Highway Standards

for the

Associated Highway Districts

Kootenai County, Idaho

2023

POST FALLS LAKES EAST SIDE WORLEY

HIGHWAY STANDARDS

FOR THE

ASSOCIATED HIGHWAY DISTRICTS

KOOTENAI COUNTY IDAHO

2023

Adopted By:

EAST SIDE HIGHWAY DISTRICT — April 17, 2023 (Date) — (Chairman)

LAKES HIGHWAY DISTRICT — March 22, 2023 (Date) — (Chairman)

POST FALLS HIGHWAY DISTRICT — April 5, 2023 (Date) — (Chairman)

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Section 100

Introduction

Section 100 – Introduction

101. Authority of Highway Districts

101.01. The authority to establish Highway Districts within the State of Idaho is a power vested in the county government by Idaho Code Section 40, Chapter 6. The authority for administrative responsibility over road rights-of-way is assigned to the Highway District under Idaho Code Section 50-1330.

101.02. The 37th session of the Idaho Legislature enacted H.B. 329, which brought about the authority to hold an election within Kootenai County to consolidate the then numerous districts into four. On December 14, 1970, the Kootenai County Commissioners took action to officially form the four Highway Districts of East Side, Lakes, Post Falls, and Worley. This action is recorded in the Kootenai County Courthouse, Book S, Pages 230 and 231 of the Commissioner's Journal. This action gave authority and responsibility to these Districts to construct and maintain a continuous safe roadway transportation facility within Kootenai County.

101.03. In 1971, the four Highway Districts in Kootenai County consisting of East Side Highway District, Lakes Highway District, Post Falls Highway District, and Worley Highway District formed an association named the Associated Highway Districts of Kootenai County, Idaho (AHDKC). The purpose of this organization is for the betterment of the secondary highway system in Kootenai County through cooperation of all the existing Highway Districts, dissemination and sharing of knowledge and ideas common to and for the benefit of all operating Highway Districts within Kootenai County, and to actively seek through legislative action or any other available source to constantly improve the secondary highway system in the State of Idaho and particularly within Kootenai County. The Commissioners and Director of Highways from the four Highway Districts each have one vote on decisions made by this body, and they elect a chairman and a vice-chairman with an appointment of a secretary/treasurer. An executive board is also established consisting of one member of each Highway District who has been appointed by that District. These Standards are prepared for the Associated Highway Districts of Kootenai County and are intended for their use in administering their road programs in Kootenai County.

102. Need for Uniformity

102.01. It is the intent of these Standards to provide a uniform roadway network in Kootenai County. While each Highway District in Kootenai County has its own jurisdiction, there is a common goal to provide consistent roadways to serve the people of Kootenai County. The roadway system of Kootenai County is established by the Highway Districts as shown on the Functional Highway Classification System map in each Highway District Office.

102.02. It is further the intent of these Standards to upgrade and maintain the safest roadway system available to the Highway Districts' users. It is not the intent to put forward conflicting Standards that will infringe upon the safety of the traveling public.

102.03. The maintenance of the roadway systems is the responsibility of the Highway Districts. Consequently, the intent of these Standards is also to facilitate that maintenance responsibility by designing roads and constructing them in such a manner that maintenance will be minimized.

102.04. These Standards are minimum standards and do not preclude a member Highway District from requiring a different or greater standard.

103. Non-Discrimination Policy Statement

103.01. The Associated Highway Districts assure that no person shall, on the grounds of race, color, national origin, sex, age, disability, or retaliation as provided by Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987 (Public Law 100.259), and subsequent related acts, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity. The Associated Highway Districts further assure every effort will be made to ensure non-discrimination in all of its programs and activities, whether those programs and activities are federally funded or not.

The Civil Rights Restoration Act of 1987 broadened the scope of Title VI coverage by expanding the definition of terms "programs or activities" to include all programs or activities of Federal Aid recipients, sub-recipients, and contractors/consultants, whether such programs and activities are federally assisted or not (Public Law 100.259 (S.557) March 22, 1988).

104. Disclaimer

104.01. Nothing herein shall be construed to impose an obligation or duty upon the Highway Districts to construct, reconstruct, or improve existing roadways to comply with these Standards.

105. Severability Clause

105.01. If any section, sub-section, 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.

Section 200

General Conditions

Section 200 – General Conditions

201. Plat Approval

201.01. Care must be exercised by the developer/applicant in coordinating the preparation of plats with Kootenai County, any applicable municipality and the Highway District having jurisdiction in the area. The Highway District must review the preliminary plat, as well as the final plat, to make sure that all items conform to these Associated Highway Districts' Standards. Once the Highway District receives the applicant's information and comments from Kootenai County, the Plat will be placed on the Highway District regular meeting or workshop agenda. The Subdivision Review Fee/deposit must be paid in order to be placed on the Highway District meeting agenda. A Traffic Impact Study may be required by a Highway District for a plat, re-plat, or land use change. (See **Appendix**.)

The Highway District Board of Commissioners will review the Subdivision Plat at a regular meeting or workshop. The Board, in its sole discretion, may call a special meeting to review the Subdivision Plat if requested to do so by an applicant. If a special meeting is called, a minimum fee of $500.00 will be required. The District will then respond to Kootenai County with a letter of the Highway District's requirements. A copy of this letter will be sent to the applicant/developer, surveyor, or engineer.

201.02. All Final Subdivision Plats within the Highway District's jurisdiction shall be submitted for review at the appropriate Highway District. The signature of the Chairman of the Highway District Board of Commissioners shall appear on all such Final Subdivision Plats prior to presentation for recording with the Kootenai County Recorder. Such signature shall signify the Highway District's review of the Final Plat and general acceptance of the Plat only, and such signature does not constitute acceptance of any roadway depicted on the Plat prior to its construction to these Standards and acceptance for maintenance and repair by the Highway District.

202. Road Right-of-Way and Easement Dedication

202.01. All rights-of-way that are intended for public use shall be dedicated to the public in the name of the Highway District. Easements shall be perpetual and exclusive roadway drainage and utility easements dedicated to the public in the name of the District.

202.02. Any public rights-of-way to be created, which are not within a recorded subdivision plat, shall be transferred to the appropriate Highway District by acceptable deed or easement, as defined by Idaho Code 40-202. A statement of acceptance of such right-of-way must appear in the official records of the Highway District. Upon acceptance of a deed or easement for a public right-of-way, such instrument shall be submitted to the Highway District for recording with the Kootenai County Recorder.

202.03. Rights-of-way for existing roads adjacent to the plat shall be dedicated or conveyed by easement to the public in the name of the Highway District from the centerline of the existing road or from the section line, whichever is greater. Centerlines of existing roads,

which do not coincide with the section line, must be shown by dimension and location on the plat.

202.04. The Highway District may require that all roads or portions thereof adjacent to the plat be constructed or reconstructed to current Associated Highway Districts' standards.

202.05. All utility relocation costs associated with subdivision road improvements, construction or reconstruction requirements shall be paid for by the developer.

203. Roadway Plans

203.01. Roadway plans consisting of the plan and profile view of the roadway to be constructed shall be prepared by a Professional Engineer licensed in the State of Idaho and shall be of a scale sufficient to show the necessary details but shall in no case be to a scale less than 1" = 50' horizontally and 1" = 5' vertically. Under special design circumstances, cross sections of the roadway may be requested by the Highway District. The roadway plans must include provisions for proper drainage of both the natural watercourses and the roadway, and they must show any necessary easements, and any special design considerations necessary for the completion of the roadway structure. The developer, or his engineering representative, shall call to the attention of the Highway District any proposed deviations from these Standards.

203.02. Two (2) copies of all roadway plans requiring the Highway District's approval must be submitted to the Highway District no less than thirty (30) days prior to a regular or special meeting of the appropriate Highway District.

203.03. The applicable Highway District will review the plans at a regular or special meeting and will make the necessary comments or approval in writing to the developer or his engineering representative within two weeks after the review meeting.

203.04. The roadway cross section outside the paved area and inside the remaining right-of-way shall conform in all aspects with the American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide, latest edition.

203.05. All surveys, maps or legal descriptions submitted to the Highway Districts for design and all related work shall be conducted under the supervision of a Professional Land Surveyor licensed in the State of Idaho. Additionally,

- The topographic survey shall locate and note, via a legend or leader, all features within the project area including all trees larger than 6" at waist height.
- The topographic survey shall show all those underground utilities marked by the one-call locating service.
- Underground structures such as manholes, catch basins and drywells shall include rim and invert elevations. Other similar miscellaneous structures with inverts shall also contain rim and invert information.

- The topographic features shall be located based on standard survey procedures such as GPS or total station work and/or:
  - The topographic features may be located through the use of properly georeferenced aerial imagery such as those obtained by drones.
- The topographic survey shall obtain sufficient shot density to produce a 1' contour map.
  - The topographic survey drawing shall be on a size similar to the other plan sheets but shall be no smaller than 11x17.
  - Horizontal Datum shall be NAD 83/11 – at ground.
  - Vertical Datum shall be NAVD88.
  - The topographic survey shall be stamped and signed by a professional land surveyor.

204. Development Construction Time Period

204.01. The developer shall make every effort to complete the road construction in the development or phased development within a period of two (2) years from final plat approval. If after two years, the roads are not completed to these Standards, the development is subject to a review of the roadway plans and an upgrading of those plans to coincide with any new Standards adopted by the Highway District.

205. Financial Guarantee Agreements on Plat Infrastructure

205.01. Prior to the approval of the final plat, the developer shall place with the appropriate Highway District or with Kootenai County a surety bond, cash deposit, certified check, negotiable bond or irrevocable bank letter of credit in the amount of 150 percent of the total estimated cost of construction of the remaining and/or unfinished improvements as estimated by the Highway District and in accordance with the current Kootenai County Subdivision Ordinance. In the event the developer completes construction and does not bond for the improvements, the developer shall provide a two (2) year guarantee on completed work in an amount equivalent to 10% of the engineer's estimate of construction improvements prior to the Highway District signing the final plat. Any financial guarantee shall be in a form approved by the District. A bond placed with Kootenai County shall also name the Highway District.

206. Street and Road Names

206.01. All road names shall be submitted to and approved in accordance with the Kootenai County Road Naming and Addressing Ordinance, latest Ordinance.

206.02. Road name signs shall be installed at all new road intersections by the developer. All signs shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) or as modified by the Kootenai County Street and Road Naming and Addressing Ordinance, latest ordinance.

207. Construction Observation

207.01. The observation of the construction work as outlined in these Highway Standards shall be accomplished by the applicable Highway District Director or his agent. The Director will be given a minimum 24-hour notice of the need for observation. Said 24-hour period and observation visit shall be included in the normal workweek of the applicable Highway District.

207.02. Those phases of construction requiring observation shall be as follows:

207.02.a. After all erosion control measures are in place.

207.02.b. After the topsoil has been stripped and all clearing has been completed.

207.02.c. Immediately after all drainage, utilities and retaining structures have been completed, prior to their backfill and subsequently after their backfill.

207.02.d. After the subgrade has been prepared and compacted to its finished grade.

207.02.e. After the ballast has been placed and compacted to its finished grade.

207.02.f. After the base material has been placed and compacted to its finished grade.

207.02.g. During and after all asphalt surfacing operations.

207.02.h. After final cleanup and seeding are completed.

207.02.i. After final site stabilization is complete.

208. Fees for Plan Reviews, Construction Observation and Fees in Lieu of Construction

208.01. The developer/applicant will be charged for all fees related to the reviews of the preliminary plat, final plat, roadway plan and profile and for all construction observation. Charges for plan reviews and observation will be based on the Highway District's actual cost. The charges will include the Highway District engineer's fees, legal fees, the Highway District agent's hourly costs, mileage for the Highway District agent, material testing, compaction testing, and quality control testing required by the Highway District. Any testing required by the Highway District (other than Supplemental Testing) but not provided by the applicant may be completed by the Highway District, and all costs associated therewith shall be paid by the applicant. The fees shall be payable as billed and final acceptance of the roadway into the Highway District system will not be granted until all costs and fees are paid by the applicant.

Major and Minor Subdivision Review Fees - The developer/applicant will be charged those fees and cost established by each individual Highway District for review of the proposed subdivision. All adjoining roads must be constructed to current Highway District Standards. In subdivisions with four or less lots, in lieu of actual construction of adjacent roadway improvements, at the discretion of the Highway District Board, a per lot fee may be accepted for each additional lot created.

Private Roads – Kootenai County Subdivision Ordinance requires private roads in gated communities to be built to Associated Highway Districts Standards and the Highway District to verify the road construction meets its standards. Pursuant to a Memorandum of Understanding entered into between Kootenai County and the Highway Districts, the Highway Districts have agreed to provide this service. Therefore, a deposit must be submitted to the appropriate Highway District for plan reviews and construction observation, which will be conducted to verify roads are designed and constructed to Highway District Standards. This deposit shall be remitted to the Highway District Office prior to any reviews or construction observation. The applicant will be required to replenish the deposit when it becomes depleted prior to any further construction observations being done.

209. Special Permits

209.01. Idaho Code Section 50-1330 gives Highway Districts exclusive jurisdiction over public road rights-of-way. Any use of the rights-of-way for purposes other than vehicular travel along the roadway shall be by permit only, obtained from the appropriate Highway District. This will include, but not be limited to, driveways, approach roads, buried utilities, signs, utility poles, conduits, landscaping, etc. The use of rights-of way for other than vehicular travel shall be in accordance with the Utility Coordination Policy adopted by the Associated Highway Districts and included in the **Appendix** of these Standards.

209.02. All new approaches to roads and rights-of-way must secure an Approach Permit from the respective Highway District. The approach permit or permit to use right-of-way is contained in the **Appendix**. Approaches or intersections onto District roads shall be designed and constructed to provide forward vehicular movement for ingress and egress to the adjacent properties. Approaches or intersections shall be limited such that a minimum separation of 330-feet center to center of approach or intersection is achieved on arterial and major collector roads. Minimum approach spacing on minor collector and local roads shall meet the minimum stopping sight distances specified in Standard Detail 3A for the various travel speeds.

209.03. All utilities within rights-of-way must secure a permit to use the right-of-way from the respective Highway District. All utilities Installed within the right-of-way shall be installed a minimum of 36 inches below:

1. The finished road surface
2. The invert of ditches
3. Any culvert

Utilities shall be placed between the ditch line and the right-of-way line or within the 10-foot perpetual and exclusive roadway, drainage, and utility easement unless otherwise approved by the Director. Utilities placed near culverts shall be 5 feet beyond the end of a culvert and may be buried at standard depths.

All utility road crossings with one or more of the following criteria shall be bored, no open cuts allowed unless a bore pit reveals material that is unsuitable for boring or the bore fails to cross after three (3) attempts

1. The road has an ADT of 100 or less
2. The road has a functional classification of minor collector or above.
3. The pavement is less than five (5) years old.
4. The road has been chip sealed within the last three (3) years.
5. The road is being used as a detour route.

Refer to Standard Detail 7A for Open-Cut Policy, Chip Seal and Transverse Bore Requirements.

209.04 The Highway Districts have adopted a no-dig policy within the roadway prism from October 15 to April 15. Emergency excavations require the approval of the Director and will require temporary road surfaces until full repairs can be made. A bond for 150 percent of the full road repair will be required. The roadway prism is the roadway surface and ditch slopes from the centerline of the ditch to the opposite side ditch centerline.

209.05. The Highway Districts have adopted policies for open cuts and transverse road bores. Standard Drawings SD-7A and 7B contain these policies.

209.06. Protection of Roadways – Weight and Speed Reductions. The Highway Districts are authorized by Idaho Code 49-1005 to make regulations reducing the permissible sizes, weights, or speeds of vehicles operated on highways for any periods as may be necessary for the protection of the highway or for public safety.

210. Acceptance into Highway District System

210.01. Acceptance of any road or right-of-way into Highway District system for ownership and/or maintenance is at the sole discretion of each Highway District Board. If a roadway is to be considered for acceptance into the Highway District system for ownership and maintenance, all conditions, specifications, and Standards of the Highway District shall have been met or a variance shall have been granted thereto.

210.02. A request for acceptance of a roadway shall be in written form and shall be accompanied by the following:

1. Payment of all fees
2. Engineer's Statement of Completion with required submittal
3. Final review and acceptance of the roadway and right-of-way by Highway District staff

210.03. The Highway District Board, by motion and a passing vote, shall be the only method of accepting a roadway into Highway District system for ownership and maintenance.

211. Stormwater Compliance

211.01. All work within a public right-of-way or on adjacent land that drains to public right-of-way shall comply with all applicable federal, state, and local stormwater rules and regulations. All work within a public right-of-way shall comply with the stormwater resolution of the respective Highway District. Also see Section 307 - Drainage.

Section 300

Design Criteria

Section 300 – Design Criteria

301. General Design Criteria

301.01. All designs shall be based on criteria listed in the Highway Standards for the Associated Highway Districts. Any variance from these Standards and/or use of other standards or design criteria must be submitted and reviewed in accordance with Section 500 of these Standards prior to use. Reference Manuals for design criteria (latest editions):

- MUTCD (Manual on Uniform Traffic Control Devices)
- AASHTO A Policy on the Geometric Design of Highways and Streets
- AASHTO Roadside Design Guide
- AASHTO Bridge Design Manual
- AASHTO Guide for the Development of Bicycle Facilities
- AASHTO Manuals as appropriate and not listed herein
- Idaho Transportation Department (ITD) Standard Drawings & Standard Specifications
- ITD Traffic Manual (online only)
- Idaho Standards for Public Works Construction (ISPWC) Standard Specifications and Standard Drawings
- Local Highway Technical Assistance Council (LHTAC) Manuals
- Public Right-of-Way Accessibility Guidelines
- Idaho Department of Environmental Quality, Stormwater Best Management Practices

302. Roadway Classification

302.01. All roadways within each Highway District shall be classified in accordance with the current version of the Federal Highway Act. All roads shall be classified as Arterials (Rural or Urban), Collectors or Local Residential Roads. It shall be the prerogative of the Highway District having jurisdiction over the area to define which roads are classified as Arterials, Collectors or Local Residential Roads. Refer to SD-1 for information on roads.

303. Public Right-of-Way

303.01. Arterial routes shall have a right-of-way between 80 and 120-feet in width with additional right-of-way or easement as needed to accommodate cut and fill sections.

303.02. Collectors shall have a right-of-way width of between 60 and 120-feet with additional right-of-way or easement as needed to accommodate cut and fill sections.

303.03. Local residential roads shall have a right-of-way width of between 60 and 80-feet with additional right-of-way or easement as needed to accommodate cut and fill sections.

303.04. Right-of-way for future connectivity of local public roads shall be provided. Additionally, roads providing access to 25 or more properties shall have multiple points of access from another public roadway.

303.05 Cul-de-sacs shall have a minimum right-of-way radius of 60-foot with additional right-of-way or easement as needed to accommodate cut and fill sections and snow storage area. Cul-de-sacs of a temporary nature may be allowed providing each right-of-way is shown on the plat and approved by the Highway District. A standard cul-de-sac layout is shown in the **Appendix**.

303.06. All intersecting rights-of-way lines at road intersections shall be connected by a curve having a minimum radius of 30 feet. All intersecting rights-of-way lines at cul-de-sac bulbs and private driveway approaches shall be connected by a curve having a radius of 20 to 30 feet or as directed by the Highway District.

303.07. There shall be a perpetual and exclusive minimum 10-foot roadway, drainage, and utility easement granted to the Highway District on each side of the right-of-way in addition to the right-of-way widths required in Sections 303.01 through and including 303.04.

304. Alignment

304.01. The following table is intended to show the minimum and maximum values for various parameters used in roadway design for the three classes of roads. Design centerline and super elevation rates shall comply with AASHTO, A Policy on Geometric Design of Highways and Streets based on agency designated classification and speed of roadway. The centerline profile of roads shall also be designed above the surrounding ground in flat and rolling terrain as defined in these Standards.

Design Parameters	Arterial	Collector	Local
Vertical Grades	Min. 0.5% Max. 6%	Min. 0.5% Max. 6%	Min. 0.5% Max 6% Max 2% Cul-de-sac
Horizontal Curvature On Centerline	7° max. Min. Radius 830'	11.5° max. Min. Radius 510'	25° max. Min. Radius 200'
Design Speed	35-55 mph	35-55 mph	35-45 mph
Superelevation	Max 0.06-ft/ft	Max. 0.06-ft/ft	Max 0.06-foot per foot
Minimum Runoff	150-feet	120-feet	110-feet
Angles of Intersection	80-90°	80-90°	80-90°
Turn Lanes	Paved Width = 14' all locations, Length and Taper = per ITD Design Manual, designed by P.E. Refer to Section 306.06.		

304.02 Where development occurs within an Area of City Impact, the District will defer to City Roadway Design Standards.

305. Stopping and Passing Sight Distance

305.01. The stopping and passing sight distances shall be at least the minimum shown in the following table for the design speed used on the roadway.

Minimum Sight Distances in Feet

Design Speed, MPH	20	25	30	35	40	50	60
Stopping Sight Distance:							
Stopping Distance, ft.	115	155	200	250	305	425	570
K Value for:							
Crest Vertical Curve	7	12	19	29	44	84	151
Sag Vertical Curve	17	26	37	49	64	96	136
Passing Sight Distance:							
Passing Distance, ft. 2 lane	710	900	1090	1280	1470	1835	2135
K Value for:							
Crest Vertical Curve	180	289	424	585	772	1203	1628

Notes:

1. K value is a coefficient by which the algebraic difference in grade may be multiplied to determine the length in feet of the vertical curve, which will provide minimum sight distance.
2. According to AASHTO's Policy on Geometric Design of Highways and Streets (latest edition), the following values are assumed in sight distance design:
   a. Driver's eye height: 3.50 feet for computation of stopping sight distance and passing sight distance.
   b. Object height: 3.50 feet for computation of passing sight distance and 2.0D feet for computation of stopping sight distance.
   c. Perception/reaction time: assumed equal to 2.5 sec(s) for stopping sight distance.

306. Roadway Cross Section

306.01. The Roadway Standard Drawing sheets (SD-1 and SD-2) in the **Appendix** depict the cross section characteristics for arterial, collector, and local residential roads. The pavement width is exclusive of the pavement requirements for bike/pedestrians, for paved shoulders or widening on corners. The pavement width for the class of road will be set

by the individual Highway District. The individual Highway District may also require bike/pedestrian paths, paved shoulders and/or pavement widening on corners (on narrow roads, on tight radius curves, or on roads with 5 percent or greater truck traffic.

306.02. Local residential roads are intended to provide access to local properties and provide connectivity or alternative access to nearby subdivisions or parcels of land. The Highway District will determine the paved surface width based on the following criteria:

1. A 22-foot paved surface width may be allowed if:
   - Topographical constraints limit construction of a 28 foot paved surface width or the local residential road serves a subdivision of less than 30-lots and there is no potential for future connectivity to adjacent parcels.
2. A 24-foot paved surface width may be allowed if:
   - Topographical constraints limit construction of a 28 foot paved surface width or the local residential road within a subdivision or travel shed has no potential to be classified as a collector.
3. A 28-foot paved surface width will be required if:
   - Local residential road functions as a collector and is funneling traffic to main roadways and existing collectors or serves a travel shed that warrants a wider roadway.

The applicant must meet with the Highway District early in the project development process to discuss the paved surface width for local residential roads. The pavement width determination will be at the sole discretion of the Highway District Board of Commissioners.

306.03. Collector roads are intended to link neighborhoods or areas of homogeneous land use with the arterial roadway system. These roadways not only serve traffic movements between arterials and local roads, but also serve through traffic within local areas.

The Highway District will determine the paved surface width for collector roads based on the following criteria:

1. A 24-foot paved surface width may be allowed if:
   - Topographical constraints limit construction of a 28-foot paved surface width, and the Highway District determines that the roadway alignment and cross section proposed are consistent with the anticipated traffic volume and composition.
2. A 28-foot paved surface is the standard width for a rural collector within the Associated Highway Districts' jurisdiction.
3. A pavement width greater than 28-feet may be required at the Highway Districts' discretion to provide an acceptable level of service to accommodate the anticipated

traffic volume and composition, considering the area topography, roadway alignment, and other design factors.

306.04. The typical curb and gutter section shown on the Roadway Standard Drawing SD-2 may be required on subdivisions with a density equal to or greater than one home per acre. Individual Highway Districts shall make that determination at the time of Plat Review by the Highway District.

306.05. Approaches shall be in conformance with the Local Highway Technical Assistance Council, "Manual for Use of Public Right-of-Way Standard Approach Policy," latest edition with the following exceptions. All approaches serving primarily truck traffic shall use a "curb return approach" in accordance with Fig. IV, C (SD-6). The radii shall be adequate to accommodate the truck turning movements and the maximum approach width shall be 40-feet. See Figure IV, C in the **Appendix** SD-6.

306.06. Turn lane, traffic signals, and other traffic control features in new developments shall be designed by a licensed Professional Engineer registered in Idaho.

306.06.1 For Safety, turn lanes shall be installed at all new or modified approaches based on the following traffic volumes:

Right-Turn Lanes[1]		Left-Turn By-Pass Lane[2]		Left Turn Lane[2]	
Through Volume, vph[3]	Turn Volume[4]	Opposing Through Volume, vph	Turn Volume	Opposing Through Volume, vph	Turn Volume
200	5	50	5	200	5
				100	5<19
				50	20 or more

1. Source, NCHRP Report 279, Table 4-7 (Idaho)
2. Source, NCHRP Report 745, Table 1
3. 10% of the Average Daily Traffic Volume.
4. 10% of the total estimated Home-Based Trips

Approach trip generation shall be based on Trip Generation Estimates from the 2005 Spokane and Kootenai County Regional Travel Survey, estimating Home Based Trips of 5 per residential unit, Source KMPO

306.07. Bicycle and pedestrian paths, new and extensions, may be required by the Highway District for new developments and on major roadway reconstruction projects in accordance with Highway District, Kootenai Metropolitan Planning Organization, Idaho Transportation Department, and local City Master Plans.

Bicycle and pedestrian facility classes to be considered should be consistent with these facility descriptions:

- Class I: A Class I bicycle facility is a separated multiple use path 10 to 14 feet wide. The path is physically separated from motor vehicle traffic by a 10-foot minimum open space or barrier of 4.5 feet.
- Class II: A Class II bicycle facility has a 4- to 6-foot portion of the roadway designated for preferential use by bicyclists.
- Class III: A Class III bicycle facility is a shared facility where bicyclists and motorists share the same travel lane. The travel lane should be 14 feet in width.

All bike and pedestrian projects should be designed to meet Americans with Disabilities Act (ADA) accessibility standards and American Association of State Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets* (Green Book) guidelines whenever possible.

307. Drainage

307.01. All drainage for the development shall be designed by a Professional Engineer licensed in Idaho. Drainage plans shall be reviewed and approved by the Highway District in conjunction with the roadway plans. The minimum design flood for culvert sizing will be the 50-year flood event unless otherwise directed by the District. Any disruption of the normal drainage pattern of the area to be developed must have special consideration to facilitate future drainage of this area. It shall be the responsibility of the Developer to secure a Grading Permit from Kootenai County and to comply with the following requirements from the Highway Districts:

307.01.a. Approach Permit: Contractors shall have a valid permit from Kootenai County (or other local jurisdiction) for site and stormwater. This may include, but not be limited to, the following:

- A requirement that contractors have a US EPA Construction General Permit (CGP)
- A Notice of Intent (NOI) has been filed with US EPA, where applicable
- Permittees should be SEEP certified; a SEEP-certified foreman shall be on the project

The Kootenai County permit shall be documented in the Approach Permit.

307.01.b. A standard stabilized construction entrance and the requirement that Best Management Practices (BMP) are in place to protect the Highway District rights-of-way from stormwater, sedimentation, and erosion from construction zones. Site Plans should show stormwater drainage direction pre- and post-construction. Additionally, erosion and sedimentation controls, culvert locations, sheet flow direction, and conveyances should be clearly noted and provided to the Highway District with jurisdiction as part of the Approach Permit.

307.01.c. Permittees shall cover the cost for monitoring any/all stormwater discharge.

307.02. Culverts used for drainage purposes shall be corrugated steel or corrugated high-density polyethylene pipe (HDPE) Type C or Type S with approval from the Highway District. Steel culvert material thickness and cover over the top of the pipe to the road finish grade shall be in conformance with the following table and as approved by the Highway District. HDPE pipe specifications must be submitted with bury and cover details to the Highway District for approval.

Diameter (in.)	Steel Thickness (in.)	Minimum Cover Required (in.)	Apron Required
12	0.064	12	NO
15	0.064	12	NO
18	0.064	12	Yes
21	0.064	12	Yes
24	0.064	12	Yes
30	0.064	24	Yes
36	0.064	24	Yes

Corrugated metal pipe shall have 2⅔-inch x ½-inch corrugations. Culverts or multiplate installations larger than 36 inches in diameter or any structure under fills greater than 5 feet in height shall be designed by a Professional Engineer licensed in the State of Idaho.

All culvert installations shall be in accordance with the manufacturer's requirements. The installer shall provide a copy of the installation requirements to the Highway District prior to installing culvert. Special ditch grading may be required for culverts over 12 inches in diameter and for polyethylene culverts to maintain the cover and the flow line.

307.03. Culverts under all roadways shall be a minimum of 18 inches in diameter until a length of 70-feet is reached. All culverts over 70-feet in length shall be 24-inches or more in diameter as required to accommodate the design flow. Culverts under driveway approaches shall have a minimum diameter of 12 inches and a minimum length of 40 feet (or as directed by the Highway District), meeting the requirements of 307.02.

307.04. All necessary drainage easements for maintenance of drainage paths and structures shall be shown and recorded on the plat as a part of the approved plat. Drainage easements necessary for draining stormwater across private property shall be shown on the plat with language requiring the underlying property owner to maintain said easement in a manner that will not impede or change the water velocity.

307.05. Disruption of natural drainage ditches and subsequent use of the roadway ditch to convey the natural drainage will not be acceptable.

307.06. Drywells may be used in special circumstances where all other possibilities of taking care of storm drainage water have been explored and there is no feasible alternate to drywell installation. Should drywells be necessary they will be constructed to the standards as shown in the **Appendix**. It shall be the responsibility of the Developer to secure all permits and pay all fees for installation of the drywells.

307.07. When a curb and gutter roadway section is proposed, a complete storm sewer system must be designed and constructed under the supervision of a Professional Engineer licensed in the State of Idaho.

307.08. The increase in runoff rate generated by developments shall comply with any and all applicable Kootenai County ordinances. The developer shall be responsible for obtaining all necessary permits. Copies of all permits must be submitted with improvement plans for review by the Highway District. Perpetual maintenance of the stormwater by the development must be on file at the Highway District before a development or a final plat can be formally reviewed and/or accepted.

308. Structures

308.01. Bridge structures, structures 20 feet in length or longer, shall be designed in accordance with 1) "Standard Specifications for Highway Bridges", latest edition, with supplements thereto prepared by the American Association of State Highway and Transportation Officials and 2) Idaho Transportation Development's Bridge Design LRFD Manual, latest edition. The minimum width of a bridge structure from the face-to-face of curb or the face-to-face of the guardrail or bridgerail should match the width of the approach roadway guardrail. The vertical clearance above waterways should be 2 feet above the design flood surface and 16 feet over other roadway surfaces. Only structures of steel or reinforced concrete shall be used.

308.02. Retaining walls shall be reinforced concrete, bin walls, or concrete crib walls or other approved retaining wall system. All retaining wall structures shall be designed by a Professional Engineer licensed in the State of Idaho and shall be approved by the applicable Highway District prior to construction.

309. Signing, Traffic Control, and Construction

309.01. All traffic control signing shall be included in the design plans, shall be in conformance with the Manual on Uniform Traffic Control Devices (MUTCD) latest edition, and be installed by the developer in accordance with the MUTCD.

309.02. All construction signing and permanent signing shall conform to the MUTCD, latest edition.

309.03. Sign-posts shall be metal square tubing type E-1 with type E-1 anchor post sleeve or 4 x 4 treated wood to be decided by each Highway District. See **Appendix** for standard drawing.

309.04. Special signing requested by other agencies or adjacent landowners shall meet MUTCD standards and shall be approved by the Highway District. Signs and posts placed within the clear zone shall not be constructed in a manner that creates a safety hazard.

310. Guardrail

310.01. Guardrail may be necessary in certain areas depending upon the warrants for protecting the traveling public. The Highway District reserves the right to determine the need for guardrail under each separate circumstance. The warrants for determining the need for guardrail shall be made using the Idaho Transportation Department Design Manual or using the American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide for Selecting, Locating, and Designing Traffic Barriers, latest edition.

310.02. The type of guardrail to be installed shall be approved by each individual Highway District as the location dictates.

311. Striping or Pavement Markings

311.01. Each Highway District will determine where pavement markings will be required. Should centerline striping or other pavement markings be required, they will be constructed in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition. The spacing, location, and width of markings will be determined on an individual basis by the appropriate Highway District. Paint quality shall be the same as that used by the Idaho Transportation Department for their pavement marking.

312. Bicycle and Pedestrian Pathways

312.01. Alternative forms of transportation, including walking, bicycle riding, and bus transportation are encouraged. Each Highway District will consider each of these forms of transportation when reviewing a new development or road improvement project. Improvements to extend routes or provide additional linkages or safety will be evaluated as necessary to meet adjacent City Master Plans or Kootenai Metropolitan Planning Organization's (KMPO) Regional Transportation Master Plan.

Section 400

Construction Specifications

Section 400 – Construction Specifications

401. Clearing and Grubbing

401.01. All stormwater and sediment control measures shall be in place and reviewed by the Highway District or their representative prior to any ground-disturbing activity.

401.02. Clearing and grubbing shall consist of the removal and disposal of all organic and other deleterious material from the road section. All material removed under clearing and grubbing shall be disposed of off the right-of-way and in compliance with the State and Local permits. All denuded areas shall be hydroseeded at the end of the project.

402. Subgrade

402.01. The subgrade shall consist of 6-inch minus natural materials remaining after all topsoil and duff (organic material) has been removed and good construction material is remaining. The determination of the extent to which topsoil shall be removed shall be left to the discretion of the Highway District Director or his designated representative for the Highway District, who may require soil and compaction test results to document the acceptability for construction.

402.02. In solid rock excavation, the solid rock shall be excavated 6 inches below the finished subgrade elevation and backfilled with approved granular material.

402.03. Unstable subgrade conditions shall be remedied by subexcavation and backfilling with approved granular material under the direction of the Highway District Director or his designated representative. Geotextile fabric or additional drainage may be required by the Highway District Director or his designated representative if unstable subgrade conditions cannot be remedied to their satisfaction. The subexcavated surface shall be observed by the Highway District Director or his designated representative prior to the placement of any embankment material. The Supervisor must have at least 24-hour notice prior to the need for observation. Such 24-hour notice shall be given so that the observation can be made during the appropriate Highway District's normal working hours and workweek.

402.04. All construction shall be controlled by slope stakes or grade stakes that have been placed by a Professional Engineer or Surveyor licensed in the State of Idaho prior to the construction operations. Said slope stakes shall conform to the Typical Slope Stake Installation Method shown in the **Appendix.**

402.05. Subgrade shall be compacted to a density no less than 95 percent of an AASHTO T-99 Proctor Density. All utility work within the road prism in fine grained soils (ML, CL, MH, CH, SM, GM, SC, GC) require fill to be placed in 12-inch maximum lifts only, tested at the time of placing and compacting, placement of material and compaction within 2 percentage points of optimum moisture and observed and tested with a full-time technician or engineer.

402.06. The subgrade shall be observed and approved by the Highway District Director or his designated representative prior to placing any ballast on the subgrade. The Supervisor must have at least 24-hour notice prior to the need for observation. Such 24-hour notice shall be given so that the observation can be made during the appropriate Highway District's normal working hours and workweek.

Prior to requesting observation of the finished subgrade, grade stakes set to finished subgrade elevation shall be in place on 50-foot stationing at centerline and shoulders unless a variance is granted and all compaction test reports submitted to the Highway District.

402.07. Fill material used to bring the road structure up to subgrade shall be 6-inch minus from Highway District approved sources. Material shall be granular aggregate or soil material free of organic or deleterious material capable of being compacted to subgrade density without pumping or rutting.

403. Ballast

403.01. The ballast material shall be run through a crushing plant. Material that has only been screened will not be accepted. The ballast shall be placed to a minimum of 12-inches in thickness. The material shall be durable, have a sand equivalent not less than 30, and shall meet the following gradations:

Sieve Size	% Passing
4"	100
3"	98-100
2"	90-100
3/4"	70-90
#4	25-40
#200	5-9

Ballast material shall be quarry crushed stone or crushed prairie gravel with one or more fractured faces or natural angular faces on 50 percent of the particles retained on the #4 sieve or above as determined by Idaho T-71 test.

403.02. The ballast material shall be constructed in layers not to exceed 8-inches in thickness and shall be compacted using mechanical methods to at least 95 percent of the AASHTO T-99 Proctor Density.

403.03. Observation of the ballast is necessary by the Highway District Director or his designated representative prior to the placing of base material. The Supervisor must have at least a 24-hour notice prior to the need for the observation. Such 24-hour notice shall be given so that the observation can be made during the appropriate Highway District's normal working hours and workweek. Prior to requesting observation of the finished ballast,

red top stakes set to finished ballast elevation shall be in place on 50-foot stationing at centerline and shoulders.

404. Base

404.01. The crushed aggregate for the base course shall be 4-inches in depth after it has been compacted and shall comply with the following gradations:

Sieve Size	% Passing
1"	100
¾"	90-100
#4	40-65
#8	30-50
#200	3-9

The crushed aggregate base shall not show more than a loss of 35 percent under the Los Angeles Abrasion Test, and the Sand Equivalent shall not be less than 30 percent. Sixty percent of aggregate retained on the No. 4 Sieve shall have at least one fractured face, as determined by Idaho T-71.

404.02. The material shall be laid in one or more layers to develop the compacted depth of 4 inches minimum. Material shall be mechanically compacted by rolling to 95 percent of the AASHTO T-99 Proctor Density. Care shall be taken to place the aggregate material in such a manner that it will have a uniform mixture throughout.

404.03. The finished base material must be observed and approved by the Highway District Director or his designated representative prior to placing the surface course. The notification for the observation must be 24 hours prior to the observation and must be requested for observation during the appropriate Highway District's normal working hours and workweek.

Prior to requesting observation of the finished base material, blue top stakes will be set to finished base elevations at 25-foot stationing on curves and 50-foot stationing on tangents at centerline and shoulders.

The surface of any base course, when finished, shall be such that when tested with a 10-foot template placed on the surface with its centerline parallel to or perpendicular to the centerline of the street, the maximum deviation from the surface of the edge of the straightedge shall nowhere exceed 1/3 of an inch. In addition, the finished grade shall not deviate more than 1/2 of an inch at any point from the staked elevation, and provided further, the algebraic sum of the deviations from two points not more than 30 feet apart shall not exceed 1-1/2 inches.

If asphalt concrete surfacing is to be placed on the base course no portion of the complete surface of the base course shall be more than 1/2 of an inch below the edge of a straightedge 10-foot in length laid parallel to or perpendicular to the centerline of the roadway. In addition, the finished grade shall not deviate more than 1/4 of an inch at any point from the staked elevation, and provided further, the sum of the deviations from two points not more than 30 feet apart shall not exceed 1/4 of an inch.

Should patching of the base course be necessary in order to meet the above tolerances, it shall be performed using methods and aggregates approved by the Highway District Director or his designated representative.

405. Surfacing

405.01. The surface type and mix design shall be approved by the applicable Highway District and shall be hot mix asphalt concrete. A separate bond for 150 percent of the cost for surfacing may be required by the Highway District. The bond will be held until all costs incurred by the Highway District are paid or resolved and the quality of the completed surface is accepted, or the necessary financing adjustments are resolved to the satisfaction of the Highway District.

405.02. Equipment used for asphalt construction regardless of the type of surface treatment shall meet the following criteria for each type of equipment.

405.02.a. The bituminous mixture hauling trucks shall be pneumatic-tired and equipped with a smooth-lined tight dump body free from cracks, holes or deep dents capable of hauling material without loss during transit. Dump body and gate shall be capable of control discharge onto the roadbed or into approved spreaders or pavers when required. The dump body shall be constructed or equipped to retain the heat of the mixture above the minimum specified for laydown.

405.02.b. Motor graders shall be a pneumatic-tired, self-propelled machine with sufficient power and traction and adequate wheelbase to efficiently perform the work.

405.02.c. Bituminous pavers shall be self-contained, power propelled units provided with an activated screed or strike-off assembly, heated if necessary, and capable of spreading and finishing courses of bituminous plant mix material in lane widths applicable to the specified typical section in thickness as shown on the plans. The paver shall be equipped with a receiving hopper having sufficient capacity for a uniform spreading operation. The hopper shall be equipped with a distribution system to place the mixture uniformly in front of the screed. The screed or strike-off assembly shall effectively produce a finished surface of the required evenness and texture without tearing, shoving or gouging the mixture. Paver shall be capable of being

operated when laying mixtures at forward speeds consistent with satisfactory laying of the mixture. The paver shall be in good working order and subject to the review of the applicable Highway District Supervisor.

405.02.d. Rollers to be of the steel wheel, vibratory or pneumatic-tire type. Rollers to be in good condition and capable of reversing direction without backlash. Operate rollers at speeds low enough to avoid displacement of the mixture and provide sufficient rollers and compactive force to achieve compaction as required in Section 405.04.g. Equipment that produces excessive crushing of the aggregate is not allowed. Rollers producing pickup, washboard, uneven compaction of the surface or other undesirable results are not allowed. Roller Requirements. Do not use fuel oil or other petroleum based oil as a release agent. Use only release agents consisting of mild lime water (1 part lime to 3 parts water), soap or detergent solution or an approved commercial product.

405.02.d.1. Vibratory Rollers

a. Variable amplitude with at least two settings.
b. Variable frequency with minimum of 2000 VPM.
c. Maximum rate of travel under vibration to be 2.5 mph – 220 feet/minute.
d. Vibratory rollers with pneumatic-tired drive wheels to have smooth tires that leave no visible tracks.

405.02.d.2. Pneumatic-tired Rollers

a. Maximum rate of travel to be 5 mph.
b. Rollers to be equipped with smooth compactor tires.
c. Pneumatic-tire rollers to be equipped with skirts enclosing the tires on the top and sides and extending within 6 inches of the pavement surface.

405.02.d.3. Steel Wheel Rollers, maximum rate of travel to be 4 mph.

405.02.e. The asphalt distributor must be in good working order and shall be designed and operated so a uniform application of asphalt can be applied. It must include a tachometer showing the feet per minute and the number of feet covered, a tank thermometer, and a gauge to measure the quantity of the asphalt in the distributor.

405.02.f. The aggregate spreader shall be a self-propelled machine independent of the truck, supported by at least two axles and four wheels with pneumatic-tires and equipped with a means of applying cover material with positive controls

so material will be uniformly deposited over the full width of the asphalt application.

405.03. Hot Mix Asphalt Concrete

405.03.a. The hot mix asphalt concrete surfacing shall be one or more courses of Superpave Hot Mix Asphalt (HMA) in accordance with these Standards and in reasonably close conformity with the lines, grades, thicknesses, and typical cross sections shown on the project plans. The mix used for the HMA must be an approved asphalt mix design. Mix design characteristics must be submitted and approved by the applicable Highway District prior to its use. HMA shall meet the following requirements and shall be subject to the review of the applicable Highway District.

405.03.b. References

1. ITD Current Standard Specifications for Highway Construction – Current version
2. AASHTO Standard Specifications for Transportation and Methods of Sampling and Testing
3. WAQTC TM 8 – In-Place Density of Bituminous Mixes Using the Nuclear Moisture-Density Gauge

405.03.c. Materials

1. HMA shall be ITD SP3, ½-inch, designed in accordance with ITD Standard Specifications for Highway Construction, current edition.
2. Mix Design:
    a. The Contractor shall provide mix designs to the Highway District for review.
    b. The Contractor's mix design shall develop the job mix formula for the project using an ITD-qualified laboratory and shall be stamped by a Professional Engineer licensed in the State of Idaho.
    c. Mix designs shall be developed by an individual holding an ITD Superpave Mix Design Technician qualification and shall be submitted to the Highway District for review.
    d. Mix designs may also have to be approved by ITD and/or an independent materials testing lab.
    e. Recycled Asphalt Pavement (RAP) shall be as defined by ITD Standard Specifications. A maximum of 30 percent RAP content per weight of the mix may be included as part of the job mix formula provided the mix meets all other requirements for plant mix.

f. If RAP is used in the job mix formula, it shall conform to ITD's Category 1 RAP classification requirements, Section 720.07.

3. Asphalt Cement shall be PG 58-28 with binder adjustments meeting current ITD Standard Specifications for RAP content exceeding 17 percent.
4. Aggregate for Plant Mix shall meet Section 703 of the ITD Standard Specifications, current edition.
5. Anti-Stripping Additive shall meet Section 702 of the ITD Standard Specifications, current edition.
6. Tack Coat for AC Pavement shall be applied in accordance with ITD Standard Specifications Section 401, current edition.

405.03.d. Workmanship

1. Verify that the areas to be paved are graded, compacted, and ready for paving.
2. Protect saw cut edges so the new pavement is placed against a straight, vertical surface.
3. Apply a thin, uniform asphalt tack coat to the surfaces of curbing, gutters, manholes, asphalt cement pavement, portland cement pavement, and other structures that will abut the new pavement.

405.03.e. Hauling and Placing Asphalt Pavement

1. Apply tack coat in accordance with ITD Specification Section 405.03, current edition.
2. When necessary, each truck shall have a cover to protect the plant mix from weather in accordance with ITD Section 405.03, current edition.
3. Install work in accordance with ITD Section 405, current edition.
4. The Contractor shall overlap the joint edge 1 to 1.5 inches and bump back or trim the joint line overlap by raking to create a tight, smooth joint.
5. Place asphalt within eight hours of applying primer or tack coat.
6. The Contractor shall hand compact areas inaccessible to rolling equipment.

405.03.f. Pavement Surface Smoothness

1. Place pavement in accordance with the current ITD Standard Specifications for Highway Construction Section 405.03. Surface smoothness shall comply with ITD Specification for a Schedule II project.

405.03.g. Field Quality Control

1. The Contractor shall submit a paving plan in accordance with ITD Specifications 72 hours prior to the pre-paving meeting for review.
2. Forty eight hours prior to placing plant mix, the Highway District, Contractor, Asphalt Supplier, and Quality Control/Quality Assurance personnel involved with the project shall hold a pre-operational paving meeting to discuss the means by which to achieve the highest quality surface.
3. Production Paving shall be in accordance with the current ITD Standard Specification and Supplements for Highway Construction.
4. Field review and testing will be performed in accordance with ITD and these standards.
5. Pavement Density and depth verification testing shall be completed using asphalt cores. A minimum of three (3) cores per paving day shall be tested. Completed density shall correspond to a range between 92.0 percent and 95.0 percent of maximum Theoretical Density for SP-2 to SP-6 asphalt mixes.
6. Pay Factor calculations in accordance with ITD Quality Assurance procedures shall be submitted to the District for consideration of paving acceptance.

405.03.h. Weather Limitation and Cutoff Dates

1. Conform to the following minimum temperatures for all plant mix pavement operations.

Air and Surface Temperature Limitations

Compacted Thickness of Individual Courses	Top Course	Leveling and Courses Below the Top Course
Less than 0.1 foot	60° F	50° F
0.1 foot to 0.18 foot	50° F	50° F
Over 0.18 foot	40° F	40° F

2. Hot mix asphalt pavement shall not be placed between October 15 and April 15.

Section 500

Variances

Section 500 – Variances

501. Variances

501.01. Purpose: Any variance to these Standards may be allowed by the individual Highway Districts when special conditions exist on a project-by-project basis. The Highway District may grant variances in order to prevent or to lessen such practical difficulties and unnecessary physical hardships as would result from a literal interpretation and enforcement of the regulations prescribed by these Standards.

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

501.02. Findings Required for Variance:

The Highway District may grant a variance if, on the basis of application, investigation and evidence submitted, the Highway District makes the following findings:

1. That there are extraordinary site characteristics applicable to the property involved or to the intended use of the property, which do not apply generally to other properties.
2. That the granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on other properties.
3. 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.

501.03. Duration of Approval: The use or construction permitted under the terms of any variance shall be commenced within a six-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-month period, the Highway District, upon request of the applicant, may extend the variance for up to an additional six months from the original date of approval.

501.04. Application: Application for a variance shall be filed with the Highway District and shall include sufficient information to explain the need and reasoning for the variance request and payment of review fee established by the respective Highway District.

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

Section 600

Definitions

Section 600 – Definitions

Developer - Any person, persons or firm making application to the Highway District.

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

Easement - A grant by the Highway District of the use of a parcel of land by the public, corporation, or persons for specified use and purposes.

Highway District - Any one of the following official Highway Districts within Kootenai County, Idaho.

East Side Highway District
Lakes Highway District
Post Falls Highway District
Worley Highway District

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

Plat - A map of a subdivision.

a. Preliminary Plat - A preliminary map, including supporting data, including dimensioned road centerline alignment for the proposed subdivision development, prepared in accordance with Kootenai County ordinances and the Idaho Code.
b. Final Plat - A map of all or part of a subdivision providing substantial conformance to an approved preliminary plat, prepared by a Registered Professional Engineer or a Registered Land Surveyor in accordance with Kootenai County ordinances and the Idaho Code.
c. Recorded Plat - A final plat bearing all of the certificates of approval required by ordinance and duly recorded in the County Recorder's Office.

Public 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(6),I.C. 40-202(4) and I.C. 50-1301(7)].

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.

Right-of-Way - A parcel of land dedicated or reserved for use as a public way, which normally includes streets, sidewalks, utilities or other service functions.

Roadway - Any street, avenue, boulevard, road land, parkway, place, viaduct, easement for access, or other 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 pavement, shoulder, curbs, gutters, sidewalks, parking areas, and lawns.

a. Arterial Route - A general term including expressways, major and minor arterial streets, and interstate, state or county highways having regional continuity.

b. Collector Street - A street that provides for traffic movement within neighborhoods of the County and between major streets and local streets and for direct access to abutting property.

c. Local Street - A street that provides for direct access to residential, commercial, industrial, or other abutting land for local traffic movements and connects to collector and/or arterial streets.

    1. Marginal Access Street - A minor street parallel and adjacent to an arterial route and intercepts local streets and controls access to an arterial route.

    2. Cul-de-Sac Street - A short local street having one end permanently terminated in a vehicular turnaround.

    3. Loop Street - A minor street with both terminal points on the same street of origin.

d. Alley - A public service way used to provide secondary vehicular access to properties otherwise abutting upon a street.

e. Roadway Prism - That portion of the right-of-way between the back of ditch (at the elevation of the adjoining roadway shoulder) or the back of sidewalk and including the roadway ditches, traveled way, shoulders and auxiliary lanes.

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.

Subdivision - The division of any lot, tract, or parcel of land into more than two (2) parts.

a. Minor Subdivision - A subdivision that proposes to create four (4) or fewer lots, with no shared infrastructure or improvements other than a water system that does not require engineering that must be constructed to meet the requirements of the County or other agencies. Property that has been subdivided within the previous five (5) years cannot be re-divided as a minor subdivision, except where the two subdivisions together will create four or fewer lots.

b. Major Subdivision - A subdivision that proposes to: a) create five (5) or more lots, or b) re-divide land that has been subdivided in the previous five (5) years, when the two

subdivisions together will create five or more lots, or c) create 2-4 lots with shared infrastructure or improvements, or a water system that requires engineering, that must be constructed to meet the requirements of the County or other agencies.

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:

a. Level Terrain - Terrain where sight distances are generally long or can be made to be so without construction difficulty. The slope of the existing terrain is from zero to five (5) percent.

b. 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. The slope of the existing terrain is from five (5) to fifteen (15) percent.

c. 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 side hill excavation are frequently needed to obtain acceptable horizontal and vertical alignment. The slope of the existing terrain exceeds fifteen (15) percent.

The Highway District Board of Commissioners shall have sole discretion on the determination of terrain classification for a road.

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, forms, corporations, departments, or boards, as applicable herein.

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Appendix

Standard Drawings

STANDARD DRAWINGS

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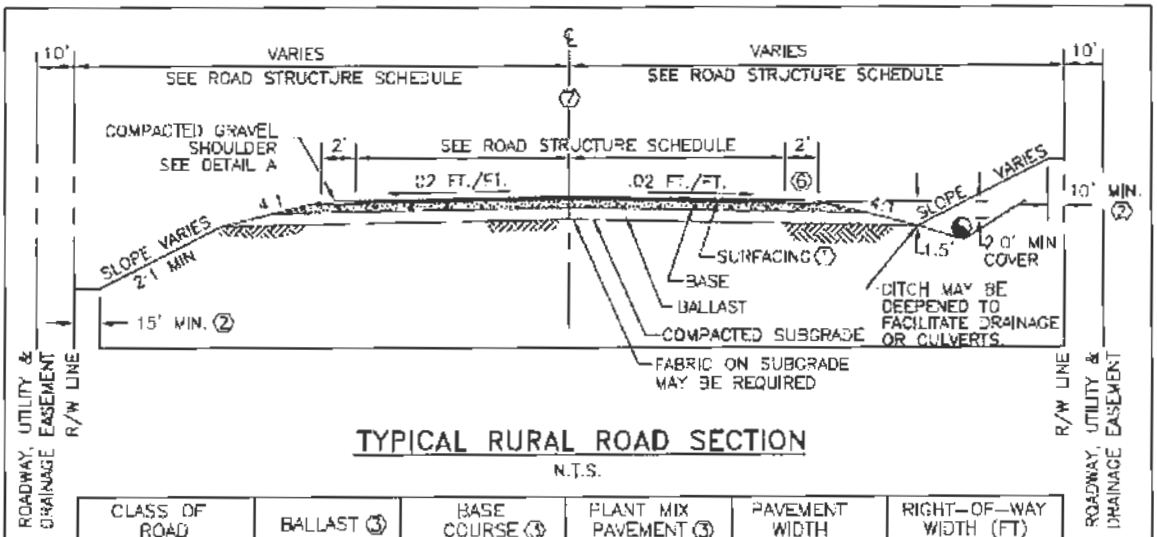
SD – 4	STANDARD PEDESTRIAN CURB DROP
SD – 5	STANDARD CUL-DE-SAC LAYOUT
SD – 5A & 5B	STANDARD HAMMERHEAD TURNAROUND LAYOUT
SD – 6	CURB RETURN APPROACH FOR TRUCK TRAFFIC
SD – 7A	OPEN-CUT POLICY & CHIP SEALING REQUIREMENTS
SD – 7B	ROAD CUTS AND SURFACE REPAIRS / PAVEMENT REPAIR DETAIL
SD – 8	DRAINAGE CURB CUT
SD – 9	TYPICAL SLOPE STAKE INSTALLATION
SD – 10	TYPICAL CULVERT INSTALLATION
SD – 11	SIGHT TRIANGLE AT UNCONTROLLED INTERSECTIONS
SD – 12	CATCH BASIN & DRYWELL INSTALLATION
SD – 13	CATTLE GUARD DETAIL
SD – 14	MAILBOX TURNOUT DETAIL
SD – 14A	MAILBOX TURNOUT DETAIL – AT DRIVEWAY
SD – 15	TYPE E-1 SIGN POST



TYPICAL RURAL ROAD SECTION

N.T.S.

CLASS OF ROAD	BALLAST ③	BASE COURSE ④	PLANT MIX PAVEMENT ③	PAVEMENT WIDTH	RIGHT-OF-WAY WIDTH (FT)
ARTERIAL	12"	4"	4"	40' – 64'	80 – 120
COLLECTOR	12"	4"	4"	24' – 40' ⑤	60 – 120
LOCAL RESIDENTIAL	12"	4"	2"	22' – 28' ⑤	60
INDUSTRIAL \ COMMERCIAL	12"	4"	4"	24' – 64'	*OUTSIDE ACI

NOTES:

① SURFACING SHALL BE PLANT MIX ASPHALT, ITD SP-3 1/2-INCH WITH CHIP SEAL AS REQUIRED BY INDIVIDUAL HIGHWAY DISTRICTS. CHIP SEALS SHALL BE APPLIED WITHIN 1 TO 2 YEARS OF ALL NEWLY PAVED ROADS, THE SEASON FOLLOWING THE INITIAL YEAR OF PAVING

② IN CUT AND FILL SECTIONS, 10 FEET AT THE TOP OF CUT AND 15 FEET AT TOE OF FILL MAY SERVE AS ROADWAY, UTILITY & DRAINAGE EASEMENT WITH CONCURRENCE OF THE HIGHWAY DISTRICT.

③ ROAD STRUCTURE SECTIONS SHOWN ARE FOR GRANULAR SUBGRADE OR SUBGRADE SOILS WITH AN R VALUE GREATER THAN 15. A GEOTECHNICAL DESIGN IS REQUIRED FOR OTHER SOIL CONDITIONS. SUBGRADE TO BALLAST FABRIC SEPARATION IS REQUIRED ON NON-GRANULAR SUBGRADES. SEEDING OF ALL DENUDED AREAS IS REQUIRED.

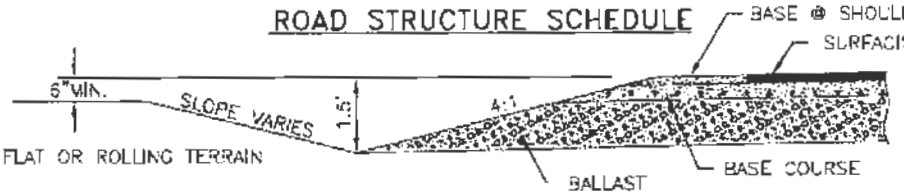
④ DEPTHS ARE MINIMUM COMPACTED DEPTH REQUIREMENTS.

⑤ SEE SECTION 306 – ROADWAY CROSS SECTION.

⑥ CURB, GUTTER AND ROADWAY SECTION SHALL COMPLY WITH APPLICABLE CITY STANDARDS WHEN LOCATED WITHIN AREA OF CITY IMPACT.

⑦ ROAD CENTERLINE PROFILE MUST BE ABOVE THE ORIGINAL GROUND LINE AT CENTERLINE AND EDGE OF RIGHT OF WAY, IN FLAT OR ROLLING TERRAIN.

ROAD STRUCTURE SCHEDULE



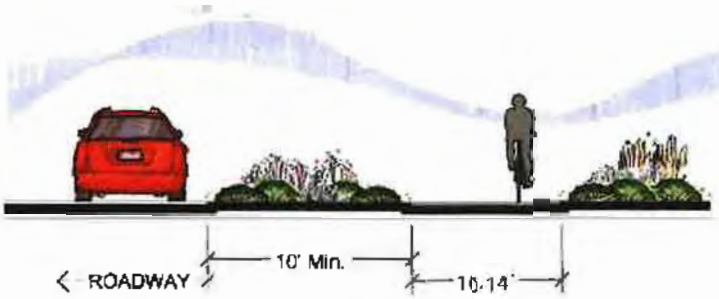
DETAIL A

N.T.S.

* SHOULDER MAY BE PAVED 1.0 FOOT WIDE WITH PLANT MIX ASPHALT ON LOCAL RURAL ROADS WITH HIGHWAY DISTRICT APPROVAL.

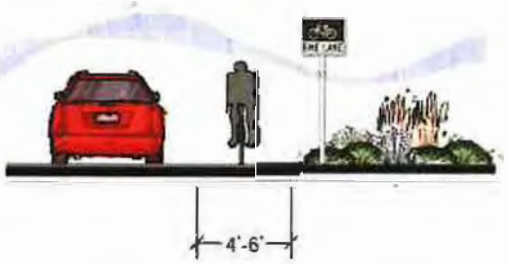
ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-1



(Separated path from roadway for exclusive use of bicycles and pedestrians)

CLASS I BIKE PATH



Width depends on parking and edge condition
(Striped Bike Lane with Bike Lane symbol)

CLASS II BIKE LANE

Shared use with pedestrians and motor vehicle traffic.

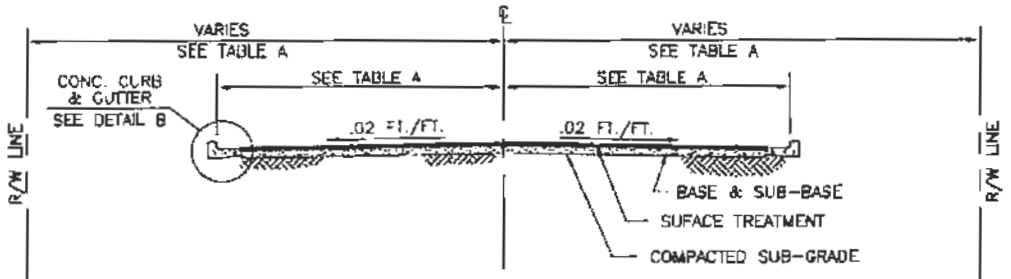
CLASS III BIKE ROUTE

NOTES:
BIKE LANES/ROUTES SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES AND WITH THE CONCURRENCE OF THE RESPECTIVE HIGHWAY DISTRICT.

BIKE LANE CLASSES

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD - 1A



TYPICAL CURB & GUTTER SECTION

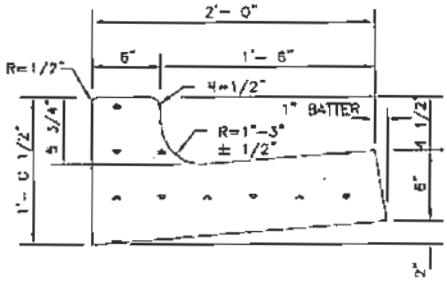
N.T.S.

CLASS OF ROAD	ROAD WIDTH FACE-FACE OF CURB	RIGHT-OF-WAY WIDTH (FT)	CURB TYPE
MINOR ARTERIAL	64'- 0"	80 - 120	VERTICAL
COLLECTOR OR COMMERCIAL	40'- 0"	60 - 120	VERTICAL
LOCAL RESIDENTIAL	36'- 0"	60 - 80	VERTICAL OR ROLL

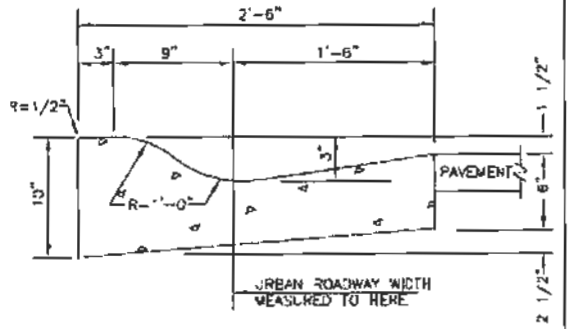
TABLE A

DETAIL B

N.T.S.



VERTICAL CURB



ROLL CURB

(LOCAL ROADS ONLY)

NOTES:

① CURB, GUTTER AND ROADWAY SECTION SHALL COMPLY WITH APPLICABLE CITY STANDARD WHEN LOCATED WITHIN AN AREA OF CITY IMPACT.

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-2

MINIMUM STOPPING SIGHT DISTANCES

DESIGN SPEED MPH	20	25	30	35	40	50	60
STOPPING DISTANCE, (S) FEET	115	155	200	250	305	425	570

NOTES:

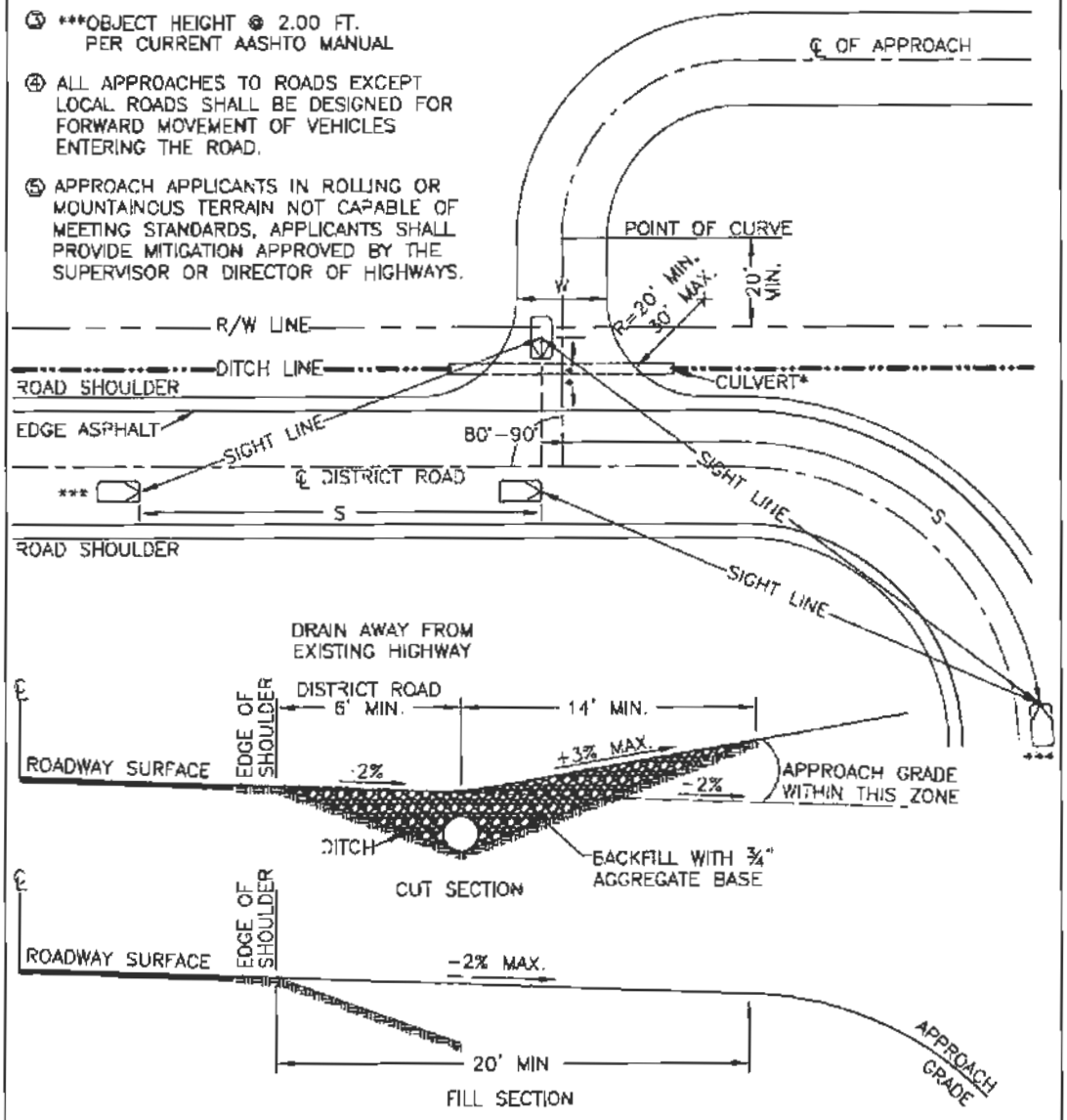
① *CULVERT
MIN. 12" DIAMETER
MIN. 40' LENGTH

② **10' FROM EDGE OF ROADWAY
TO DRIVER'S EYE POSITION @ 3.50 FT
ABOVE ROAD

③ ***OBJECT HEIGHT @ 2.00 FT.
PER CURRENT AASHTO MANUAL

④ ALL APPROACHES TO ROADS EXCEPT LOCAL ROADS SHALL BE DESIGNED FOR FORWARD MOVEMENT OF VEHICLES ENTERING THE ROAD.

⑤ APPROACH APPLICANTS IN ROLLING OR MOUNTAINOUS TERRAIN NOT CAPABLE OF MEETING STANDARDS, APPLICANTS SHALL PROVIDE MITIGATION APPROVED BY THE SUPERVISOR OR DIRECTOR OF HIGHWAYS.



STANDARD APPROACH POLICY

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-3A

Dear Building Contractor and/or Owner:

Both Kootenai County and the Associated Highway Districts of Kootenai County have minimum requirements for access roadways and driveways to residential properties. The Highway District's requirements are set forth in this letter. Failure to comply with these regulations has caused a multitude of problems for residents and the Highway District. This letter is provided to you as part of a continuing effort by the Highway District to improve the safety and integrity of roadways in the District.

In an effort to avoid future problems, the Highway District will be performing a thorough review before signing off on Approach Permits. To perform this review, the District will require site information related to the approach. The District's efforts will also be of value to the owner by improving the awareness of the relationship between the home site, driveway and approach to the roadway.

Prior to obtaining Highway District approval for an approach permit, the Highway District will require submission of a site plan for the lot and driveway showing:

1. A 20 foot minimum, 30 foot maximum curve radius on edge of the driveway from the edge of the roadway pavement. All of the driveway, including the radius shall be within the extension of the lot line or property line.

2. A minus 2% driveway slope from the edge of the pavement to the center of the ditch line. This allows surface water from the driveway to drain off into the ditch and not sheet drain onto the roadway.

3. A positive 3% maximum driveway slope from the center of the ditch line to the right-of-way line where the driveway goes uphill from the roadway.

4. A minus 2% driveway slope from the edge of pavement for a distance of at least 20' where the driveway goes downhill from the roadway.

5. The proposed driveway slope from the right-of-way line to the garage or parking pad. The Highway District suggests meeting the requirements of Kootenai County's Ordinance for private road or driveway grades. Grades of 10% or greater shall not exceed one hundred (100) feet in length".

6. A sectional drawing of the driveway within the Highway District right-of-way showing driveway width, ditch section, maximum slopes for grading, maximum slope heights and erosion control measures to be used on the slopes. The driveway standard for the Highway District within the District's right-of-way is a width of at least 20 feet.

7. A site plan showing the location of the house and garage and/or parking pad with dimensions from side, front and rear lot lines. The site plan must provide for forward movement of all vehicles as they enter the Highway District roads.

8. The site plan shall show the proposed location of mailbox and any mailbox turnout area.

If you have any further questions, please don't hesitate to contact the appropriate Highway District:

East Side Highway District	(208) 765-4714
Lakes Highway District	(208) 772-7527
Post Falls Highway District	(208) 765-3717
Worley Highway District	(208) 664-0483

SD-3B

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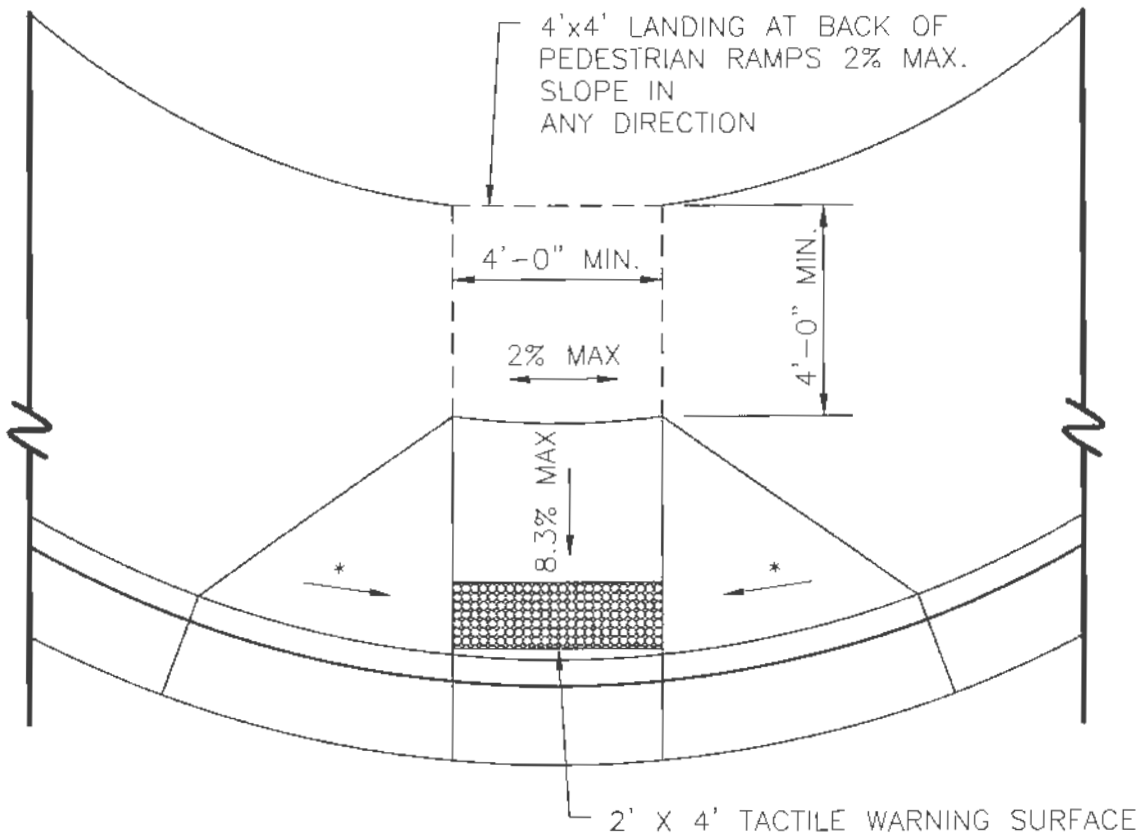
SD-3B



*MAXIMUM SLOPE 1:10

NOTES:

(1) PEDESTRIAN CURB DROPS ARE REQUIRED WHERE CURBS ARE USED.

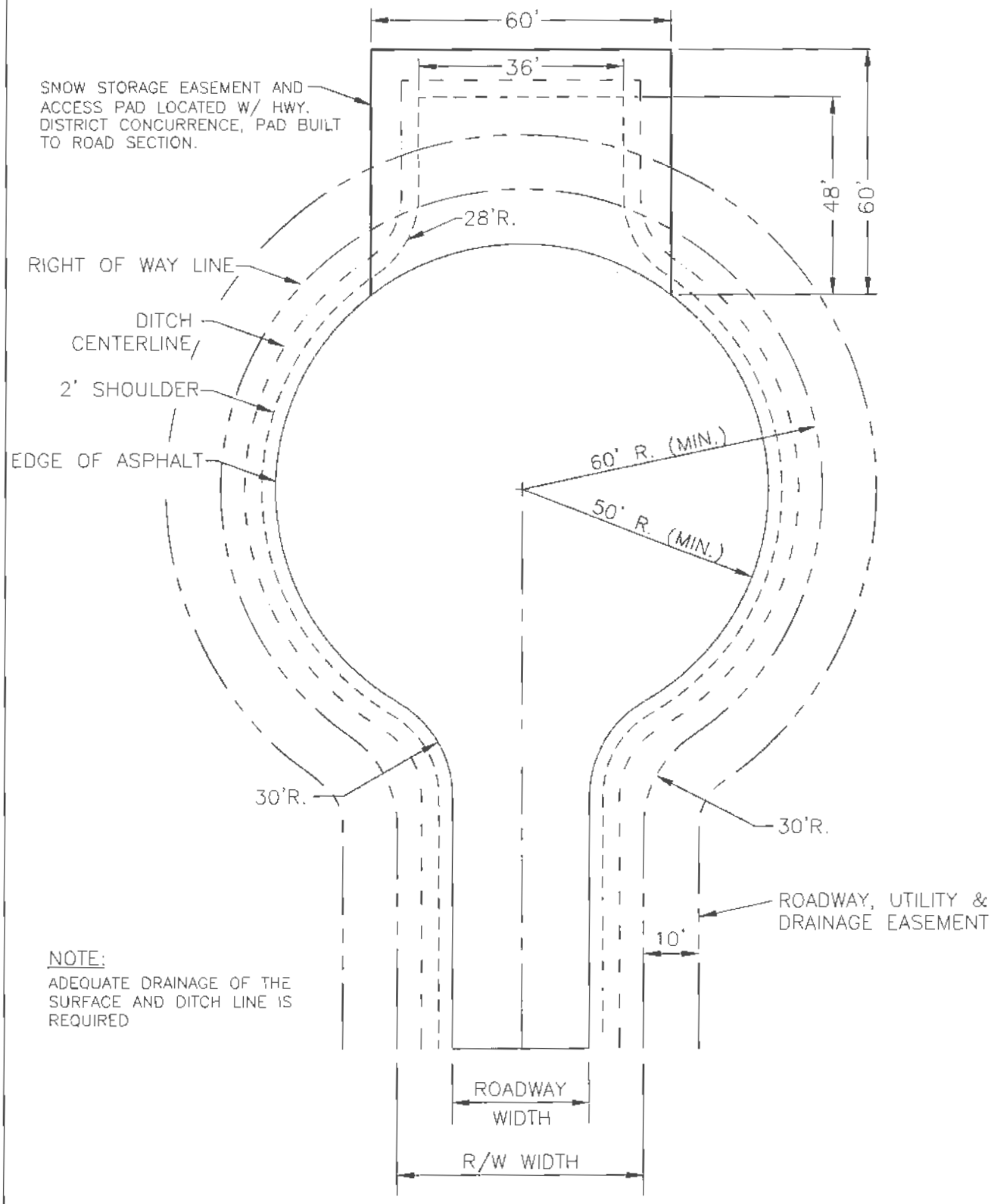
(2) ALL PEDESTRIAN CURB DROPS MUST MEET AREA OF CITY IMPACT STANDARDS FOR THE LOCAL COMMUNITY.

(3) ALL PEDESTRIAN CURB DROPS MUST COMPLY WITH THE AASHTO STANDARDS AND ADA REQUIREMENTS, LATEST EDITIONS.

STANDARD PEDESTRIAN CURB DROP

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-4

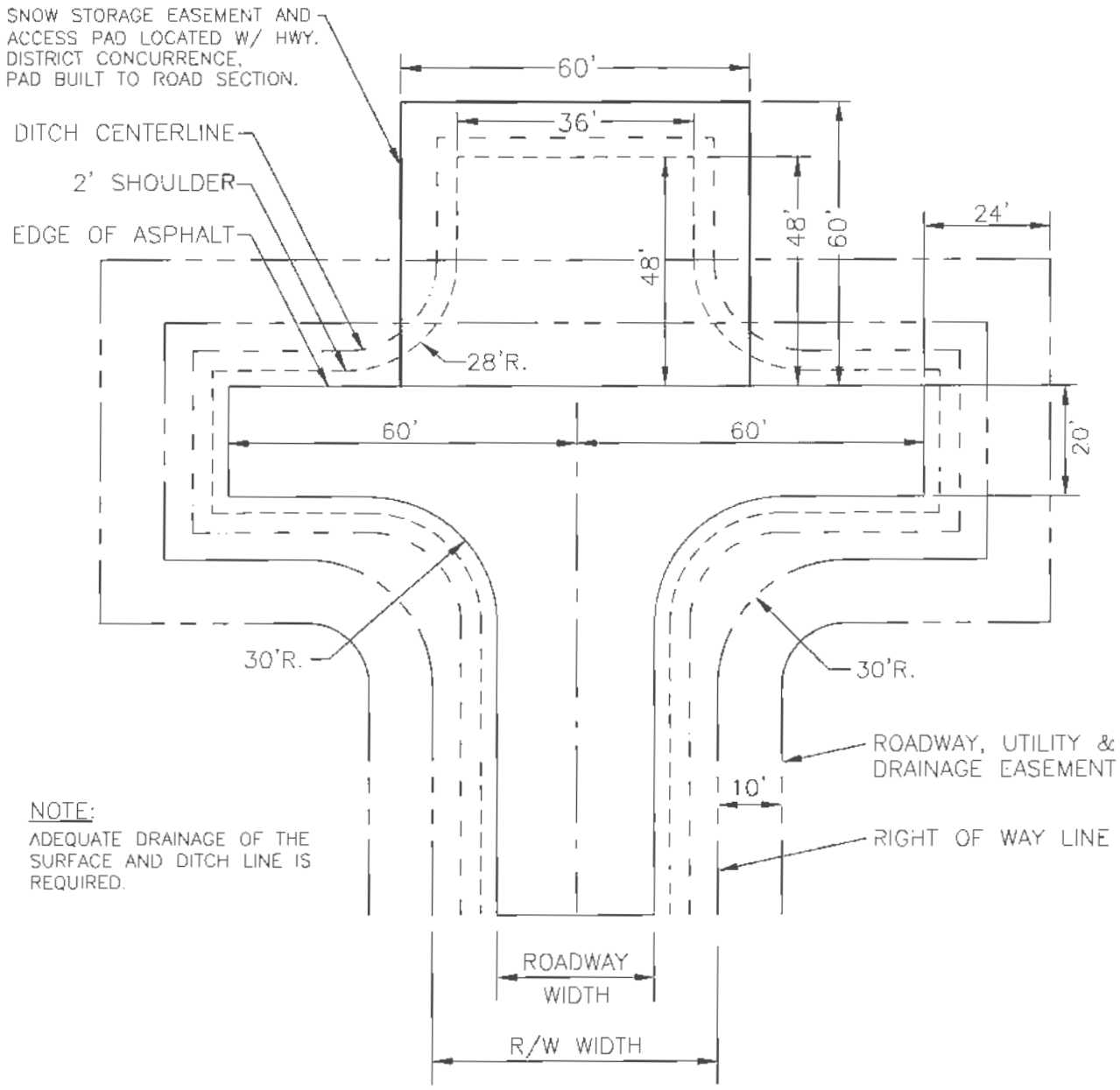


STANDARD CUL-DE-SAC LAYOUT

N.T.S.

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-5



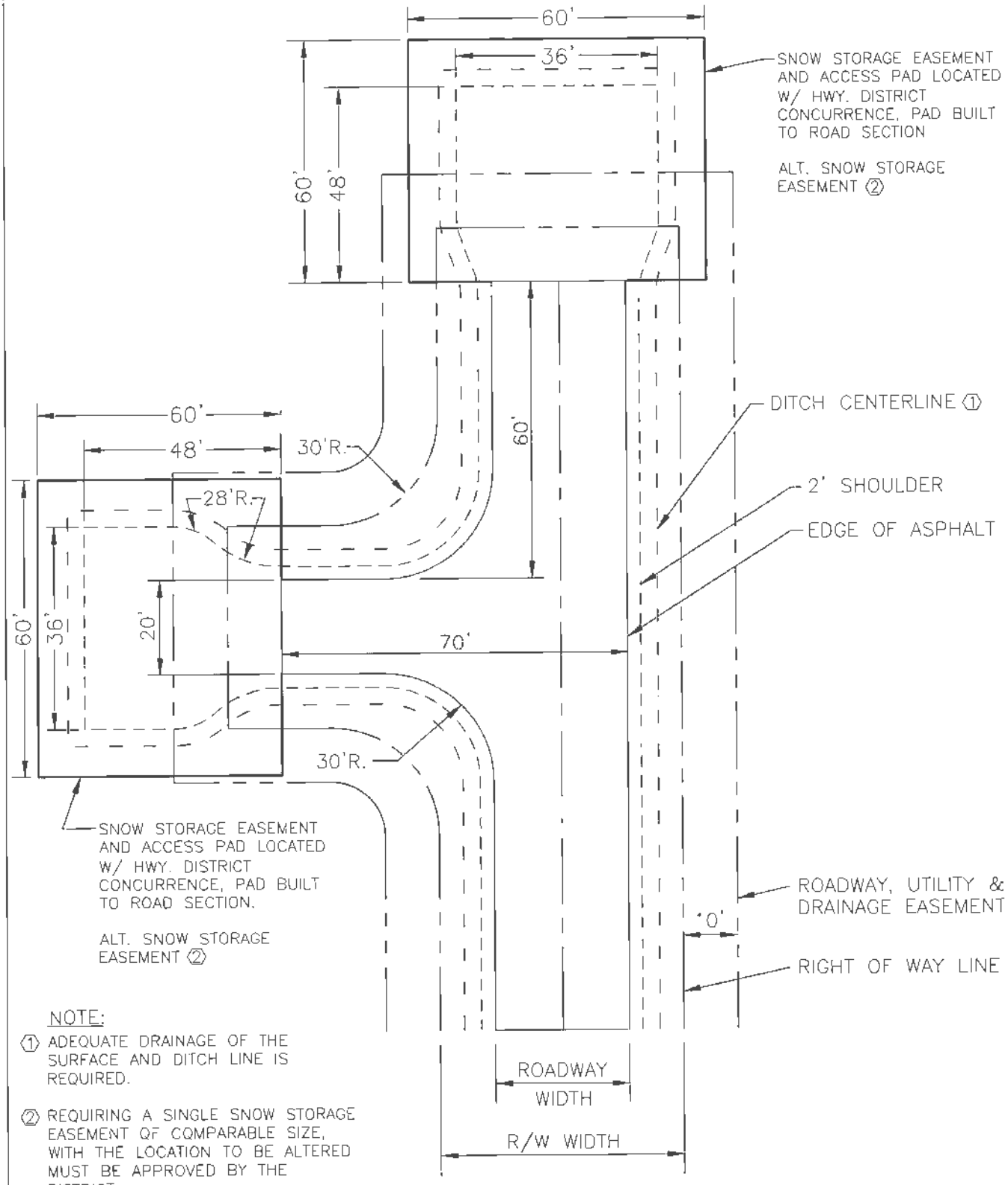
NOTE:
ADEQUATE DRAINAGE OF THE SURFACE AND DITCH LINE IS REQUIRED.

STANDARD HAMMERHEAD TURNAROUND LAYOUT

N.T.S.

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-5A



NOTE:

① ADEQUATE DRAINAGE OF THE SURFACE AND DITCH LINE IS REQUIRED.

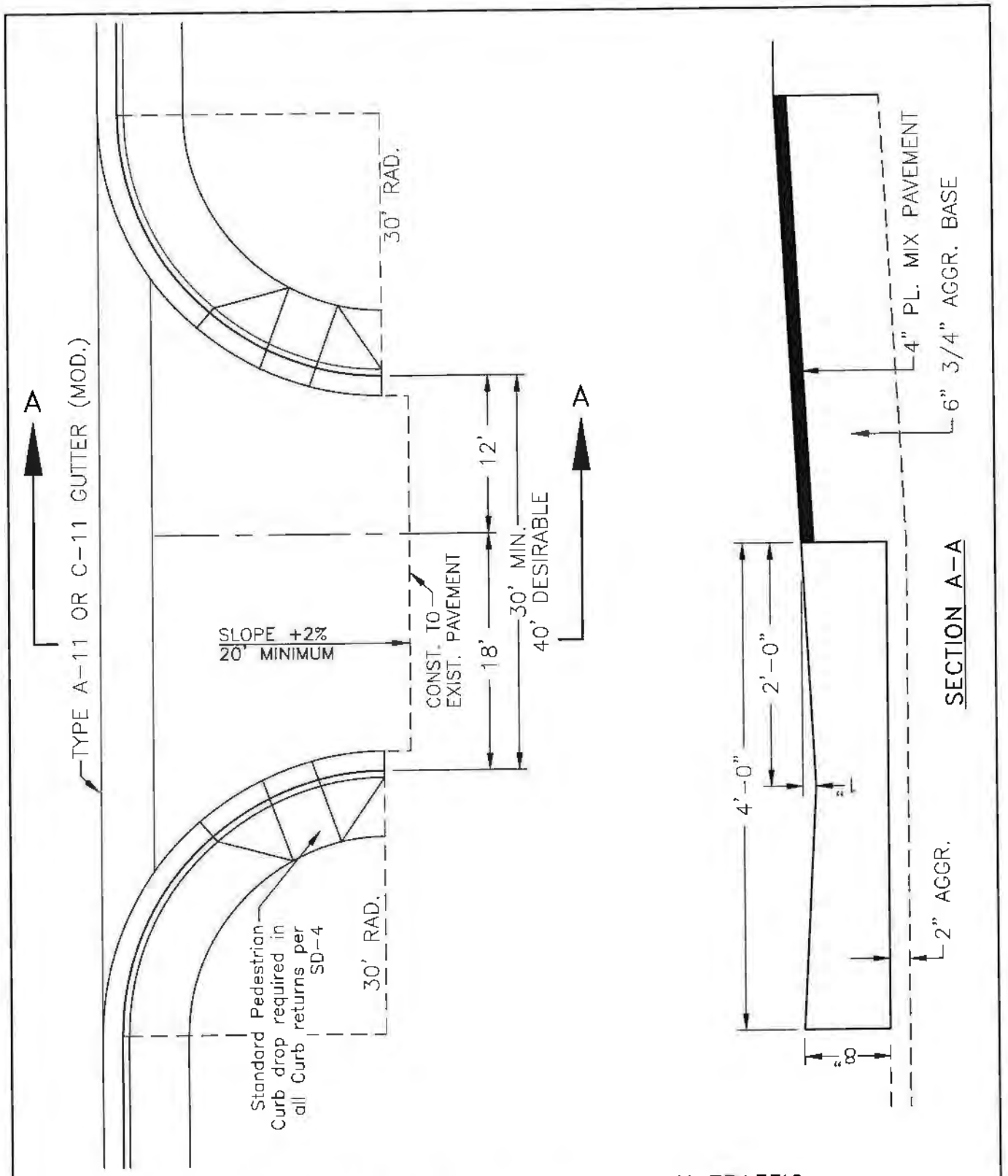
② REQUIRING A SINGLE SNOW STORAGE EASEMENT OF COMPARABLE SIZE, WITH THE LOCATION TO BE ALTERED MUST BE APPROVED BY THE DISTRICT.

STANDARD HAMMERHEAD TURNAROUND LAYOUT

N.T.S.

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-5B



CURB RETURN APPROACH FOR TRUCK TRAFFIC

REF.: LHTAC FIG.IV,C FROM "MANUAL FOR USE OF PUBLIC RIGHT-OF-WAY STANDARD APPROACH POLICY"

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-6

OPEN-CUT POLICY & CHIP SEALING REQUIREMENTS

This policy applies to any person or firm wishing to Open-Cut a road within the jurisdiction of the Kootenai County Associated Highway Districts.

An open cut may be allowed at the Road Supervisors discretion when one or more of the following circumstances is met.

1. The road is classified as a local road.
2. The road is gravel.
3. The road is scheduled for reconstruction within 1 year.
4. The road has an ADT of 100 or less.
5. It is in the best interest of the public or the Highway District.

The Highway Districts will require any person or firm wishing to open-cut a road within this Highway District to to place a bond with the Highway District for 150% of the estimated cost of restoring the road surface plus a fee of $500.00 plus $2.40/square yard of disturbed road surface. This fee is to be charged to insure that the proper overlap on all joints is done. When one (1) lane is removed and replaced to centerline, the full road width will be sealed in order to seal all joints, repair any damage to the other lane, and the status of the full width of the road will be maintained.

Payment will be required when application is made to the Highway District for a permit to perform the open-cut.

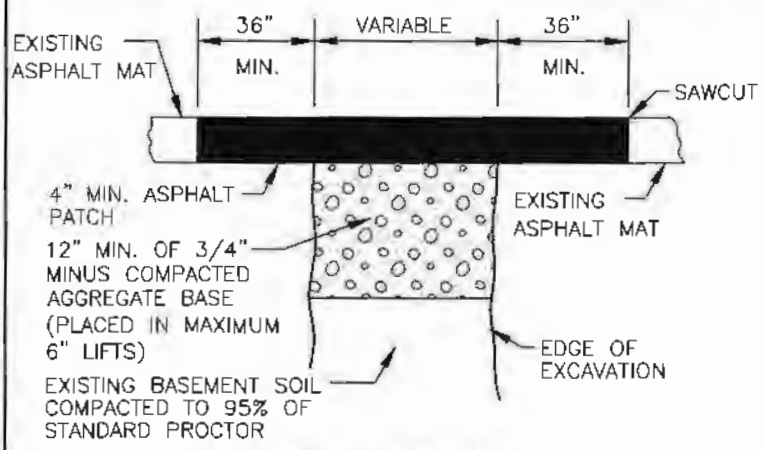
The chip seal on the open-cut roadway will be done the following year during the Highway District's regular chip seal season.

Open-cut repair shall be in accordance with SD-7B.

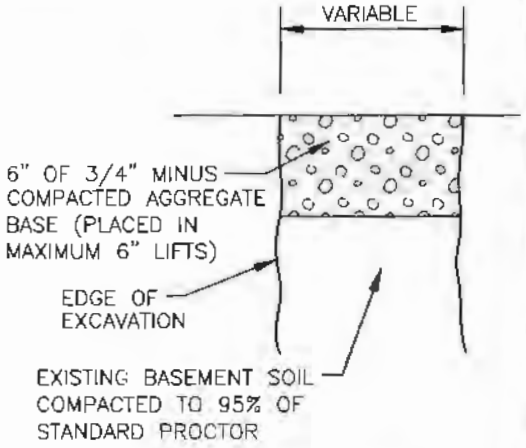
TRANSVERSE ROAD BORE REQUIREMENTS

All roads with one or more of the following criteria shall be bored, no open cuts shall be allowed unless a bore pit of reasonable size cannot be dug or reveals material that is unsuitable for boring, the bore fails to cross the road after 3 attempts or the pipe size is to big for a reasonable bore.

1. The road has a functional classification of a minor collector or above.
2. The pavement is less than 5 years old.
3. The road has been chip sealed within the last 3 years.
4. The road is being used as a detour route.



PAVED SURFACE



GRAVEL SURFACE

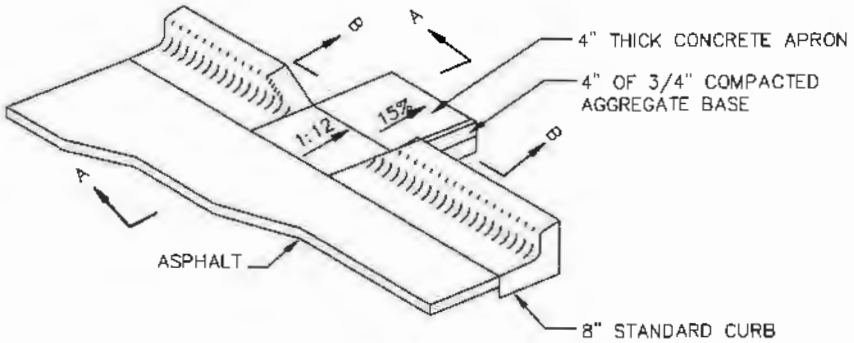
NOTES:

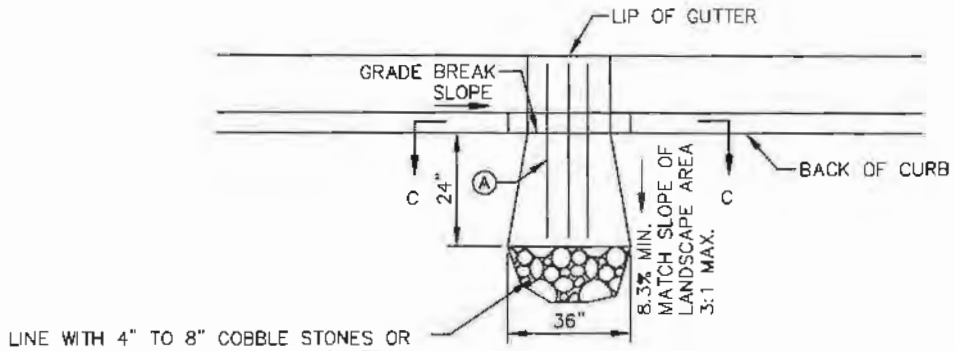
1. FULL DEPTH CONTROLLED DENSITY FILL (CDF) 1 SACK MIX MAY BE REQUIRED FULL DEPTH OF THE TRENCH
2. BACKFILL AT SUBGRADE SHALL NOT SHOW VISIBLE DEFLECTION UNDER 4,000 LB. WHEEL LOAD.
3. WHERE 50% OR MORE OF THE SURFACE AREA OF PAVEMENT HAS BEEN REMOVED OR DAMAGED, FULL WIDTH RESTORATION SHALL BE REQUIRED. ANY STRIP OF REMAINING PAVEMENT LESS THAN TWO FEET IN WIDTH ALONG CURB AND GUTTER OR PAVEMENT EDGE SHALL BE REMOVED AND REPLACED.
4. WHERE STREET SURFACING HAS BEEN IN SERVICE FIVE YEARS OR LESS, THE CONTRACTOR MUST BORE CROSSINGS. STREET CUTS PARALLEL TO CENTERLINE MUST BE APPROVED BY THE HIGHWAY DISTRICT AND WILL REQUIRE RESURFACING USING A PAVING MACHINE. CROSSINGS OF MAJOR COLLECTOR STREETS AND ARTERIALS MAY REQUIRE BORING AT THE DIRECTION OF THE HIGHWAY DISTRICT.
5. STREET SURFACING SHALL BE TACKED TO A NEAT STRAIGHT LINE WITH THE EDGES FREE OF DUST, MOISTURE OR LOOSE MATERIAL.
6. ALL COLD JOINT SURFACES SHALL BE TACKED WITH EMULSION WHICH SHALL HAVE "BROKEN" PRIOR TO PATCHING.
7. MATERIALS AND CONSTRUCTION OF STRUCTURAL REPAIR SHALL CONFORM TO HIGHWAY DISTRICT SPECIFICATIONS.
8. COMPLETED PATCH SHALL NOT DEVIATE FROM EXISTING SURFACE MORE THAT 0.03 FT. /10 FT. IN PROFILE OR 0.05 FT. / 10 FT. IN CROSS-SECTION WHEN MEASURED WITH A 10 FT. STRAIGHT EDGE.
9. COMPLETED PATCH SHALL NOT POND WATER.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF STREET REPAIR FOR TWO YEARS AFTER INSTALLATION. THE BOND SHALL REMAIN IN PLACE FOR THIS TWO YEAR TIME PERIOD.
11. ALL MATERIAL TO BE COMPACTED TO AT LEAST 95% OF OPTIMUM DENSITY PER APPROPRIATE AASHTO STANDARD PROCTOR TEST RESULT.
12. CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO TESTS ON THE TRENCH BACKFILL LAYERS AND ONE TEST ON THE 3/4" MINUS AGGREGATE BASE.

ROAD CUTS AND SURFACE REPAIRS

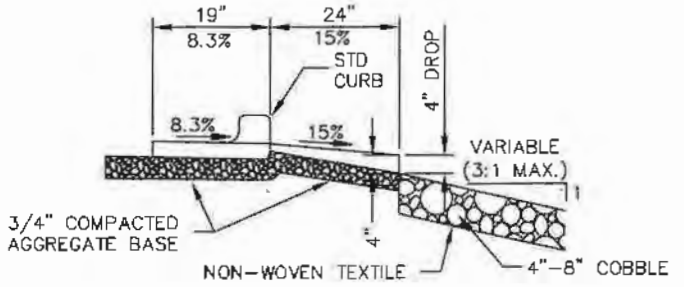
ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-7B

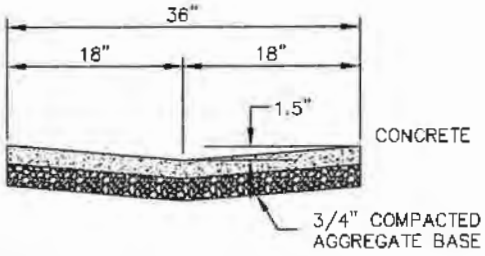




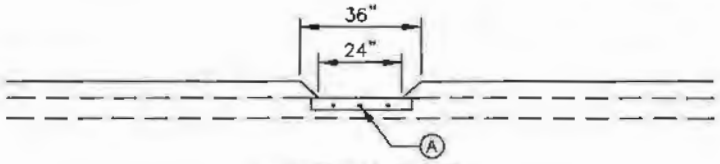
PLAN
N.T.S.



SECTION A-A
N.T.S.



SECTION B-B (PARTIAL)
N.T.S.



SECTION C-C
N.T.S.

NOTES:

(A) 3 # 4 BARS AT MID DEPTH OF CONCRETE SPACE EQUALLY ACROSS CURB OPENING.

(B) REQUIRED WITH INFILTRATION SWALE DESIGN.

(C) CONCRETE APRON SHALL REMAIN FREE OF ALL OBSTRUCTIONS INCLUDING GRASS AND OTHER VEGETATION THAT MAY BE USED IN CONJUNCTION WITH LANDSCAPING OF SWALE OR RETENTION BASIN.

(D) ADOPTED FROM IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION, 2012

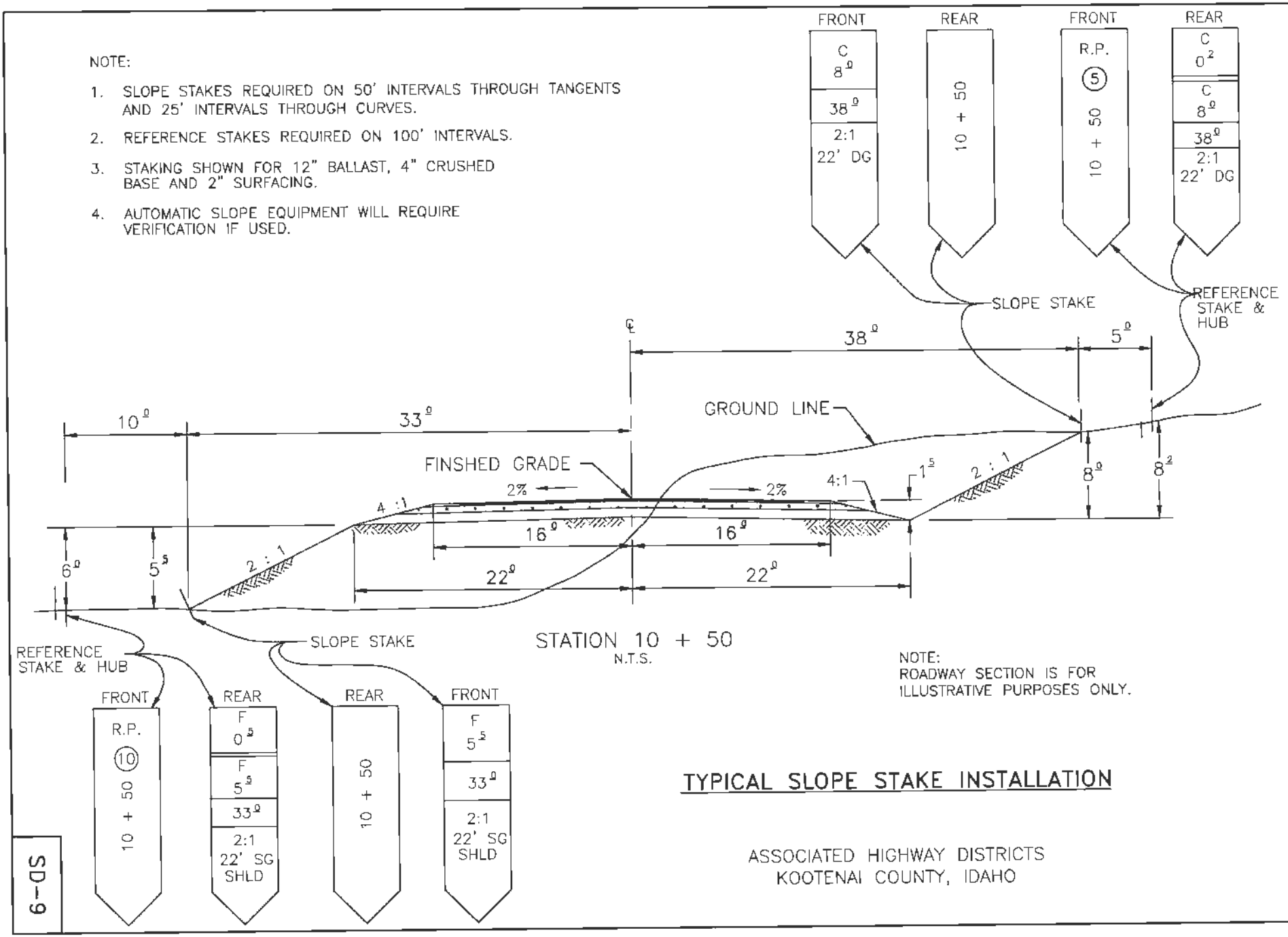
DRAINAGE CURB CUT

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-8

NOTE:

1. SLOPE STAKES REQUIRED ON 50' INTERVALS THROUGH TANGENTS AND 25' INTERVALS THROUGH CURVES.
2. REFERENCE STAKES REQUIRED ON 100' INTERVALS.
3. STAKING SHOWN FOR 12" BALLAST, 4" CRUSHED BASE AND 2" SURFACING.
4. AUTOMATIC SLOPE EQUIPMENT WILL REQUIRE VERIFICATION IF USED.



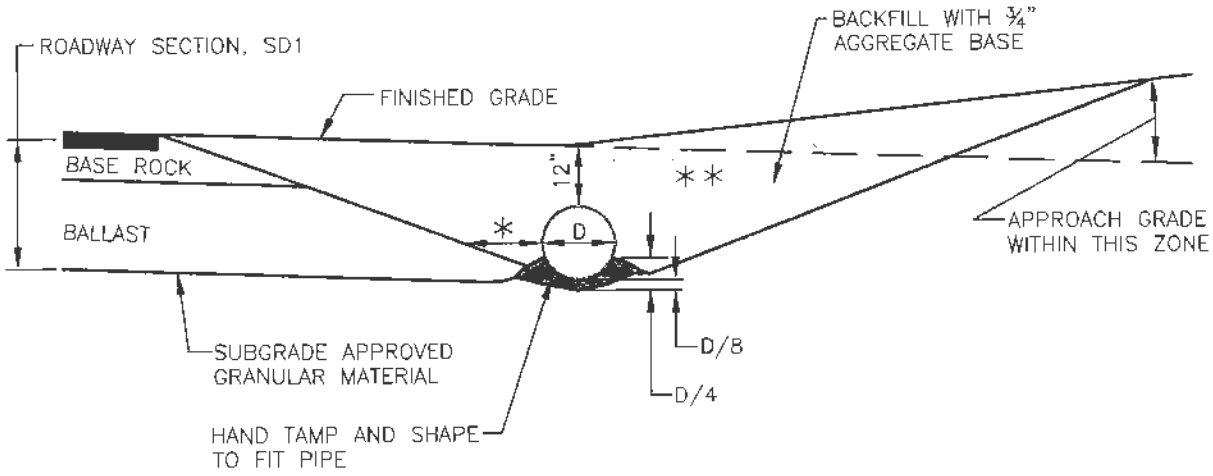
STATION 10 + 50
N.T.S.

NOTE:
ROADWAY SECTION IS FOR ILLUSTRATIVE PURPOSES ONLY.

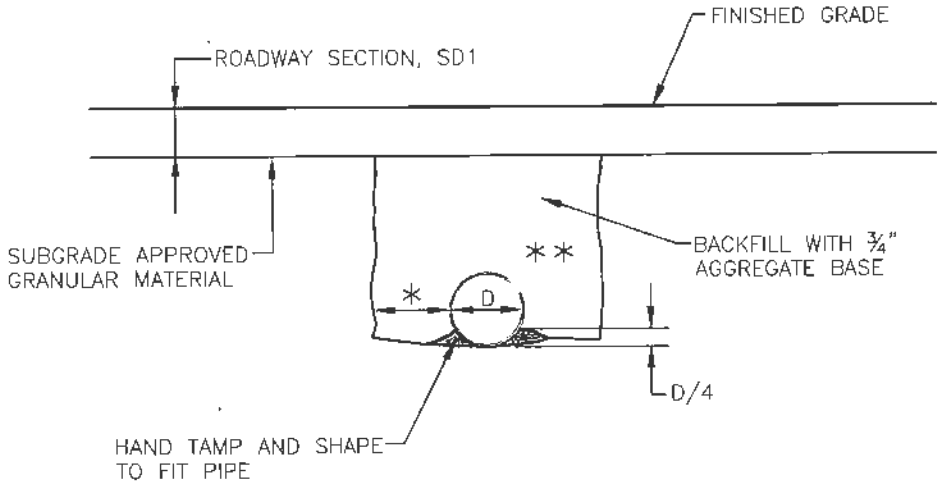
TYPICAL SLOPE STAKE INSTALLATION

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-9



ON SUBGRADE



BELOW SUBGRADE

NOTE:

* D OR 12" WHICHEVER IS GREATER

** MECHANICAL COMPACTED BACKFILL. PLACED IN 6" LAYERS. BASE MATERIAL CONFORMING TO SUB-SECTION 404.01.

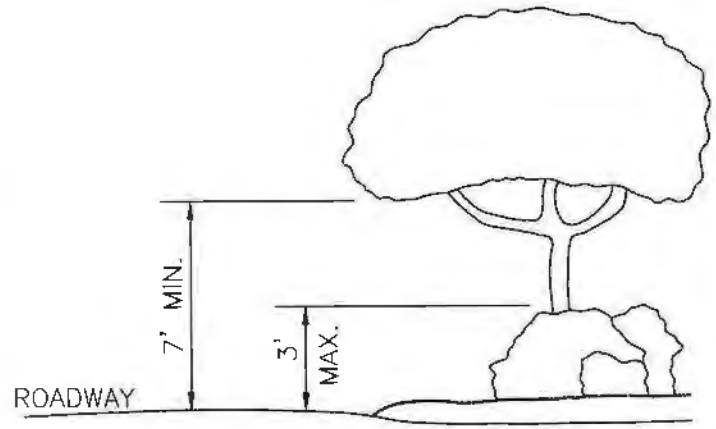
TYPICAL CULVERT INSTALLATION

N.T.S.

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-10

NOTE:
FOR CONTROLLED INTERSECTIONS SIGHT DISTANCE MUST BE ADEQUATE TO PROVIDE A STOPPING SIGHT DISTANCE IN ACCORDANCE WITH SECTION 305.01 OF THESE STANDARDS.



EDGE OF PAVEMENT

SIGHT TRIANGLE

40'

SIGHT LINE

40'

OBSTRUCTION

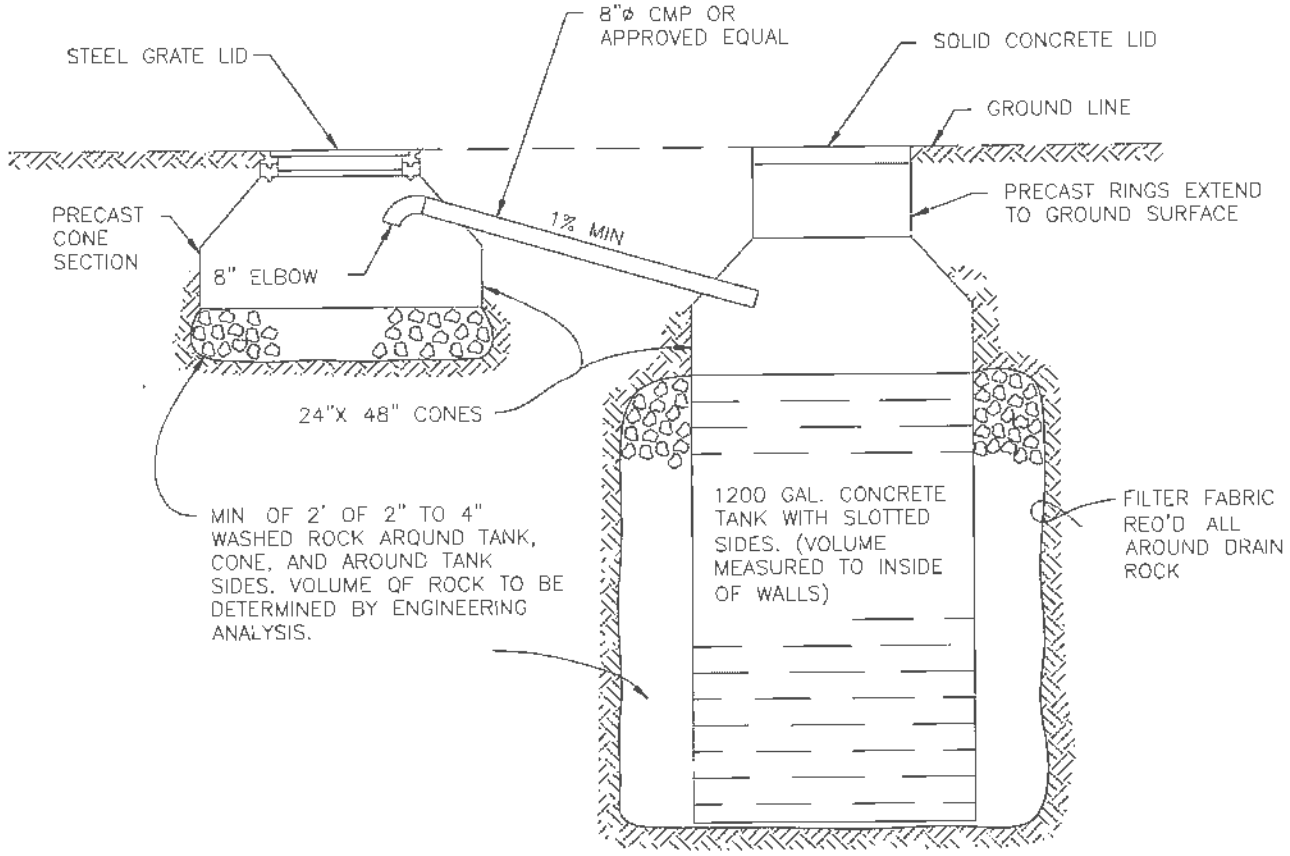
PROPERTY LINE

SIGHT TRIANGLE AT UNCONTROLLED INTERSECTIONS

REF. I.C.-49-221

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-11



NOTES:

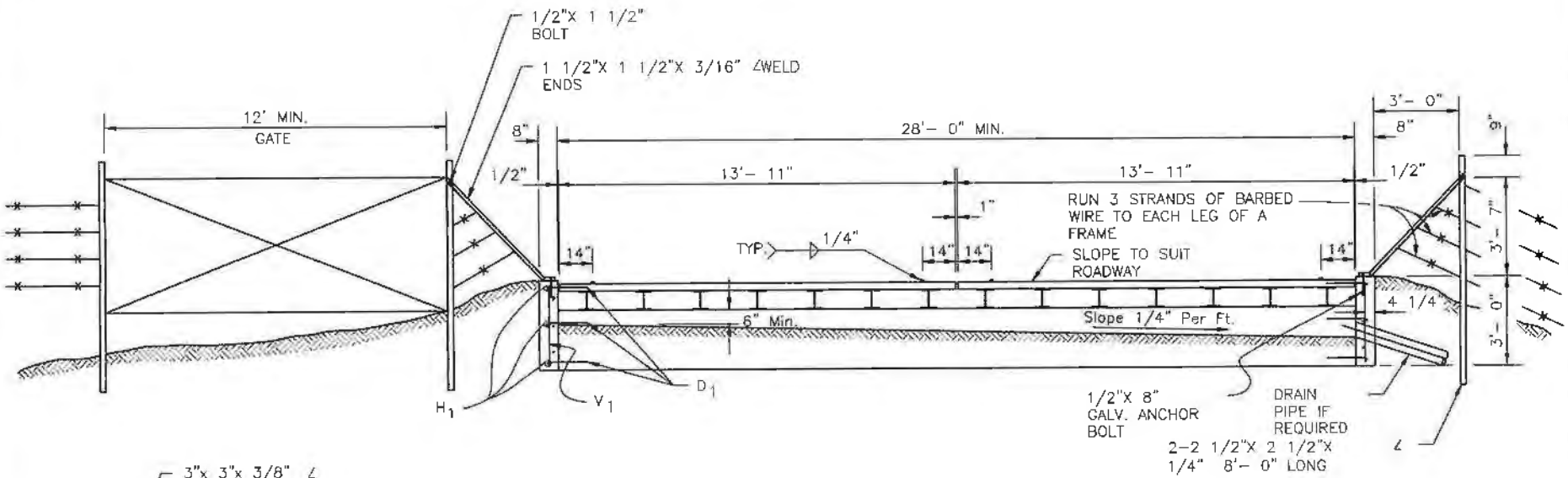
(1) DRY WELL INSTALLATION MAY REQUIRE A PERMIT AND/OR REGISTERING AT PANHANDLE HEALTH DISTRICT.

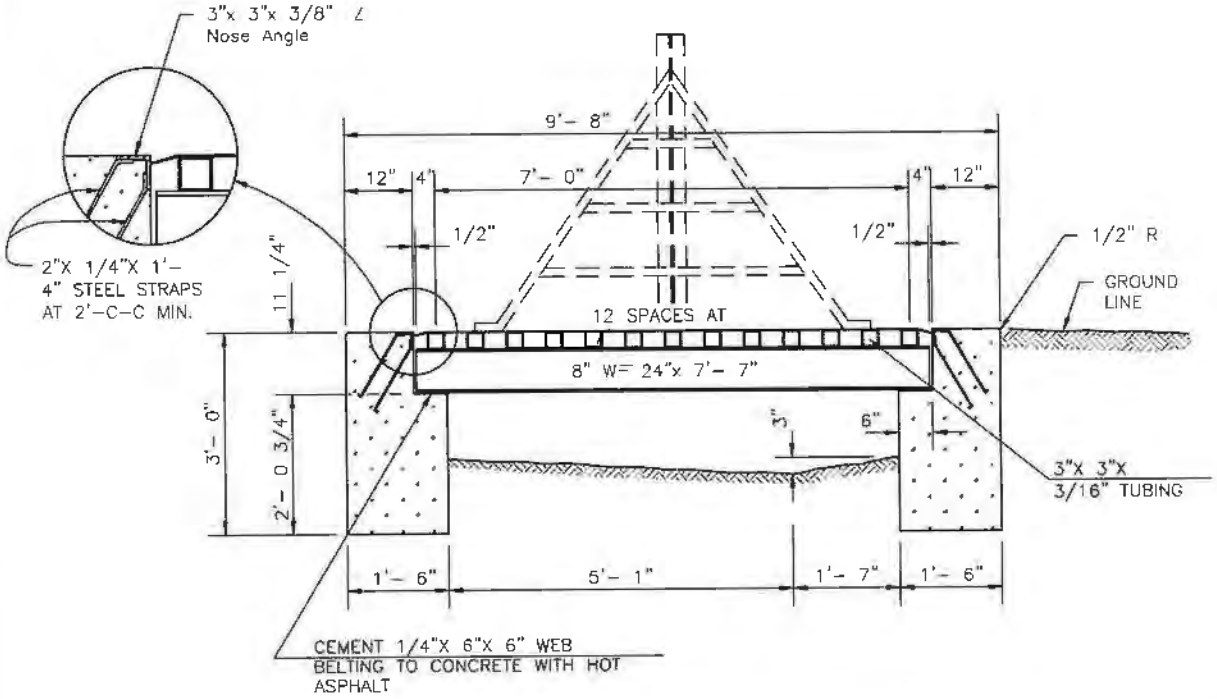
CATCH BASIN & DRYWELL INSTALLATION

N.T.S.

ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-12





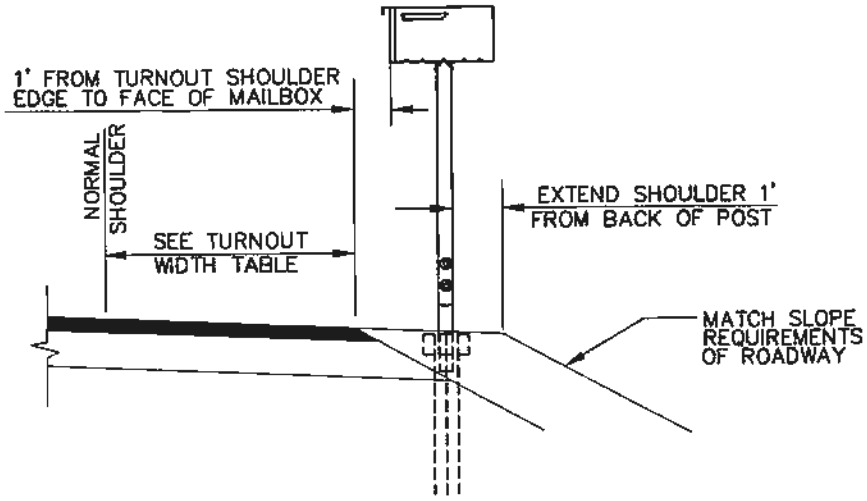
REINFORCEMENT STEEL				
MARK	LOCATION	SIZE NO.	TOTAL LENGTH	NO. REQ'D
V_1	END WALLS	4	2'- 8"	18
H_1	END WALLS	6	9'- 4"	6
D_1	DOWELS	4	1'- 4"	24
80 L.F. NO. 4 BARS AT .668 LB./FT.= 53 LB.				
56 L.F. NO. 6 BARS AT 1.502 LB./FT.= 85 LB.				

CATTLE GUARD

N.T.S.

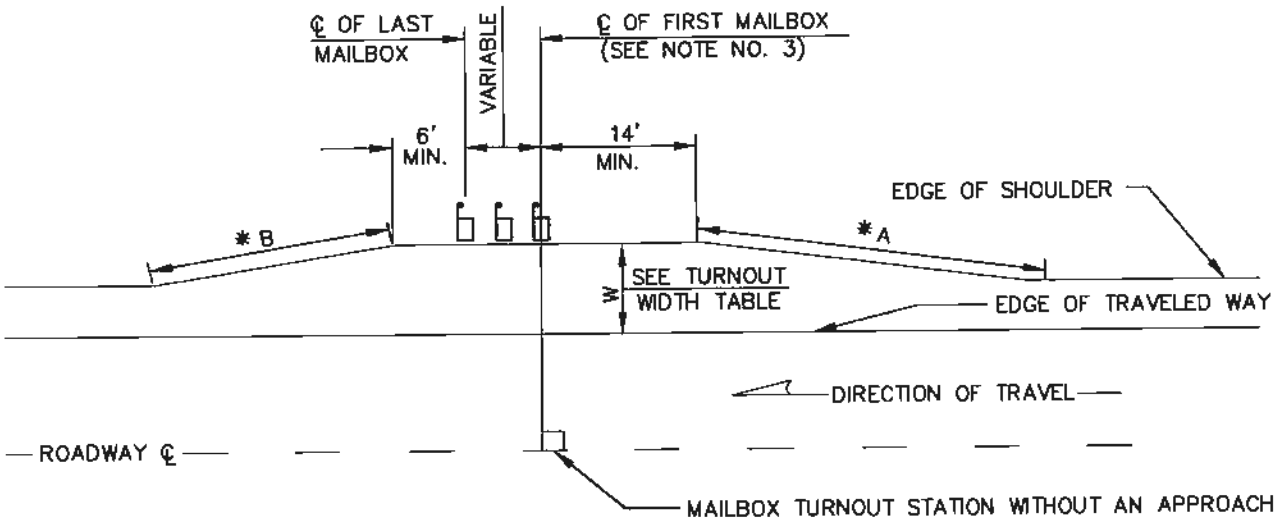
ASSOCIATED HIGHWAY DISTRICTS
KOOTENAI COUNTY, IDAHO

SD-13



MAILBOX SLOPE TYPICAL

N.T.S.



*A = 4:1 and *B + 2.5:1 TAPERS:
FOR ROADS WITH SPEEDS OF 40 MPH OR LESS, OR AN ADT OF 400 OR LESS.

*A = 20:1 and *B = 12:1 TAPERS:
FOR ROADS WITH SPEEDS GREATER THAN 40 MPH OR AN ADT GREATER THAN 400

TURNOUT WIDTH TABLE
** (SEE NOTE NO. 2)*

SPEED/ADT	PREFERRED	MINIMUM
55/>10000	>12'	12'
55/1500–10000	12'	10'
55/100–1500	10'	8'
55/<100	8'	8'
<40/<50	8'	8'

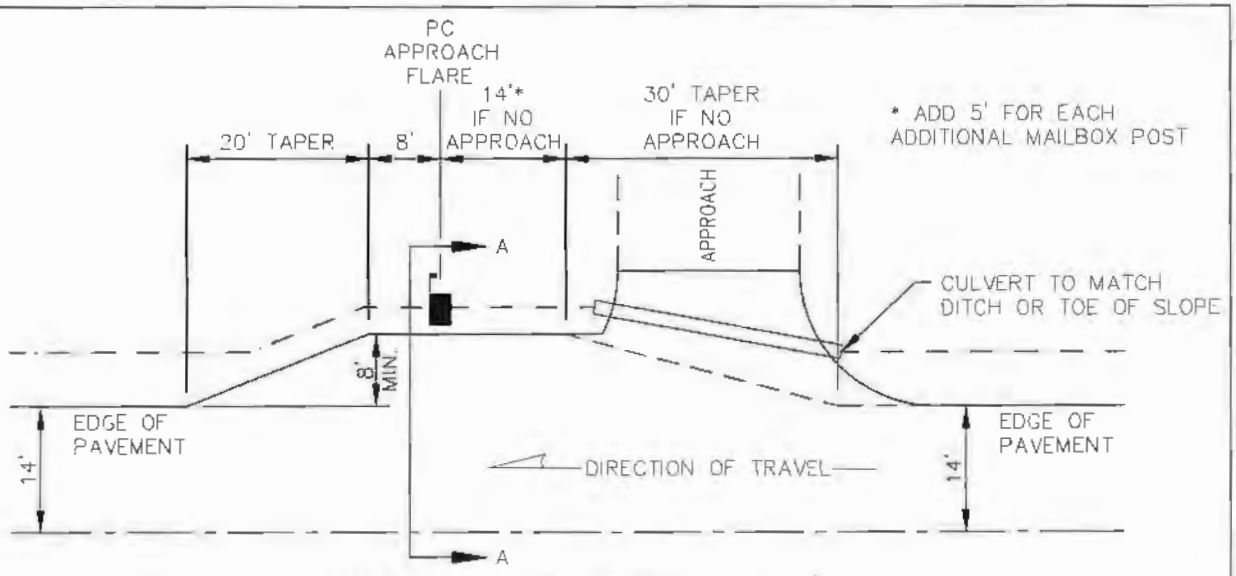
1. WHEN USING THE TURNOUT WIDTH TABLE THE "SPEED" (MPH) IS THE MAXIMUM POSTED ROADWAY SPEED. THE "ADT" IS THE AVERAGE DAILY TRAFFIC.

2. THE BALLAST REQUIREMENTS OF MAILBOX TURNOUTS SHALL BE AS THE ADJACENT ROADWAY SECTION.

3. REFER TO THE UNITED STATES POST OFFICE STANDARDS FOR MAILBOX INSTALLATION.

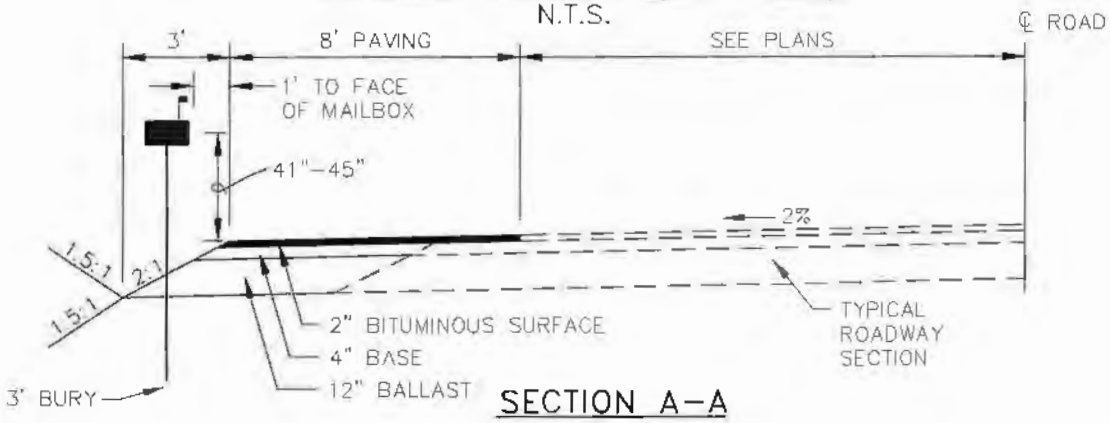
MAILBOX TURNOUT DETAIL

N.T.S.



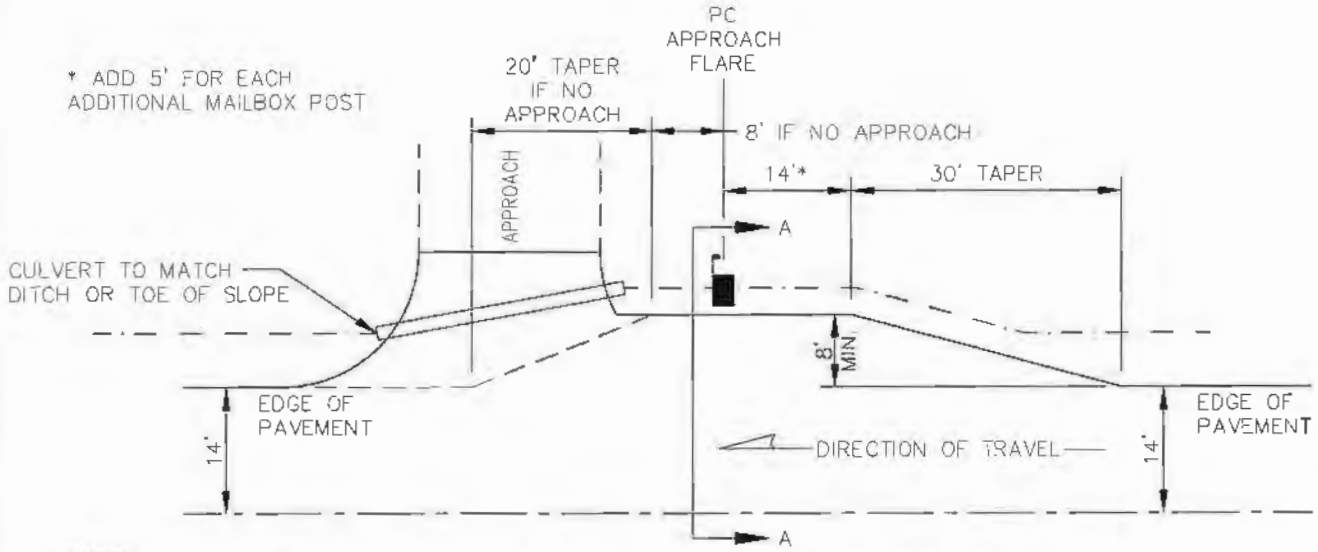
MAILBOX TURNOUT (FAR SIDE)

N.T.S.



SECTION A-A

N.T.S.



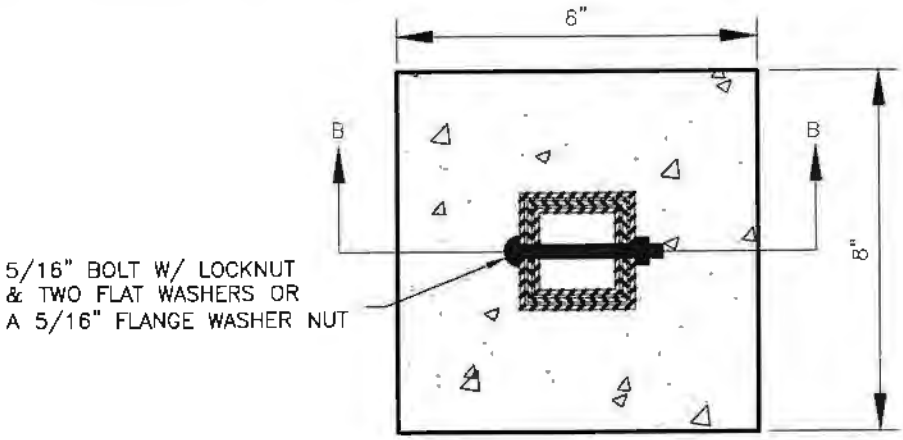
NOTES:

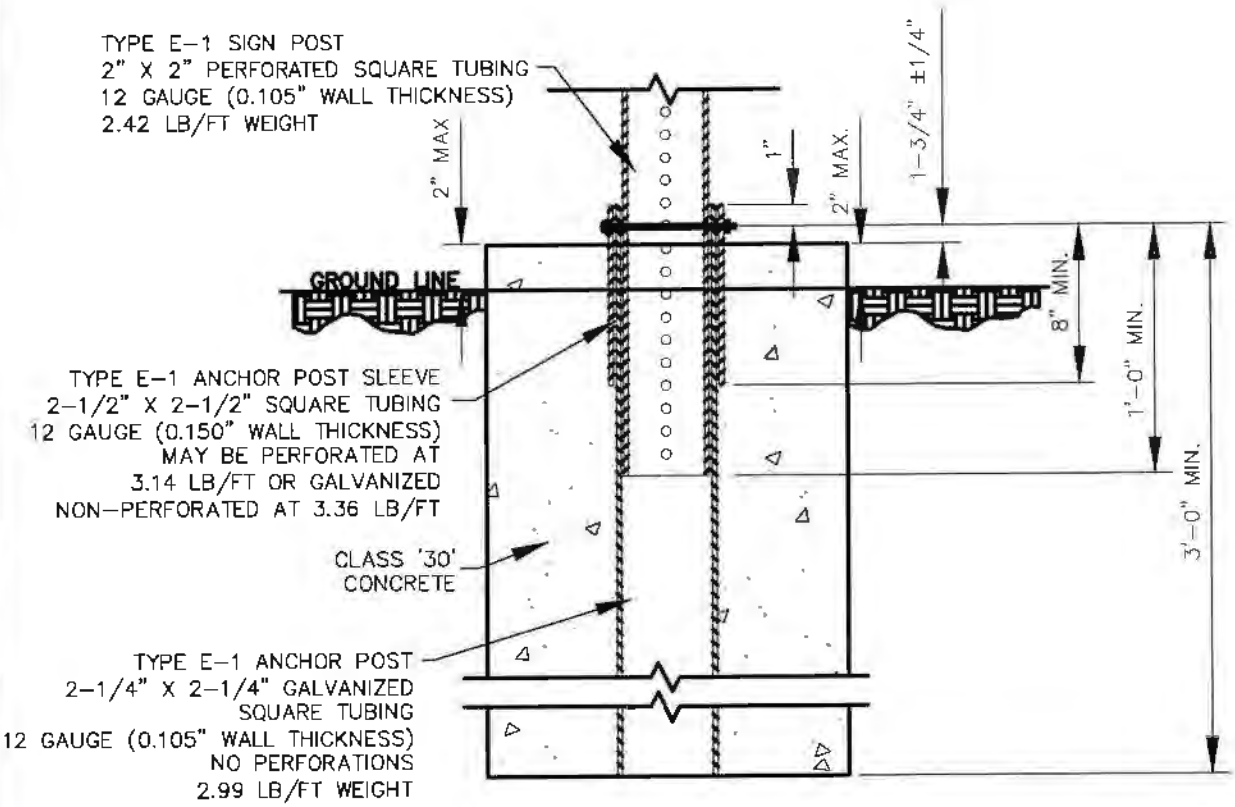
1. STATION SHOWN ON THE PLANS IS TO MAILBOX OR CENTER OF MULTIPLE MAILBOXES.
2. MAILBOX POST AND MOUNTINGS TO CONFORM TO IDAHO TRANSPORTATION DEPARTMENT STANDARD DRAWING H-5-A, H-5-B AND H-5-C AS APPLICABLE.
3. DRAINAGE TO BE CARRIED AROUND TURNOUTS UNLESS CULVERTS ARE INDICATED ON THE PLANS.
4. CUT AND FILL SLOPES OFF BACK OF TURNOUTS TO BE 1.5:1.
5. CONTRACTOR SHALL PROVIDE ADEQUATE ACCESS TO MAILBOXES DURING CONSTRUCTION.

MAILBOX TURNOUT (NEAR SIDE)

N.T.S.

SD-14A





TYPE E-1 SIGN POST

SECTION B-B

NOTE:

1.) TYPE E-1 POST ANCHOR SLEEVES SHALL BE INSTALLED SO THAT THE HOLES WILL ALIGN AND THE TOP IS FLUSH WITH THE SIGN POST ANCHOR.

2.) TYPE E-1 POST ANCHOR SLEEVES SHALL BE INSTALLED SO THAT THE TRAFFIC SIGN (ONCE MOUNTED) SHALL MEET ITS INTENDED INSTALLATION REQUIREMENT.

Supplemental Information

Financial Guarantee Agreement

FINANCIAL GUARANTEE AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 20___, by and between _____, (hereinafter referred to as "Developer or Applicant") and the _____ Highway District (hereinafter referred to as "District").

IT IS AGREED:

1. APPLICANT agrees to complete, or cause to be completed, the improvements as shown on Drawing(s) No. _____, Sheet(s) _____ through _____, for _____ (hereinafter referred to as "Project") in accordance with special provisions and conditions as set forth by the District, on or before the _____ day of _____, 20_____, or such latter time as may be extended, in writing, by the District, including the installation of all necessary utility lines, structures and service connections directly associated with the project within the public rights-of-way and easements.

2. APPLICANT agrees to pay for all labor and material costs for completion of the improvements, and the improvements are to be completed free and clear of all liens, encumbrances, assessments, or unpaid obligations.

3. APPLICANT agrees that all improvements listed herein shall be completed according to standard specifications adopted by the District and to pay, when due, all fees incurred or charged by the District in connection with this project.

4. APPLICANT has furnished the District with a cash deposit, Surety Bond, or other form of credit issued by a financial institution authorized to do business in the State of Idaho, in a form approved by the District in the amount of $_____ (equal to 150% of the estimated cost of the "public or special improvements" included in the project). Said cash deposit, Surety Bond or other form of credit shall be in force for a minimum term of two (2) years after acceptance of the improvements by the District, assuring performance of Applicant's obligations under this agreements operated and maintained by the Highway District; and others as follows:

In the event Applicant fails to complete the improvements or conditions as herein set out, District, at its option, may complete the project, or cause it to be completed, and the cost thereof in labor and material costs, or for the District to perform any observations, tests, or retests, whereby test results of the materials to be used and/or installed are shown not to conform to District detailed specifications, shall be the amount of liquidated damages, plus court costs and reasonable attorney fees incurred by the District in relation thereto, which amounts shall be a charge against the cash deposit, Surety Bond, or other form of credit. The Applicant shall be liable for any deficiency incurred over and above the amount of the bond or other form of credit furnished.

5. DISTRICT agrees that upon satisfactory completion of the improvements listed herein, in accordance with the specifications and requirements of said District, the District, upon acceptance by the Board, will be responsible for continuous maintenance of the public street within the District's boundaries.

6. APPLICANT further agrees neither the final certificate of completion nor any provision within this agreement nor partial or entire use of the improvements embraced in this agreement by the District or the public shall constitute an acceptance of work not done in accordance with said approved drawings and District Standards and Specifications or relieve the Applicant of liability in respect to any or all warranties or responsibility for faulty materials or workmanship. The applicant shall remedy or shall cause to be remedied promptly any defects in the work and to pay for any damage to other work resulting therefrom which shall appear within a period of two (2) years from the date of final acceptance of the improvements. The District will give notice of defective materials and work with reasonable promptness.

7. APPLICANT agrees that he shall retain an Idaho licensed, Professional Engineer who shall supervise the construction and certify that all improvements are constructed in accordance with the District's "Construction Observation Policy Statement" a copy of which is attached and hereby made a part of this Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the date first written above.

_____	_____
Developer/Applicant	**Highway District**
	_____
	CHAIRMAN
	ATTEST:
	_____
	CLERK

State of Idaho)
)ss
County of Kootenai)

This record was acknowledged before me on _____ by _____ as _____ of _____.

_____
Notary Public
Commission Exp.: _____

State of _____)
)ss
County of _____)

This record was acknowledged before me on _____ by_____.

_____
Notary Public
Commissioner Exp.:_____

Construction Observation Policy

HIGHWAY DISTRICT
CONSTRUCTION OBSERVATION POLICY STATEMENT

The purpose of this policy statement is to outline the minimal, acceptable level of observation to be performed on all roadway construction activities performed within the boundaries of the Highway District.

SECTION I

RESPONSIBILITY OF APPLICANT:

1. Prior to commencement of construction, the Applicant shall have the improvement drawings approved by the Highway District.

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

3. The Applicant shall provide reasonable access to Highway District personnel during the course of the project.

SECTION II

RESPONSIBILITY OF HIGHWAY DISTRICT:

1. Prior to commencement of construction, the Highway District shall review and accept the improvement drawings.

2. The Highway District shall review locations of all signing.

3. The Highway District shall review for acceptance design changes during construction, which have been recommended by the applicant's Engineer.

4. The Highway District shall make periodic observations during construction to monitor general compliance with specifications.

5. 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 Highway District will perform a pre-final review and provide copies of the results to the Applicant's Engineer.

SECTION III

RESPONSIBILITY OF THE APPLICANT'S ENGINEER:

1. The Engineer shall be responsible for full compliance with instructions in this policy statement.

2. The Engineer shall be responsible for all observations, inspections, and records at the minimum intervals presented in this policy statement. He shall accept or reject work performed based on observations, inspections, and test results.

3. The Engineer shall provide all necessary construction surveying for the project.

4. The Engineer shall provide to the Highway District certified test results; all preliminary tests are to insure suitability of materials such as aggregates, portland cement concrete, and asphaltic concrete. Certified test results shall be submitted in a timely manner to meet the requirements of the Highway District specifications prior to commencement of work on any project.

5. The Engineer shall schedule and conduct a preconstruction conference of all interested parties including the Highway District, utility owners, and the contractor. The conference shall be held in a timely sequence, preferably immediately following the selection of a contractor, and not less than two working days prior to commencement of work under the contract. The Engineer shall provide written minutes of the meeting to all attendees.

6. The Engineer shall maintain a project diary containing necessary project information including:

    a. Date and work performed.
    b. Weather conditions.
    c. Engineering operations accomplished.
    d. Unusual conditions or changes.
    e. Other.

    A copy of the diary shall be filed with the Highway District at the completion of the project.

7. The Engineer shall provide 24-hour notification to the Highway District for the various stages of construction to facilitate observations by the Highway District.

8. The Engineer shall submit all manufacturers' certificates for materials supplied to the project.

9. The Engineer shall prepare Record Drawings of all project details as accomplished in the field during the contract. Two copies of the Record Drawings shall be submitted to the Highway District upon completion of the project.

10. The Engineer shall provide 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 Highway District.

SECTION IV

OBSERVATION AND TESTING REQUIREMENTS:

The following are basic, minimum observation intervals required of the Applicant's Engineer and his representative in order to assure that minimum monitoring of the contractor's performance has been accomplished. However, if the Applicant's Engineer feels it is necessary to provide a higher level of observation to result in satisfactory project completion, he should do so. Documentation of the observations performed shall be included in the diaries. The final statement by the Applicant's Engineer shall verify that these minimum basic observations and testing have been accomplished.

Type and Frequency of Observations and Testing:

1. When all sediment and erosion control measures are in place

2. Subgrade
   a. At the completion of all striping.
   b. At the completion of the preparation of the subgrade.
      (1) Compaction tests every 100-feet of roadway with a minimum of two tests per street.

3. Ballast and Base Course
   a. At the completion of the placement of the materials or once per day during placement.
      (1) Compaction tests every 100-feet of roadway per lift of material with a minimum of two tests per street.
      (2) Gradation test - At least one per day or one for every 2,000-feet of roadway with a minimum of two tests per street.

4. Pavement
   a. Once per day during the placement.
   b. After completion of the surface pavement.
   c. Determine that asphalt materials and placement was in conformance with Highway District standards through the use of the following tests performed either by the Applicant's Engineer or an independent laboratory.

(1) Mix design
(2) Extraction gradation test - At least one for every 2,000-feet of roadway with a minimum of two tests per street. (Not required if material is taken from a District approved source.)
(3) Density tests - At least one for every 100-feet of roadway.
(4) Core tests - At least one for every 1,000-feet of roadway with a minimum of two tests per street may be required to resolve any questions or disputes in pavement thickness.

5. Sidewalk, Catch Basins, Curb and Gutter
   a. After completion of forming, prior to placement of concrete.
   b. Once per day during placement of concrete.
   c. After completion of placement of concrete.

6. Miscellaneous Structures
   a. As required to insure substantial compliance with plans and specifications.
   b. Compaction tests at 3 locations/depths around the structure at a minimum.

7. Pipe Installation:

   Excavation
   a. At completion of trench excavation-at least once every 500-feet

   Bedding
   a. After placement of bedding prior to placement of pipe - At least once every 500-feet.

   Installation of Pipe
   a. Once per day during installation of pipe.
   b. At least one out of every three manholes and tie-ins at manholes prior to backfill.
   c. Appurtenances requiring thrust blocking prior to backfill.
   d. At completion.
   e. Compaction testing one test per 100-feet of pipe backfill for each lift, including service lines. All utility work within the road prism (ditch centerline to ditch centerline) in fine grained soils (ML, CL, MH, CH, SM, GM, SC, GC) requires fill to be placed in 12-inch lifts only, tested at the time of placing and compacting, placement of material and compaction within 2 percentage points of optimum moisture and observed and tested with a full time technician or Engineer.

   Final Test
   a. Conduct or witness all final tests.
   b. At full establishment of all permanent erosion control measures.

8. Major Excavations and Embankments
   a. Once daily.
   b. At completion.

Application for Approach/Driveway Permit
Application for Permit to Use Right-of-Way Utilities

LAKES HIGHWAY DISTRICT
APPLICATION FOR APPROACH PERMIT

LHD PERMIT NO: _____

COUNTY PERMIT NO: _____

FOR RECORDING PURPOSES ONLY

The application expires 90 days from date of issuance. If work is not completed to the Highway District's standards, within that time, applicant may request a 90-day extension; otherwise, the application will be considered void. This is an application only and will be considered a permit when the work is completed.

CALL BEFORE YOU DIG 8-1-1

The undersigned applicant is given permission to construct the following item(s) on highway right-of-way; subject to compliance with the provisions of the Highway District Policy.

LOCATION OF WORK

Subdivision if applicable (or Parcel#): _____Lot/Blk: _____AIN#: _____

Street Name: _____Street Address: _____

Other Direction: _____

TYPE OF APPROACH REQUEST: ☐ Field; ☐ Single Residence; ☐ Multiple Residence; ☐ Commercial.

Approach Description: _____

The undersigned applicant is given permission to construct the following item(s) on highway right-of-way; subject to compliance with the provisions of the Highway District Policy.

DISTRICT APPROVED APPROACH TYPE AND REQUIREMENTS: ☐ Field; ☐ Single Residence; ☐ Multiple Residence, _____Number Served; ☐ Commercial; Use Description: _____

Culvert Required: Yes ☐ No ☐ **Size:** _____ **Type: Corrugated Metal.** *Culverts must be bedded with ¾" base rock

Mailbox Turnout Required …….. Yes ☐ No ☐

Approach shall meet Highway District Standard Approach Policy and I.C. 49-221 as issued with Application. Call for an inspection of approach prior to surfacing driveway with concrete or asphalt and prior to certificate of occupancy signoff.

X CONDITIONS OF APPROVAL:

1. **Approach shall be compliant with all requirements of Lakes Highway District Ordinance No. 2019-02.**
2. Site plan to be included, showing location of proposed approach measured to property boundaries.
3. Approvals are limited to the Type, Specifications, Requirements and Conditions stated herein.
4. Refer to the Attached General and Special Conditions.
5. The Applicant shall contact the one call utility locating service and comply with all other requirements imposed upon an excavator pursuant to § 55-2201, Idaho Code, et seq. CALL BEFORE YOU DIG 8-1-1.
6. On completion of said work herein contemplated, Applicant shall notify the District that the project is completed and ready for final inspection.
7. All rubbish and debris shall be removed, and the roadway and roadside shall be left neat and presentable and to the satisfaction of the Highway District. Installation must be inspected and approved by the Director of Highways or his representative.
8. The undersigned certifies that he is the owner or authorized representative of the owner of the proposed facility or property to be served and agrees to do the work in accordance with the rules and regulations of the HIGHWAY DISTRICT, and the undersigned certifies that he has read and understands the provisions on the attached "General Provisions" and/or "Special Conditions" sheet.

_____ Phone #: _____

NAME OF APPLICANT(S) -- ALL PROPERTY OWNERS MUST SIGN FOR APPLICATION

_____ Date: _____

Signature of applicant

☐ PRELIMINARY PERMIT APPROVAL Date:_____, Int: _____

☐ FINAL PERMIT APPROVAL Date: _____ Final Approval by: _____

PROCESSING FEE: Amount Paid $: _____Date Paid _____ Receipt #_____

GENERAL PROVISIONS

If required by the District , the Permittee shall give at least 24 hours advance notice prior to commencing work and at any time in the future when proposed work would restrict the flow of traffic.

During the progress of the work such barricades, lights and other traffic control devices shall be erected and maintained as may be necessary or as may be directed for the protection of the traveling public. All barricades, lights and other traffic control devises and the placement thereof shall conform to the latest Manual on Uniform Traffic Control Devices.

In accepting this permit, the Permittee, its successors and assigns, agrees to protect the Highway District, or its agents, and save it harmless from all claims actions or damages of every kind and description which may accrue to or be suffered by any person or persons, corporation or property, by reason of the performance of such work, character or materials used or manner of installation, maintenance and operation, or by the improper occupancy of rights-of-way or public place or public structure, and in case any suit or action is brought against said Highway District, its officers, or agents, for damages arising out of or by reason of any of the above causes, the Permittee, its successors or assigns, will upon notice to it of commencement of such action defend the same at its own sole cost and expense, and will satisfy any judgment after said suit of action shall have finally been determined if adverse to the Highway District, its officers or agents.

Except as herein authorized, no excavation shall be made, or obstacle placed within the limits of the highway in such a manner as to interfere with the travel over said road.

Permittee is responsible for any damages to District property or to any property in the right-of-way which is caused by the conduct of the work performed hereunder, Permittee shall restore to the same condition as existed prior to the work, the travelway and such ditches, structures and appurtenances necessary for the proper construction and maintenance of the travelway, which have been in any way disturbed or damaged by the work performed hereunder. If the work done under this permit in any manner involves the disturbance of the traveled surface of the road, said portion of the traveled surface of the road shall be restored at the completion of said work to the satisfaction of the District, said surface may be restored by the Highway District at the expense of the Permittee. If trench or pavement settlement should occur the repairs shall be made by the Permittee as directed by the District at no cost to the Highway District. If the work under this permit interferes in any way with the drainage of the highway, the grantee shall wholly and at its own expense make such provisions as the District may direct to take care of the drainage.

All work herein contemplated shall be done to conform with current government and industry standards under the supervision and to the satisfaction of the District , and the entire expense of said supervision shall be borne by the parties to whom this permit is issued.

The District hereby reserves the right to order the change of location or the removal of any structure or structures authorized by this permit at any time, said change or removal to be made at the sole expense of the party or parties to whom this permit is issued, or their successors and assigns.

All such changes, reconstruction or relocation by the Permittee shall be done in such a manner as will cause the least interference with any of the District's work and the Highway District shall in no way be held liable for any damages to the Permittee by reason of any such work by the Highway District, its agents or representatives, or by the exercise of any rights by the District upon roads, streets, public places or structure in question.

This permit or privilege shall not be deemed or held to be an exclusive one and shall not prohibit the District from granting other permits or franchise rights of like or other nature to other public or private utilities, nor shall it prevent the District from using any of its roads, streets, or public places, or affect its right to full supervision and control over all or any part of them, none of which is hereby surrendered.

The District may revoke, annul, change, amend, amplify, or terminate this permit or any of the conditions herein enumerated if Permittee fails to comply with any or all of its provisions, requirements or regulations as herein set forth or through willful or unreasonable neglect, fails to heed or comply with notices given, or if the utility herein granted is not installed or operated and maintained in conformity herewith or at all or for any cause or reason whatsoever.

The party or parties to whom this permit is issued shall maintain at his or their sole expense the structure or object for which this permit is granted in a condition satisfactory to the District .

In accepting this permit the Permittee, his successors and assigns, agree that any damage or injury done to the property of the Permittee, or any expense incurred by him through the operation of a contractor, working for the District or any District employee shall be at the sole expense of the Permittee, his successors or assigns.

Neither the acceptance of this permit nor anything herein contained shall be construed as a waiver by the Permittee of any rights given it by the Constitution or laws of the State of Idaho or of the United States.

Adequate drawings or sketches shall be included showing the existing and/or planned location of the highway improvements, the traveled way, the rights-of-way lines, and where applicable, the control of access lines and approved access points.

In doing the work under this permit, Permittee and its contractors, or anyone performing work on behalf of the Permittee, have the primary responsibility for providing for the protection and safety of the traveling public. Acts by the District, in failing to detect or remedy any defect created by Permittee or its contractors or representatives, or in failing to detect or remedy any failure by Permittee or its contractors or representatives to adequately provide for the safety of the traveling public, shall not relieve the Permittee and its representatives of this primary responsibility. Permittee agrees to indemnify the District with regard to any claims arising out of any alleged failure of the District to detect or remedy either defects created by Permittee or its contractors or representatives or failures by Permittee or its contractors or representatives to adequately provide for the safety of the traveling public. Supervision of the project, including instructions as to proper traffic control devices, by the District, does not change this primary responsibility and duty to indemnify. Permittee is not obligated, however, to indemnify the District with regard to damages resulting solely from independent acts of negligence by the District if such acts are independent of conduct by the District in supervising and inspecting the work.

The Highway District makes no representation as to the right-of-way width. It shall be the Permittee's responsibility to determine the limits of the right-of-way. This permit covers operations in the right-of-way only and the Permittee is responsible for any of his actions off the right-of-way to the abutting property owners.

APPLICANT INITIALS: _____

Permit No. _____
Application No. _____

HIGHWAY DISTRICT

APPLICATION FOR PERMIT TO USE RIGHT-OF-WAY

The undersigned applicant is given permission to construct the following item(s) on highway right-of-way, subject to compliance with the provisions of the Highway District Policy.

DESCRIPTION OF UTILITY

Size	Underground or Overhead	Kind: Gas Line, Telephone or Water Line, etc.

CALL BEFORE YOU DIG 8-1-1

SPECIAL CONDITIONS

1. See Attached "General Provisions" Sheet, which shall become a part of this permit.

CALL BEFORE YOU DIG 8-1-1

LOCATION OF WORK

Estimated Start Date:_____ Estimated Completion Date:_____

The applicant shall contact the one call utility locating service and comply with all other requirements imposed upon an excavator pursuant to §55-2201, Idaho code, et seq., and make every possible effort to have all utilities located.

A Construction Drawing of the proposed utility work must be attached.

All repairs to and restoration of property within the right-of-way shall be done by Grantee.

No work shall be started until an authorized representative of the District has given the notice to proceed.

A certificate of public liability insurance insuring applicant and naming the District as an additional insured executed by an insurance company licensed to do business in the State of Idaho in the amount of $500,000.00 or more and shall be deposited with the Highway District prior to the Highway District authorizing the permit.

A surety bond in the amount of $ N/A executed by a bonding company licensed to do business in the State of Idaho shall be deposited with the Highway District and shall remain in effect for a period of N/A year(s) after completion of the project. The purpose of the bond shall be to save harmless the Highway District from all loss or damage to the Highway District and/or its right-of-way caused by the violation of the Grantee of any ordinance, rule, regulation, or requirement of the Highway District.

The Undersigned certifies that he (it) is the owner or authorized representative of the owner of the proposed facility or property to be served and agrees to do the work in accordance with the rules and regulations of the Highway District and that he (it) has read and understands the general conditions printed on the attached "General Provisions" sheet.

Issue Date: _____ _____ Telephone Number _____ Signature of Applicant

_____ Firm Name (Contractor) if Applicable _____ Printed Name of Applicant

_____ Applicant's Post Office Address

FOR DISTRICT USE

Subject to all terms, conditions, and provisions shown on this form or attachments, permission is hereby granted to _____ to perform the work described above.

This permit shall be void unless the work herein contemplated shall have been completed by: _____

Please call the Highway District before starting project and after completion for inspection of project before District will sign final permit.

TEMPORARY PERMIT

Tentative approval subject to inspection of installation.

Date: _____

By: _____ Highway District

Fee: $_____ Receipt No. N/A

FINAL PERMIT

Approved ☐ Date: _____ Rejected ☐ Date: _____

Comments: _____

Approved by: _____ Highway District

GENERAL PROVISIONS

The Highway District may revoke, annul, change, amend, amplify, or terminate this permit or any of the conditions herein enumerated if Grantee fails to comply with any or all of its provisions, requirements, or regulations as herein set forth, or if Grantee fails to heed or comply with notices given, or if the utility herein granted is not installed or operated and maintained in conformity herewith or at all.

During the progress of the work, such barricades, lights, and other traffic control devices shall be erected and maintained as may be necessary or as may be directed for the protection of the traveling public. All traffic control devices and the placement thereof shall conform to the latest Manual on the Uniform Traffic Control Devices as adopted by the Idaho Department of Transportation.

The Highway District makes no representation as to right-of-way width. It shall be the Grantee's responsibility to determine the limits of the right-of-way. This permit covers operations on the right-of-way only, and the Grantee is responsible for any of his actions off the right-of-way to abutting property owners.

The party or parties to whom this permit is issued shall maintain at his or their sole expense the utility for which this permit is granted in a condition satisfactory to the Highway District. The District hereby reserves the right to require the Grantee to change the location or to remove any structure, structures, lines, or pipes authorized by this permit at any time in order for the District to perform any necessary work on or in the right-of-way, said change or removal to be made at the sole expense of the party or parties to whom this permit is issued, or their successors or assigns.

In accepting this permit, the Grantee, his successors and assigns agree that any damage or injury done to the property of the Grantor or any expense incurred by him, through the operation of a contractor working for the Highway District or any District employee, shall remain the sole expense of the Grantee, his successors or assigns.

Grantee is responsible for any damage to District property or to any property in the right-of-way that is caused by the conduct of the work performed hereunder. Grantee shall restore, to the same condition as existed prior to work, the travelway and such ditches, structure, structures, and appurtenances necessary for the proper construction and maintenance of the travelway, which have been in any way disturbed or damaged by the work performed hereunder. If the work done under this permit in any manner involves the disturbance of the traveled surface of the road, said portion of the traveled surface of the road shall be restored at the completion of said work to the satisfaction of the District, said surface may be restored by the Highway District at the expense of the Grantee. If trench or pavement settlement should occur, the repairs shall be made by the Grantee as directed by the District Supervisor at no cost to the Highway District. If the work under this permit interferes in any way with the drainage of the highway, the Grantee shall wholly and at its own expense make such provision as the District may direct to take care of the drainage.

In accepting this permit, the Grantee, its successors and assigns agree to protect the Highway District, or its agents, and save it harmless from all claims, actions, or damages of every kind and description, which may accrue to or be suffered by any person or persons, corporation, or property arising out of any activity or omission of Grantee, including, but not limited to, the manner of installation and maintenance of the utility granted or by the Grantee's occupancy of rights-of-way or public space. In case any suit or action is brought against said Highway District, its officers or agents, for damages arising out of or by reason of any of the above causes, the Grantee, its successors or assigns will, upon notice to it of commencement of such action, defend the same at its own sole cost and expense, and will satisfy any judgment after said suit or action shall have finally been determined if adverse to the Highway District, its officers, or agents.

In doing the work under this permit, Grantee and its contractors, or anyone performing work on behalf of the Grantee, have the primary responsibility for providing for the protection and safety of the traveling public. Acts by the District, in failing to detect or remedy any defect created by Grantee or its contractors or representatives, or in failing to detect or remedy any failure by Grantee or its contractors or representatives to adequately provide for the safety of the traveling public, shall not relieve the Grantee and its representatives of this primary responsibility. Grantee agrees to indemnify the District with regard to any claims arising out of any alleged failure of the District to detect or remedy either defects created by Grantee or its contractors or representatives or failures by Grantee or its contractors or representatives to adequately provide for the safety of the traveling public. Supervision of the project, including instructions as to proper traffic control devices, by the District, does not change this primary responsibility and duty to indemnify. Grantee is not obligated, however, to indemnify the District with regard to damages resulting solely from independent acts of negligence by the District, if such acts are independent of conduct by the District in supervising and inspecting the work.

All of the work herein contemplated shall be done under the supervision and to the satisfaction of the Highway District, and the entire expense of said supervision shall be borne by the party or parties to whom this permit is issued.

Throughout the performance of the work, Grantee agrees to keep the District advised as to the status of the work and to perform the work so as to minimize any interference with travel over the highway. Any excavation made or obstacle placed within the limits of the highway shall occur only in such manner as to minimize any interference with travel over said road.

Upon completion of said work herein contemplated, Grantee shall notify the District that the project is completed and ready for final inspection. All rubbish and debris shall be removed, and the roadway and roadside shall be left neat and presentable to the satisfaction of the Highway District.

This permit or privilege shall not be deemed or held to be an exclusive one and shall not prohibit the District from granting other permits or franchise rights of like or other nature to other public utilities, nor shall it prevent the District from using any of its roads, streets, or public places, or affect its right to full supervision and control over all or any part of them, none of which is hereby surrendered.

Neither the acceptance of this permit nor anything herein contained shall be construed as a waiver by the Grantor of any rights given it by the Constitution or laws of the State of Idaho or the United States.

Utility Coordination Policy

UTILITY COORDINATION POLICY

It shall be the policy of the Kootenai County Utility Council to work cooperatively with the public and private entities involved with construction and renovation of commercial and residential development within Kootenai County. This cooperative effort shall minimally include the following:

1. The public utilities and cable television shall be notified of the preliminary plat application. Comments from the utilities and cable television shall be incorporated in the preliminary plat review. The utilities and cable television shall make comments available prior to review by governing body.

2. The governing body will require a 10-foot perpetual and exclusive roadway, drainage, and utility easement contiguous with each side of the public right-of-way.

3. Governing agencies will hold a recorded pre-design conference to coordinate design location of public and private utilities. Standard design practices will be incorporated when applicable. Variation from standard design practices will be the exception.

4. Construction will not begin until construction drawings have been approved. A recorded preconstruction conference will be held during which a construction schedule will be provided. A project manager for the developer will be designated at the preconstruction conference.

5. Quality control will be the responsibility of the developer's engineer. Construction inspection logs and quality control test results will be provided to the governing body.

6. Record drawings shall be reviewed by public utilities and cable television prior to submittal to governing agency. Public utilities and cable television will review as-builts for accuracy of utilities location.

7. A final plat will not be approved until a final inspection has been held by the governing body. Record drawings (as-builts) will be submitted prior to final plat approval. Final plats will be approved upon receipt of surety bond for improvements not completed.

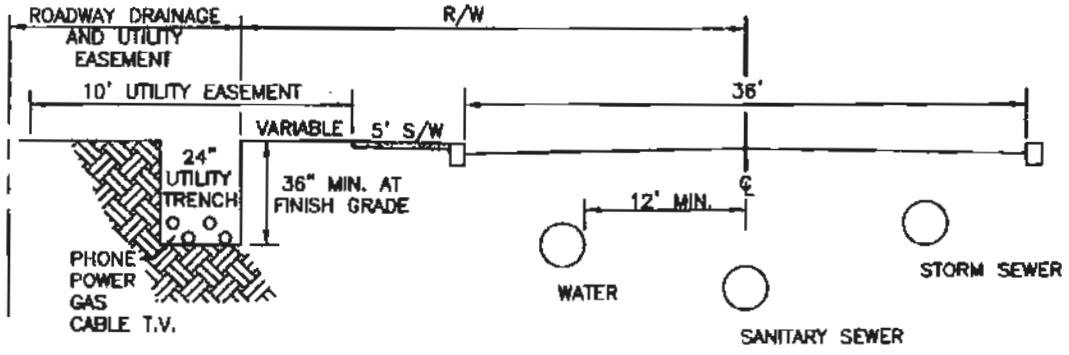
PRE-CONSTRUCTION CHECKLIST

1. Notification to affected property owners
2. Starting times and other restrictions
3. Signing
4. Flagmen and traffic control
5. Detours
6. Dust control
7. Temporary pedestrian crossings
8. Asphalt cuts and replacement
9. Compaction requirements
10. Cleanup
11. Ditch safety after hours and during construction in high pedestrian traffic areas
12. Where is excess backfill to be placed? Private property? Has permission in writing been issued? Is a Kootenai County site disturbance permit in hand?
13. Inspection requirements
14. Permitting requirements
15. Utility locations
16. Construction schedules
17. Contact person for project

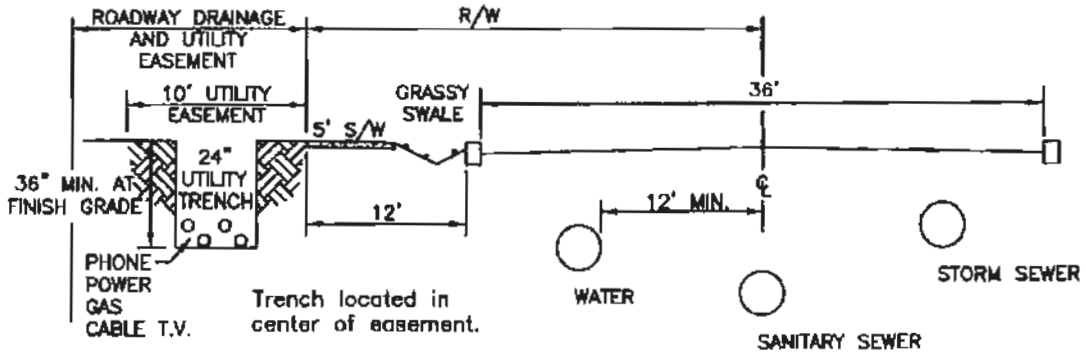
Utility Cross Section

Note:
Utilities to be placed according to applicable codes.

PREFERRED LOCATIONS

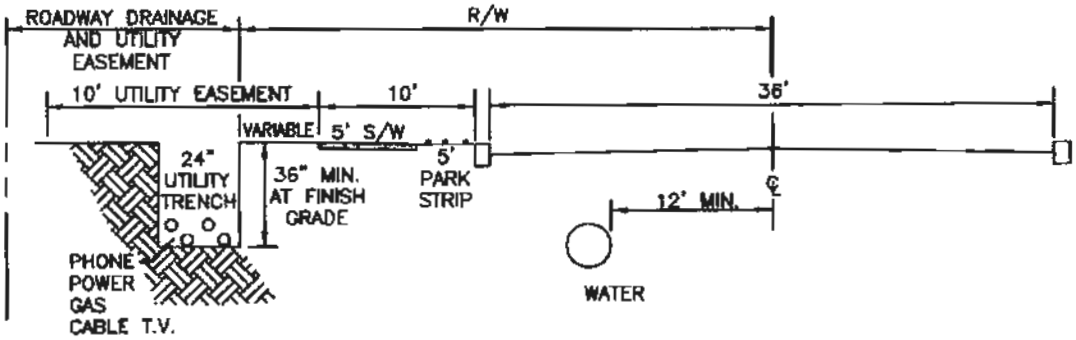


SIDEWALK AGAINST CURB



SIDEWALK SETBACK AT 12' FOR GRASSY SWALE

RURAL SECTION



SIDEWALK SETBACK AT 10' FOR 5' PARK STRIP

Engineer's Statement

ENGINEER'S STATEMENT

_____

Name of Project

_____

Developer/Applicant

_____

Engineer

I hereby state the following:

1. Observation was performed substantially to at least the basic minimum construction observation intervals established by the Highway District.

2. Construction practices and materials observed were in compliance 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 Highway District.

4. Based on tests performed, the asphalt pavement meets the Highway District's Standards.

5. A Record Drawing has been submitted to the Highway District.

6. A copy of the construction diary has been submitted to the Highway District.

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

SEAL OF ENGINEER

Memorandum with Kootenai County

MEMORANDUM OF UNDERSTANDING

Kootenai County and Eastside Highway District, Lakes Highway District, Post Falls Highway District and Worley Highway District ("the Districts") enter into this Memorandum of Understanding (MOU) in a cooperative effort to enhance compliance with the requirements of the Kootenai County Land Use and Development Code, Title 8, Kootenai County Code, effective June 14, 2016 ("the Land Use Code"), with respect to those provisions requiring private roads to be built in compliance with the *Highway Standards for the Associated Highway Districts of Kootenai County, Idaho* ("the *Standards*").

WHEREAS, the Districts do not have statutory jurisdiction over private roads; and

WHEREAS, Kootenai County has statutory jurisdiction over subdivisions, including private roads contained therein and private roads connecting a subdivision to the nearest existing public or private road; and

WHEREAS, the parties to this MOU recognize that the Districts have the expertise and are better situated to determine if private roads have been built in compliance with the *Standards* whenever the Land Use Code so requires; and

WHEREAS, the Districts are routinely requested to take private roads into their highway systems but are unable to do so when those roads have not been constructed in compliance with the *Standards*; and

WHEREAS, the Districts are willing to assist Kootenai County in the enforcement of the above-referenced provisions of the Land Use Code so long as fees collected by the Districts from applicants cover increased costs or staffing requirements for the Districts resulting from this assistance;

NOW THEREFORE, in consideration of the mutual interests and benefits to be derived from the cooperative efforts of the parties in enforcing compliance with the Land Use Code, the parties agree as follows:

1. The County will require applicants to coordinate inspection of private roads with the respective District and to pay the fee required by the District for the inspection.

2. The District may assign its inspection responsibilities under this MOU to its agents or independent contractors, as the District deems appropriate.

3. The District will notify Kootenai County Community Development that it has inspected the roads and the results of the inspection.

4. Any party hereto has the right to terminate its participation in this MOU for any reason by giving thirty (30) days' notice in writing to each party to this MOU.

5. This MOU may be amended or supplemented by mutual agreement effectuated in writing and duly executed by the parties.

6. This MOU shall be in full force and effect when signed by all parties.

7. Each party warrants that its participation and execution of this MOU has been duly approved by its governing board.

8. All notices, requests and other communications under this MOU shall be in writing, and shall be (a) delivered personally; (b) sent via FedEx or similar private express mail service (hereinafter "FedEx"); (c) sent via facsimile; (d) sent via email, or (e) mailed, postage prepaid, and addressed as follows:

Kootenai County
Attn: Director of Community Development
P.O. Box 9000
Coeur d'Alene, ID 83816

Eastside Highway District
Attn: Road Supervisor
6095 E. Mullan Trail Road
Coeur d'Alene, Idaho 83814

Lakes Highway District
Attn: Director of Highways
PO Box 460
Hayden, Idaho 83835

Post Falls Highway District
Attn: Road Supervisor
5629 E. Seltice Way
Post Falls, ID 83854

Worley Highway District
Attn: Road Supervisor
12799 W. Ness Road
Worley, Idaho 83876

9. Each party agrees to indemnify, defend and hold harmless the other parties, their officials, agents, officers, and employees against any and all liabilities, obligations, lawsuits, administrative writs, claims, judgments, or penalties arising as a result of the party's actions conducted in performance of its duties under this MOU.

10. This MOU supersedes and replaces that Memorandum of Understanding dated October 31, 2005 between the County and the District.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Understanding this 19 day of December, 2016.

KOOTENAI COUNTY
BOARD OF COMMISSIONERS

Daniel H. Green, Chairman

Marc Eberlein, Commissioner

David Stewart, Commissioner

ATTEST:
JIM BRANNON, CLERK

By: _____
Deputy Clerk

EASTSIDE HIGHWAY DISTRICT

Terry Svendsten, Chairman

ATTEST

By: Rosie Leake
Rosie Leake, Secretary Treasurer

LAKES HIGHWAY DISTRICT

Rodney Twete, Chairman

ATTEST

By: Bonny A Flagg
Bonny A. Flagg, District Clerk

POST FALLS HIGHWAY DISTRICT

Lynn Humphreys, Chairman

ATTEST:

By: Shirley Walson
Shirley Walson, District Clerk

WORLEY HIGHWAY DISTRICT

James Mangan, Chairman

ATTEST

By: Susan Kuykendall
~~Carol Richel, District Clerk~~
SUSAN KUYKENDALL, DEPUTY CLERK

Plat Requirements - Minimum for Highway District Review

PLAT REQUIREMENTS

Requirements vary on a project to project basis; however, following are some of the standard issues that may need to be addressed on each development; there may be additional items as well, depending on the plat:

1. Additional Right-of-Way and/or Easement Dedication for roadway, drainage, and utilities.
2. Road centerline alignment dimensions and lot dimensions.
3. Roadway plans and Storm Water Drainage may need to be addressed.
4. Plat shows access points onto Highway District Road for ingress and egress.
5. Building setbacks may be applicable to keep vehicles from backing out onto Highway District roads.
6. All bicycle and pedestrian facilities in or near the proposed development.

HIGHWAY DISTRICT BOARD APPROVAL

The procedure for final plat approval is as follows:

1. Plat is placed on agenda for Highway District Board review.
2. Letter is submitted to the County by the Highway District with the District's recommendations.
3. Mylars are presented to the Highway District for signature. Mylars will be signed once all Highway District requirements are met and all fees paid in full.

The County will indicate which Highway District your development is in; for further questions, please contact the Road Supervisor at the appropriate Highway District.

The telephone numbers of the four (4) Highway Districts in Kootenai County are:

Highway District	**Phone Number**
East Side 6095 E. Mullan Trail Road Coeur d'Alene, Idaho 83814	(208) 765-4714
Lakes 11341 N. Ramsey Road Hayden, Idaho 83835	(208) 772-7527
Post Falls E. 5629 Seltice Way Post Falls, Idaho 83854	(208) 765-3717
Worley 6887 W. Kidd Island Road Coeur d'Alene, Idaho 83814	(208) 664-0483

Contact each Highway District for their current meeting schedule.

Legal Description
Essential Requirements Checklist

ITD 0130 (Rev. 4-07)

Legal Description Essential Requirements Checklist

Idaho Transportation Department – Right of Way

Project Number	Project Name	Key Number

Parcel Number	Parcel ID Number	Date

Legal Descriptions – One required for each description
Initial each item that has been reviewed. Mark N/A for items that are not applicable.

	1st Dist. Reviewer	2nd Dist. Reviewer	
1.			Heading: Project Number, Key Number, Parcel Number, Parcel ID Number and date prepared (not an autofill date.) Titled fee acquisition or permanent easement, etc.
2.			Preamble: State, County name, Township and Range, ¼ ¼ sections or government lots designated, section, subdivision name, lots, blocks, and tracks
3.			Points of commencement and beginning shown on plans (must be a found Public Land Survey System (PLSS) corner or a found Corner Perpetuation & Filing (CP&F) recorded point)
4.			Multiple requirement areas within a parcel use the same point of commencement
5.			Curve data contains: radius, arc length, delta/central angle, curve direction (right or left) long chord (bearing and distance)
6.			Centerline stations for beginning and end of parcel
7.			Closing tolerance within State Standard (minimum 1:5,000)
8.			All calls and acreage match the plans exactly
9.			Bearing expressed in degrees, minutes, and whole seconds
10.			Acreages carried to four decimal places and rounded to three places
11.			Distances carried to three decimal places and rounded to two places
12.			Parcel requirement legal description lies within the boundaries of the property described within the title report
13.			Existing non-fee title prescriptive highway RW described with separate acreage - can be described separately or encompassed within description of the new RW requirement parcel, with acreage data broken out for both existing RW and new RW
14.			Stamped, dated, and signed by a professional land surveyor registered by the State of Idaho
15.			Electronic and original (not a copy) of legal description, typed in font size 12

I have reviewed and accepted this legal description.

District Right-of-Way Supervisor's Signature	Date

Headquarters Right-of-Way Signature	Date

Printed Name	Title

Distribution: District Right-of-Way

Traffic Impact Study Guidelines

TRAFFIC IMPACT STUDY GUIDELINES

This section describes the traffic impact study requirements of the Associated Highway Districts of Kootenai County. Traffic impact study requirements will be identified by individual Highway District staff during pre-application and submittal will be required prior to project approval. Improvements or strategies identified by the traffic impact study to mitigate traffic and transportation impacts may be a condition of any approval or permit, and shall be constructed prior to the issuance of said permit; unless specified otherwise by the agency.

An applicant wishing to pursue a land use action within a Highway District shall first submit a ***trip generation and distribution letter*** for review. The Highway District will use this letter to help determine whether a ***traffic impact study*** should be required for the proposed land use action/project.

Trip Generation and Distribution Letter

A Trip Generation and Distribution (TG&D) letter may be required of an applicant wishing to pursue land use actions. This includes actions for both new and redevelopment land use actions. The purpose of the TG&D letter is intended to help the staff determine whether a traffic impact study will be required for the development. The letter should be submitted shortly following pre-application discussions/interviews, as to provide the applicant sufficient time to develop a traffic impact study, if required by the Highway District, prior to project approval. The information provided within a TG&D letter should include:

- **Project Location.** A written description of the project location in relation to state highways, major, and/or minor arterials located within the vicinity of the project site. The site should also be displayed graphically on an attached figure.
- **Project Action.** A written description of the land use actions should be provided. The description should include: use and size of the project (both site area and, as available, building area); existing and proposed zoning; project access locations; and development/phasing and completion schedules. A graphical site plan is desired as an attached figure, when possible.
- **Trip Generation.** The study should identify the number of trips anticipated with project development. Trip generation should be determined based upon the methodologies of the most current, Institute of Transportation Engineers (ITE) Trip Generation Manual (current edition); unless trip generation data more applicable to the proposed land use can be presented by the applicant. The Highway District staff will determine whether supplemental trip generation data can be utilized. When relevant, total project trips will be separated into trip types (i.e. new, pass-by, diverted, and shared) to better describe the traffic characteristics of retail and commercial developments. Trip types shall also be identified using ITE resources or some other means acceptable to the Highway District staff. Project trip generation shall be provided for the typical weekday, weekday AM peak hour, and weekday PM peak hour only; unless the Highway District staff specifies some other time period for analysis (i.e. Saturday or Sunday peak hours).
- **Trip Distribution and Assignment.** A description of project trip distribution and assignments will be provided in the study. The methodologies used to distribute and assign project trips will be discussed/provided in the TG&D letter. As a guide, trip assignments should be provided for site access and key intersections located within the direct vicinity of the site, and for those key intersections projected to support more than 25 peak hour trips beyond the immediate site vicinity during the typical weekday or other time period specified by the Highway District staff.

Traffic Impact Study

A Traffic Impact Study (TIS) is intended to forecast and, as needed, provide improvements to mitigate the transportation and traffic impacts of a proposed land use development or redevelopment project. A TIS will be required at the discretion of the Highway District; however, the Highway District may typically require a TIS when one or more of the following conditions are met:

- Project is projected to generate more than 50 trips during the AM and/or PM peak hours (or some other time period specified by the Highway District).
- The Highway District anticipates that project driveway trips will significantly impact traffic operations on adjacent arterials.
- The project is proposed along a route(s) that historically experiences or is projected to experience traffic safety issues.
- The project is proposed within the vicinity of a school, community park, or some other area with high levels of pedestrian and neighborhood activity.

The scope and extent of the TIS is also established at the discretion of the Highway District. Generally, the TIS will address traffic conditions/operations during the single hour of peak traffic activity during the typical weekday (i.e. peak "rush hour") on adjacent streets. In some instances, adjacent street activity will not vary significantly throughout the day, thus requiring the analysis of multiple peak hour conditions. Similarly, the project may generate significant levels of traffic during multiple periods of the day; thus, requiring additional analysis periods. The Highway District also may request an analysis of other time periods such as peak hours during the typical Saturday or Sunday, when relevant.

For those land use projects that generate between 50 and 99 peak hour trips, the Highway District will typically require the TIS to address traffic operations/conditions at site driveways and at key intersections located immediately upstream/downstream of the project site. For those projects that generate greater than 100 peak hour trips, the Highway District may elect to include additional intersections that experience a net increase of more than 25 peak hour trips.

The TIS, if required, will be developed and submitted prior to project approval. Any improvements/mitigations required of a project will be completed prior to the issuance of a building and/or occupancy permit as project phasing thresholds are realized or the project is completed and ready for occupancy. Project mitigations will be required at the discretion of the Highway District; however, the Highway District will work to assure that improvements are proportionate to the level of the project's impact. Typically, the applicant can expect one or more of the following:

- **Frontage Improvement:** Frontage improvements provide the Highway District the opportunity to progress road, drainage, and pedestrian/bicycle accommodations in a manner consistent with current Associated Highway Districts Highway Standards. Frontage improvements would extend along roadways within, or along, project boundaries and can include, but would not be limited to, half-road improvements, sidewalk/pathway construction, bike lanes, parking lanes, drainage areas, and landscape buffers.
- **Direct Mitigation:** The Highway District may require a project to directly improve a street or intersection that experiences a proportionate increase of traffic, as the result of project development. Typical improvements may include, but are not limited to, channelization/turn lane

construction/extension, signal implementation, road widening, sidewalks, bike lanes, parking lanes, drainage areas, etc.

- **Partial Mitigation.** The Highway District may allow an applicant to participate proportionately with other applicants and/or other public entities to construct improvements that are not exclusively the responsibility of any single applicant or entity. The applicant could share a proportionate percentage of the costs associated with turn lane construction, signal implementation, road widening, sidewalks, bike lanes, parking lanes, drainage areas, etc. The project's proportionate share of an improvement is typically determined by dividing project trip assignments along a roadway section or at an intersection by total projected volumes.

In addition to the project location, project action, trip generation, and trip distribution/assignment information required of the TG&D letter, a TIS report must also include the following:

- **Introduction.** The introduction must define the purpose of the TIS, provide a project description, discuss the scope and extent of the study, and discusses methodology and assumptions. The introduction should also provide the site location and description information, as highlighted by the TG&D section, for the TIS. Site location and site plan figures are required with the TIS.
- **Roadway Inventory.** A TIS must provide a description of the transportation network located within the project study area, as established by the Highway District. These descriptions include roadway classifications, roadway channelization, speed limits, intersection controls (signal, stop-controlled, traffic calming techniques, etc.), intersection channelization (includes turn lane storage), etc. A figure highlighting roadway characteristics (class, lanes, and speeds) and intersection channelization and controls is recommended.
- **Traffic Counts.** Recent weekday and peak hour traffic counts must be secured for study of arterials and intersections. Average daily traffic/24-hour (weekday) counts must be secured for at least one location on primary study arterials. Intersection turn movement counts must be obtained for study of intersections identified by the Highway District for peak study hours. Counts conducted 2 years prior to study initiation cannot be used in the TIS and must be updated. A figure that summarizes existing turn movement counts is required in the TIS. Weekday counts can either be summarized graphically or in a table within the TIS. Raw count data should be included in an appendix to the TIS.
- **Accident Histories (Discretionary).** The Highway District may require collision histories for roadways and intersections located within the study area. Typically, the most current 3-year period of collision activity is requested from ITD and/or local officials. The data is examined to summarize accident and severity activities; highlight the reoccurrence of particular accident types; and sometimes to examine accident frequency/rates as compared with Idaho State averages.
- **Programmed Improvements.** The TIS must describe any improvements that are programmed by agencies or other developments, as they may influence travel patterns or capacity within the study area. Programmed improvements must be factored, as necessary, within traffic forecasts and the future operations analysis. A figure highlighting programmed improvements is recommended. Kooenai County, ITD District 1, local transportation improvement program documentation, Kootenai Metropolitan Planning Organization, and other TIS traffic studies are typical resources to identity future improvements. The source for each improvement must be identified within the TIS.
- **Baseline (Without-Project) Forecasts.** Baseline traffic volumes should be developed for the forecast horizon/build-out year of the proposed project. Forecast traffic volumes will be developed by using a specific annual growth rate, as identified through historical traffic counts and confirmed by the Highway District staff or as obtained directly from the Highway District. As necessary, the trips generated by recently approved, concurrently developing projects should be included into baseline

forecast projections. The Highway District will identify these "pipeline" projects and should typically be able to provide trip assignments from other relevant TIS studies. In some instances, pipeline trip assignments may need to be assumed for the study area. A figure that summarizes pipeline project locations and pipeline project trip assignments is required with the TIS. A figure that highlights future baseline traffic volumes is also required.

- **Future Project Volumes.** Project trip generation, distribution, and assignment must also be summarized in the TIS, as specified by the TG&D section. Future 'with-project' traffic volumes will be developed by combining project trip assignments with baseline traffic volumes. Figures that highlight project trip assignments and future 'with-project' traffic volumes are required with the TIS.
- **Traffic Operations.** Traffic operations shall be gauged according to the intersection/driveway level of service (LOS) methodologies of the most current Highway Capacity Manual (HCM), as developed by the Transportation Research Board. A range of software options is acceptable for LOS calculations so long as methodologies are consistent with the HCM. LOS worksheets providing summary assumptions (channelization, controls, peak hour factors, heavy vehicle assumption, etc.) must be provided in the appendix to the TIS.

  The LOS analysis will be provided for the existing, future baseline, and future with and without project conditions at site driveways and at study intersections. Note that LOS C is the threshold for traffic operations at signalized intersections, unsignalized intersections, and at project driveways unless specified otherwise by the Highway District.
- **Capacity Improvements.** As needed, improvements shall be recommended to mitigate capacity issues within the study area (those intersections/driveways projected to operate below LOS C). The estimated project's responsibility towards improvements should be provided based upon the general criteria summarized previously by this document. MUTCD (Manual on Uniform Traffic Control Devices) warrants should be utilized to support the need for 4-way stops and signals, as needed. AASHTO (American Association of State Highway and Transportation Officials, current edition) and/or ITD (Idaho Transportation Department) standards should be used to support the need for acceleration/deceleration lanes.
- **Queuing Analysis.** 95th-percentile queues should be summarized for existing and proposed intersection turn lanes based upon the future project and improved/mitigated conditions. Per the discretion of the Highway District staff, turn lanes would be extended, as necessary, to accommodate forecast traffic volumes with the development of the project. The project plus 5-year analysis is only required for those lanes or intersections that are proposed for improvement.
- **Additional Analysis (Discretionary).** The Highway District may require additional analyses with the TIS that may include, but would not be limited to, weekday traffic forecasts, turn lane warrants, sight distance assessment, heavy vehicle characteristics (forecasts, operating times, turning pathways, etc.), special analysis conditions, pedestrian/bicycle facilities, air quality, noise, etc.
- **Summary and Conclusion.** The TIS must contain a summary section that clearly highlights the conclusions and recommendations of the study. This summary section should, if separated from the document for cursory review by members of the public or a public agency, provide sufficient detail to convey a description of the project, provide a summary of trip generation and study results, and provide a clear understanding of proposed improvements and requirements/conditions of the project.

The attached spreadsheet summarizes the primary checklist that will be used for reviewing TIS reports. The spreadsheet also shows the preferred contents of a TIS.

Associated Highway Districts Traffic Impact Study Checklist

(EXAMPLE)

I. Introduction
- A. Study Purpose
- B. Project Location
- C. Project Description
- D. Scope of Work
- E. Methodology and Assumptions

Clearly Defined	
Yes	No

Location:	
Action (Size):	
Access:	
Proposed Zoning:	
Comments:	

II. Existing Conditions
- A. Roadway/Intersection Network
- B. Existing Volumes
- C. Existing LOS
- D. Collision Histories

Clearly Defined	
Yes	No

LOS Issues:	
Safety Issues:	
Comments:	

III. Future Baseline Conditions
- A. Programmed Improvements
- B. Baseline Traffic Volumes
- C. Baseline Level of Service

Clearly Defined	
Yes	No

Growth Rate:	
Pipeline Projects:	
LOS Issues:	
Comments:	

IV. Future Project Conditions
- A. Project Trip Generation
- B. Trip Distribution and Assignment
- C. With-Project Volumes
- D. With-Project LOS
- E. Queues

Clearly Defined	
Yes	No

Trip Generation:	
Trip Distribution:	
LOS Issues:	
Project Impacts:	
Queing Issues:	
Comments:	

V. Improvements and Mitigation
- A. Improvement Options
- B. Project Contribution
- C. Project Longevity

Clearly Defined	
Yes	No

Improvements:	
Project Share:	
Comments:	

VI Summary and Conclusions (Project defined, trip generation, LOS Results, safety, improvements, mitigation)

Clearly Defined	
Yes	No

Comments:

VII. Other Study Issues:
- a. Lane Warrants
- B. Sight Distance
- C. Heavy Vehicles
- D. Pedestrian Facilities
- E. Signal Warrants

Clearly Defined	
Yes	No

Figures:	Provided / Comments
Site Plan	
Site Location	
Channelization	
Existing Volumes	
Pipeline Volumes	
Baseline Volumes	
Project Volumes	

General Study Comments:

(EXAMPLE)

TRIP GENERATION AND DISTRIBUTION LETTER

PURPOSE: The purpose of the Trip Generation and Distribution (TG&D) letter is intended to assist the Highway District staff determine whether a traffic impact study will be required for the proposed Development. This is required for both new and modified existing land use actions.

The information provided within a TG&D letter should include:

PROJECT LOCATION: A written description of the project location in relation to state highways, arterials, and county roads located within the vicinity of the project site.

_____
_____
_____
_____
_____

PROJECT ACTION: A written description of the land use actions and should include the use and size of the project, existing and proposed zoning, project access locations, and development/phasing and completion schedules._____
_____
_____
_____
_____
_____

TRIP GENERATION: Trip Generation should be determined based upon the methodologies of the most current, Institute of Transportation Engineers (ITE) Trip Generation Manual for the weekday AM peak hour and weekday PM peak hour, unless the Highway District specifies some other time period for the analysis.

Typical Trip Generation Rates for Land Use

Land Use	AM Peak Hour Rate	PM Peak Hour Rate	Multiplying Factor
Single Family Detached Housing	0.77	1.02	# of Dwelling Units
Residential Condominium / Townhouse	0.44	0.52	# of Dwelling Units
Mobile Home Park	0.44	0.60	# of Dwelling Units
Residential Planned Unit Development	0.58	0.72	# of Dwelling Units

AM peak vehicles per hour (vph) = _____X_____ = _____(vph)

PM peak vehicles per hour (vph) = _____X_____ = _____(vph)

TRIP DISTRIBUTION AND ASSIGNMENT: A description of project trip distribution and assignments will be provided in the Traffic Impact Study. The methodologies used to distribute and assign project trips will be discussed/provided in the TG&D letter. As a guide, trip assignments should be provided for site access and key intersections located within the direct vicinity of the site, and for those key intersections projected to support more than 25 peak hour trips beyond the immediate site vicinity during the typical weekday or other time period specified by the Highway District staff.

TRAFFIC IMPACT STUDY:

A Traffic Impact Study (TIS) is intended to forecast and, as needed, provide recommendation to mitigate the transportation and traffic impacts of a proposed land use development or redevelopment project. A TIS will be required at the discretion of the Highway District; however, the Highway District may typically require a TIS when one or more of the following conditions are met:

- Project is projected to generate more than 50 trips during the AM and/or PM peak hours (or some other time period specified by the Highway District).
- The Highway District anticipates that the project driveway trips will significantly impact traffic operations on adjacent arterials.
- The project is proposed along a route(s) that historically experiences or is projected to experience traffic safety issues.
- The project is proposed within the vicinity of a school, community park or some other area with high levels of pedestrian and neighborhood activity.

If you have questions regarding the requirements of a Traffic Impact Study (TIS) you may contact the individual Highway District.