane line or centerline of the roadway.

307.3.3.D Soft Spot Repair; add the following subparagraph:

D. If conditions are encountered during excavation indicating the possibility of "pumping," the contractor shall implement procedures to minimize the effects of his operations on this condition. Methods may include using track-type equipment, avoiding tracking of successive trucks or other equipment, or modifying his operation to eliminate traffic on the "pumping" material while proceeding with the construction. If the condition worsens, other remedies may be implemented at the direction of the engineer.

The contractor shall be required to modify his equipment or operations to prevent damage to the exposed sub-grade, sub-base, and base. All costs associated with modifying equipment and construction methods to protect the underlying material shall be considered incidental to the project, and no separate payment will be made.

The contractor is responsible for maintaining the integrity of the exposed underlying material. Degradation due to his operations, the weather, or other factors shall be remedied under the guidance of the engineer, at the Contractors expense.

307.3.12.C.1 Incidental Surface Restoration; add the following to item 1:

Surface repair in gravel shoulder areas within three (3) feet of the pavement shall meet the same aggregate base requirements as repairs in the pavement.

307.3.14 Minimum Testing Frequency; add Paragraph 3.14 – MINIMUM TESTING FREQUENCY as follows:

A. A minimum of one (1) compaction test of the base course and one (1) compaction test of the pavement for surface repairs less than 50 feet in length.

B. Compaction testing shall be performed on the base course at the following minimum frequencies:

1. Two (2) tests at different locations for every surface repair less than 500 feet in length but not less than once per day.

2. One (1) test per every 500 feet of additional surface repair and at locations where materials or construction methods change, but not less than once per day.

C. Compaction testing shall be performed on the pavement surface at the following minimum frequencies.

1. Two (2) tests at different locations for every surface repair less than 300 feet in length, but not less than once per day.

2. One (1) test per every 300 feet of additional surface repair and at locations where materials or construction methods change, but not less than once per day.

308.1.4.E Submittals; add the following subparagraph:

E. Submit one (1) copy of required documentation listed in paragraphs 308.1.4.A. through 308.1.4.D to the RBD.

309.1.4.F Submittals; add the following subparagraph:

F. Submit one (1) copy of required documentation listed in paragraphs 309.1.4.A. through 309.1.4.E to the RBD.

300 STANDARD DRAWINGS

Standard Drawing No. SD-301; delete Legend Note 1 and replace with the following:

1. Minimum cutback beyond the trench limits shall be one (1) foot for trenches parallel to the roadway. Minimum cutback beyond the trench limits shall be ten (10) feet for trenches crossing the roadway.

Standard Drawing No. SD-303; delete Legend Note 9 and replace it with the following:

9. Minimum cutback beyond the trench limits shall be one (1) foot for trenches parallel to the roadway. Minimum cutback beyond the trench limits shall be ten (10) feet for trenches crossing the roadway.

400 WATER

Waterline construction may be required in development within a City's area of impact, as identified in Section 3000. When waterlines are required within a City's area of impact, construction will conform to the requirements of the City, water district or water company having jurisdiction, except the RBD's requirements for trench backfill and surface restoration shall apply if more stringent.

500 SEWER

Sewer line construction may be required in development within a City's area of impact as identified in Section 3000. When sewer lines are required within a City's area of impact, construction will conform to the requirements of the City, sewer district or sewer company having jurisdiction, except the RBD's requirements for trench backfill and surface restoration shall apply if more stringent.

600 CULVERTS, STORM DRAIN, AND GRAVITY IRRIGATION

601.1.4.D Submittals; add the following subparagraph:

D. Submit one (1) copy of the required documentation listed in paragraphs 601.1.4.A. through 601.1.4.C to the RBD.

601.2.2 Culvert, Storm Drain and Gravity Irrigation Pipe and Fittings; delete subparagraphs C, F, and I (these materials are not approved for use) and add the following before subparagraph A:

Pipe materials listed in subparagraph H, J, K, and L are approved for use as culverts.

601.3.5.A Testing; delete subparagraph A and replace it with the following:

A. Perform testing in the presence of the engineer. Clean pipe per ISPWC Section 501.3.4.F. Visually inspect the pipe per ISPWC Section 501.3.4.B for alignment and grade, pipe distortions, leaks, infiltration, and that a full diameter of the pipe is visible from one manhole to the next. Low-pressure air, hydrostatic, and mandrel testing will be used to confirm compliance with subparagraphs B & C.

602.3.3.A Connection of Storm Drain or Gravity Irrigation Lines; delete item 1.

600 STANDARD DRAWINGS

The following universal changes are herein incorporated by reference:

1. Grade Rings limited to 1'-0" maximum.

    1. All catch basins shall have a 1'-0" sump beneath the lowest pipe.

700 CONCRETE

703.1.4.G Submittals; add the following subparagraph:

G. Submit one (1) copy of required documentation listed in paragraphs 703.1.4.A. through 703.1.4.F to the RBD.

703.3.5.C Curing and Protection; delete subparagraph C and replace with the following:

C. Protect concrete from freezing in accordance with ISPWC Section 705.3.8.E.

800 AGGREGATES AND ASPHALT

801.1.4.C Submittals; add the following subparagraph:

C. Submit one (1) copy of the required documentation listed in subparagraph 801.1.4.A. and 801.1.4.B to the RBD.

802.1.4.D Submittals; add the following subparagraph:

D. Submit one (1) copy of the required documentation listed in subparagraphs 802.1.4.A through 802.1.4.C to the RBD.

802.2.1.E Production requirements; delete item 2 and replace it with the following:

2. The percentage of aggregate retained on the No. 4 sieve having at least one fractured face as determined by WAQTC TM-1 shall be 75 percent.

802.2.1.E Production requirements; add the following items:

4. Flat aggregate particles not to exceed 8% by weight and elongated aggregate particles not to exceed 8% by weight.

5. Fine Aggregate Angularity shall be a minimum of 40.

802.2.2.A Crushed Aggregate for Base Gradation; replace Table 1 with the following:

TABLE 1 CRUSHED AGGREGATE FOR BASE GRADATIONS						
PERCENTAGES BY WEIGHT PASSING SQUARE MESH SIEVES						
SIEVE SIZE	NOMINAL MAXIMUM SIZE					
	3/8 in (Type I)	1/2 in (Type II)	1/2 in (Type II-a)** For Surfacing	3/4 in (Type III)	3/4 in (Type III-a)** For Surfacing	1 in (Type IV)
1-1/2 in						100
1 in				100	100	90-100*
3/4 in		100	100	90-100*	95-100*	
1/2 in	100	90-100*	90-100*			60-80
3/8 in	85-100*		75-95		50-90	
No. 4	55-75	50-70*	45-75*	40-65*	35-70*	35-60*
No. 8	40-60*	35-55	30-60	30-50	15-55	25-50
No. 30	20-40	12-30	15-35			10-30
No. 200	3.0-9.0*	3.0-9.0*	8.0-15.0*	3.0-9.0*	8.0-15.0*	2-9.0*
Note: * Denotes the sieves used for consistency checks **Use by approval of the RBD.						

802.2.2.D Add the following sentence to Item D; For Type II-a and Type III-a Crushed Aggregate for Base Liquid Limit of fine aggregate passing the No. 40 sieve ≤ 30. Plastic Index between 4 and 12.

802.2.2.H Add Item H as follows:

H. The following subparagraphs are not required for Type II-a and Type III-a Crushed Aggregate for Base, 2.2.E, 2.2.F, 2.2.G.

802.2.2.I Add Item I as follows:

I. Type II-a and Type III-a Crushed Aggregate for Base may only be used with prior approval of the RBD.

802.2.3 Aggregate Control; delete subparagraph A, B, and C and replace with the following:

A. Consistency checks for percent passing on the sieves noted in Table 1 for samples taken from the belt, loading/hauling equipment, or from stockpiles.

B. Variation from as crushed stockpile average on 1-1/2" thru 1/2" sieves shall not be greater than ± 6%. Variation from as crushed stockpile average on 3/8" thru No. 8 sieves shall not be greater than ± 4%. Variation from as crushed stockpile average on sieves smaller than the No. 8 shall not be greater than ± 2.0%.

C. Target gradation for as crushed stockpile average shall fall within the gradation limits indicated in Table 1 by, at least, the variations indicated in Item B.

802.2.4.A Aggregate Acceptance; Delete the third sentence and replace it with the following:

Acceptance tests for Type I aggregate will include gradation, sand equivalence, fractured faces, flat and elongated faces. Acceptance test for type I-a Aggregates will include gradation, Atterburg limits, fractured faces, flat and elongated particles.

802.3.1.A.2 Preparation for Placement; delete item 2 and replace it with the following:

2. Obtain RBD approval of previously placed subbase prior to placing any base material. RBD shall have 24 hours' notice. Observation by the RBD shall be made during normal RBD working hours.

802.3.1.A.3 Preparation for Placement; add the following item:

3. Prior to requesting observation of the finished subbase, red top stakes set to finished subbase elevation shall be in place on 100-foot stationing for tangents or 50-foot stationing for curves at the centerline and shoulders.

802.3.6 Aggregate Base Material in Stockpile; add the following subparagraph:

G. Construct stockpiles in a manner that prevents aggregate segregation.

803.1.3 Submittals; delete subparagraphs B and C and replace them with the following:

B. Proposed gradation from hot plant stockpiles.

C. Test Results – washed gradation, sand equivalent, percent wear, etc.

803.1.3.E Submittals; add the following subparagraph:

E. Submit one (1) copy of the required documentation listed in subparagraphs 803.1.3.A through 803.1.3.D to the RBD.

803.1.4.D Project Record Documents; add the following subparagraph:

D. Submit one (1) copy of the required documents listed in subparagraphs 803.1.4.A through 803.1.4.C to the RBD.

803.2.1.E Production requirements; delete item 3 & 4 and replace them with the following:

3. Flat aggregate particles not to exceed 8% by weight and elongated aggregate particles not to exceed 8% by weight.

4. Material may require screening and/or washing to eliminate excessive fines. No additional payment will be made for pre-screening or washing.

803.2.1.F Test coarse and fine aggregates for soundness; add the following:

2. Aggregates produced from rock quarry sources shall have a minimum of 90% retention when tested with Ethylene Glycol, in accordance with Idaho T-116.

803.2.2.A Plant Mix Aggregate Gradation; replace Table 1 with the following:

TABLE 1

PLANT MIX AGGREGATE GRADATIONS (CL-I/SP-5 and CL-II/SP-3)

PERCENTAGES BY WEIGHT PASSING SQUARE MESH SIEVES					
SIEVE SIZE	NOMINAL MAXIMUM SIZE				
	STKP A	STKP B	STKP C	STKP D	STKP E
1 in	100				
3/4 in	90-100*	100		100	
1/2 in	0-30	95-100*		90-100*	
3/8 in	0-7*	50-70	100		100
No. 4		0-10*	88-100*		90-100*
No. 30			20-36		
No. 200	0-2.5*	0-2.5*	4.5-12.5*		
Note: *denotes the sieves used for consistency checks					

TABLE 2 PLANT MIX AGGREGATE GRADATIONS (CL-III/SP-2 AND IV) PERCENTAGES BY WEIGHT PASSING SQUARE MESH SIEVES			
SIEVE SIZE	NOMINAL MAXIMUM SIZE		
	3/8 in	1/2 in	3/4 in
1 in			100
3/4 in		100	95-100*
1/2 in	100	95-100*	75-90
3/8 in	90-100*	75-90	60-85*
No. 4	60-85	50-75	40-65
No. 8	40-65*	35-60*	25-50*
No. 30	20-40*	15-35*	14-30*
No. 50	12-28	10-25	9-21
No. 200	5.0-7.0*	4.0-7.0*	3.0-6.0*
Note: *denotes the sieves used for consistency checks			

803.2.2.B Plant Mix Aggregate Gradation; delete the first sentence and replace with the following:

Blend of Aggregate Sand Equivalent ≥ 40.

803.2.2 Plant Mix Aggregate Gradation; add the following subparagraphs:

D. The fine Aggregate Angularity shall be 45 minimum for Class I/SP-5 and Class II/SP-3 Plant Mix Pavement; and shall be 40 minimum for Class III/SP-2 Plant Mix Pavement.

E. Aggregate gradation will be accepted on gradations from the cold feed samples for crushing projects and from samples obtained from behind the paver on paving projects.

F. The target gradation for multiple stockpile mixes shall fall within the range listed for single pile plant mix as shown in Table 2 of Section 803.

803.2.3 Aggregate Control; delete subparagraphs A, B, and C and replace with the following:

A. Consistency checks for percent passing on the sieves noted in Table 1 and Table 2 for samples taken from the belt, loading/hauling equipment, or from stockpiles.

B. Variation from as crushed stockpile average on sieves larger than No. 8 not to be greater than ± 5%. Variation from as crushed stockpile average on sieves No. 8 down to No. 50 sieve not to be greater than

± 3%. Variation from as crushed stockpile average on sieves smaller than the No. 50 not to be greater than ± 1.5%.

C. Target gradation for as crushed stockpile average shall fall within the gradation limits indicated in Tables 1 and 2 by, at least, the variations indicated in Item B.

803.3.2.E Crushing; add the following to the end of subparagraph E:

… and degradation.

803.4.1.A Measurement and Payment; delete subparagraph A and replace with the following:

A. Plant Mix Aggregate: By the ton based on truck tickets, adjusted to dry unit weight. Complete moisture testing at the rate of 1 per 1500 tons and utilize average moisture content to determine the average dry unit weight for payment.

804.1.3.C Submittals; add the following subparagraph:

C. Submit one (1) copy of the required documentation listed in subparagraph 804.1.3.A through 804.1.3.C to the RBD.

804.1.4.D Project Record Documents; add the following subparagraph:

D. Submit one (1) copy of the required documents listed in subparagraphs 804.1.4.A through 804.1.4.C to the RBD.

805.1.4.A Submittals; delete subparagraph A and replace it with the following:

A. Submit asphalt manufacturer’s certification to the RBD prior to paving.

805.1.4.A Submittals; add subparagraph B with the following:

B. Submit all items listed in 805.1.5.A (1-11) to the RBD prior to paving.

808.2.2.D Cover Coat Material; modify Subparagraph D as follows:

Change cleanness value requirement from 82 to 87.

808.2.2.E Cover Coat Material; modify Subparagraph E as follows:

Change minimum percent with one fractured face requirement from 70 to 75.

808.2.2.F Cover Coat Material; modify Subparagraph F as follows:

add maximum Los Angeles Abrasion Test loss requirement 35.

809 Surface Treatment; Surface Treatment is not allowed for use by developers or other outside entities working within the RBD right-of-way.

810.1.3.F References; add the following subparagraph:

F. Asphalt Institute, Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types (MS-2), latest edition.

810.2.1 Hot Mix Asphalt Design; delete subparagraphs A through D (including Tables 1, 2 & 3) and replace with the following:

A. Perform plant mix pavement design to conform to the Gyratory Compactor Mix Design (i.e. Superpave) requirements shown in Table 1 and target these values throughout construction.

Table 1

Pavement	Nominal Maximum Size	No. of Gyrations	VMA (min.)	Dust/AC	Manufactured Sand/Natural Sand (min.)	VFA	Min. Immersion Compression %
Class I/SP-5	3/4" 1/2"	100	13.3% 14.3%	0.6-1.2	2:1	65-75	85
Class II/SP-3	3/4" 1/2"	75	13.3% 14.3%	0.6-1.2	1:2	65-75	85
Class III/SP-2	3/4" 1/2" 3/8"	50	13.3% 14.3% 15.3%	0.6-1.2	1:2	65-78	85
Class IV	Not for use in Permanent Work.						

NOTE: Minimum film thickness shall be 6 microns for all classes of pavement.

1. Mixes with other than ¾" nominal maximum size for Class I & II (i.e., SP-5 & SP-3) pavement and mixes with other than ¾" and ½" nominal maximum for Class III (i.e., SP-2) pavement shall require approval by the RBD prior to use.

2. All classes of plant mix must have a Los Angeles Wear showing less than 30% loss, a Sand Equivalent greater than 40, and a maximum 2.0% absorption. For Class I and II plant mix aggregates, greater than 90% by weight of the aggregate particles retained on the No. 4 sieve shall have at least one fractured face and greater than 75% by weight of the aggregate particles retained on the No. 4 sieve shall have at least two fractured faces. For Class III plant mix aggregates, greater than 75% by weight of the aggregate particles retained on the No. 4 sieve shall have at least one fractured face and greater than 60% by weight of the aggregate particles retained on the No. 4 sieve shall have at least two fractured faces.

Aggregates produced from rock quarry sources shall have a minimum of 90% retention when tested with Ethylene Glycol, in accordance with Idaho T-116.

3. Substitution of a higher-class mix for a lower-class mix will only be allowed upon approval of the engineer and the RBD. In considering the class of mix substitutions, the RBD will consider

the traffic volume and may require adjustments to the AC content, VMA, and air voids of the mix design.

4. All individuals preparing mix designs shall be an Accredited Mix Design Technician.

B. If a Marshall Mix Design is proposed, use Table 2 for the mix design parameters in addition to the Nominal Maximum Size, VMA, Dust/AC, Manufactured Sand/Natural Sand, VFA, and Immersion Compression Values identified in Table 1.

Table 2

Pavement	No. of Blows	Minimum Stability	Flow
Class I/SP-5	75	1800	8-18
Class II/SP-3	50	1200	8-18
Class III/SP-2	40	1000	8-18

C. If a HVEEM Mix Design is proposed, use Table 3 for the mix design parameters in addition to the Nominal Maximum Size, VMA, Manufactured Sand/Natural Sand, and Immersion Compression Values in Table 1.

Table 3

Pavement	Design Air Voids	Minimum Stability
Class I/SP-5	4.0%	37
Class II/SP-3	4.0%	35
Class III/SP-2	3.0%	30

810.2.1.D Hot Mix Asphalt Design; delete subparagraph D.

810.2.1.H Hot Mix Asphalt Design; delete subparagraph H.

810.2.2.B Aggregates; delete subparagraph B.

810.2.2.C.2 Aggregates; delete item 2 and replace it with the following:

2. Aggregate gradation acceptance shall be based on samples taken from behind the paver and shall meet the variations from as crushed stockpile average, as identified in Section 803.2.3.B.

810.2.3.A.1 Asphalt; delete item 1 and replace it with the following:

1. The asphalt shall be PG 58-34 in accordance with AASHTO MP-1, Standard Specification for Performance Graded Binder, as shown on the plans, or as noted in section 3060.070 of these standards.

810.2.4.A.2 Anti-Stripping Additive; add the following item:

2. A minimum of 0.5% Anti-Stripping additive is specified.

810.2.5 Change the title of this section to Recycled Asphalt Plant Mix (RAP)

810.2.5.A Delete the last section and replace it with the following:

The Contractor may use up to 17% of RAP by weight of the total binder in the plant mix as defined herein

810.2.6 Delete Section 2.6 in its entirety.

810.2.7 Mix Design Approval; change section title to Mix Design Verification.

810.2.7.A Mix Design Verification; add the following sentence to Section A:

No Paving shall commence until the JMF is approved by RBD.

810.2.7.B Mix Design Verification; delete subparagraph B and replace with the following:

B. Provide initial job mix formula (JMF) and applicable tests performed by an Accredited Mix Design Technician. JMF design shall also be completed in a laboratory meeting the requirements of ASTM E 329, and D 3666 or that is certified by ITD for completing mix designs. Mix Designs shall be stamped by an Idaho Registered Professional Engineer.

810.2.7 Mix Design Verification; add the following subparagraphs:

E. Mix design specimens shall have a minimum of two (2) hour cure time.

F. Anticipated aggregate breakdown shall be included in the mix design.

G. The job-mix aggregate proportioning and mix design shall be determined by personnel meeting the requirements of 810.2.7.B and approved by the engineer and the RBD prior to the start of paving operations.

810.3.2.B Hauling Equipment; add the following item to subparagraph B:

1. Truck bed covers shall extend over the truck bed by at least one (1) foot in each direction.

810.3.2.D Hauling Equipment; add the following subparagraph:

D. If conditions are encountered during construction indicating the possibility of “pumping,” the contractor shall implement procedures to minimize the effects of his operations on this condition. Methods may include using track-type equipment, avoiding tracking of successive trucks or other equipment, or modifying his operation to eliminate traffic on the “pumping” material while proceeding with the construction. If the condition worsens, other remedies may be implemented at the direction of the engineer.

The contractor shall be required to modify his equipment or operations to prevent damage to the exposed sub-grade, sub-base, and base. All costs associated with modifying equipment and construction methods to protect the underlying material shall be considered incidental to the project, and no separate payment will be made.

The contractor is responsible for maintaining the integrity of the exposed underlying material. Degradation due to the contractor's operations, the weather, or other factors shall be remedied under the guidance of the engineer at the Contractors expense.

810.3.3.A Paver; delete subparagraph A and replace with the following:

A. Paver to be self-propelled with an activated heated vibratory screed.

810.3.3.H Paver; add the following subparagraph H & I:

H. Kickback paddles to be 75% effective.

I. Paver shall be equipped with and utilize an operable grade reference device, having a minimum length of thirty (30) feet.

810.3.4.E Roller requirements; delete subparagraph E and replace it with the following:

E. Roller requirements

1. Vibratory roller speed shall be matched to vibrations per minute so that there are 10 to 14 vibrations per foot traveled (e.g., 3500 vpm = speed of 250 fpm to 350 fpm).

2. Vibratory rollers with pneumatic tire drive wheel to have smooth tires that leave no visible tracks.

3. No maximum speed is specified for pneumatic tired or steel track rollers. The contractor is responsible for meeting all density and smoothness requirements prior to acceptance by the RBD.

810.3.4.G Rollers; add the following subparagraph:

G. A properly equipped pneumatic tire roller is required in the compaction sequence.

810.3.5.A Mixing; delete subparagraph A and replace with the following:

A. Moisture content of the mixture at the time of placement not to exceed 0.3%.

810.3.5.C Mixing; add the following subparagraph C:

C. The asphalt content average to be within ±0.2% (of four consecutive tests) with no single test to be more than ±0.3% of the Contractor's Job Mix Formula (CJMF) as accepted by the RBD.

810.3.7 Spreading and Finishing; add the following subparagraphs:

E. Adjacent lanes shall be paved within 48 hours.

F. At the end of each day, the transverse joints shall be saw cut to a vertical edge and tacked with CSS-1 before paving resumes.

G. Thickness Tolerances.

1. The total average and running four average pavement thickness shall be the specified thickness with no location varying more than ± 0.25 inches for roadways with 3-inch minimum or greater specified thickness.

2. The total average and running four average pavement thickness shall be the specified thickness with no location more than ± 0.20 inches for roadways with less than 3-inch minimum specified thickness.

3. Pavement not meeting the specified tolerance shall be removed and re-paved or overlaid as determined by the RBD.

810.3.9.C Weather Limitations; delete subparagraph C and replace it with the following:

C. All re-paving of existing pavement surfaces shall be completed within 30 calendar days unless otherwise approved by the RBD.

810.3.12 Field Quality Acceptance; delete subparagraphs A, B & C and replace with the following:

A. All required observation and testing shall be in accordance with the requirements established in Division 5000 of the RBD Manual for Highway Standards and Roadway Development Procedures. As a minimum, one (1) sample shall be taken every 750 tons, with at least one (1) sample taken per day when the paving tonnage is under 750 tons per day.

Samples shall be tested for asphalt cement content per AASHTO T 308 and gradation per AASHTO T 30. Test results must meet the requirements in Table 5.

Table 5
Tolerances from the Asphalt Mix Design Target Values

Quality Characteristic	CL-III/SP-2	CL-II/SP-3	CL-I/SP-5
3/8" Sieve	±5.0%		
No. 8 Sieve	±4.0%		
No. 200 Sieve	±1.5%		
Asphalt Cement Content	see 810.3.5.C		
Air Voids (%)		3.0-5.0	3.0-5.0
VMA		810.2.1.A min -0.05	810.2.1.A min -0.05
VFA		810.2.1.A values ± 5	810.2.1.A values ± 5
Dust/AC		810.2.1.A values ± 0.1	810.2.1.A values ± 0.1

B. The total average and running average (of four consecutive tests) in place density shall be determined by the "Rice Method" (ASTM D 2041 or AASHTO T209) and shall be between 93% and 95% with no individual test less than 92.0% or greater than 96.0% for Class I & II pavements. The average of all density tests for Class III pavements shall be between 93% & 95%, with no individual test less than 92.0% and greater than 96.0%. On projects having a total paving tonnage of less than one thousand (1,000) tons, the Class III requirements shall apply. Roadways not meeting these compaction requirements will not be accepted into the RBD for maintenance.

C. The average of all unconfined edge densities shall meet 98% of the required mat density with no single joint density less than 95% of the required mat density. All core densities shall be centered 6" from the free edge. Confined edge densities shall meet the mat density requirements.

810.3.13.A Surface Smoothness; delete items 3 and 4 and replace them with the following:

3. When a straight edge is laid on the surface in a direction parallel or perpendicular to the centerline, surface variations not to exceed 1/8" when perpendicular to the centerline and 1/4" when parallel to the centerline.

4. Remove any high points found by grinding and add tack coat as a remedial measure at the rate of 0.05 gallons per square yard, at the Contractors expense.

810.3.14 Approaches; add paragraph 3.14 – APPROACHES as follows:

Paving item includes plant mix widening at paved approaches and mailbox turnouts as shown on Standard Drawings 105, 106, and ISPWC SD-808. Turnout and widening lengths shall be as indicated on the plans.

811 Road Mix Pavement; Road Mix Pavement is not allowed for use by developers or other outside entities working within the RBD right-of-way.

814.3.1.C.2 Replace sub-paragraph 2 with the following:

2. 92 to 96 percent for in-place density values determined from cores tested in accordance with AASHTO T 166.

814.3.2.C.4 Replace sub-paragraph 4 with the following:

4. The RBD will generate the randomly determined locations where the densities will be taken. The Contractor will notify the RBD at least two (2) business days prior to paving, so they can witness density testing.

814.3.2 Change Title of Section to: ACCEPTANCE FOR HVEEM, MARSHALL, AND SUPERPAVE HMA SP-2, SP-3, AND SP-5

814.3.2.A Replace Table 2 with the following:

Table 2
TOLERANCE FROM THE ASPHALT MIX DESIGN TARGET VALUES*

Quality Characteristic	CL-III/SP-2	CL-II/SP-3	CL-I/SP-5
3/8" Sieve	±5.0%		
No. 8 Sieve	±4.0%		
No. 200 Sieve	±1.5%		
Asphalt Cement Content	see 810.3.5.C		
Air Voids (%)		3.0-5.0	3.0-5.0
VMA		810.2.1.A min -0.05	810.2.1.A min -0.05

*In no case shall the upper and lower specification limits be outside the control points specified in section 803 or 810.

814.3.2.B.2.d Add items 6 and 7 as follows:

6. for Class I/SP-5 and Class II/SP-3, use VMA for PF_{PMAG} and Voids for PF_{abc}

7. RBD may elect to use ITD's QASP Spreadsheet v.1.1 in lieu of Tables 3 and 4. Contact RBD for a digital copy of the spreadsheet.

814.3.2.B.2.e Replace the last sentence with the following:

Lot size will be determined by the Engineer subject to approval by RBD.

815.3.1.A.1 Replace Item 1 with the following:

1. The maximum deviation of a single core is 0.20 inches for a design thickness of 3 inches or less; 0.25 in for a design thickness greater than 3 inches. Additional cores in the immediate vicinity can be taken at Engineer's discretion, subject to RBD approval, to verify the area of concern.

815.3.1.A.3.b Replace item b with the following:

b. If either of those two cores fail the design thickness requirement, subsequent cores shall be drilled until a passing core (i.e., one meeting the maximum deviation for the specified pavement thickness) is drilled.

815.3.1.C.1 Replace item 1 with the following:

1. No payment shall be made for excess plant mix pavement more than 0.20 inch above the design thickness for pavements with a design thickness of 3 inches or less and 0.25 inch for

pavements with a design thickness greater than 3 inches, as determined by the average thickness of the cores obtained for the project.

816.3.1.O Replace sub-section O with the following:

O. If correction of the roadway as specified will not produce satisfactory smoothness results or if it reduces the pavement thickness and serviceability, the Owner may accept the completed pavement and will deduct from the monies due or may become due to the contractor the sum of $500 for each individual high point and $3,000 for each 0.1-mile section. Under these circumstances, the Owner's decision whether to accept the completed pavement or to require corrections is final.

816.4.1.B.2 Replace Table 1 with the following:

Table 1

IRI INITIAL INDEX INCHES PER MILE SECTION

Payment $ per 0.1 mi	SCHEDULE II
$500	45.0 or less
$300	46.0 to 60.0
$100	61.0 to 70.0
$0	71.0 to 80.0
-$100	81.0 to 85.0
-$300	86.0 to 90.0
-$500	90.0 to 95.0
-$500 and corrective action	96.0 and greater
-$300 and corrective action	Individual high points

900 – PRESSURE IRRIGATION

The following modifications apply only to those portions of the work that fall within the public right-of-way.

901.1.4.D Submittals; add the following subparagraph:

D. Submit one (1) copy of the required documentation specified in paragraphs 901.1.4.A through 901.1.4.C to the RBD.

901.2.2.A.1 Polyvinyl Chloride (PVC) Pipe and Fittings; delete item 1 and replace with the following:

1. Pressure Class: 200 psi per IDEQ requirements.

901.2.2 Molecular-Oriented Polyvinyl Chloride (PVC) Pipe and Fittings; delete subparagraph B (not approved for use).

901.2.2.C.2 PVC Fittings; delete item b and replace with the following:

b. Usage: 3" and smaller only.

901.2.5 Polyethylene (PE) Pressure Pipe and Fittings; add the following subparagraph:

B. This pipe shall be only used for transmission piping without services and only upon specific approval of the RBD.

901.2.6 Steel Pipe and Fittings; delete this subparagraph (not approved for use).

901.2.9.C Thrust Blocks; add the following subparagraph:

C. Anchor Rods: Anchor rods shall be ¾" Corten or stainless steel.

901.3.2.D.1 Pipe Installation; remove and replace item 1 as follows:

1. Pipe bedding: Use Type III Bedding and Class B-2 bedding system.

901.3.2.R Pipe Installation; add the following subparagraph:

R. All connections to existing mains shall be "Hot Tapped" by a RBD approved contractor.

902.1.3.A References; delete this subparagraph.

902.1.4.D Submittals; add the following subparagraph:

D. Submit one (1) copy of the required documentation specified in paragraphs 902.1.4.A through 902.1.4.C to the RBD.

902.2.6.A Valve Boxes; modify subparagraph A to read as follows:

A. All areas.

902.2.6.B Valve Boxes; delete this subparagraph.

903.1.4.D Submittals; add the following subparagraph:

D. Submit one (1) copy of the required documentation specified in paragraphs 903.1.4.A through 903.1.4.C to the RBD.

903.2.2.A PVC Pipe and Fittings for Irrigation Water Services; delete this subparagraph (not approved for use)

903.2.2.B Service Pipe and Fittings; delete items 1 and 2 and replace with the following:

1. Pressure Class: 200 psi

2. Dimension Ratio: DR 7

903.2.3.A Appurtenances; delete subparagraph A and replace with the following:

A. Service Saddles for PVC Main shall meet the requirements of Section 404 – Water Service Lines and Meters.

903.2.3.B Appurtenances; delete this subparagraph.

903.2.3.E Appurtenances; delete subparagraph E and replace it with the following:

E. Service Valve Box for Irrigation Riser.

1. Size and Type: 4" PVC Pipe per ANSI/ASTM D 3034 or 3" class 160 PVC.

2. Marking Tag: "Irrigation – Non-Potable, Do not Drink" secured to curb stop box lid with number 8 x 1" screw.

3. Option A. – Faucets – hand marking tab with a nylon cable tie.

4. Threaded plug and raised nut required PVC to match the pipe.

903.2.3 Appurtenances; add the following subparagraphs:

F. Service Ball Valves

1. 1" service - Ford B11-444, Mueller B-20283

2. 1 ½" Service - Ford B11-666, Mueller B-20283

3. 2" Service - Ford B11-777, Mueller B-20283

G. Faucets

1. NIBCO 74-CL

2. B-K Boiler, Heavy Duty 102-704

903.3.2.A Installation; delete subparagraph A and replace with the following:

A. Install per Standard Drawing SD-901. For services above one (1) inch in size, seek approval of RBD.

903.3.2.D Installation; Add the following items to subparagraph D:

1. Steel Casing Pipe

a. Conform to ASTM A252 with 3/8-inch minimum wall thickness.

b. Diameter a minimum of 2 inches larger than the outside bell diameter of the carrier pipe.

c. Casing to meet all superimposed loads, soil type conditions, and other conditions presented in the project.

d. Furnish pipe of sufficient thickness to withstand the forces exerted by the insertion operations.

2. Solid Wall PVC Casing Pipe Sizes 18 inches to 36 inches: ASTM F 679

903.3.2.G Installation; delete items 1 and 2.

903.3.2. Installation; add the following subparagraph:

L. No service line joints shall be located within the public road right-of-way.

1000 – CONSTRUCTION STORMWATER BEST MANAGEMENT PRACTICES

1001.1.4 Submittals; add the following subparagraph:

C. Submit one (1) copy of the required documentation specified in paragraphs 1001.1.4.A through 1001.1.4.D to the RBD.

1002.1.4 Submittals; add the following subparagraph:

C. Submit one (1) copy of the required documentation specified in paragraphs 1002.1.4.A through 1002.1.4.D to the RBD.

1003.1.4 Submittals; add the following subparagraph:

E. Submit one (1) copy of the required documentation specified in paragraphs 1003.1.4.A through 1003.1.4.D to the RBD.

1004.1.4 Submittals; add the following subparagraph:

D. Submit one (1) copy of the required documentation specified in paragraphs 1004.1.4.A through 1004.1.4.E to the RBD.

1005.1.4 Submittals; add the following subparagraph:

E. Submit one (1) copy of the required documentation specified in paragraphs 1005.1.4.A through 1005.1.4.D to the RBD.

1006.1.4 Submittals; add the following subparagraph:

F. Submit one (1) copy of the required documentation specified in paragraphs 1006.1.4.A through 1006.1.4.E to the RBD.

1007.1.4 Submittals; add the following subparagraph:

E. Submit one (1) copy of the required documentation specified in paragraphs 1007.1.4.A through 1007.1.4.D to the RBD.

1100 TRAFFIC

1101.1.4.F Submittals; add the following subparagraph:

F. Submit one (1) copy of the required documentation specified in paragraphs 1101.1.4.A through 1101.1.4.E to the RBD.

1102.1.4.E Submittals; add the following subparagraph:

E. Submit one (1) copy of the required documentation specified in paragraphs 1102.1.4.A through 1102.1.4.D to the RBD.

1102.1.5. Project Record Documents; add the following subparagraph:

C. Accurately record horizontal and vertical locations of all conduits and wires.

1102.2.10.D Metal Poles; delete subparagraph D and replace with the following:

D. Pole height: 25 feet residential; 30 feet collector and major intersection or as stipulated otherwise by the RBD.

1102.2.11 Fiberglass Poles: delete this subparagraph (not approved for use).

1102.2.12.A Historic Poles: delete this subparagraph (not approved for use).

1102.2.14 Prefabricated Bases; delete this subparagraph (not approved for use).

1104.1.4.C Submittals; add the following subparagraph:

C. Submit one (1) copy of the required documentation specified in paragraphs 1104.1.4.A through 1104.1.4.B to the RBD.

1105.1.4 Submittals; add the following subparagraph:

D. Submit one (1) copy of the required documentation specified in paragraphs 1105.1.4.A through 1105.1.4.B to the RBD.

1105.2.2.D Signs; delete subparagraph D (not approved for use)

2050 CONSTRUCTION GEOTEXTILES

2050.1.5.B Submittals; add the following subparagraph:

B. Submit one (1) copy of the required documentation specified in paragraph 2050.1.5.A to the RBD.

2060 GUARDRAIL

Add section 2060 as follows:

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Guardrail

B. Guardrail End Treatments

C. Guardrail Hardware

D. Post Materials

E. Spacer Block Materials

F. Preservation Treatments

G. Construction Requirements

1.2 RELATED SECTIONS

A. Section 202 — Excavation and Embankment

1.3 REFERENCES

A. AASHTO M180

B. ASTM A153 — Zinc Coating (Hot-Dip) Iron and Steel Hardware

C. ASTM A307

D. ASTMA325

E. NCHRP 350, TL3

F. AWPAP8, P9, and C14

G. AWPA Standard C2

1.4 GENERAL REQUIREMENTS

A. All guardrails shall be galvanized steel.

B. Posts shall be wood or galvanized steel.

C. Spacer blocks shall be wood or polyethylene plastic.

D. All hardware shall be galvanized steel.

1.5 SUBMITTALS

A. Submit manufacturer's certification that posts, spacer blocks, guardrail, end treatments, and all hardware meet or exceed specified requirements.

B. Submit manufacturer's installation instructions and maintain a copy at the job site.

C. Submit a copy of items 2060.1.5.A and 2060.1.5.B, above, to the RBD.

PART 2 MATERIALS

2.1 GUARDRAIL

A. Guardrail Beams shall meet the specifications for AASHTO Ml 80, Class A, Type I.

B. The rail element shall not deflect more than 5.5 inches when tested as a simple beam with the traffic face up and with a 2,000 lb. load applied at the center of a 12 ft. clear span through a 3-inch-wide flat bearing.

2.2 GUARDRAIL END TREATMENTS

A. Type 1A (NOT NCHRP 350 Compliant).

1. May only be used where not exposed to approaching traffic.

B. Type 10 (NCHRP 350, TL-3 Compliant).

1. ET-2000
2. SKT-350
3. LET

2.3 GUARDRAIL HARDWARE

A. Bolts, nuts, and washers used shall conform to ASTM A 307 or A 325, except that rail splice bolts shall be button headed. Bolts, nuts, washers, and other fittings used shall be galvanized in accordance with ASTM A 153.

2.4 POST MATERIALS

A. Wood Posts. Wood posts shall be rough, S2S or S4S. Size tolerance of rough sawn blocks in the direction of the bolt holes is ± ¼ in. Incising requirements shall be as specified in Standard C2 of The American Wood Preservers Association (AWPA) and treated according to section 2060.2.6.A of this specification. Post length shall be as shown on the plans.

B. Metal Posts. Metal posts shall be W6x8.5 or W6x9 galvanized steel. Post length shall be as indicated on the plans.

2.5 SPACER BLOCK MATERIALS

A. Wood Spacer Blocks. Wood spacer blocks shall be rough, S2S or S4S. Size tolerance of rough sawn blocks in the direction of the bolt holes is ± ¼ in. Incising requirements shall be as specified in Standard C2 of The American Wood Preservers Association (AWPA) and treated according to section 2060.2.6.A of this specification.

B. Metal Spacer Blocks. Metal spacer blocks are not allowed.

C. Polyethylene Spacer Blocks. Polyethylene spacer blocks shall be impervious to moisture. Polyethylene spacer blocks shall have passed the test requirements of NCHRP 350, TL-3.

2.6 PRESERVATION TREATMENTS

A. Wood guardrail posts and spacer blocks shall be pressure treated with pentachlorophenol or copper naphthenate in accordance with the latest version of AWPA standards P-8, P-9, and C-14; except the minimum retention of preservative as determined by assay shall be 0.50 pounds per cubic foot of wood for pentachlorophenol and 0.60 pounds per cubic foot of wood for copper naphthenate.

PART 3 WORKMANSHIP

3.1 DESCRIPTION

A. This work shall consist of furnishing and erecting guardrail in accordance with these specifications and in reasonably close conformance to the lines and grades shown on the plans or established by the engineer.

3.2 CONSTRUCTION REQUIREMENTS

A. Posts shall be spaced as shown on the plans and be set plumb and to the established lines and grades. Backfill material shall then be placed in layers and thoroughly tamped. Boring of wood posts and spacer blocks should be done prior to preservative treatment, but field boring will be permitted, providing the hole is treated per section 2060.2.6.A of these specifications, creosoted before driving the bolts.

B. Posts may be driven if this can be done without damage to posts, pavement, shoulders, or adjacent slopes. If pilot holes are necessary to prevent such damage, fill any remaining voids between the post and soil with dry sand or pea gravel. Misaligned, loose, or damaged posts shall be removed, replaced, or reinstalled at the contractor's expense. Any damage to the existing pavement or base shall be repaired at the contractor's expense.

PART 4 MEASUREMENT AND PAYMENT

4.1 Use one or more of the following unit prices as designated in the Bid Schedule. Includes all labor, materials, and equipment required to perform the work as specified. If required and not listed in the Bid Schedule, the following Bid Items are to be considered incidental to other Bid Items.

A. Guardrail: Measured by the linear foot complete and in place excluding length of rail in terminal sections.

1. Bid Schedule Payment Reference: 2060.4.1 .A. 1

2. Bid Schedule Description: Guardrail, linear foot (LF)

B. Guardrail End Terminal: Measured by each unit installed completely in place and in conformance with these specifications.

1. Bid Schedule Payment Reference: 2060.4.1.B.1

2. Bid Schedule Description: Guardrail End Treatment, Type ___, each (EA).

SECTION 5000

CONSTRUCTION QUALITY

ASSURANCE

SECTION 5000
CONSTRUCTION QUALITY ASSURANCE

5010. Purpose

5010.010. The purpose of this policy statement is to outline the minimum acceptable level of observation to be performed on all roadway construction activities performed within the jurisdiction of the Road and Bridge Department (RBD). This Section supplements Division 2100 of the 2020 ISPWC and Section 4000 of these standards and may impose more frequent or additional testing requirements.

5020. Construction Responsibilities

5020.010. Applicant's Responsibilities: The Applicant has the following responsibilities during the construction of the development:

A. Prior to the commencement of construction, the Applicant shall have the construction drawings accepted by the RBD.

B. The Applicant shall perform all construction in accordance with accepted plans, specifications, standards, and policies.

C. The Applicant shall provide reasonable access for RBD personnel during the course of the project.

D. Prior to accepting the Roadway by the RBD, the Applicant shall execute the applicable Financial Guarantee Agreement.

5020.020. RBD's Responsibilities: The RBD has the following responsibilities during the construction of the development:

A. Prior to the commencement of construction, the RBD shall review the construction drawings for acceptance.

B. The RBD shall review for acceptance locations of all traffic control signing.

C. The RBD shall review design changes during construction for acceptance prior to approval by the Applicant's Engineer.

D. The RBD shall make periodic observations during construction to monitor general compliance with specifications.

E. Upon notice from the Applicant's Engineer that the project is substantially complete and upon receipt of the Applicant's Engineer's punch list, the RBD will perform a pre-final review and provide copies of the results to the Applicant's Engineer.

F. The RBD shall consider for approval a Financial Guarantee Agreement with the Applicant in a form approved by the RBD.

5020.030. Applicant's Engineer's Responsibilities: The Applicant's Engineer has the following responsibilities during the construction of the development:

A. The Applicant's Engineer shall be responsible for full compliance with the requirements of this section.

B. The Applicant's Engineer shall be responsible for all observations, inspections, and records at the minimum intervals presented in this policy statement.

C. The Applicant's Engineer shall accept or reject work performed based on observations, inspections, and test results.

D. The Applicant's Engineer shall ensure all necessary construction surveying for the project is provided.

E. The Applicant's Engineer shall provide the RBD-certified test results.

F. The Applicant's Engineer shall schedule and coordinate a pre-construction conference.

G. The Applicant's Engineer or their field representative shall maintain a project diary containing necessary project information.

H. The Applicant's Engineer shall provide 2-Days (working days of the RBD) notification to the RBD for the various construction stages to facilitate observations by the RBD.

I. The Applicant's Engineer shall submit all manufacturers' certificates for materials supplied to the project.

J. The Applicant's Engineer shall prepare the required post-construction documentation and submit it to the RBD for final acceptance of the roadway.

5030. Pre-Construction Conference

5030.010. A pre-construction conference shall be held on all projects a minimum of two (2) days prior to commencing any construction on the project. An agenda is provided in these standards for conducting the pre-construction conference and should generally be followed. At a minimum, the following shall attend the pre-construction conference:

A. Developer/Applicant

B. Applicant's Engineer

C. RBD Representative(s)

D. Contractor

E. Joint Utility Trench Coordinator (or designated representative)

F. Sub-Contractors (Optional)

5040. Submittals

5040.010. Submittals shall be provided to the RBD in accordance with the following:

A. A minimum of one (1) week prior to the scheduled use of the materials on the project for standard materials (not project-specific – mix design, base, sub-base, etc. as required by the ISPWC and Section 4000 modifications)

B. Project-specific pre-cast structures or other fabricated components shall be submitted to the RBD and provided a minimum of two (2) weeks for the RBD review.

5050. Construction Observation Diary

5050.010. The Applicant's Engineer or field representative shall be responsible for keeping a project journal during construction, which shall include at a minimum the following information:

A. Date and work performed.

B. Weather conditions.

C. Operations being performed and location of work on the project.

D. Measurements and/or observations made to assure compliance with the plans and specifications.

E. Discussions, decisions, or directives made regarding the design or construction of the project.

F. Unusual conditions or changes.

G. Other relative information.

A copy of the diary shall be filed with the RBD monthly and at the project's completion.

5060. Testing Results

5060.010. Test results and special inspection reports required shall be provided to the RBD and Applicant's Engineer within 48 hours after testing. Test results shall include at a minimum the following information:

A. Project Name

B. Date of Testing

C. Name of Tester

D. Test Method(s) Used

E. Material Tested

F. Location of Test/Sampling by Road Name and Project Station

G. Test Results

H. Specification Limit(s)

5070. Observation and Testing Requirements

The following are basic, minimum observation intervals required of the Applicant's Engineer and his representative to ensure that minimum monitoring of the contractor's performance has been accomplished. The Applicant's Engineer shall be responsible for providing the construction observations and testing required to ensure substantial compliance with the plans and specifications. Documentation of the observations performed shall be included in the diaries. The Applicant's Engineer's final statement shall verify that the minimum basic observations and testing procedures have been accomplished.

All testing procedures and testing frequencies will follow the 2020 version of the ISPWC standards as modified in section 4000.

5070.010. Earthwork Observations and Testing: The following requirements apply to major excavations and embankments and roadway subgrade:

A. Submittals

1. Proctor (T-99) for imported embankment material.

2. Proctor (T-99) for native subgrade material.

B. Observations

1. One (1) time daily during major excavations and embankments.

2. At the completion of the subgrade preparation (including subgrade, borrow ditches, and cut/fill slopes).

C. Testing

1. One (1) compaction test each lift (maximum 2 feet) every 3000 square feet of lift surface area for embankments.

2. Compaction tests every 500 feet of completed roadway subgrade with a minimum of two (2) tests per street.

5070.020. Pipe Installation & Drainage Facilities Observations & Testing

A. Submittals

1. Pipe, fittings, or minor structure manufacturer’s data as required by RBD.

2. Proctor for backfill material.

B. Observations

1. After trench excavation and before placement of pipe.

2. One (1) time per day during the installation of pipe and pipe bedding.

3. At every manhole or catch basin before backfilling.

4. All thrust blocks prior to backfill.

C. Testing

1. Pipe Testing

a. Shall be performed in the presence of the Engineer.

b. Clean pipe per ISPWC Section 501.3.4.F.

c. Visually inspect pipe per ISPWC Section 501.3.4.B for alignment and grade, pipe distortions, leaks, infiltration, and a full diameter of pipe visible from one manhole to the next.

d. Low-pressure air, hydrostatic, and mandrel testing will be used to confirm compliance.

2. Trench Backfill.

a. A minimum of one (1) compaction test per backfill layer is required for any trench backfill, including "Bell Holes."

a. b. For all other trench backfills, compaction testing must be performed at the following frequency:

1. Two (2) tests at different locations for every trench less than 500 feet in length, but not less than one (1) time per day.

2. One (1) test per every 500 feet of additional trench and at locations where materials or construction procedures change, but not less than one (1) time per day.

3. At every location for 1 and 2 above, obtain a test at ½ of the total trench depth and one (1) test at the top of the trench backfill (test set).

5070.030. Road Base Observations & Testing: The following requirements apply to the Sub-Base and Base Course.

A. Submittals (Each source or change in material)

1. Gradation (Sieve Analysis) and Sand Equivalent.

2. Proctor (T-99).

B. Observations

1. At the completion of each lift.

C. Testing

1. Compaction tests every 500 feet of roadway per lift of material with a minimum of two (2) tests per street.

2. Gradation tests every 1,000 tons, with a minimum of one (1) test per street.

5070.040. Structures

A. Submittals

1. Concrete Mix Design.

B. Construction Observations

1. Structure foundation conditions shall be verified by the Geotechnical Engineer for consistency with the design parameters prior to forming footings/foundations.

2. After completion of forming and reinforcing placement, but prior to placement of concrete.

3. Once per day during placement of concrete.

4. After placement of concrete and striping forms, but prior to backfill placement.

C. Testing

1. One (1) slump, temperature, and entrained air from the first truck and at least one (1) test for every 50 cubic yards thereafter.

2. One (1) set of Compressive Strength cylinders and tests from the first truck, and an additional set of cylinders and tests for every 100 cubic yards thereafter.

5070.050. Curb, Gutter, and Sidewalk

A. Submittals

1. Concrete Mix Design.

B. Construction Observations

1. After completion of forming or establishment of grade line, but prior to placement of concrete.

2. At least one (1) time per day during placement.

C. Testing

1. Compaction test on curb and gutter base course at least one (1) time every 300 feet of the curb.

2. One (1) slump, temperature, and entrained air from the first truck and at least one (1) test for every 50 cubic yards thereafter.

3. One (1) set of Compressive Strength cylinders and tests from first truck, and an additional set of cylinders and tests for each 100 cubic yards thereafter.

5070.060. Paving

A. Submittals

1. Asphalt Concrete Mix Design.

B. Construction Observations

1. At the commencement of paving operation on the project.

2. One (1) time per day during the placement.

C. Testing

1. Density tests at the commencement of the paving operations until an acceptable roller pattern is developed and at least one (1) for every 300 feet throughout the project.

2. Extraction and gradation of at least one (1) for every 2,000 feet of roadway, but not less than one (1) each day of paving operations, or not less than three (3) per project or development.

3. Core of in-place pavement at least one (1) for every 1,000 feet of roadway with a minimum of two (2) tests per street. In-place air voids shall be tested with each core test.

D. Thickness Tolerances (based on core samples)

1. The total average and running four average pavement thickness shall be the specified thickness with no location varying more than ± 0.25 inches for roadways with greater than 3-inch minimum specified thickness.

2. The total average and running four average pavement thickness shall be the specified thickness with no location more than ± 0.20 inches for roadways with 3-inch or less minimum specified thickness.

3. Pavement segments not meeting the specified tolerance shall be removed and re-paved or overlaid as determined by the RBD. The application of additional Chip Seals does not constitute an acceptable overlay.

4. In some circumstances, the RBD, at the RBD's discretion, may accept pavement not meeting the specified tolerance by determining a compensatory payment from the Developer in accordance with ISPWC Section 815.

E. Plant Mix Pavements that do not meet the Field Quality Acceptance Requirements of 810.3.12

1. Plant Mix Pavement not meeting the specified tolerance shall be removed and re-paved or overlaid as determined by the RBD. The application of additional Chip Seals does not constitute an acceptable overlay.

2. In some circumstances, the RBD, at the RBD's discretion, may accept plant mix not meeting the specified tolerance by determining a compensatory payment from the Developer in accordance with ISPWC Section 814. However, RBD will not accept any plant mix with a Pay Factor less than 0.85.

5070.070. Surface Restoration Testing

A. Submittals

1. Base

a. Gradation (Sieve Analysis) and Sand Equivalent.

b. Proctor.

2. Paving

a. Asphalt Concrete Mix Design.

B. Construction Observations

1. Base

a. At the completion of each lift.

1. Paving

a. At the commencement of paving operation on the project.

b. Once per day during the placement.

C. Testing

1. A minimum of one (1) compaction test of the base course and one (1) compaction test of the pavement for surface repairs less than 50 feet in length.

2. Compaction testing shall be performed on the base course at the following minimum frequencies:

a. Two (2) tests at different locations for every surface repair less than 500 feet in length but not less than one (1) time per day.

b. One (1) test per every 500 feet of additional surface repair and at locations where materials or construction methods change, but not less than once per day.

3. Compaction testing shall be performed on the pavement surface at the following minimum frequencies:

a. Two (2) tests at different locations for every surface repair less than 300 feet in length, but not less than one (1) time per day.

b. One (1) test per every 300 feet of additional surface repair and at locations where materials or construction methods change, but not less than one (1) time per day.

4. Compaction shall follow testing guidelines set forth in section 4000.307.3.14.

5070.075. Survey Monuments and Lot Pins

All Survey monuments and lot pins related to the development roadways (e.g., centerline, row, etc.) shall be confirmed to be in place before any roadways are accepted by the RBD.

5080. Pre-Acceptance Final Review

5080.010. After substantial completion of the project, including all paving, drainage, and traffic control sign installation, a pre-acceptance final review shall be conducted on the project site. The following shall attend the pre-acceptance final review:

A. RBD Representative

B. Applicant's Engineer

C. Contractor

D. Developer/Applicant (Optional)

5090. Post Construction Submittal

5090.010. Upon completing the project, the Applicant's Engineer shall provide the post-construction submittal to the RBD for consideration of the roads' acceptance. The RBD's project acceptance will not occur until an acceptable post-construction submittal is provided to the RBD. The post-construction submittal shall include the following:

A. A statement that all work performed during the project was in accordance with project plans and specifications and that the minimum testing and inspections were performed in accordance with this policy statement. The form of the statement is to be specified by the RBD.

B. Record drawings one physical hard copy and an electronic copy in pdf format as required under Section 2000.

C. A copy of the Construction Observation Diary for the project.

D. A copy of the test results for the project.

E. Certification that all survey monuments and lots pins are in place per section 5070.075

ENGINEER'S STATEMENT

_____

Name of Project

_____

Applicant

_____

Engineer

I hereby state the following:

1. Observation was performed substantially to at least the basic minimum construction observation intervals established by the RBD.
2. Construction practices and materials observed complied with the approved plans and specifications.
3. Construction was performed substantially to the lines and grades shown on the approved plans or as approved by the RBD.
4. Based on tests performed, the asphalt pavement meets the RBD Standards.
5. A Record Drawing (three copies) has been submitted to the RBD. One (1) physical hard copy and one (1) electronic copy (pdf Format).
6. A copy of the construction diaries has been submitted to the RBD.

Any of the above items which cannot be fully satisfied shall be explained on a separate sheet of paper and attached hereto.

Attachments: __ yes __ no

_____ _____

Signature of Engineer Date

SECTION 6000

DEFINITIONS

SECTION 6000
DEFINITIONS

AASHTO – American Association of State Highway and Transportation Officials.

Applicant - Any person, persons, or firm making an application to the Road and Bridge Department (RBD).

Area of City Impact (ACI) - That area defined by the City and County ordinances that surrounds a city. In the absence of ordinances Idaho Code defines the area as being one mile beyond a town or city's borders. The ACIs are locations where cities and towns will likely expand and grow into the unincorporated County and may annex property (with willing landowners). (Also see Impact Area Agreement)(Amendment #19 Ordinance #2008-4)

City – Any incorporated City within a County in Idaho.

Developer - Any person, persons, or firm making an application to the RBD.

Develop, Development –To divide land for purposes other than agriculture; to prepare land for division, building, or improvements, including grading, fencing for planned residential lots, road building, or utility placement; to place structures or utilities, fencing for other than agriculture, or roads. Also includes a change in the use of an existing structure or on land; mining or excavation; a material change in the external appearance of a structure or land; placement of accessory buildings; demolition of a structure; deposit of waste or fill on a parcel of land; alteration of a shore, or flood plain of a body of water or riparian area. "Development" does not include maintenance and repair within a right-of-way, external maintenance or improvement of an existing structure, or the use of land for growing plants, crops, trees, and other agricultural or forestry products.

Dedication - The setting apart of land or interest in land for use by the public. Land becomes dedicated when accepted by the RBD as a public dedication, either by ordinance, resolution, or entry in the official minutes or by the recording of a plat showing such dedication.

Drainage Features – Features utilized for collecting, conveying, and storing surface and stormwater runoff. Drainage facilities shall include but not be limited to all surface and stormwater runoff conveyance and containment facilities, including streams, pipelines, channels, ditches, wetlands, infiltration facilities, retention/detention facilities, erosion/sedimentation control facilities, and other drainage structures and appurtenances, both natural and manmade.

Conveyance system -The drainage facilities, both natural and manmade, which collect, contain, and provide for the flow of surface and storm water from the highest points on the land down to a receiving water.
Primary Conveyance System – A conveyance system which collects, maintains, and provides, for conveyance of storm water at the specified return interval (e.g. a culvert's capacity without overtopping the culvert, a bridge's capacity meeting the specified clearance at specified return interval, etc.)

Primary Conveyance System – A conveyance system which collects, maintains, and provides, for conveyance of storm water at the specified return interval (e.g. a culvert's capacity without overtopping the culvert, a bridge's capacity meeting the specified clearance at specified return interval, etc.)

Secondary Conveyance System – A conveyance system that conveys the storm water after the capacity of the primary conveyance system has been exceeded (e.g. that potion of a culvert's capacity that overtops the culvert, but does not overtop the roadway at the specified return interval, that portion of bridge's capacity which exceeds the specified structure clearance, but does not overtop the structure at the specified return interval, etc.)

Detention Facility - A storm water control facility that temporarily stores excess storm runoff and then discharges it at a rate not to exceed the specified discharge rate (i.e. pre-developed flow rate or primary conveyance system capacity).

Retention Facility - A storm water control facility that stores storm runoff, does not discharge the runoff downstream, and either permanently stores the runoff or disposes of it through evaporation and/or infiltration.

Easement - A grant by the owner of the use of a parcel of land, either permanent or limited, by the public, corporation, or persons for specified use and purposes.

Engineer – A Professional Engineer licensed to practice within the State of Idaho or authorized to provide services within the State of Idaho by the Idaho Board of Professional Engineers and Professional Land Surveyors.

Frontage – The extent of RBD right-of-way contiguous with any portion of the development.

Highway District – Any of the Highway District jurisdictions acting as an independent government entity within a County in Idaho.

HSRDP - Highway Standards and Roadway Development Procedures

ISPWC – Idaho Standards for Public Works Construction 2020 edition.

LHTAC – Local Highway Technical Assistance Council

Irrigation Facilities – Includes canals, laterals, ditches, conduits, gates, wells, pumps, and allied equipment necessary for the supply, delivery, and drainage of irrigation water.

Local Highway Jurisdictions - The city, county, or highway district having jurisdiction over the public highways, streets, and rights-of-ways.

Owner - The person or persons holding title by deed to land or holding the title as buyers under land contract.

PDD – Office of Planning & Development Department

Plat - See "Subdivision Plat"

Public Right-of-Way (Right-Of-Way) - A right-of-way open to the public and under the jurisdiction of a public highway agency, where the public highway agency has no obligation to construct or maintain said right-of-way for vehicular traffic, nor shall there be any liability for any injury or damage for failure to maintain it or any highway signs. [I.C. §40-117(9) and I.C. §40-202(4)].

Reserve Strip - A strip of land between a dedicated street or partial street and adjacent property, in either case, reserved or held in public ownership for future street extension or widening.

RBD - Road and Bridge Department

Roadway - Any street, avenue, boulevard, road land, parkway, place, viaduct, an easement for access, or another way which is an existing state, county, or municipal roadway; or a street or way shown in a plat heretofore approved pursuant to law or approved by official action; or a street or way in a plat duly filed and recorded within the right-of-way boundaries whether improved or unimproved and may be comprised of crushed aggregate or pavement, shoulder, curbs, gutters, sidewalks, parking areas, and lawns.

> **Arterial Route** - A functional classification of a road or street; usually a major throughway, such as a highway, designed to move traffic at high speed, as designated on Functional Classification Map..

Collector Roads - A functional classification of a road or street; usually a primary road in a subdivision which connects to a larger collector or to an arterial road.

Local Road - A roadway used primarily as land access, connecting driveway access to collector or arterial roads. Local roads may be designed for slower traffic, short travel distances and low traffic volumes. Local roads are designed to discourage through traffic.

Marginal Access Street - A minor street parallel and adjacent to an arterial route that intercepts local streets and controls access to an arterial route.

Cul-de-Sac Street - An internal subdivision road or street ending in a turnaround.

Loop Street - A minor street with both terminal points on the same street of origin.

Alley - A public service way used to provide secondary vehicular access to properties otherwise abutting upon a street.

Rural (Rural Roadway) – All areas and roadways not within one mile of an incorporated city limit an area of city impact or within a city limit.

Shall – Mandatory, same as "will", as opposed to "may" or "should".

Subdivider - A subdivider shall be deemed to be the individual, firm, corporation, partnership, association, syndication, trust, or other legal entity having sufficient proprietary rights in the property to represent the owner, which submits the required subdivision application and initiates proceedings for the subdivision of land in accordance with these procedures.

Subdivide or Subdivision - (1) The division of land into parcels less than, or configured differently from, a quarter-quarter section of land, for purposes of development other than agriculture, OR (2) To make one parcel into two or more separate parcels by survey, deed, or other transference.

Subdivision Plat - A map prepared to comply with Idaho Code Chapter 13, Title 50 representing land divided into lots. A plat shows roads, streets and improvements required to record the plat and sell lots. Lots in a plat are described by lot and block number, along with the subdivision's (plat) name.

Preliminary Plat - A preliminary map, including supporting data, indicating a proposed subdivision development, prepared in accordance with local ordinances and the Idaho Code.

Final Plat - A map of all or part of a subdivision providing substantial conformance to an approved preliminary plat, prepared by a Registered Professional Land Surveyor in accordance with local ordinances and the Idaho Code.

Recorded Plat - A legal document recorded with the County Recorder's office of the final plat bearing all of the certificates of approval required by ordinance and duly recorded in the County Recorder's Office.

Terrain – The topography of the land traversed for the alignment of roads and streets. To characterize variations in topography, engineers generally separate terrain into three classifications:

Level Terrain – Terrain where sight distances are generally long or can be made to be so without construction difficulty.

Rolling Terrain – Terrain where natural slopes consistently rise above and fall below the road or street grade, and occasional steep slopes offer some restriction to normal horizontal and vertical roadway alignment.

Mountainous Terrain – Terrain where longitudinal and transverse changes in the elevation of the ground with respect to the road or street are abrupt and benching and sidehill excavation are frequently needed to obtain acceptable horizontal and vertical alignment.

The Local Highway Jurisdiction shall have sole discretion on the determination of terrain classification for a road.

Urban (Urban Roadway) – All areas and roadways within one mile of an incorporated city limit, within an area of city impact, or impact or within a city limit.

Utilities - Installations or facilities, underground or overhead, furnished for use by the public, including but not limited to electricity, gas, steam, communications, water, drainage, irrigation, sewage disposal, or flood control, owned and operated by any person, firm, corporation, municipal department, or board duly authorized by state or municipal regulations. Utility or utilities as used herein may also refer to such persons, firms, corporations, departments, or boards, as applicable herein.

Utilities, Major - defined as those regulated by the Idaho Public Utilities Commission (IPUC).

Utilities, Minor –defined as those not regulated by the IPUC or Utility lines serving a single parcel of land or two single residential parcels, except gas lines greater than 2-inches in diameter.

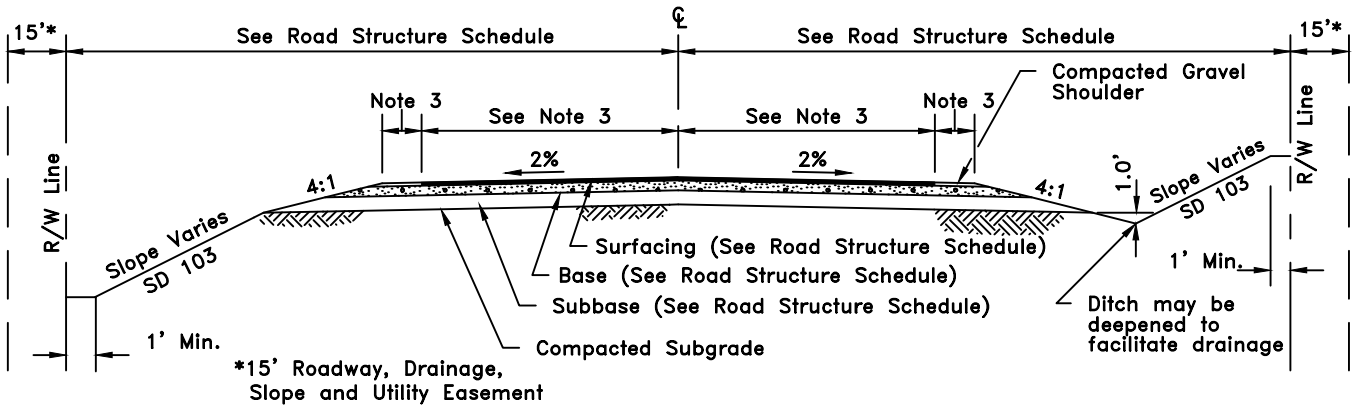
APPENDIX

FORMS

All forms are available online at the following location:

https://bannockcountyid.viewpointcloud.com/

STANDARD DRAWINGS



TYPICAL TWO LANE RURAL ROAD SECTION

N.T.S.

ROAD STRUCTURE SCHEDULE

Class Of Road	Design Speed (mph) / Lane Width (ft.)			Shoulder Width (ft.)	Right-Of-Way Width (ft.)	TI	Minimum Thickness (in.)		
							Pavement	Base	Subbase
Collector Over 2,000 ADT		20-65mph 12'		6	100	(c)	(c)	(c)	(c)
Collector 400 To 2,000 ADT	≤30mph 11'		≥35mph 12'	4	80	9	4"	6"	21"
Collector Under 400 ADT	≤50mph 11' (a)		≥55mph 12'	2	80	8	3"	6"	21"
Local Road Over 2,000 ADT		15-65mph 12'		6	80'	(c)	(c)	(c)	(c)
Local Road 400 To 2,000 ADT	≤40mph 11' (b)		≥45mph 12'	3	60'	8	3"	6"	15"
Local Road Under 400 ADT	≤40mph 10'	45-50mph 11'	≥55mph 12'	2	60	6	3"(d)	6"	12"

(a) 20-40mph, 10' minimum width may be used (with RBD approval) for roadways with design volumes under 250 veh/day.

(b) Roads in mountainous terrain with design volume of 400-600 veh/day, a 10' minimum lane width may be used (with RBD approval).

(c) Determined By RBD.

(d) For Local Roads ADT ≤ 250, TI may be reduced to 5.7 and asphalt depth may be reduced to 2.5".

NOTES:

1. *Road structure sections may vary for poor soil conditions. Changes to these Section requirements will be based on a Geotechnical Report prepared by a Idaho Registered Professional Engineer.*
2. *Road Structure Schedule is based on ITD Method, as modified in Section 3060, using a Subgrade "R-Value" of 15. If the subgrade has an "R-Value" less than 15, submit an alternate section design prepared by an Idaho Registered Professional Engineer.*
3. *See dimension in Road Structure Schedule.*
4. *The AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤ 400) only allowed if development ADT is shown to not exceed 400 ADT at the development's full "Build-Out".*

BANNOCK COUNTY ROAD & BRIDGE DEPARTMENT
BANNOCK COUNTY, IDAHO
STANDARD DRAWING No. 101

Rev. 2021

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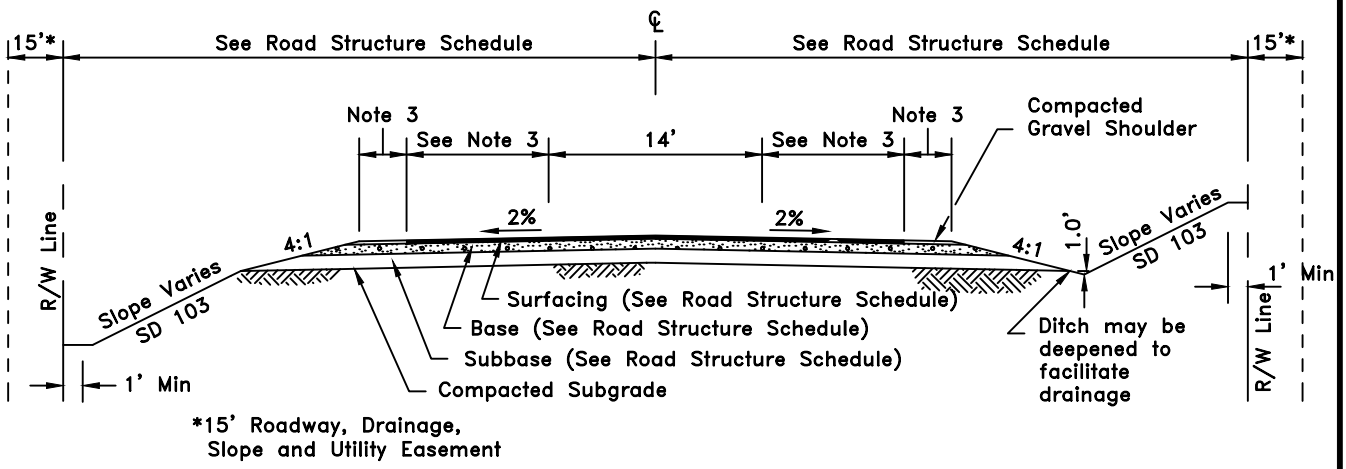

TYPICAL THREE–LANE RURAL ROAD SECTION

N.T.S.

ROAD STRUCTURE SCHEDULE

Class Of Road	Design Speed (mph) / Lane Width (ft.)			Shoulder Width (ft.)	Right–Of–Way Width (ft.)	TI	Minimum Thickness (in.)		
							Pavement	Base	Subbase
Collector Over 2,000 ADT		20–65mph 11' (b)		6	80	(c)	(c)	(c)	(c)
Collector 400 To 2,000 ADT	≤30mph 10'		≥35mph 11'	4	80	9	4"	6"	21"
Collector Under 400 ADT	≤50mph 10' (a)		≥55mph 11'	2	80	8	3"(d)	6"	21"

(a) 20–40mph, 9' minimum width may be used (with RBD approval) for roadways with design volumes under 250 veh/day.

(b) 55–65mph, 12' minimum width may be required where substantial truck volumes are present or agricultural equipment frequently uses road.

(c) Determined By RBD.

(d) For Local Roads ADT ≤ 250, TI may be reduced to 5.7 and asphalt depth may be reduced to 2.5".

NOTES:

1. *Road structure sections may vary for poor soil conditions. Changes to these Section requirements will be based on a Geotechnical Report prepared by a Idaho Registered Professional Engineer.*
2. *Road Structure Schedule is based on ITD Method, as modified in Section 3060, using a Subgrade "R–Value" of 15. If the subgrade has an "R–Value" less than 15, submit an alternate section design prepared by an Idaho Registered Professional Engineer.*
3. *See dimension in Road Structure Schedule.*
4. *The AASHTO Guidelines for Geometric Design of Very Low–Volume Local Roads (ADT ≤ 400) only allowed if development ADT is shown to not exceed 400 ADT at the development's full "Build–Out".*

BANNOCK COUNTY ROAD & BRIDGE DEPARTMENT
BANNOCK COUNTY, IDAHO
STANDARD DRAWING No. 101A

Rev. 2021

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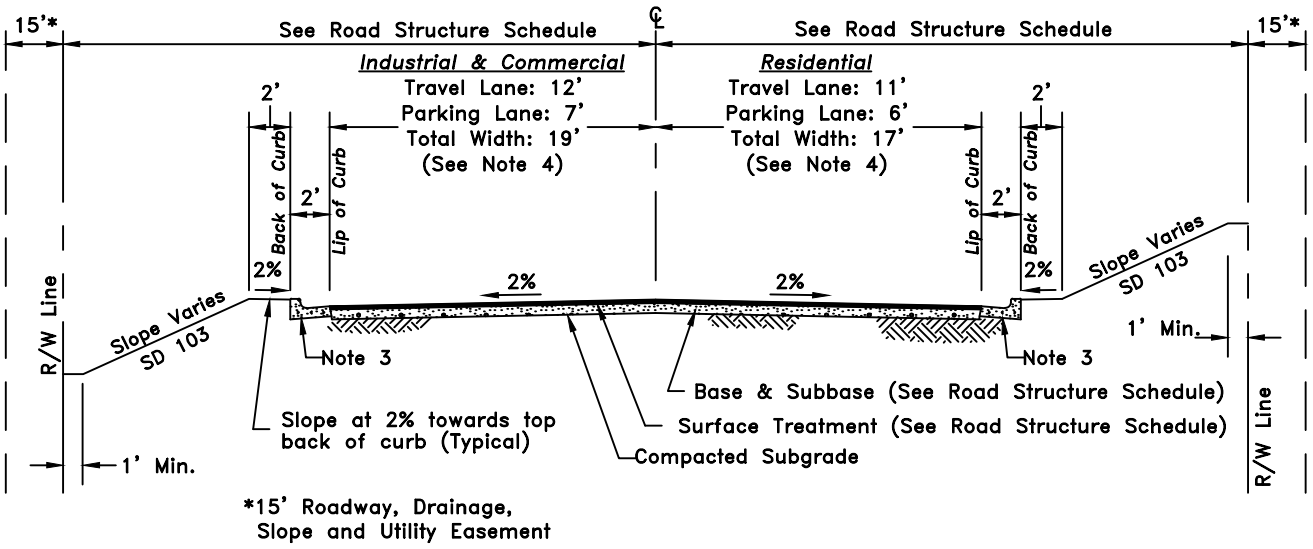

TYPICAL TWO LANE CURB & GUTTER SECTION

N.T.S.

ROAD STRUCTURE SCHEDULE

Class Of Road	Design Speed (mph) / Lane Width (ft.)	Shoulder Width (ft.)	Right-Of-Way Width (ft.)	TI	Minimum Thickness (in.)		
					Pavement	Base	Subbase
Collector Over 2,000 ADT	See Above Detail Widths By Intended Road Use		80'	(a)	(a)	(a)	(a)
Collector 400 To 2,000 ADT	See Above Detail Widths By Intended Road Use		80'	9	4"	6"	21"
Collector Under 400 ADT	See Above Detail Widths By Intended Road Use		80'	8	3"	6"	21"
Local Road Over 2,000 ADT	See Above Detail Widths By Intended Road Use		60	(a)	(a)	(a)	(a)
Local Road 400 To 2,000 ADT	See Above Detail Widths By Intended Road Use		60'	7	3"	6"	15"
Local Road Under 400 ADT	See Above Detail Widths By Intended Road Use		60	6(b)	3"(b)	6"	12"

(a) Determined By RBD.

(b) For Local Roads ADT ≤ 250, TI may be reduced to 5.7 and asphalt depth may be reduced to 2.5".

NOTES:

1. *Road structure sections may vary for poor soil conditions. Changes to these Section requirements will be based on a Geotechnical Report prepared by a Idaho Registered Professional Engineer.*
2. *Road Structure Schedule is based on ITD Method, as modified in Section 3060, using a Subgrade "R-Value" of 15. If the subgrade has an "R-Value" less than 15, submit an alternate section design prepared by an Idaho Registered Professional Engineer.*
3. *Minor access roads will have 3" rolled curb & gutter. Collector roads will have 6" vertical curb & gutter. Curb & gutter type for major access roads will be determined by RBD.*
4. *See dimension in Road Structure Schedule.*
5. *The AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤ 400) only allowed if development ADT is shown to not exceed 400 ADT at the development's full "Build-Out".*

BANNOCK COUNTY ROAD & BRIDGE DEPARTMENT
BANNOCK COUNTY, IDAHO
STANDARD DRAWING No. 102

Rev. 2021

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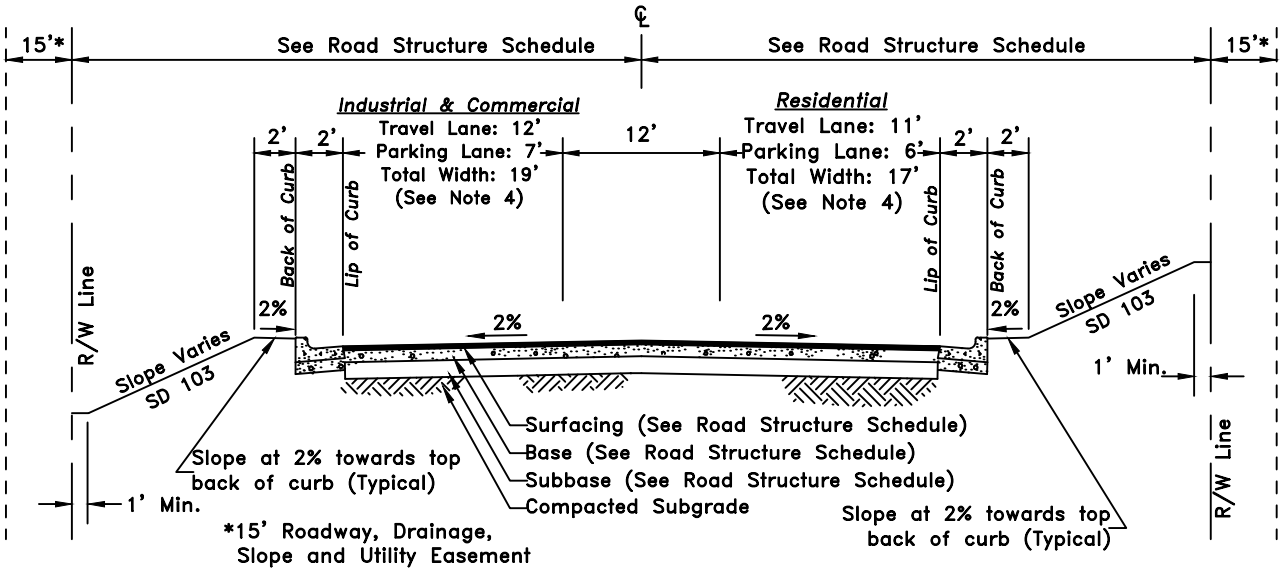

TYPICAL THREE LANE CURB & GUTTER SECTION

N.T.S.

ROAD STRUCTURE SCHEDULE

Class Of Road	Design Speed (mph) / Lane Width (ft.)	Shoulder Width (ft.)	Right–Of–Way Width (ft.)	TI	Minimum Thickness (in.)		
					Pavement	Base	Subbase
Collector Over 2,000 ADT	See Above Detail Widths By Intended Road Use		80'	(a)	(a)	(a)	(a)
Collector 400 To 2,000 ADT	See Above Detail Widths By Intended Road Use		80'	9	4"	6"	21"
Collector Under 400 ADT	See Above Detail Widths By Intended Road Use		80'	8	3"	6"	21"

(a) Determined By RBD.

NOTES:

1. *Road structure sections may vary for poor soil conditions. Changes to these Section requirements will be based on a Geotechnical Report prepared by a Idaho Registered Professional Engineer.*
2. *Road Structure Schedule is based on ITD Method, as modified in Section 3060, using a Subgrade "R–Value" of 15. If the subgrade has an "R–Value" less than 15, submit an alternate section design prepared by an Idaho Registered Professional Engineer.*
3. *See dimension in Road Structure Schedule.*
4. *The AASHTO Guidelines for Geometric Design of Very Low–Volume Local Roads (ADT ≤ 400) only allowed if development ADT is shown to not exceed 400 ADT at the development's full "Build–Out".*
5. *Collector roads will have 6" vertical curb & gutter.*

BANNOCK COUNTY ROAD & BRIDGE DEPARTMENT
BANNOCK COUNTY, IDAHO
STANDARD DRAWING No. 102A

Rev. 2021

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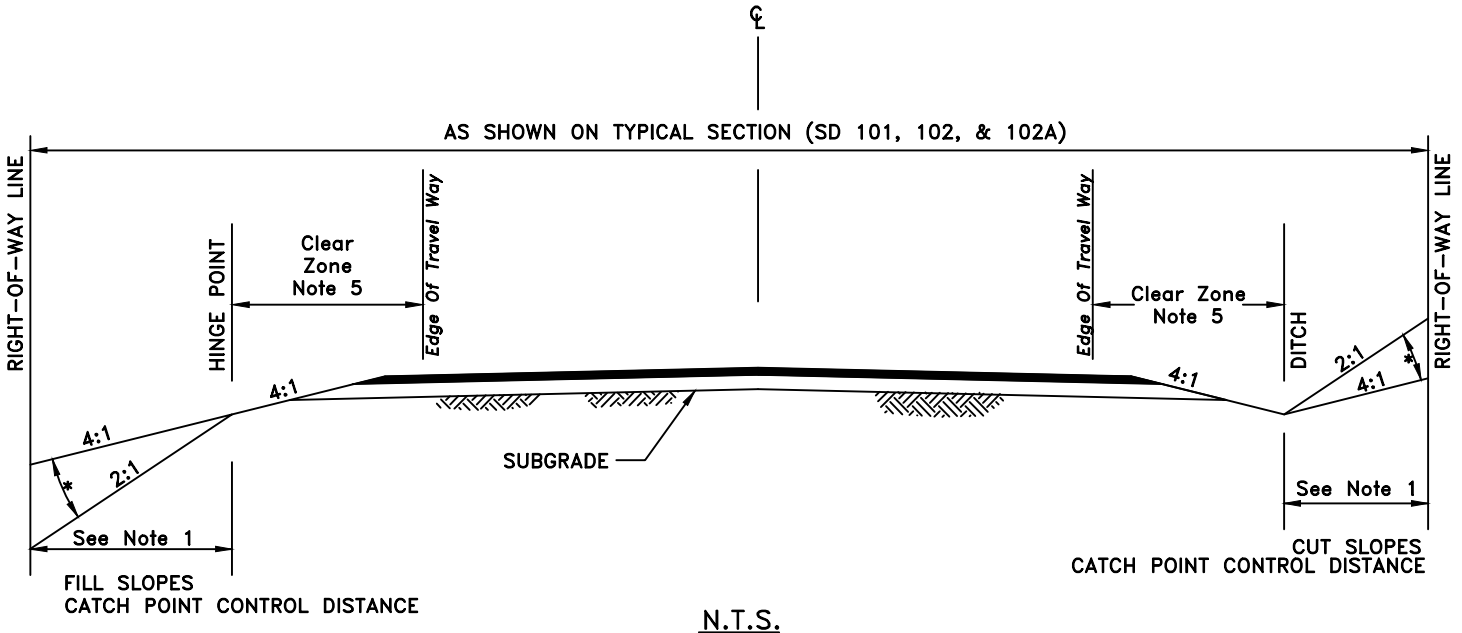

N.T.S.

*VARIABLE SLOPE 4:1 – 2:1

NOTES:

1. SET THE CATCH POINT CONTROL DISTANCE AT 1 FOOT INSIDE THE RIGHT-OF-WAY:

   USE 4:1 SLOPE FOR CUTS AND FILLS THAT CATCH INSIDE THE CATCH POINT CONTROL DISTANCE.

   USE VARIABLE SLOPES (4:1 TO 2:1) FOR CUTS AND FILLS THAT CATCH AT THE CATCH POINT CONTROL DISTANCE.

   USE 2:1 SLOPE FOR CUTS AND FILLS THAT EXTEND BEYOND THE CATCH POINT CONTROL DISTANCE, (SEE NOTE #2).

2. CUT AND FILLS SLOPES IN DIFFICULT TERRAIN MAY REQUIRE SPECIAL CONSIDERATION AND ADDITIONAL RIGHT-OF-WAY.

3. ALL SLOPES SHALL BE CHECKED TO DETERMINE IF GUARDRAIL IS WARRANTED BASED ON SLOPE HEIGHT AND STEEPNESS.

4. WHEN USING GUARDRAIL, WIDEN SHOULDERS AS APPROPRIATE.

5. CLEAR ZONE WIDTH & CLEAR ZONE SLOPES DETERMINED BY CURRENT VERSION OF AASHTO ROADSIDE DESIGN GUIDE.

BANNOCK COUNTY ROAD & BRIDGE DEPARTMENT
BANNOCK COUNTY, IDAHO
STANDARD DRAWING No. 103

Rev. 2021

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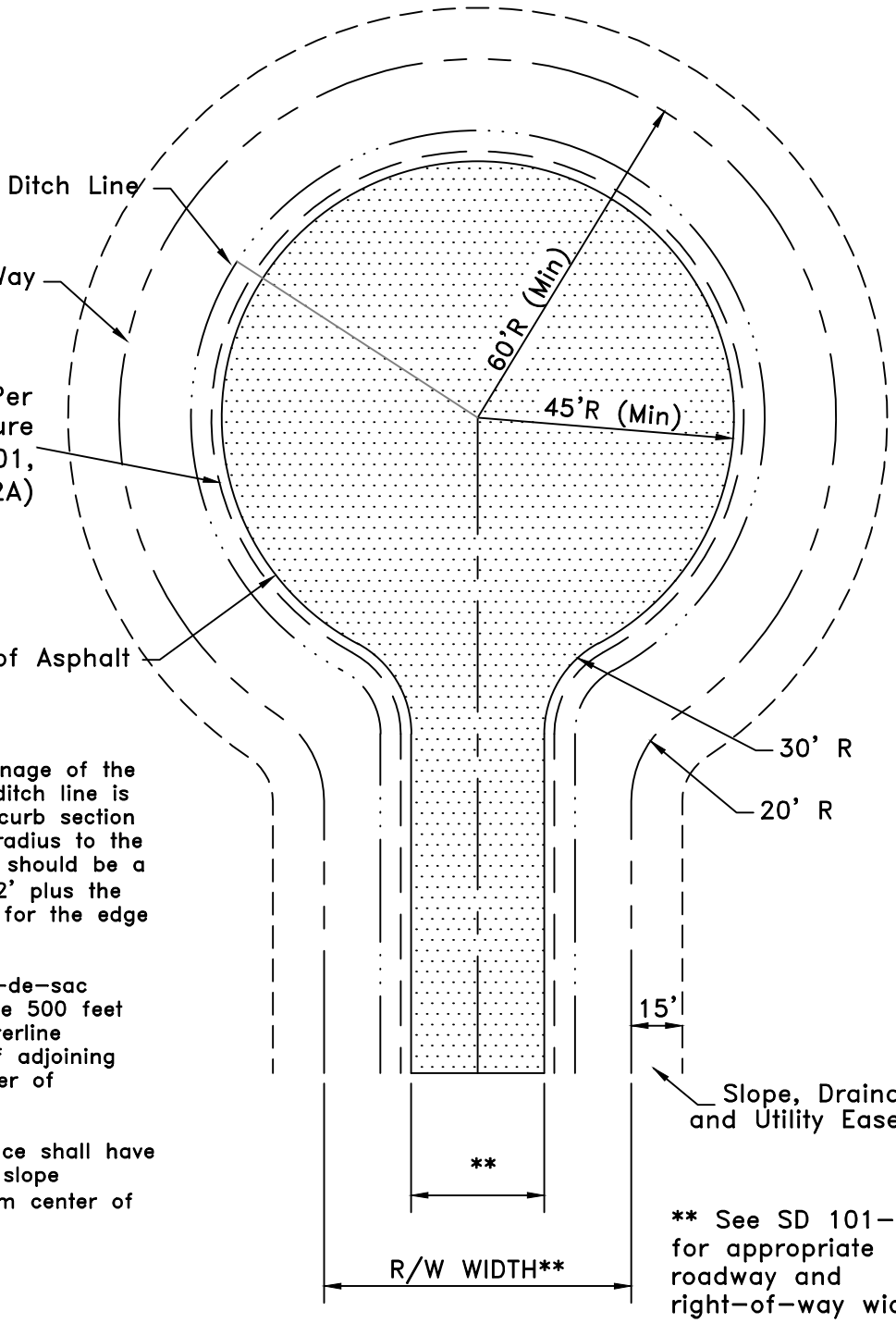

NOTES:

- Adequate drainage of the surface and ditch line is required. If curb section is used, the radius to the back of curb should be a minimum of 2' plus the radius length for the edge of pavement.
- Maximum cul-de-sac length shall be 500 feet from the centerline intersection of adjoining street to center of cul-de-sac.
- Finished surface shall have 2% minimum slope (downhill) from center of radius.

** See SD 101-102A for appropriate roadway and right-of-way width.

STANDARD CUL-DE-SAC LAYOUT

N.T.S.

BANNOCK COUNTY ROAD & BRIDGE DEPARTMENT
BANNOCK COUNTY, IDAHO
STANDARD DRAWING No. 104

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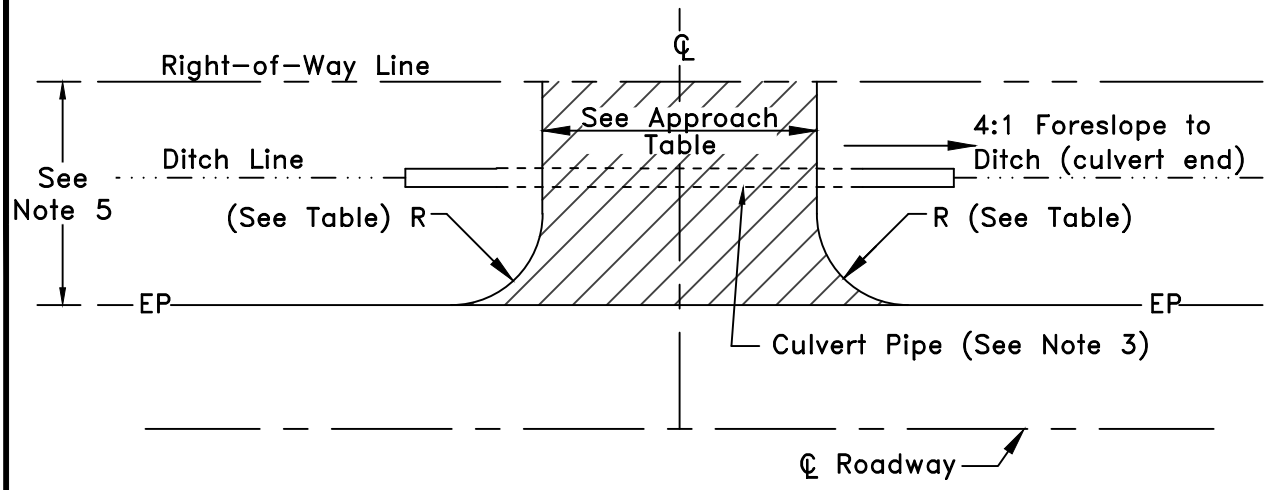
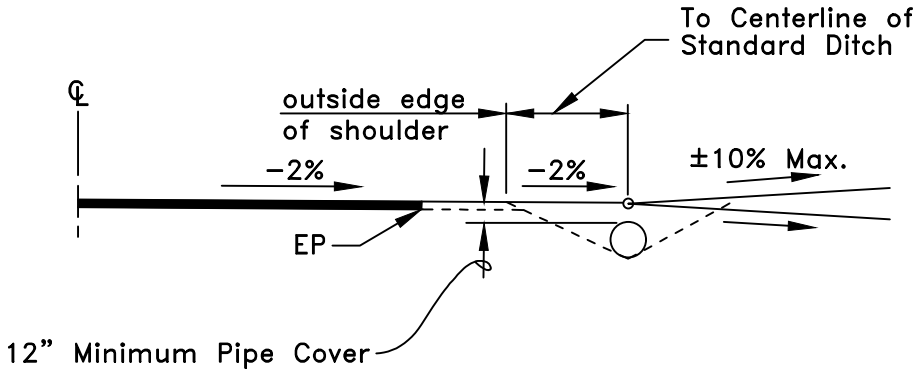


APPROACH PLAN



GRADE REQUIREMENTS

APPROACH TABLE

APPROACH TYPE	Appr. Width Min.	Appr. Width Max.	Min. Radius
Farmyard, Field	20'	40'	20'
Residential*, on Rural Road	20'	30'	20'
Residential*, on Subd. Road Or	20'	36'	30'

APPROACH STRUCTURAL SECTION
See Standard Drawings:
SD-101 thru SD-102A

*Residential approach serving 1 or 2 residences.
See SD 106 for approaches serving commercial, or 3 or more residences.

NOTES:

1. APPROACH SPACING SHALL CONFORM TO SECTION 3000 OF THE DEVELOPMENT POLICY MANUAL.

2. INGRESS/EGRESS BY FORWARD MOTION ONLY.

3. CULVERT PIPE SHALL BE 12" MIN. DIAMETER. CULVERT PIPE SHALL EXTEND TO THE INTERSECTION OF THE DITCH LINE AND THE 4:1 APPROACH FORESLOPE. PIPE MATERIAL SHALL BE EITHER 0.064" THICK CORRUGATED STEEL, 0.060" CORRUGATED ALUMINUM OR CLASS V REINFORCED CONCRETE.

4. SUBDIVISION ROADS ARE DEFINED AS ROADS THAT PRIMARILY PROVIDE ACCESS TO ADJACENT LOTS OR PARCEL, DO NOT SERVE AS COLLECTOR ROADS, AND HAVE A POSTED SPEED OF 25 MPH OR LESS. ALL OTHER ROADS SHALL BE CONSIDERED RURAL ROADS FOR APPLICATION OF APPROACH STANDARDS.

5. PAVE INTERSECTING APPROACH 6' OR TO RIGHT-OF-WAY LINE WHICHEVER IS LESS.

STANDARD RESIDENTIAL APPROACHES

N.T.S.

BANNOCK COUNTY ROAD & BRIDGE DEPARTMENT
BANNOCK COUNTY, IDAHO
STANDARD DRAWING No. 105

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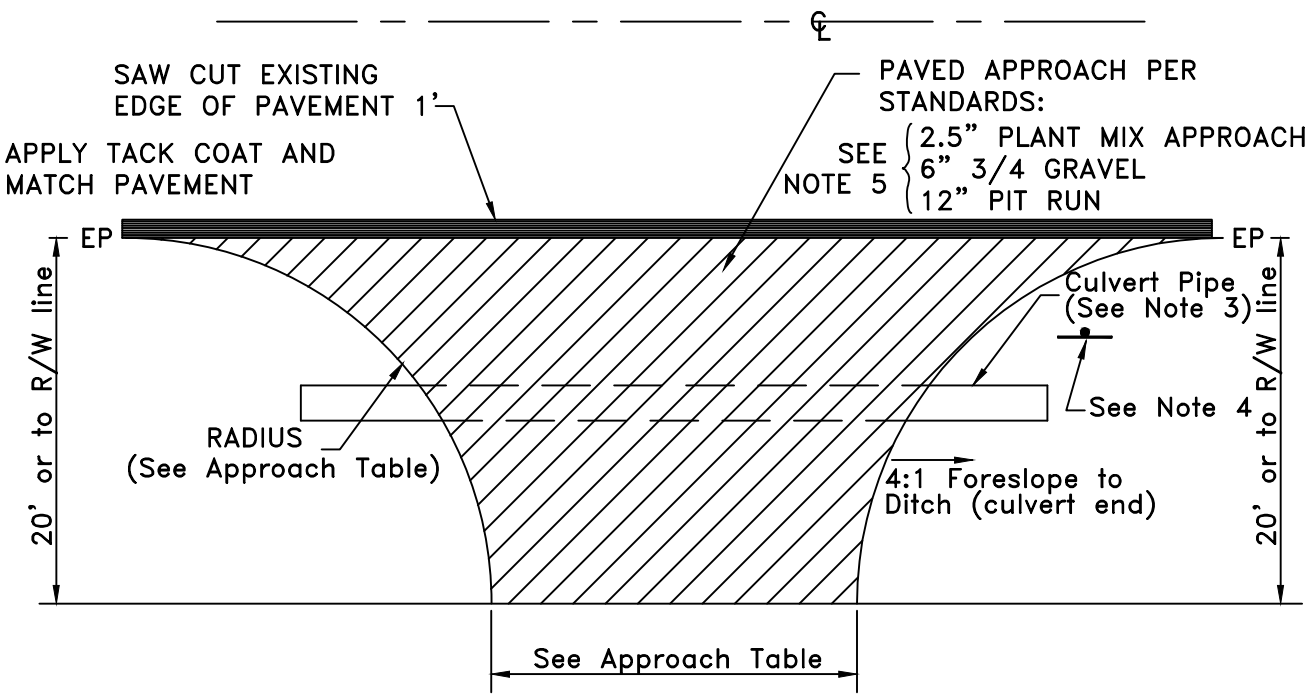

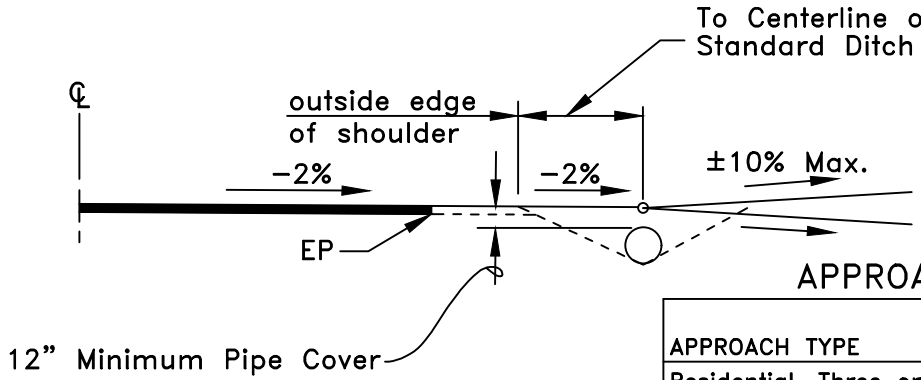

APPROACH TABLE

APPROACH TYPE	Appr. Width* Min.	Appr. Width* Max.	Min.** Radius
Residential, Three or More	28'	40'	30'
Commercial (One Way)	20'	30'	30'
Commercial (Two Way)	25'	40'	30'

* Does not include 2' gravel shoulder on each side of approach.

** Or based on applicable commercial design vehicle and truck volume.

NOTES:

1. APPROACHES SPACING SHALL CONFORM TO SECTION 3000 OF THE DEVELOPMENT POLICY MANUAL.
2. INGRESS/EGRESS BY FORWARD MOTION ONLY.
3. CULVERT PIPE SHALL BE 12" MIN. DIAMETER. CULVERT PIPE SHALL EXTEND TO THE INTERSECTION OF THE DITCH LINE AND THE 4:1 APPROACH FORESLOPE. PIPE MATERIAL SHALL BE EITHER 0.064" THICK CORRUGATED STEEL, 0.060" CORRUGATED ALUMINUM OR CLASS V REINFORCED CONCRETE AND/OR CAPABLE OF SUPPORTING DESIGN VEHICLE.
4. STOP SIGN IN ACCORDANCE WITH M.U.T.C.D.
5. FOR PAVED APPROACHES: CONTRACTOR WILL MATCH THE DESIGN SECTION FOR THE RESPECTIVE PROJECT OR THE ABOVE SPECIFIED SECTION, WHICH EVER SECTION IS GREATER.

COMMERCIAL APPROACH AND ACCESS SERVING 3 OR MORE PROPERTIES

N.T.S.

BANNOCK COUNTY ROAD & BRIDGE DEPARTMENT
BANNOCK COUNTY, IDAHO
STANDARD DRAWING No. 106

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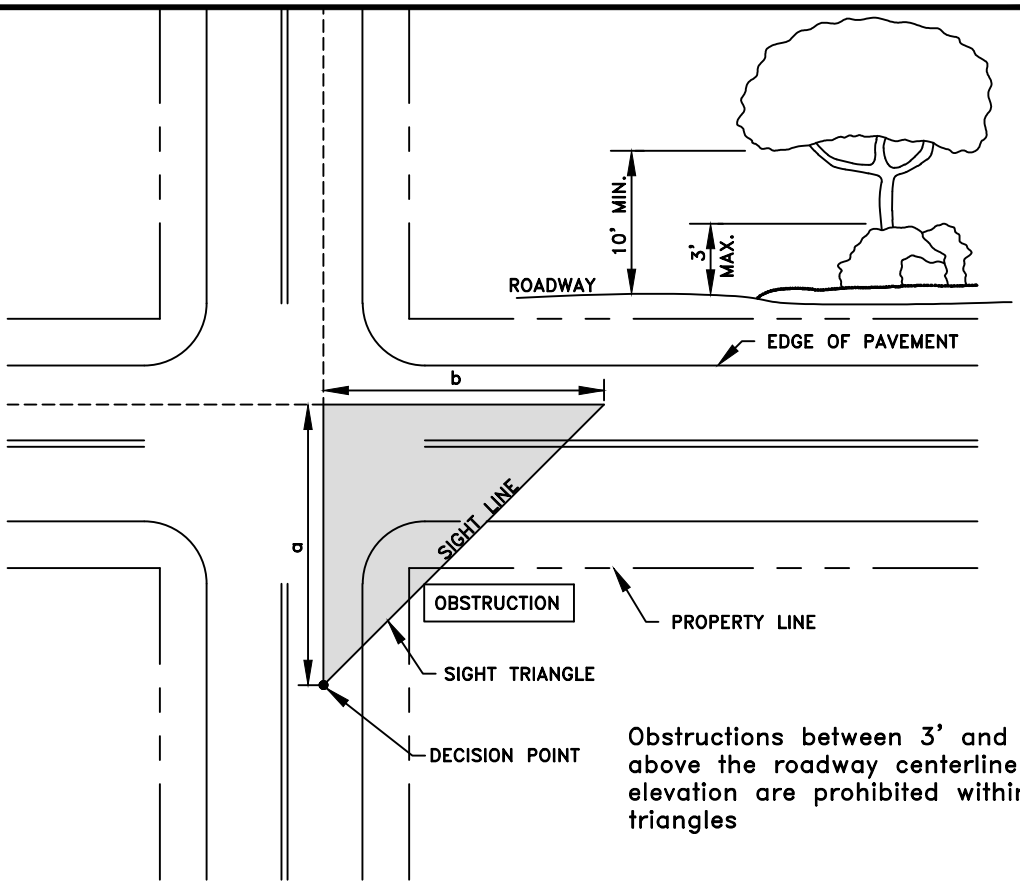

Obstructions between 3' and 10' above the roadway centerline surface elevation are prohibited within sight triangles

U.S. Customary	
Design Speed (mph)	Length of Leg (ft)
15	70
20	90
25	115
30	140
35	165
40	195
45	220
50	245
55	285
60	325
65	365
70	405
75	445
80	485

U.S. Customary														
Approach Grade (%)	Design Speed (mph)													
	15	20	25	30	35	40	45	50	55	60	65	70	75	80
−6	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
−5	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2
−4	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
−3 to +3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
+4	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
+5	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
+6	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

NOTE:
1. Tables referenced from the current AASHTO Geometric Design of Highways and Streets.
2. For approach grades greater than 3 percent, multiply the sight distance values "Length of Leg" by the appropriate adjustment factor.
3. Obstructions between 3' and 10' above the roadway centerline surface elevation are prohibited within sight triangles.
4. It is assumed that the driver's eye height is 3.5 feet above the roadway surface and that the object to be seen is 3.5 feet above the surface of the intersecting road.

SIGHT TRIANGLE AT UNCONTROLLED INTERSECTIONS

N.T.S.

BANNOCK COUNTY ROAD & BRIDGE DEPARTMENT
BANNOCK COUNTY, IDAHO

Source: Idaho Code 49−221 STANDARD DRAWING No. 107 Rev. 2021

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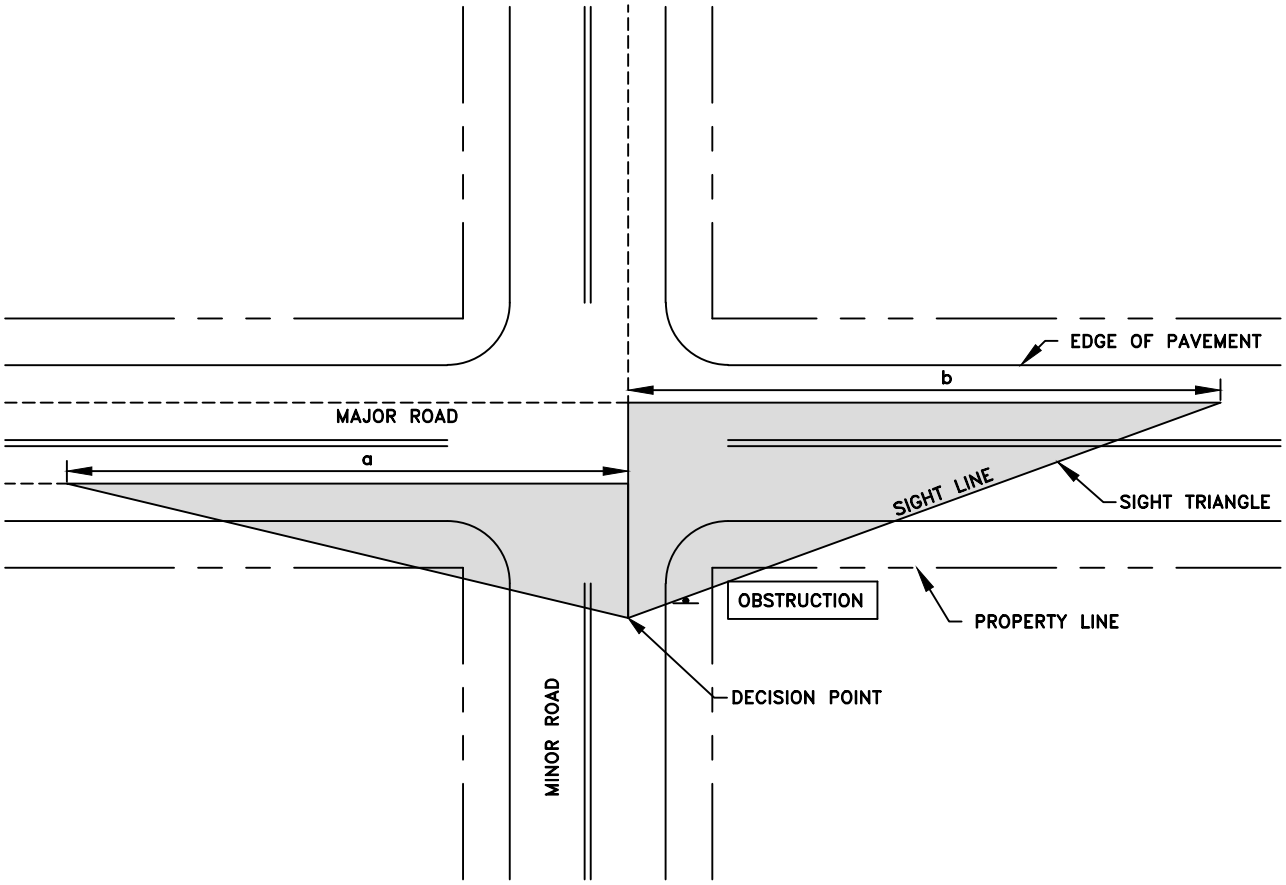
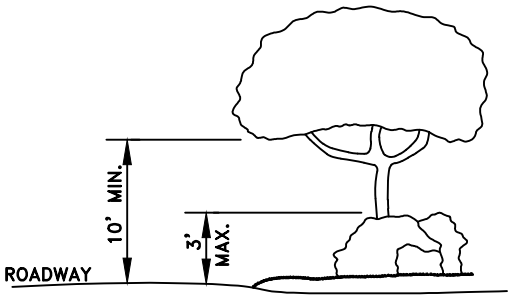


NOTE:

1. Lengths a & b are dependent on the type of control and vehicle maneuver at the intersection. Reference the 2018 AASHTO Geometric Design of Highways and Streets Section 9.5.3 Intersection Control for the applicable situation (Cases B thru D).
2. Obstructions between 3' and 10' above the roadway centerline surface elevation are prohibited within sight triangles.
3. It is assumed that the driver's eye height is 3.5 feet above the roadway surface and that the object to be seen is 3.5 feet above the surface of the intersecting road.



SIGHT TRIANGLE AT CONTROLLED INTERSECTIONS

N.T.S.

BANNOCK COUNTY ROAD & BRIDGE DEPARTMENT
BANNOCK COUNTY, IDAHO

Source: Idaho Code 49-221 STANDARD DRAWING No. 107A Rev. 2021

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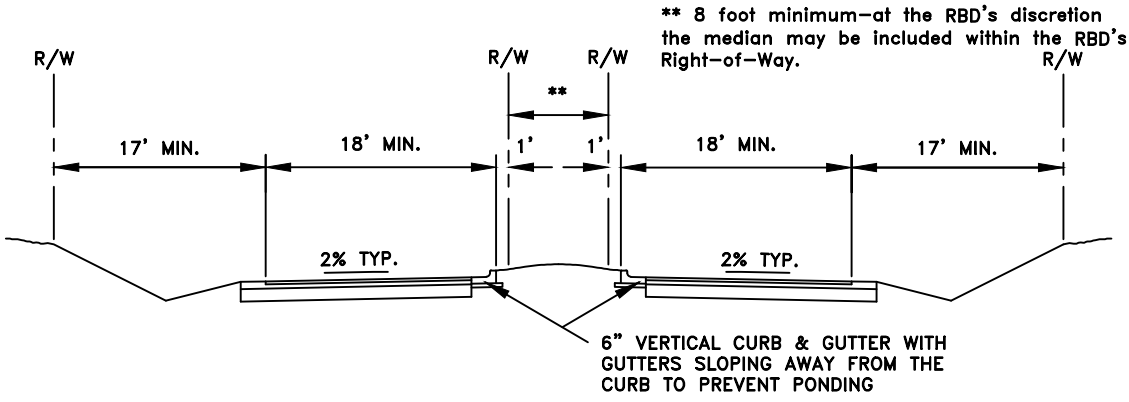


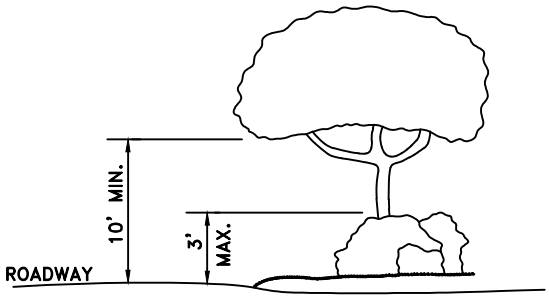
TYPICAL STREET SECTION

N.T.S.

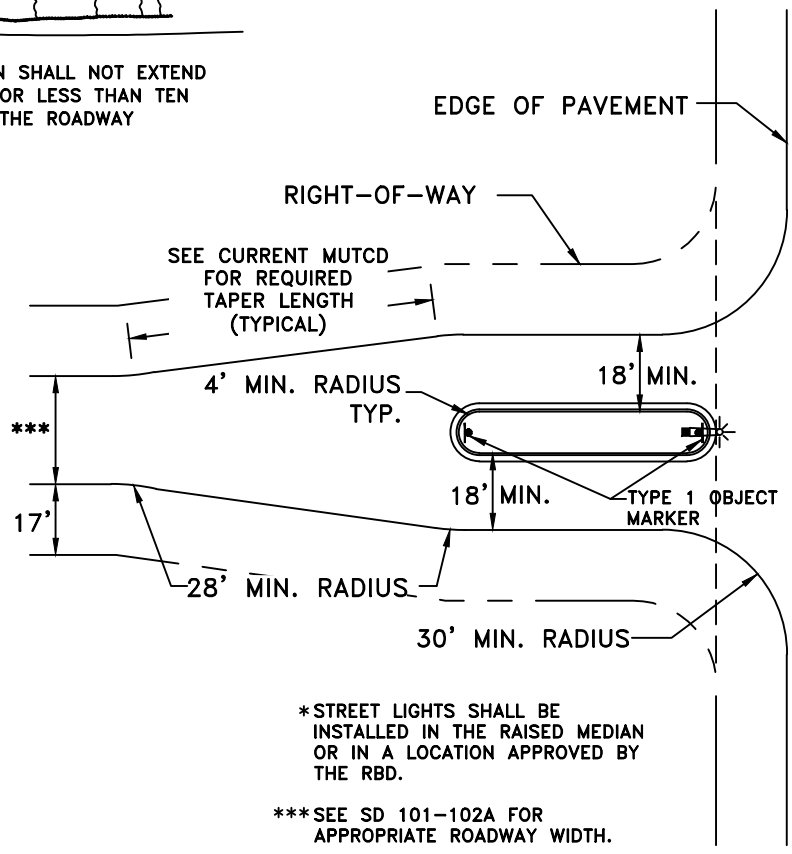
NOTE:

ROADWAY STRUCTURAL SECTION, DITCH FORESLOPE AND BACKSLOPE PER TYPICAL SECTION (SD–101 – 102A).

VERTICAL CURB & GUTTER PER ISPWC.



OBSTRUCTIONS IN THE MEDIAN SHALL NOT EXTEND MORE THAN THREE (3) FEET OR LESS THAN TEN (10) FEET IN HEIGHT ABOVE THE ROADWAY CENTERLINE ELEVATION.



*STREET LIGHTS SHALL BE INSTALLED IN THE RAISED MEDIAN OR IN A LOCATION APPROVED BY THE RBD.

***SEE SD 101–102A FOR APPROPRIATE ROADWAY WIDTH.

RAISED MEDIANS

N.T.S.

BANNOCK COUNTY ROAD & BRIDGE DEPARTMENT
BANNOCK COUNTY, IDAHO
STANDARD DRAWING No. 108

Rev. 2021

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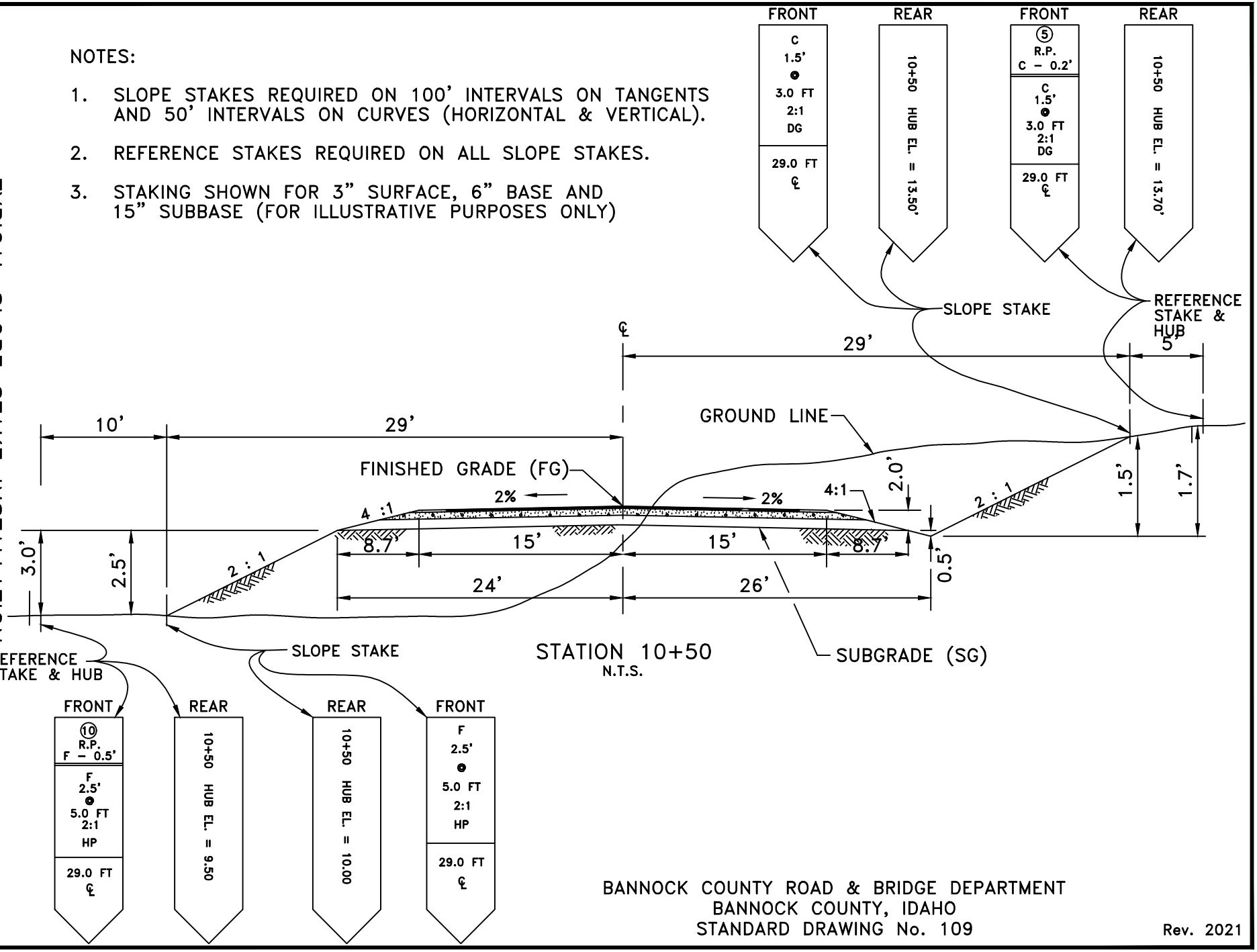
TYPICAL SLOPE STAKE INSTALLATION

NOTES:

1. SLOPE STAKES REQUIRED ON 100' INTERVALS ON TANGENTS AND 50' INTERVALS ON CURVES (HORIZONTAL & VERTICAL).
2. REFERENCE STAKES REQUIRED ON ALL SLOPE STAKES.
3. STAKING SHOWN FOR 3" SURFACE, 6" BASE AND 15" SUBBASE (FOR ILLUSTRATIVE PURPOSES ONLY)



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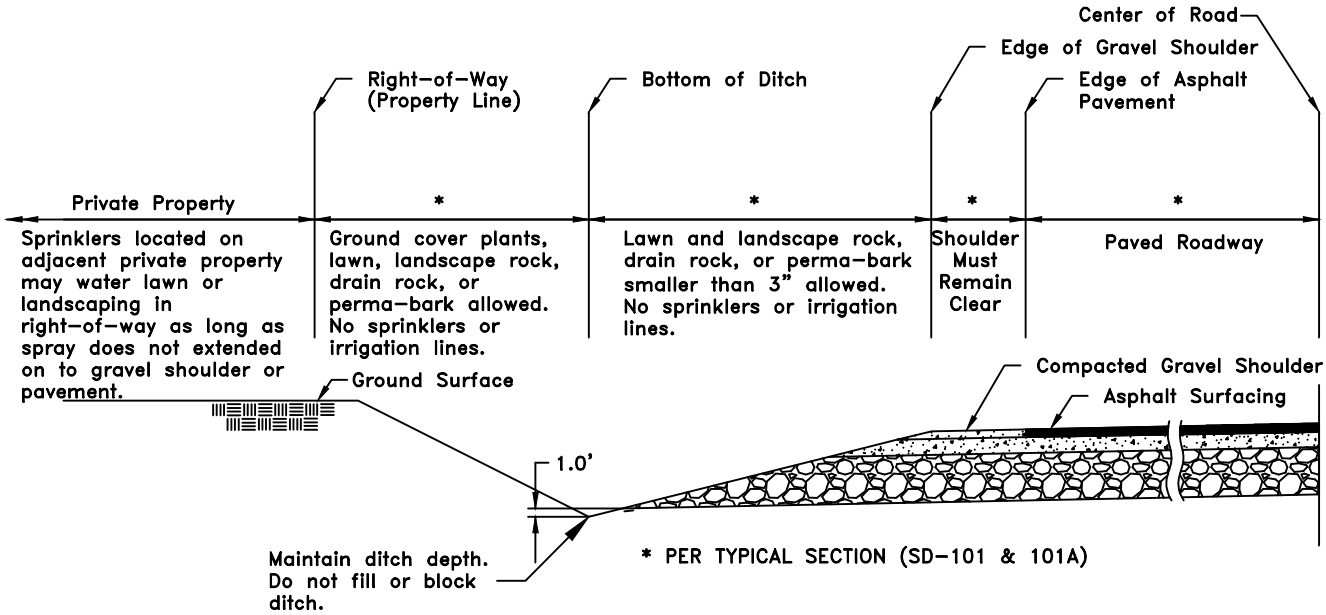

TYPICAL RURAL ROAD SECTION

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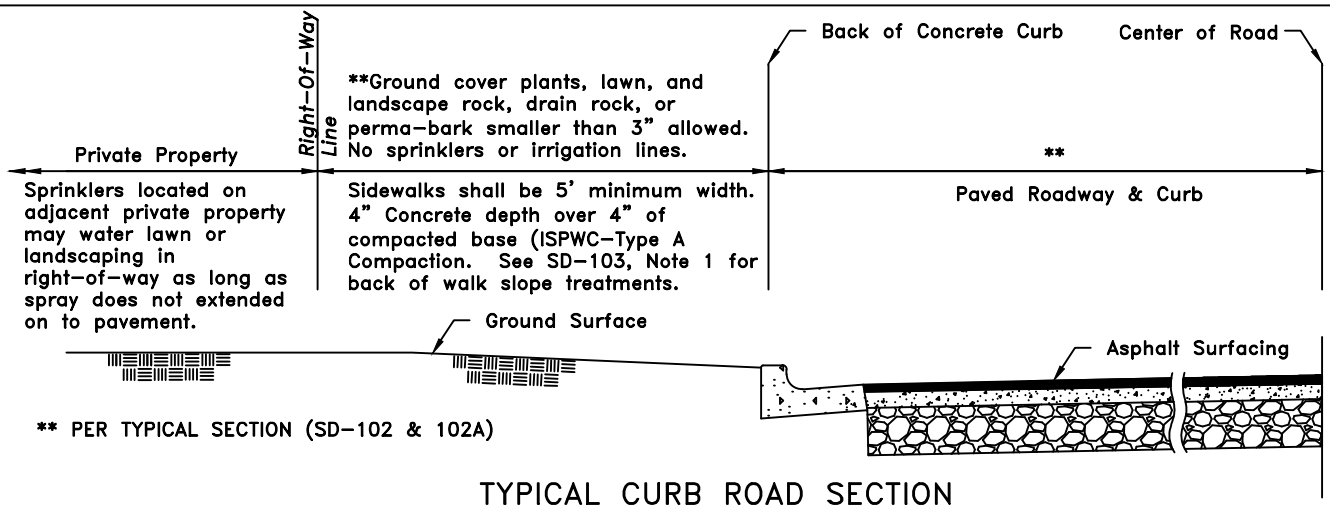

TYPICAL CURB ROAD SECTION

N.T.S.

GENERAL NOTES:

1. Landscape rock, drain rock or perma-bark within the right-of-way must be 3" or smaller in size.
2. Use of wood landscape bark within the right-of-way is not allowed.
3. Where permitted, ground cover plants within the right-of-way shall not exceed 6" in height.
4. No irrigation piping, sprinklers, or other irrigation components are permitted in the right-of-way.
5. Any landscaping or mailbox located within the right-of-way not complying with RBD standards or otherwise creating a safety or maintenance concern may be removed by the RBD without notice.
6. For local roads the nearest face of the mailbox shall be located at or behind the back of curb or on rural subdivision roads at the outside edge of shoulder, or other greater distance required by the U.S. Postal Service. For collector and arterial roads place mailboxes in accordance with ISPWC SD-808.
7. Mailboxes shall be installed on a treated 4" by 4" wood post, 2" diameter galvanized steel pipe with a minimum wall thickness of 0.095", or equivalent support system approved by the RBD. Mailboxes installed on mounting or support systems determined unacceptable by the RBD, including, but not limited to, brick, masonry, concrete, rock, or heavy gauge metal, shall be relocated outside the right-of-way at the owner's expense. Mailbox placement shall follow the current edition of the Idaho Standards For Public Works Construction SD-709A and/or SD-808. If mailbox is located within the roadside clear zone, supports shall meet AASHTO MASH criteria.

BANNOCK COUNTY ROAD & BRIDGE DEPARTMENT
BANNOCK COUNTY, IDAHO
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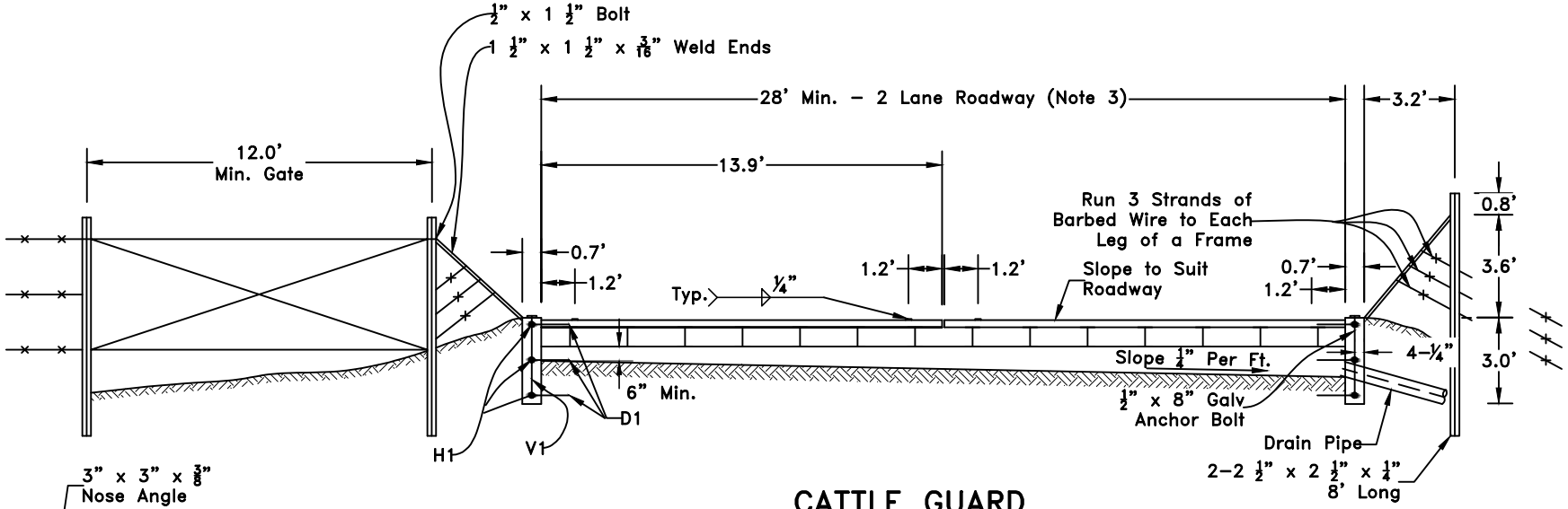
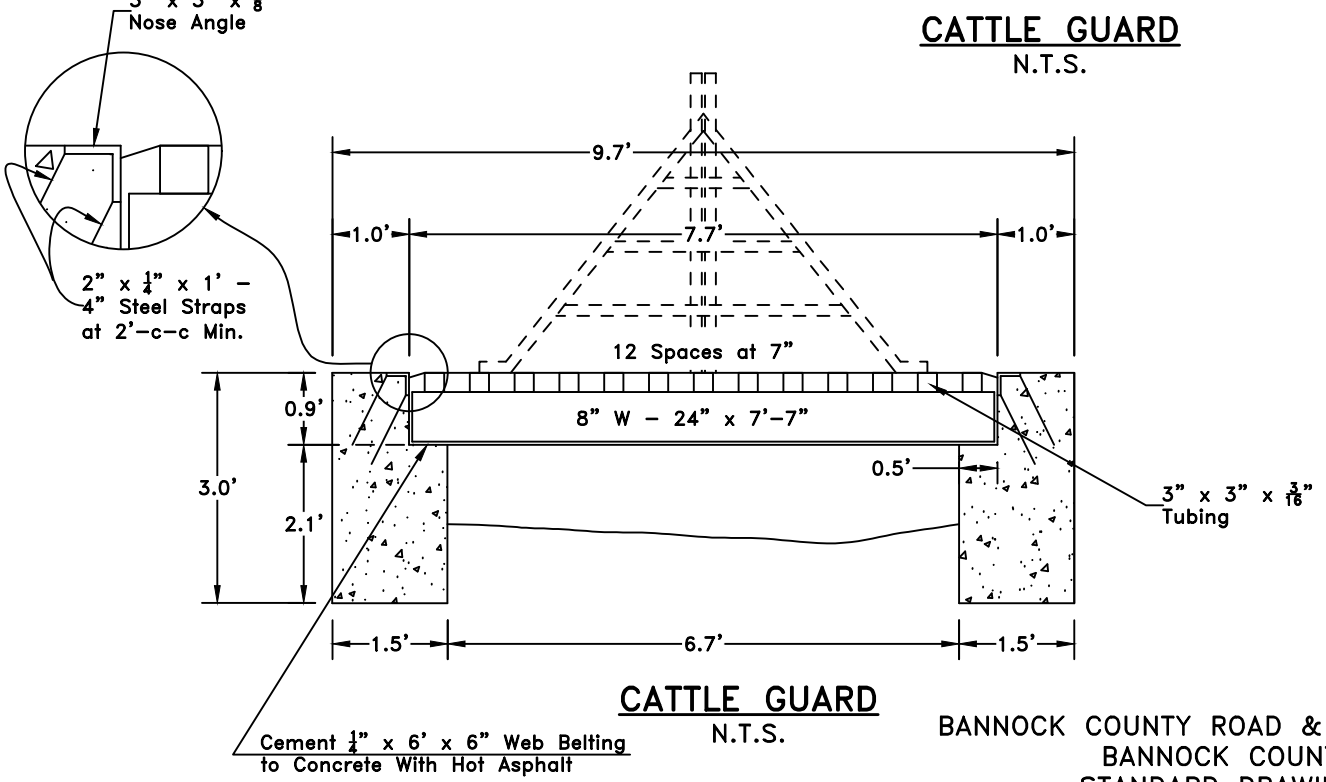


CATTLE GUARD
N.T.S.



CATTLE GUARD
N.T.S.

REINFORCEMENT STEEL				
MARK	LOCATION	SIZE NO.	TOTAL LENGTH	NO. REQ'D
V1	END WALLS	4	2' 8"	18
H1	END WALLS	6	9' 4"	6
D1	DOWELS	4	1' 4"	24
80 L.F. No. 4 Bars @ .668 lb/ft = 53 lb 56 L.F. No. 6 Bars @ 1.502 lb/ft = 85 lb				

Note:
1. For single lane road, cattle guard may be reduced to 16' minimum with one 13' 11" platform section.
2. HS-25 load rating is specified.
3. Minimum roadway width shall be reduced or widened according to roadway widths found in STD. 101 & 101A Road Structure Schedule. Roadway width is considered Lane Width + Shoulder Width.

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BANNOCK COUNTY, IDAHO
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129K FREIGHT ROUTE

POLICY

129K Route/129K Load Policy

129 General:

129.010. As identified in Idaho Code 49-1004B, Local Highway Jurisdictions may, by resolution on their own initiative or pursuant to written request, designate routes, and revoke previously authorized routes within their respective jurisdictions for the operation of vehicle combinations with a legal maximum gross weight between one hundred five thousand five hundred one (105,501) pounds and one hundred twenty-nine thousand (129,000) pounds. Nothing in I.C. 49-1004B shall limit the exclusive jurisdiction of local authorities to authorize or decline to designate such routes (i.e. 129K routes). In exercising jurisdiction to designate a route under I.C. 49-1004B, a local authority shall analyze the long-term physical and safety consequences of allowing vehicles covered by this section to use the route at issue. In conducting such analysis, the local authority shall use Idaho Transportation Department Standards or the Idaho Standards for Public Works Construction (ISPWC), or a successor publication.

129.020. It is the policy of Franklin County (hereinafter designated the RBD) to have an applicant bear all costs associated with establishing 129K route designations under its jurisdiction, including but not limited to any and all costs of modifications to the roadway network that may be required as conditions of approval of designation of the proposed route. However, until the expiration of I.C. 49-1004B, the applicant shall not be required to reimburse the RBD more than the maximum amount identified in Idaho Code for the costs associated with the technical review of the application.

Within one hundred fifty (150) days after receipt of a written request to designate a route pursuant to I.C. 49-1004B, the governing board of the RBD shall issue a determination as to: (i) Whether it designates routes under this section; and (ii) If it designates routes under this section, whether to approve the specific route at issue.

However, the RBD is not limited in using its discretion to decline, revoke, modify, or place reasonable limits on a 129K route designation within its jurisdiction. Following the expiration of I.C. 49-1004B, a RBD may or may not elect to designate 129,000 lb. truck routes pursuant to I.C. 49-1004A.

If a RBD designates routes under I.C. 49-1004A or B, a complete application must be filed with the RBD. In order for the RBD to have enough information to evaluate a proposed 129K route, the applicant shall request the 129K route designation in writing (on the application form provided by the RBD) and complete and submit all engineering studies and field verifications requested by the RBD as part of the application in accordance with sections 129.030 and 129.040 of this policy.

129.030. 129K Route Designation Procedures: If the proposed 129K route has not previously been designated and approved by the RBD, or if the applicant requests a modification to an existing 129K route, then the following processes must be completed as part of applying for route designation/modification:

A. Stage I, 129K Route Designation:

1. The applicant must submit an application to the RBD on the form provided by the RBD. (The RBD may choose to use the sample Exhibit A) requesting the 129K route to be considered for designation, or 129K route modification, along with a non-refundable application fee of $1,000.

2. The Road Director, Director of Highways, or other designated official of the RBD ("Director"), following receipt of a written request (application) for approval and an application fee in the amount specified in the District's Fee Schedule , shall review the proposed application and route together with the information of the District that is readily available to him or her to determine if he or she has sufficient information to conduct a preliminary analysis without additional engineering studies, field verifications, tests or other information.

   If the Director determines that additional information is required, the Director shall give written notice to the applicant that the application must be supplemented to include the additional studies, verifications, tests and/or other information before the application will be considered complete. The additional required information may include studies and/or reports or test results by a qualified, licensed engineer and/or qualified testing facilities.

Any cost of providing the additional required information for the application shall be paid by the applicant. In addition to requiring additional information, the Director may prepare a cost estimate for the technical review of the application by the Director and the governing board of the RBD. The cost estimate may include the cost of an engineer, or other professional personnel, to assist the Director and the governing board in the analysis.

If the cost estimate exceeds the amount of the application fee, the Director may then request the applicant to deposit the amount that such cost estimate exceeds the application fee before the Director begins the analysis. If the applicant declines or fails to provide such funds and/or any required additional information to be included in the application as described herein, the written request may be denied for failure to complete the application and/or lack of payment.

Upon the receipt of sufficient information and payment, the Director shall make a preliminary determination of whether to approve the route at issue.

Following the preliminary determination of the Director, the preliminary determination along with the supporting information shall be provided to the governing board of the RBD.

3. At a public meeting the Director shall present the information or summary of the information along with his or her findings and preliminary recommendation to the governing board. The applicant shall have the right to be present at the public meeting and present information to the Governing Board before the Board's determination is made. (Upon expiration of I.C. 49-1004B, prior to designating or modifying a designation of a route under I.C. 49-1004A, a RBD shall publish notice and conduct a public hearing concerning the proposed designation.)Following receipt of this information, the governing board shall analyze the long-term physical and safety consequences of allowing proposed permitted vehicles to use the route at issue and make a determination in the form of a written resolution, as to whether to approve the route and any conditions or restrictions that shall apply to users of the route. The governing board may have the assistance of engineers or other persons in its analysis.
    a. If the RBD's determination is to not approve the route, the RBD may provide a list of remediation requirements that the applicant must complete in order for the 129K route to be reconsidered for designation.
    b. If the RBD's determination is to approve the route, the RBD shall submit such designation or update to the department for inclusion in the statewide route map entitled "Designated Routes up to 129K.", in accordance with Idaho Code 49-1004A or 49-1004B, whichever is applicable at the time.
4. Once a 129K route has been designated by the RBD, the RBD will retain the right, at any time, to modify, revoke and/or decline the designation and may place any limits on the designation that protects the RBD infrastructure or public safety.
5. In designating a 129K route, the RBD may specify the axle configuration and identify other route or vehicle requirements for 129K vehicles utilizing the 129K route.
6. The combined total of the application fee and any additional costs for the technical review of the application shall not exceed the amount allowed by Idaho Code. Following the determination of the governing board, the RBD shall reimburse to the applicant any amount paid by applicant, above the cost of the application fee, for the RBD's technical review of the application that was not a cost of the actual technical review that took place.

B. Stage II, Individual 129K Vehicle Permitting:

Following approval of a route, no vehicle combination with a gross weight in excess of 105,500 lbs. may travel on said route unless it first obtains and maintains a valid vehicle permit from the Idaho Department of Transportation (ITD) pursuant to Idaho Code Section 49-1004(4). In issuing permits, ITD will provide the permittee notification of any special conditions, limitations, periods of validity, and amendments, related to the approved route.

C. Stage III, Enforcement:

1. Permittees shall, if requested by the RBD, demonstrate compliance with their 129K permit conditions by:

a. Providing a monthly usage report for all vehicles above 105,500 lb. using the designated route(s) (incl. vehicle identification, number of trips, and vehicle gross weights) to the RBD.

b. Providing notifications of any overweight, speeding, or safety violations issued to the permittee or its driver while operating on a designated 129K Route to the RBD.

2. The RBD may request from ITD the revocation of a permit of any permittee that has transported an overweight load or has been convicted of any speed or safety violation while using a vehicle in excess of 105,500 lbs. upon a designated route.

3. The RBD may revoke the 129K route designation, at any time, if it becomes apparent that the structural integrity or safety of the route is being degraded by the 129K loads utilizing the route. The RBD may also revoke the 129K route designation if there is a significant increase in required maintenance for the roadway or for any other reason allowed by Idaho law.

129.040. 129K study and verification requirements: The Director may require any or all of the following studies, verifications, tests and other information to be included in an application:

- Off-tracking Analysis in accordance with the National Institute for Advanced Transportation Technology (NIATT) "Guide to Assist Local Highway Jurisdictions in Evaluating Route Requests for Truck Up to 129,000-Pounds" (NIATT Guide).
- Bridge and Culvert Evaluation in accordance with the NIATT Guide, with the following modification: In addition to the NIATT recommendations, routes with culverts in unsafe condition for the proposed truck weights will not be approved until the culvert is replaced with a new culvert.
- Pavement and Gravel Road Evaluation in accordance with the NIATT Guide, with the following additions: Paved Routes with PCI Ratings of 65 or less will be deemed to be the equivalent of a roadway section with a PASER Rating of less than 6. The RBD may choose not to designate Gravel Roadway Sections as 129 routes if the RBD finds that by designating the route, a significantly larger quantity of gravel will be lost on the roadway section. Therefore, the RBD may require that the Gravel Road Evaluation include an evaluation of potential gravel loss.
- Crash Data Analysis and Safety Evaluation in accordance with the NIATT Guide. The RBD may also require any of the following modifications: In addition to the NIATT recommendations,

  1) Turning Movements will be evaluated using AutoTurn with the WB-92D template identified in the 2011 American Association of State Highway and Transportation Officials (AASTHO) Greenbook;

  2) Alternatively a turning template of the applicant's 129K configured vehicle may be used in AutoTurn provided the template is approved by the Director or the RBD's Engineer; and

  3) the applicant may run his proposed 129k configured vehicle along the proposed route demonstrating compliance with this policy, provided the negotiation of the route by the test vehicle is observed by RBD staff; 5) It is the policy of the RBD that as part of the turning movement analysis that the 129K configured vehicle must stay entirely within the departure and receiving lanes when making the turning movement, unless the Governing Board of the RBD, at its discretion, provides conditional approval for on-coming lane encroachments. In which case the route may be approved with conditions (e.g. yield to all vehicles, pilot car escort, et al). It should be noted that the RBD is not required to provide conditional turning movement approval for 129K configured vehicles and turning movement conditions will be evaluated on a case-by-case basis.
- Completion of an adjacent Land Use and Zoning Analysis to determine if the designation of the proposed 129K route could create a public safety concern (e.g. Schools, School Crossings, Churches, Community Centers, Hospitals, High Density Residential Areas, etc.).

129.050. Other Requirements:

A. RBD's are precluded from approving any 129k route that provides a thoroughfare for interstate carriers to pass through the state.

B. The applicant is responsible for obtaining the services of a competent Professional Engineer(s), licensed to practice in Idaho, to complete all the required engineer studies, evaluations and field verifications requested by the Director unless the Director specifies an alternative method for providing the information.

C. Prior to initiation of the 129K route study the Applicant, and the Applicant's Engineer, will meet with the RBD and/or its Director or engineer to establish the study parameters, discuss the study requirements, and identify any specific areas of concern determined by the RBD.

In addition, the applicant, if requested by the RBD, shall be required to provide the following information to support the conclusion and assumptions included in the 129K route study:

- Axle weights and geometric configurations
- ESAL and/or LEF data
- Number of Vehicles and number of trips for proposed vehicle(s)
- Other pertinent data identified by the RBD, or its Engineer

D. The attached 129K Route Application, 129K RBD Check List, 129K Route Preliminary Analysis Worksheet, and sample resolutions are tools that may or may not be used by the RBDs in the application process. As such, they are not to be considered as part of the RBD's policy.

129.3130. Any 129,000-pound routes previously approved before the effective date of this policy shall remain approved routes until further action by RBD.

129.3140. If any section, subsection, sentence, clause, phrase, or portion of this policy is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portions shall be deemed a separate, distinct and independent provision and such holdings shall not affect the validity of the remaining portions thereof.

129K ROUTE APPLICATION

Application No.:_____

ROAD NAME: _____ LOCATION BETWEEN _____RD. & _____RD.

ROUTE DESCRIPTION*:_____

_____

_____

_____ _____

COMPANY APPLICANT NAME

_____ _____

ADDRESS PHONE NO.

_____ _____

CITY STATE ZIP SIGNATURE OF APPLICANT AND DATE

Information regarding Route Request:

What are the economic benefits of creating this route? _____

_____

_____

_____

Why is the route being requested? _____

_____

_____

_____

Describe the commodities being proposed to be transported along this route. _____

_____

_____

_____

Will this route create a thoroughfare for Interstate carriers through the State?

☐ Yes ☐ No

Provide the proposed number of trips along this route.

☐ Annual Trips _____

☐ Daily Trips _____

☐ Seasonal Trips _____

From _____ to_____

date date

129K LHJ CHECK LIST (Agency Use Only)

The 129K LHJ Check List may be utilized by the Local Highway Jurisdiction in tracking application requirements for a proposed 129K route designation.

Date Application was submitted: _____

Requested Route: _____

Applicant: _____
Name

_____
Address

_____
Phone & email

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1. Preliminary Evaluation (By Director of Highways or Designated Representative)

   Date Completed: _____ Completed By: Stephen F. Freiburger, P.E.

   The preliminary evaluation indicates that the route meets the following 129K Route Requirements:

   a. Off-Tracking (Worksheet item 1) ☐Yes ☐ No
   b. Bridge & Culvert (Worksheet item 2) ☐Yes ☐ No
   c. Pavement and/or Gravel Road (Worksheet item 3) ☐Yes ☐ No
   d. i. Meets Crash Analysis (Worksheet item 4i) ☐Yes ☐ No
      ii. Meets Safety Evaluation (Worksheet item 4ii) ☐Yes ☐ No
   e. Meets Adjacent Land Use and Zoning (Worksheet item 5) ☐Yes ☐ No

   If all items listed above are marked "yes" skip to Item 4.

   If any of the above items were "No", Identify Additional Study Requirements.

2. Additional Study to be provided by LHJ Engineer ☐Yes ☐ No

   If "Yes" Cost Estimate to Complete Additional Study: _____

   If "No" identify Engineer who will complete the study:

   Applicant's Engineer: _____
   Name

   _____
   Address

   _____
   Phone & email

3. 129K Route Additional Study Results: Submitted on: _____, Accepted on: _____

   The results of the preliminary evaluation and the Additional Study, indicate that the route meets: following 129K Route Requirements:

   a. Off-Tracking Analysis ☐Yes ☐ No
   b. Bridge & Culvert Evaluation ☐Yes ☐ No
   c. Pavement and/or Gravel Road Evaluation ☐Yes ☐ No
   d. Crash Analysis and Safety Evaluation ☐Yes ☐ No
   e. Adjacent Land Use and Zoning Analysis ☐Yes ☐ No

   If all items listed above are marked "yes" skip to Item 4.

129K LHJ CHECK LIST (Agency Use Only)

If any of the above items were "No", explain why the requirement were not met:

4. Based on the information provided does the route meets the requirements for approval: ☐ Yes ☐ No

   If the route is approved, provide Resolution number and date: _____. In addition, list any Special Conditions, Limitations, Periods of Validity, and /or Amendments associated with the 129K Route Approval:

   If No, provide a list of improvements required for approval of 129K route designation.

   Indicate date of Applicant's written commitment to complete required 129K route improvements: N/A ; and indicate resolution number and date of LHJ approving resolution: N/A .

   If 129K route does not meet the requirements adopted by the LHJ and the LHJ has not approved a written commitment to complete the required improvements indicate date of route denial: _____.

5. Route Approved: ☐Yes ☐ No; Date _____.
6. If Yes, indicate date 129K resolution and route map submitted to ITD: _____.
   If No, Indicate date of Applicant Notification: _____.
7. Indicate date of verification that 129K route appears on ITD route Map: _____.
8. Director of Highways, or Designated Representative:

_____
Signature

_____
Printed Name

_____
Date

129K Route Preliminary Analysis Worksheet (Agency Use Only)

The 129K Route Preliminary Analysis Worksheet may be utilized by the Road and Bridge Department (RBD) in performing the preliminary evaluation for a proposed 129K route designation.

Date Application was submitted: _____

Requested Route: _____

Applicant: _____
Name

_____
Address

_____
Phone & email

Date Completed: _____ Completed by: _____

1. Off-Tracking (If the route contains only straight segment complete item 1.a. If the route contains only curved segments complete item 1.b. If the route contains both straight and curved segments, complete items 1.a. and 1.b. and use the worst-case condition for marking the RBD Checklist. In addition, use item 4.b. for intersection analysis)

    a. For Straight Segments mark the applicable condition below:
        i. ☐ The Surface width is 22-ft or more. If this item is checked, mark RBD Checklist Item 1.a "yes".
        ii. ☐ The Surface width is less than 22-ft. If this item is checked, mark RBD Checklist Item 1.a "No" and require additional analysis.

    b. For Curved Segments mark the applicable existing condition:
        i. ☐ The Surface width is 30-ft or more. If this item is checked, mark RBD Checklist Item 1.a "Yes" and add 115-ft maximum length and 6.5-ft off-tracking to permit conditions.
        ii. ☐ The Surface width is 28-ft, and less than 30-ft. If this item is checked, mark RBD Checklist Item 1.a "Yes" and add maximum length of 95-ft and 5.5-ft off-tracking to the permit conditions.
        iii. ☐ The Surface width is less than 28-ft. If this item is checked, mark RBD Checklist Item 1.a "No" and require Field Verification, or an Engineering Study.

2. Bridge & Culvert Analysis

    a. There are not any Bridges (span greater than 20ft) or Culverts (span less than 20ft) on the route:

    ☐Yes ☐ No. If "yes" mark RBD Checklist "Yes", if "No", complete item 2.b for Bridges and Culverts.

    b. Bridge and Culvert Evaluation (mark the applicable existing conditions below):
        i. ☐ All Bridges have a 121K Rating of 1.0, or more, and there are no culverts rated as "Poor". If this item is checked mark RBD Checklist Item 1.b "Yes".
        ii. ☐ All Bridges have a 121K Rating of 1.0, or more, and there are culverts rated as "Poor". If this item is checked mark RBD Checklist Item 1.b "No" and require replacement of the "Poor" Culverts prior to route approval.
        iii. ☐ One, or more, Bridges have a 121K Rating under 1.0, and there are no culverts rated as "Poor". If this item is checked, mark RBD Checklist Item 1.b "No" and require the Structures with a Rating less than 1.0 to be replaced, or rehabilitated, prior to route approval.
        iv. ☐ One, or more, Bridges have a 121K Rating under 1.0, and there are culverts rated as "Poor". If this item is checked, mark RBD Checklist Item 1.b "No" and require the Structures with 121K Ratings less than 1.0 to be replaced or rehabilitated; and require replacement of all "Poor" Culverts, prior to route approval.

129K Route Preliminary Analysis Worksheet (Agency Use Only)

3. Pavement and/or Gravel Road Evaluation (If the route contains only paved segments complete item 3.a. If the route contains only gravel segments complete item 3.b. If the route contains both paved and gravel segments, complete items 3.a. and 3.b. and use the worst-case condition for marking the RBD Checklist.)

    a. For Paved Segments mark the applicable condition below:
        i. ☐ The PASER Rating is 6 or more, or the PCI Rating is 65 or more. If this item is checked, mark RBD Checklist Item 1.c "yes".
        ii. ☐ The PASER Rating is less than 6, or PCI Rating is less than 65. If this item is checked, mark RBD Checklist Item 1.c "No" and require additional analysis.

    b. For Gravel Segments mark the applicable existing condition below:
        i. ☐ The Roadway Crown is 4%, the shoulders are the level with the roadway surface, and the increase in gravel loss is less than 10%. If this item is checked mark RBD Checklist item 1.c "Yes".
        ii. ☐ The Roadway Crown is not 4%, or the shoulders are not level with the roadway surface, or the increase in gravel loss is more than 10%. If this item is checked mark RBD Checklist item 1.c "No" and require additional analysis.

4. Crash Analysis and Safety Evaluation (Complete Items 4.a and 4.b and report the worst-case scenario on the RBD Checklist Item 1.d.)

    a. Crash Analysis (Mark the applicable condition below):
        i. ☐ There have been no fatal or serious injury crashes in the past 5-years, and the are no truck related crashes in the past 5-years, on the route. If this item is checked, mark RBD Checklist Item 1.d "Yes".
        ii. ☐ There is one, or more, fatal or serious injury crashes in the past 5-years, and there has been one, or more, truck related crashes in the past 5-years, on the route. If this item is checked, mark RBD Checklist Item 1.d "No" and require an Engineering Study.

    b. Safety Evaluation (Mark the applicable existing condition below):
        i. ☐ The edge of pavement radii is 65-ft minimum, and there are no pedestrian/bike lanes or other obstacles within the edge pavement radii. If this item is checked mark RBD Checklist item 1.d "Yes".
        ii. ☐ The edge of pavement radii is less than 65-ft minimum, or there are pedestrian/bike lanes, or other obstacles, within the edge of pavement radii. If this item is checked mark RBD Checklist item 1.d "No" and require an Engineering Study.

5. Adjacent Land Use and Zoning Analysis (Complete Items 5.a and 5.b and report the worst-case scenario on the RBD Checklist Item 1.e.)

    a. ☐ There are no Facilities (i.e. Churches, Schools, Residential neighborhoods, etc.) that may be detrimentally impacted by the route. If this item is checked, mark RBD Checklist Item 1.e "Yes".

    b. ☐ There are Facilities (i.e. Churches, Schools, Residential neighborhoods, etc.) that may be detrimentally impacted by the route. If this item is checked, mark RBD Checklist Item 1.e "No" and require additional analysis.

6. Director of Highways, or Designated Representative:

_____
Signature

_____
Printed Name

_____
Date

LHJ 129k Route Approval Resolution (Sample)

RESOLUTION NUMBER: _____

WHEREAS, the 2013, and subsequent, Idaho Legislature(s) passed bills that authorize Idaho Local Highway Jurisdictions (LHJ) to issue permits for truck carriers to operate trucks up to 129,000 pounds gross vehicle on designated routes; and

WHEREAS, the _____, the LHJ, has received a request for a 129,000 Pound Truck Route; and

WHEREAS, the LHJ has reviewed the proposed route for long-term and safety consequences; and

WHEREAS, the designated LHJ representative has presented their findings and preliminary recommendations to the governing body in a public meeting; and

WHEREAS, the proposed route meets the LHJ's long-term physical and safety standards, and

WHEREAS, the LHJ has issued findings as set forth in Exhibit "A" attached hereto; and

NOW THEREFORE BE IT RESOLVED, _____ _____[road name and description] is approved as a local 129,000 Pound Route subject to the conditions listed in Exhibit "B" attached hereto.

WHEREUPON, since the route is approved, the LHJ shall authorize the Idaho Transportation Department to issue permits for 129,000 configured vehicles subject to the special conditions, limitation, validity dates, and addenda, associated with the LHJ's Route Approval as indicated in the attached Agency Checklist and Route Map.

_____
Signature

_____
Printed Name

_____
Date

LHJ 129k Route Denial Resolution (Sample)

RESOLUTION NUMBER: _____

WHEREAS, the 2013, and subsequent, Idaho Legislature(s) passed bills that authorize Idaho Local Highway Jurisdictions (LHJ) to issue permits for truck carriers to operate trucks up to 129,000 pounds gross vehicle on designated routes; and

WHEREAS, the _____, the LHJ, has received a request for a 129,000 Pound Truck Route; and

WHEREAS, the LHJ has reviewed the proposed route for long-term physical and safety consequences; and

WHEREAS, the designated LHJ representative has presented their findings and preliminary recommendations to the governing body in a public meeting; and

WHEREAS, the proposed route does not meet the LHJ's long-term physical and safety standards, and

WHEREAS, the LHJ has issued findings which are included in Exhibit "A" attached hereto; and

NOW THEREFORE BE IT RESOLVED, _____ _____[road name and description] is denied approved as a local 129,000 Pound Route.

.

_____
Signature

_____
Printed Name

_____
Date