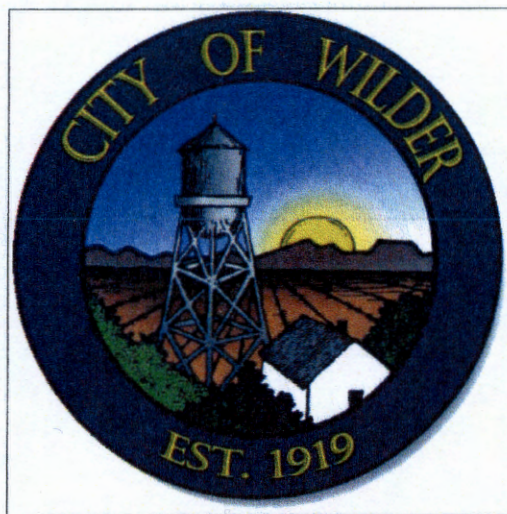


CITY OF WILDER
STREET STANDARDS
AND
DEVELOPMENT REQUIREMENTS

UPDATED DECEMBER 2010

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STREET STANDARDS
AND
DEVELOPMENT REQUIREMENTS
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CITY OF WILDER, IDAHO

Adopted through Resolution No. 519 by the City of Wilder on October 12, 2010

12 October 2010 Street Standards and Development Requirements City of Wilder, Idaho

This Design Standards handbook has been compiled to streamline the design and approval process in Wilder but does not relieve the responsible professional engineer from requirements listed in Idaho Code 54-1218 or other responsibilities, ethics, and high quality workmanship conveyed by merit of having achieved professional engineering status.



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SECTION 100 - INTRODUCTION

101. Introduction

The City of Wilder has adopted the Standards herein, to encourage standardization of design elements associated with public streets and facilities. These standards are minimum requirements, and shall be used with good engineering practices.

- 101.01. The maintenance of the City street system is the responsibility of the City of Wilder. These Standards provide for the construction of quality streets and minimize maintenance and repair.
- 101.02. Variation from these Standards may be allowed by the City when special conditions exist. Nothing herein shall be construed to impose an obligation or duty upon the City to construct, reconstruct, or improve existing streets or roadways to comply with these Standards. The City may or may not meet or exceed these standards on any new projects or maintenance activity.
- 101.03. If any section, subsection, sentence, clause, phrase, or portion of these Standards is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portions shall be deemed a separate, distinct, and independent provision and such holdings shall not affect the validity of the remaining portions thereof.

102. General

- 102.01. The Street Standards have been developed by using modifications of the AASHTO A Policy on Geometric Design of Highways and Streets, latest edition.
- 102.02. All construction shall be in accordance with the latest edition of Idaho Standards for Public Works Construction (ISPWC).

103. Definitions

Applicant - Any person or persons making application to the City.

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

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

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

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

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, indicating a proposed subdivision development, prepared in accordance with the City of Wilder, Idaho 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 the City of Wilder, Idaho 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.

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 or Street - 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, and county highways having regional continuity.
- b. "Collector Street" - A street that provides for traffic movement within neighborhoods of the City and between major streets and local street and for direct access to abutting property.
- c. "Local Street" - A street that provides or direct access to residential, commercial, industrial, or other abutting land for local traffic movements and connects to collector and/or arterial streets.
 1. "Cul-de-sac Street" - A short local street having one end permanently terminated in a vehicular turnaround.
 2. "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.

Subdivider - An individual, firm, corporation, partnership, association, syndication, trust, or other legal entity having sufficient proprietary rights in the property to represent the owner, that 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.

Utilities - Installations or facilities, underground or overhead, furnished for use by the public, including but not limited to, electricity, gas, steam, communications, telecommunications, cable television, water, drainage, irrigation, sewage disposal, or flood control, owned and operated by any person, firm, corporation, municipal department, or board duly authorized by state or municipal regulations. Utility or utilities as used herein may also refer to such persons, firms, corporations, departments, or boards, as applicable herein.

SECTION 200 - GENERAL PROCEDURES AND REQUIREMENTS

201. Improvement Drawings

- 201.01.** Detailed improvement drawings of any public roadway or utility to be constructed or modified within the City by persons other than employees of the City must be reviewed and accepted by the City for compliance with these standards before construction.
- 201.02.** Improvement drawings shall be prepared under the direction and supervision of a Professional Engineer licensed within the State of Idaho or authorized to provide services within the State of Idaho by the Board of Registration of Professional Engineers and Professional Land Surveyors. Each sheet of the improvement drawings shall bear the seal of the Professional Engineer responsible for the design.
- 201.03.** Improvement drawings shall be prepared at a scale sufficient to clearly show the details of the project. In no event shall the drawings be prepared at a scale smaller than 1" = 50' horizontal and 1" = 5' vertical.
- 201.04.** Improvement drawings shall consist of plan and profile views of the proposed roadway and utilities with horizontal and vertical alignments clearly shown and controlled. The vertical alignment shall be referenced to existing ground profile. The City, at its option, may also require cross sections of the roadway at various locations or intervals. The improvement drawings must include provisions for proper drainage of natural water courses and of the roadway section; must show applicable irrigation improvements; must show necessary easements; and must clearly denote any special design considerations necessary for construction of the roadway.
- 201.05.** Any deviation from these standards must be clearly noted and accepted by the City prior to construction.
- 201.06.** Six (6) copies of the completed proposed improvement drawings shall be submitted for review by the City no less than thirty (30) days prior to a regularly scheduled meeting of the Planning & Zoning Commission.
- 201.07.** The City shall notify the Applicant, in writing, of its acceptance or non-acceptance of the improvement drawings with reasonable promptness after the meeting at which the drawings were considered. Construction will be permitted only after acceptance of the improvement drawings by the City.

202. Construction Time Period

- 202.01.** Construction of facilities included in the accepted improvement drawings shall be completed within a period of one (1) year following City Council approval. If construction is not completed within one (1) year, the improvement drawings shall be updated to match current standards and shall be resubmitted for City review and approval.
- 202.02.** Failure to follow the procedure as outlined in Section 202.01 may result in non-acceptance of the completed facilities by the City and may result in corrective action by the City under the terms of the Public Improvement Agreement.

203. Construction Observation

- 203.01.** Construction observation of all construction completed within the City boundaries for facilities which will be maintained by the City and constructed by persons other than

City Employees and/or its designated representatives shall be the responsibility of the Applicant.

- 203.02. The Applicant shall retain a Professional Engineer, licensed within the State of Idaho, who shall supervise construction observation and verify that all improvements were constructed in accordance with the accepted improvement drawings and adopted City Standards. All deviations from said improvement drawings and standards shall be duly noted and accepted by the City before final acceptance of the improvements for maintenance by the City.
- 203.03. The Applicant's Engineer shall schedule and conduct a preconstruction conference of all interested parties including the City and the contractor. The conference shall be held not less than two working days prior to commencement of work under the contract. The Applicant's Engineer shall provide written minutes of the meeting to all attendees.
- 203.04. The City shall review for acceptance design changes during construction which have been approved by the Applicant's Engineer.
- 203.05. 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 City will perform a pre-final review and provide copies of the results to the Applicant's Engineer.
- 203.06. The Applicant's Engineer shall be responsible for full compliance with these standards.
- 203.07. The Applicant's Engineer shall provide all necessary construction surveying for the project.
- 203.08. The Applicant's Engineer shall submit all manufacturers' certificates for materials supplied to the project.
- 203.09. The Applicant's Engineer shall provide to the City 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 City specifications prior to commencement of work on any project. Testing shall conform to Sections 204 and 205 of these standards.
- 203.10. The Applicant's Engineer shall maintain a project diary containing necessary project information including:
 - 203.10.1. Date and work performed.
 - 203.10.2. Weather conditions.
 - 203.10.3. Engineering operations accomplished.
 - 203.10.4. Unusual conditions or changes.
 - 203.10.5. Other.
- 203.11. A copy of the diary shall be filed with the City at project completion.
- 203.12. The Applicant's Engineer shall provide 24-hour notification to the City for the various stages of construction to facilitate observations by the City.
- 203.13. The Applicant's Engineer shall be responsible for all observations, inspections and records at the minimum intervals presented in Section 205. He shall accept or reject work performed based on observations, inspections and test results.

- 203.14. The Applicant's Engineer shall prepare Record Drawings of all project details as accomplished in the field during the contract. One Mylar copy, one paper copy, and an electronic copy compatible with AutoCAD of the Record Drawings shall be submitted to the City upon completion of the project.
- 203.15. The Applicant's 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 these standards.

204. Testing

- 204.01. All testing required by the City shall be the responsibility of the Applicant and/or his Agent.
- 204.02. Any testing required by the City (other than Supplemental Testing) but not provided by the Applicant may be completed by the City, and all costs associated therewith shall be paid by the Applicant.
- 204.03. If the minimum testing requirements have been met by the Applicant, but the City feels supplemental tests need to be taken on the materials, the Applicant shall make such additional tests. The cost for the Supplemental Tests shall be borne by the Applicant if the material fails the tests and by the City if the material passes the tests.

205. Construction Observation and Testing Frequency

- 205.01. Paragraphs 205.02 through 205.08 list minimum observation intervals required of the Applicant's Engineer and designated representative to assure that minimum monitoring of the contractor's performance has been accomplished. Additional testing shall be performed as deemed necessary by the applicant's engineer. Daily observations and test results shall be recorded in the observation diaries. A final statement by the Applicant's Engineer verifying that this minimum basic observation and testing has been accomplished shall be placed on the record drawings.

205.02. Subgrade

- 205.02.1. Compaction tests shall be performed every 100 feet horizontally and each vertical foot of fill with a minimum of two tests per street.

205.03. Subbase and Base Course

- 205.03.1. Compaction tests: every 100 feet of roadway per lift of material with a minimum of two tests per street.
- 205.03.2. Gradation tests: at least one for every 2,000 feet of roadway with a minimum of two tests per street and when changing aggregate sources. (Not required if material is taken from a City approved source.)

205.04. Pavement

- 205.04.1. Asphalt cement mix design shall be preapproved
- 205.04.2. Determine that asphalt material and placement conform to City standards through the following tests performed by the Applicant's Engineer or an independent laboratory.
 - 205.04.2.1. Density tests: at least one for every 100 linear feet of roadway and each lift.

- 205.04.2.2. Core tests: at least one for every 1,000 feet of roadway with a minimum of two tests per street.
- 205.04.2.3. Extraction gradation test: at least one for every 2,000 feet of roadway with a minimum of two tests per project.
- 205.04.2.4. In place air voids shall be tested with each core test.

205.05. Sidewalk, Catch Basins, Curb and Gutter:

- 205.05.1. Forms shall be inspected for line, grade, and thickness.
 - 205.05.1.1. Forms shall be approved before placing concrete.
- 205.05.2. Concrete testing;
 - 205.05.2.1. Slump, air and test cylinders, once per each 300 CY or once per day whichever is greater.
 - 205.05.2.2. Concrete shall equal or exceed the minimum strength requirement shown on the approved construction plans for the application listed.

205.06. Miscellaneous Structures

- 205.06.1. As required to insure substantial compliance with plans and specifications.

205.07. Pipe Installation

- 205.07.1. Trenching: comply with applicable portions of ISPWC DIVISION 300.
- 205.07.2. Water: water pipe installation shall conform with ISPWC DIVISION 400
- 205.07.3. Sewer: Sewer pipe and ancillary structures shall be installed in compliance with ISPWC DIVISION 500
- 205.07.4. Culverts, Storm Drain, and Gravity Irrigation shall be installed in compliance with ISPWC DIVISION 600
- 205.07.5. Pressure irrigation shall be installed in compliance with ISPWC DIVISION 900
- 205.07.6. BESTMANAGEMENT PRACTICES shall conform to ISPWC DIVISION 1000 and DEQ's Best Management Practices Manual (*available for direct down loading from DEQ's web site*).

206. Acceptance into City

- 206.01. No roadway, roadway improvement, sidewalk, storm drain, underlying infrastructure or ancillary component (hereafter referred to as improvements) shall be accepted by the City until the following conditions have been met, or a variance granted thereto:

- 206.01.1. Payment of all fees; and
- 206.01.2. An engineer's statement of completion establishing that the roadway and all improvements have been constructed in accordance with the plans, specifications, and Standards of the City with required submittals, including:
 - 1. Test results
 - 2. Record drawings (one Mylar set, one paper copy, and one electronic copy compatible with AutoCAD)
 - 3. Construction diary
- 206.01.3. Final review and acceptance by the City; and
- 206.01.4. Financial guarantee agreement.

- 206.02. Before acceptance of the completed roadway and improvements by the City, the Applicant shall enter into a Public Improvement Agreement, approved by the City Council.

- 206.03. The warranty period shall begin upon formal City Council acceptance of the roadway and associated improvements and shall extend for one (1) year.

- 206.04. If the roadway and improvements are not completed within the agreed time, the applicant shall provide a financial guarantee in accordance with section 10-5-3 of the City Code.

207. Traffic Impact Studies

- 207.01.** The City must consider the impacts of a proposed development on nearby land uses and transportation facilities. A traffic impact study will be required if the proposed development contains more than 50 dwelling units, more than 15,000 square feet of commercial use, or more than 25,000 square feet of industrial or institutional use. If a project has special circumstances associated with it, the City may require a traffic impact study even if the aforementioned criteria are not met. The City may waive the requirement if, in the City's opinion, there are no traffic issues to resolve.
- 207.02.** Traffic impact studies shall be conducted in conformance with accepted industry standards and shall be sealed by a registered Idaho Professional Engineer. The Institute of Transportation Engineers' recommended practice, Traffic Access and Impact Studies for Site Development, or other industry-accepted guidelines, may be used as guidance in conducting traffic impact studies. The boundary of the study area and other project-specific study parameter shall be identified jointly by the professional conducting the study and the City.

SECTION 300 - STREET & STORM DRAINAGE DESIGN CRITERIA

301. General Design Criteria

- 301.01 These Standards are based upon the American Association of State Highway and Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets, latest addition. Where possible, all designs should be based on these Standards and the applicable design criteria set forth by AASHTO. Variations from these Design Standards shall conform to sound engineering judgment.
- 301.02 All construction shall conform to the latest edition of the Idaho Standards for Public Works Construction (ISPWC).

302. Roadway Classification

- 302.01. Roadways within each City are classified in accordance with the Surface Transportation and Uniform Relocation Assistance Act of 1987. The City shall classify subdivision streets as Arterials, Collectors, Local Residential Streets, or Local Commercial Streets.

303. Right-of-Way

- 303.01. The required minimum right-of-way width for each classification shall be in accordance with Wilder Standard Drawing SD-100. Additional widths may be required to accommodate large cut or fill sections.
- 303.02. Cul-de-sacs shall have a 52-foot minimum right-of-way radius with additional right-of-way as needed to accommodate unusual cut and fill sections. Temporary Cul-de-sacs may be allowed if each right-of-way is shown on the plat and approved by the City.
- 303.03. All intersecting right-of-way lines at road intersections and at cul-de-sac bulbs shall be connected by a curve having a minimum radius of 20 feet.

304. Horizontal Alignment

- 304.01. Horizontal alignment shall conform to the AASHTO A Policy on Geometric Design of Highways and Streets. Design speed shall conform to Section 304.05 and be approved by the City.
- 304.02. When the street centerline deflects more than 10°, the centerlines shall be connected by a curve with the following minimum centerline radii:
 - 304.02.1. 500 feet for arterial streets
 - 304.02.2. 300 feet for collector streets
 - 304.02.3. 150 feet for local streets
- 304.03. On local streets, a minimum centerline radius may be used provided the outside of the curve is widened with a bulb with a radius of 45 feet measured from the centerline of the street at the center of the curve.
- 304.04. The minimum tangent length between curves shall be 50 feet for local roads and streets, and 200 feet for arterial and collector roads.

304.05. The following table shows the minimum and maximum values for design speed and super elevation for arterial, collector, and local streets.

Design Parameter	Arterial	Collectors	Local Streets
Design Speed	35-55 mph	35- mph	25- mph
Superelevations	Max. 6%	Max. 4%	Max. 2%

305. Vertical Alignment

- 305.01. Vertical alignment shall conform to the AASHTO A Policy on Geometric Design of Highways and Streets. Design speed shall be shown on the plans.
- 305.02. Vertical grades shall be a minimum of 0.35 percent. Maximum vertical grades shall not exceed ten percent (10%) on local streets and six percent (6%) for collector and arterial streets.
- 305.03. Vertical curves shall be required when the difference at vertical points of intersection of centerline grades exceeds 1%.
- 305.04. Vertical curves shall have a minimum length of 50 feet, and shall have sufficient lengths to conform to the AASHTO A Policy on Geometric Design of Highways and Streets for the approved design speed.

306. Stopping and Passing Sight Distance

- 306.01. Required stopping sight distances and passing sight distances shall be determined in accordance with the AASHTO A Policy on Geometric Design of Highways and Streets for the approved design speed.

307. Intersections

- 307.01. Streets shall intersect at 90° or as closely thereto as possible. In no case shall streets intersect at less than 70°.
- 307.02. Minimum clear sight distance shall be provided in accordance with Wilder Standard Drawings SD-102, SD-102A, and SD-102B.
- 307.03. Tee intersections may be used whenever such design Street centerlines for tee intersections shall be offset by a distance of at least 125 feet.
- 307.04. The grade approaching an intersection shall not exceed 2%.
- 307.05. Curb lines of intersecting streets shall be connected with the following minimum corner radii:
 - 307.05.1. Minor Arterial & Collector Streets - 30'
 - 307.05.2. Local Commercial Streets - 25'
 - 307.05.3. Local Residential Streets - 20'
- 307.06. Where streets of different classification intersect, the larger radii shall apply.

308. Cul-de-Sac Streets

- 308.01. A standard cul-de-sac layout is shown in Wilder standard drawing SD-101.

308.02. The maximum length of a cul-de-sac shall be 350 feet.

309. Roadway Cross Section

309.01. Streets within the City shall conform to the cross section characteristics provided in the Typical Street Section, Wilder SD-100.

309.02. In the existing downtown, the street width and right-of-way width shall match the existing street within that block or adjacent blocks. The surfacing depths shall conform to Wilder SD-100.

309.03. All streets shall have curb and gutter of the type specified in Wilder SD-100. Vertical curb shall be 6" Vertical Curb and Gutter (ISPWC SD-701). Rolled curb shall be 3" Rolled Curb and Gutter (ISPWC SD-701)

309.04. On Local Commercial, Collector, and Arterial Streets, the sidewalk should be placed along the right-of-way to create a planting strip between the back of curb and sidewalk.

309.05. Materials

309.05.1. Sub-Base shall be 6" Minus Uncrushed Aggregate (ISPWC Section 801)

309.05.2. Base shall be $\frac{3}{4}$ " (Type I) Crushed Aggregate for Base (ISPWC Section 802)

309.05.3. Plant Mix Pavement shall be Plant Mix Pavement Class III, $\frac{3}{4}$ " (ISPWC Section 810 and 803). Asphalt shall be PG 58-28. A minimum 0.5% anti-strip required.

309.06. For industrial subdivisions, the Collector section as shown on Wilder Standard Drawing SD-100 shall be used except with 5' sidewalks and the asphalt thickness shall be increased to 4" minimum, placed in two equal lifts.

309.07. The roadway cross section outside the paved area and inside the remaining right-of-way shall conform in all aspects with the AASHTO Roadside Design Guide, latest edition. This Guide will be used to determine safety characteristics for any appurtenances such as signing, rock outcrops, or general hazards to the traveling public. Conformance thereto will be determined during the project review process.

309.08. The City may allow the use of raised medians (islands), traffic circles or roundabouts meeting the following minimum requirements:

309.08.1. Medians, traffic circles and roundabouts shall be platted as right-of-way, but shall be maintained by property owners association or other acceptable dues-paying organization under a license agreement with the City. The City shall be provided with a hold harmless agreement and/or rider to the dues-paying organization's liability policy which names the City as co-insured.

309.08.2. Vertical curbs and gutter shall be required around the perimeter of all raised medians, traffic circles and roundabouts.

309.08.3. Street lighting shall be provided at all raised medians, traffic calming devices and at each intersection.

309.08.4. Signing for medians and traffic calming devices shall be in accordance with the current Manual on Uniform Traffic Control Devices (MUTCD) and may include Type 1 object markers installed at both ends of all raised medians.

309.08.5. Raised medians shall be constructed in accordance with Wilder Standard Drawing SD-104.

310. Approaches

- 310.01. Residential approaches shall be a maximum of 24 feet wide. On local residential streets, residential approaches shall have a minimum distance between approach edges of 20 feet.
- 310.02. Commercial approaches shall be a maximum of 36 feet wide.
- 310.03. Except as noted in 310.01, spacing between approaches shall be:
 - 310.03.1. Arterial Street - 220'
 - 310.03.2. Collector Street - 150'
 - 310.03.3. Local Commercial Streets - 50'
- 310.04. All approaches serving primarily truck traffic shall use a curb return approach. The radius shall be adequate to accommodate truck turning movements, and the approach width shall be 40 feet maximum.

311. Drainage

- 311.01. All drainage features for the development shall be designed by an Idaho Registered Professional Engineer and approved by the City. The design shall be based on the State of Idaho, Division of Highways publication, Urban Storm Sewer Design for Idaho Highways, latest edition, or procedures as set forth in the Idaho Transportation Department's Design Manual. The Rational Method may be used for drainage areas up to 200 acres. For drainage areas greater than 200 acres, the SCS TR-55 Method shall be used.

- 311.02. The following design storm return periods shall be used:

<u>Facility Type</u>	<u>Return Period</u>
Conveyance Systems (Pipes, Inlets, Curb & Gutter, and Swales)	25-Year
Secondary Conveyance Systems	100-Year
Detention Basins	25-Year
Retention Basins / Subsurface Disposal Systems	100-year

- 311.03. Any disruption of the normal drainage pattern of the area to be developed must have special consideration to facilitate future drainage of this area.
- 311.04. Storm drainage pipe shall be PVC, corrugated galvanized steel, aluminum, or ADS N-12. Pipe strength shall meet or exceed the load rating pertinent to the application.
- 311.05. Corrugated metal pipe shall have 2-2/3" x 1/2" corrugations. Culverts or multiplate installations larger than 36 inches in diameter or any culvert under fills of 20-feet or greater in height shall be individually designed by an Idaho registered Professional Engineer.
- 311.06. Storm drainage pipe beneath roadways shall be at least 12 inches in diameter or the size necessary to accommodate the peak design storm flow, whichever is greater.
- 311.07. Provide 24-inch minimum cover on all storm drain pipes. 12-inch minimum cover may be used with a specific engineered design and city concurrence.
- 311.08. Irrigation pipe crossing roadways shall have cleanout boxes with a minimum interior dimension of three feet for depths 3 feet and less and four feet for depths greater than 3 feet, on each end of the roadway.
- 311.09. All drainage easements shall be shown and recorded on the final plat.

- 311.10. Where swales are used, erosion protection measures shall be provided where flow velocities exceed 2 fps.
- 311.11. The Applicant's Engineer shall design erosion protection measures suitable for the velocities at discharge locations from storm drainage systems.
- 311.12. Subsurface storm water disposal systems shall be designed for a 100-year storm event and the tributary areas' time of concentration or 1 hour, whichever is greater. Design infiltration rates shall be based on percolation tests conducted by the Applicant's Engineer at the location of the proposed subsurface drainage facility. The subsurface drainage facility shall be designed to drain completely within 24-hours.
- 311.13. The bottom of any subsurface disposal system shall be located at least 2' above seasonal high groundwater level or bedrock. Subsurface disposal systems shall be backfilled with 2-inch washed drain rock (void ratio 40%). Filter fabric shall be placed on the sides and top of the drain rock and all fabric joints shall be overlapped a minimum of 1-foot. If the native material directly below the drain rock is not free draining sand or gravel, a layer of sand meeting the requirements of ASTM C-33 shall be placed to a depth of 3-feet below the drain rock or until free draining material is encountered.
- 311.14. A sediment and grease trap shall precede subsurface disposal systems. Sediment and grease traps shall be an API type Oil/Water separator with a minimum volume of 1000 gallons. The maximum throat velocity shall be 1 fps.
- 311.15. The curb & gutter roadway section shall be designed to convey the design storm with 1-inch of freeboard from the top of the water surface to the top of curb. Inlets shall be designed to intercept all gutter flow or the downstream drainage facilities shall be designed to accommodate the by-passed flow.
- 311.16. Storm sewer system pipes shall be designed to convey the peak flow without surcharging. Manholes shall be placed at all junctions, changes in grade or alignment, and at no more than 400-foot spacing.
- 311.17. Secondary Conveyance Systems are roadways, open channels, overland flow, or other flow routes that convey flows in excess of the conveyance systems capacity. The Applicant's Engineer shall design the secondary conveyance systems to convey the 100-year storm without flooding buildings or other improvements.
- 311.18. Stormwater detention/retention facilities to store runoff shall be provided at a location outside the required Minimum Width of right-of-way for type of roadway as shown on Wilder Standard Detail 100 (Wilder SD100). Runoff volumes calculated for use in determining storage requirements shall be based on a storm duration of one hour (or the time of concentration, whichever is greater) when using the rational method, or 24 hours when using the SCS method. Release rates of water from detention basins to downstream facilities shall be limited to the pre-development discharge rates. The facilities shall be located within a drainage easement. The drainage easement shall be for the sole purpose of locating, establishing, constructing, and maintaining over and across the described real property the stormwater detention/retention facilities together with such rights of entry on, passage over, and storage of material and equipment on such stormwater detention/retention facilities as may be necessary or useful for the reconstruction, maintenance, cleaning out and repair of such stormwater detention/retention facilities. Ownership and regular maintenance responsibility of the property upon which the stormwater detention/retention facilities and drainage

easements are located shall be determined individually contingent upon the circumstances, the need for ongoing drainage maintenance and reasonable appearance.

312. Structures

- 312.01.** Bridge structures shall be designed in accordance with the AASHTO Standard Specifications for Highway Bridges, latest edition.
- 312.02.** The design vehicle for bridge design shall be a minimum HS-25 truck. If Load and Resistance Factor Design (LRFD) method is used for bridges over twenty feet in length (abutment to abutment), the HS-20 design vehicle may be used.
- 312.03.** The minimum width of a bridge structure from the face-to-face of the guardrail or bridge rail shall be the full width of the approach roadway including pavement width, five foot sidewalk (both sides) plus three feet.
- 312.04.** The vertical clearance above waterways shall be 2 feet above the 100-year flood and 20 feet over other roadway surfaces.
- 312.05.** Only structures of steel, or steel and concrete, shall be used.
- 312.06.** Retaining walls shall be reinforced concrete, bin walls, reinforced earth, or concrete crib walls or individually approved system. All retaining wall structures shall be designed by a Registered Professional Engineer and shall be approved by the City before construction begins.

313. Guardrail

- 313.01.** Guardrail may be necessary in certain areas depending upon the warrants for protecting the traveling public. The City reserves the right to determine the need for guardrail under each separate circumstance. The warrants for determining need of guardrail shall be made using the AASHTO Roadside Design Guide, latest edition.
- 313.02.** The type of guardrail to be installed shall be determined by the City as the location dictates.

314. Signing

- 314.01.** All permanent signing shall be shown on the design plans and shall conform to the Manual on Uniform Traffic Control Devices (MUTCD), latest edition adopted by the State of Idaho.
- 314.02.** All signs shall be installed by the Applicant before the City accepts the project.
- 314.03.** All construction signing shall conform to the MUTCD.
- 314.04.** Street name signs shall be installed at all new and modified street intersections by the Applicant. Street Name signs lettering height shall be at least 4 ½ inches high. Signs for public roadways shall have reflective white lettering on a green background.
- 314.05.** All regulatory and warning signs shall use high intensity sheeting.
- 314.06.** All sign posts shall be square, perforated, galvanized steel tubing; Telespar or equivalent.

315. Striping or Pavement Markings

- 315.01.** The City 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 MUTCD, latest edition adopted by the State of Idaho. The spacing, location, and width of markings will be determined on an individual basis by the City. Paint quality shall be the same as that used by the Idaho Transportation Department for their pavement markings.

SECTION 400 - AMERICANS WITH DISABILITIES, SPECIAL PROVISIONS

401. General

All references to the Idaho Standards for Public Works Construction (ISPWC) shall indicate the latest edition unless specified otherwise.

All pedestrian ramps shall be constructed in accordance with ISPWC SD 712, 712A, 712C, 712D, 712E, 712F OR Wilder standard detail 105 as appropriate.

402. Rolled Curb

- 402.01. Construct pedestrian ramps at all intersection corners.
- 402.02. At "T" junctions pedestrian ramps shall be placed opposite corner ramps such that pedestrian exposure to traffic is minimized
- 402.03. Construct pedestrian ramps at the beginning and end of all cul-de-sacs
- 402.04. Construct pedestrian ramps at intervals not exceeding 250 feet. Curbs shall be painted red in front of pedestrian ramps placed at mid block or other non traditional locations. Red paint shall be extended 5 feet each side of the pedestrian ramp.

403. Vertical Curb

- 403.01. Construct pedestrian ramps at all intersection corners.
- 403.02. At "T" junctions pedestrian ramps shall be placed opposite corner ramps such that pedestrian exposure to traffic is minimized
- 403.03. Construct pedestrian ramps at the beginning and end of all cul-de-sacs
- 403.04. Drive approaches shall be constructed in accordance with ADA requirements. Driveways constructed to ADA standards may replace mid block pedestrian ramps. *Construct in accordance with ISPWC SD - 710, 710A, 710B, or SD-711 as appropriate.*

404. Pedestrian Ramps

- 404.01 Pedestrian ramps shall be as shown in ISPWC 712B and Wilder SD 105 and shall include detectable warning domes. All detectable warning domes shall be of uniform size and color. A submittal of the detectable warning domes shall be provided to the City Engineer at least fourteen working days before concrete placement. No deviations shall be allowed from the approved submittal. Any deviations from the approved detail shall be rejected at no expense to the City of Wilder.

405. Review Requirements

All projects with a street improvement component shall be reviewed and approved by the ADA coordinator or designee before construction begins.

SECTION 500 - LANDSCAPING AND COMMUNITY FOREST STANDARDS

501. Introduction

- 501.01.** The City of Wilder has adopted the Standards herein to encourage proper landscaping, proper landscaping maintenance, and to protect the City Community Forest.
- 501.02.** The Standards herein serve as the regulations to implement the purposes, goals, and requirements of the Wilder Landscaping and Community Forest Act, Wilder City Code Title 7 Chapter 7.
- 501.03.** Variation from these Standards may be allowed by the City when special conditions exist on a project, in accordance with Wilder City Code Title 7 Chapter 7.
- 501.04.** If any section, subsection, sentence, clause, phrase, or portion of these Standards is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portions shall be deemed a separate, distinct, and independent provision and such holdings shall not affect the validity of the remaining portions thereof.

502. Definitions

- 502.01.** All definitions from the Wilder Landscaping and Community Forest Act, Wilder City Code Title 7 Chapter 7, apply to the Standards in this Section.
- 502.02.** Additional definitions are as follows:

503. Landscape Plan Requirements

- 503.01.** The landscape plan shall be drawn to scale (no smaller than 1 inch equals 30 feet) and be on a standard drawing sheet, not to exceed 36" x 48". A plan that cannot be drawn in its entirety on a single sheet must be drawn with appropriate match lines on two or more sheets.
- 503.02.** The landscape plan shall indicate the following:
 - 503.02.1.** Date, scale, north arrow, and title of the project.
 - 503.02.2.** Names, addresses, and telephone numbers of the developer and the person/firm preparing the plan.
 - 503.02.3.** Boundaries, property lines, and dimensions.
 - 503.02.4.** Easements and right of way lines on or adjacent to the lot.
 - 503.02.5.** Existing/proposed zoning of the lot, and the zoning and land use of all adjacent properties.
 - 503.02.6.** Existing natural features, such as canals, creeks, drains, ponds, wetlands, floodplains, and rock outcroppings.
 - 503.02.7.** Existing trees and vegetation identified by species and size, and in particular the location, size, and species of all existing trees with trunks four inches (4") or greater in diameter, measured six inches (6") above the ground. Indicate whether the trees and vegetation will be retained or removed.
 - 503.02.8.** The location and design of areas to be landscaped.
 - 503.02.9.** Plant lists or schedules with the common name, proposed location(s), quantity, spacing, caliper size, and mature canopy size for trees of all proposed landscaping materials.
 - 503.02.10.** Location and description of other landscape improvements, such as berms, walls, fences, screens, sculptures, fountains, street furniture, lights, and courts or paved areas.

- 503.02.11. Planting and installation details as necessary to ensure conformance with all required standards.
- 503.02.12. Indication of the proposed method of landscape irrigation, including depiction of the irrigation system and description of the irrigation source.

503.03. Three (3) copies of the landscape plan shall be submitted to the planning authority as part of an application for a building permit, subdivision, planned unit development, or any other permit or request to which the Landscaping and Community Forest Act applies.

504. Landscape Standards

504.01. **Approved Plant Material:** Plant approval shall be in accordance with the “Tree Selection Guide for Streets and Landscapes throughout Idaho”, developed and printed by the City of Boise. This guide provides planting instructions, a tree selection guide for climate and location, describes various tree species and is available for reference from the City Clerk.

504.02. **Prohibited Plant Material:** Prohibited plant materials shall include any that is considered poisonous, toxic, or otherwise poses a nuisance.

504.03. **Prohibited Trees:** The following trees are expressly prohibited for use as street trees within public street rights-of-way or within the zone of influence of adjacent public sidewalks (unless granted an express variance by the City on a case by case basis):

- 504.03.1. *Populus* species - Poplars, Aspen, Cottonwood, etc.
- 504.03.2. *Salix* species - Willow species
- 504.03.3. *Ulmus* species - Elm species
- 504.03.4. *Coniferous* species - Firs, pines, or cedar
- 504.03.5. *Acer saccharum* - Silver Maple
- 504.03.6. *Betula paperifera* - Paperbark Birch
- 504.03.7. *Betula pendula* - European White Birch
- 504.03.8. *raxinus excelsior* - European Ash
- 504.03.9. *Ginkgo biloba* - Ginkgo (female tree)
- 504.03.10. *Gledistia tricanthos* - Thorned Honey Locust
- 504.03.11. *Juglans nigra* - Black Walnut
- 504.03.12. *Robinia pseudoacacia* - Black Locust

504.04. **Minimum Plant Sizes:** The following are minimum plant sizes for all required landscape areas:

Table 1: Minimum Plant Sizes	
Class I trees	1 ½ inch caliper minimum
Class II and Class III trees	2 ½ inch caliper minimum
Evergreen trees	4 to 5 foot height minimum
Woody shrubs	2 gallon pot minimum

504.05. **Plant Species Diversity:** When five (5) or more trees are to be planted to meet the requirements of the Landscaping and Community Forest Act (including street trees, street buffers, parking lot landscaping, and other landscape guidelines) a mix of species shall be provided. The number of species to be planted shall vary according to the overall number of trees required to be planted as follows:

Table 2: Plant Species Diversity	
Required Number of Trees	Minimum Number of Species
5 to 10	2
11 to 30	3
31 to 50	4
Over 50	5

- 504.06. Plant Quality:** All plant material installed pursuant to these landscaping requirements shall meet or exceed the minimum federal standards as regulated by ANSI Z60.1, "American Standard for Nursery Stock."
- 504.07. Planting Standards:** All trees, shrubs, and other plant material shall be planted using accepted nursery standards as published by the American Association of Nurserymen (latest edition), including hole size, backfilling, and fertilization. Plants shall not be planted that are bare-rooted, damaged, diseased, or disfigured, or which are not hardy for the Wilder area. Plants shall not be planted without removing all non-biodegradable wrapping around the root ball, including twine, wire, baskets, rope, and/or treated or synthetic burlap.
- 504.08. Planting Locations:** Trees shall not be planted within the following conditions or circumstances, unless in accordance with a landscape design approved by the City on a case by case basis:
- 504.08.1.** Six feet (6') of any building or structure, existing curb or sidewalk or meter vault box.
 - 504.08.2.** Ten feet (10') of any residential or commercial driveway.
 - 504.08.3.** Fifteen feet (15') of any fire hydrant or utility pole, public sanitary sewer or waterline, or alley way access.
 - 504.08.4.** Twenty-five feet (25') of any stop or yield sign or streetlight standard.
 - 504.08.5.** Within the Sight Vision Triangle of controlled or uncontrolled intersections.
 - 504.08.6.** Within sidewalks without providing tree wells with a minimum four foot by four foot (4' x 4') opening.
 - 504.08.7.** Within the right-of-way without providing protection of the tree base, such as edging, mulch, or arbor guards.
- 504.09. Staking:** Tree staking is not required, but may be used in areas with high winds or other situations that make staking desirable. If trees are staked, the stakes shall be removed within twelve (12) months to prevent damage to the tree.
- 504.10. Mulch:** Unless other materials are approved by the City, organic mulch such as compost, bark, or soil aid shall be applied to all plant areas for moisture retention, weed control, and moderation of soil temperatures.
- 504.11. Curbing:** All planting areas that border driveways, parking lots, and other vehicle use areas shall be protected by curbing, wheel stops, or other approved protective devices. Such devices shall be at least thirty inches (30") from all tree trunks.
- 504.12. Utilities:** The following standards apply to tree planting near existing utilities and to trenching for new utilities near existing trees:
- 504.12.1. Overhead Utilities:** Only Class I trees in the recommended plant list may be planted under or within ten (10) lateral feet of any overhead utility wires.

504.12.2. Underground Utilities: All trees and wood shrubs shall be planted outside of any easement containing water or sewer mains, unless written approval is obtained from the City Engineer. If any utility easement precludes trees required by this chapter, the width of the required buffer shall be increased to accommodate the required trees.

504.12.3. Trenching: New underground utilities shall stay outside the drip line of existing trees if trenched, or be tunneled a minimum of three feet (3') below existing grade within the tree's drip line. The guiding principle is that no root two inches (2") or larger shall be cut. Note: This requirement is for the placement of new utilities and does not affect the city's ability to access existing utilities for repair and maintenance.

504.13. Erosion Control: The landscape installation shall stabilize all soil and slopes.

504.14. Berms: Berm slopes shall not exceed three to one (3:1) (horizontal: vertical). Grass that requires mowing shall not be used on slopes steeper than three to one (3:1).

504.15. Screening: Where screening is required, chain-link fencing with or without slats does not qualify as a screening material.

504.16. Water Efficiency: The landscape plan shall provide for water efficient landscaping as follows:

504.16.1. Lawn Areas: Where appropriate, and on sites where other landscape options can be incorporated, large expanses of lawn are discouraged due to their high water consumption.

504.16.2. Mulch: Unless other materials are approved, mulches shall be organic; broad uses of gravel/rock mulch are restricted as per 504.10.

504.16.3. Native Plants: Native and other low water use plants are encouraged. Xeriscaping and low water landscape alternatives are encouraged.

505. Irrigation Standards

505.01. All landscape areas regulated by the Landscaping and Community Forest Act shall be served with an automatic underground irrigation system.

505.02. Performance Specifications: Three (3) copies of detailed irrigation performance specifics shall be submitted with the landscape plan for all final plats and certificates of zoning compliance. Performance specifications shall state design requirements, materials, and construction methods. At a minimum, the performance specifications shall address the following requirements:

505.02.1. Available gallons per minute, available water pressure, and point of connection.

505.02.2. Backflow prevention through an appropriate backflow prevention device that is approved by the Department of Public Works.

505.02.3. Coverage: The irrigation system shall be designed to provide one hundred percent (100%) coverage with head to head spacing or triangular spacing as appropriate.

505.02.4. Matched Precipitation Rates: Sprinkler heads shall have matched precipitation rates within each control valve circuit.

505.02.5. Irrigation Zones: lawn or other high water demand areas shall be circuited so that they are on a separate zone or zones from those irrigating trees, shrubs, or other reduced water demand areas.

505.02.6. Overspray: Sprinkler heads shall be adjusted to reduce overspray onto impervious surfaces such as roads, sidewalks, driveways, and parking areas.

505.03 Irrigation Water: Use of nonpotable irrigation water is required when determined to be available by the City.

506. Street Buffers

506.01. Purpose: Landscape buffers along streets are required in order to improve the visual quality of the streetscape, to soften the impact of parking lots, to unify diverse architecture, and to carry out the comprehensive plan policies related to promoting attractive roadways and street beautification.

506.02. Location: All required buffers shall be located beyond any street right of way and shall be maintained by the property owner, at the property owner's expense, upon which the buffer lies. All street buffers with attached sidewalks shall be measured from the property line and not from the sidewalk or curb. If detached sidewalks are provided the buffer may be measured from the back of curb when it can be demonstrated that there is no opportunity for expansion of the street section within the right of way; the buffer width must exclude the width of the sidewalk. No fences are permitted within required street buffers.

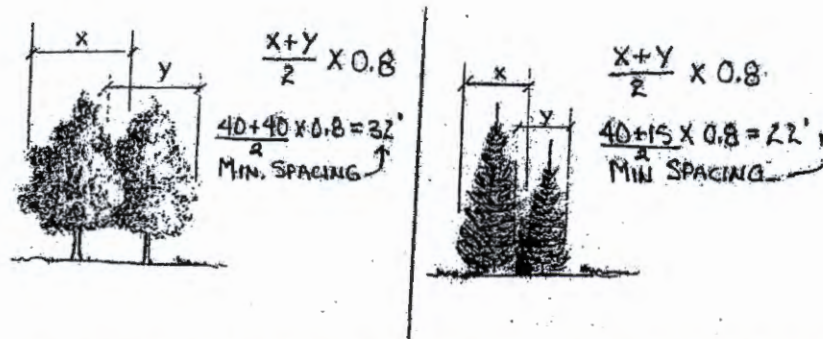
506.03. Applicability: Street buffers shall be required at all subdivision boundaries (i.e., commercial, industrial, and residential) and at all commercial, industrial and high tech developments. Single-family residential, and duplex lots are exempt from required street buffers. All subdivision street buffers must be on a common lot, maintained by a homeowners' or business owners' association, as applicable.

506.04. Buffer Size: The required width of the landscape buffer is calculated as follows. Note: Residential collectors do not have a required street buffer.

<i>Street Type</i>	<i>Buffer Width</i>
Local roads (except in residential areas per subsection 506.03)	10 feet
Urban collector	20 feet
Principal and minor arterial (other than entryway corridors)	25 feet
Entryway corridors (as defined in the comprehensive plan)	35 feet

506.05. Street Trees: All required landscape street buffers shall be planted with trees and shrubs, lawn, or other vegetative ground cover, with a minimum density of one tree per thirty five (35) linear feet. If this calculation results in a fraction 0.5 or greater, round up to an additional tree. If the calculation results in a fraction less than 0.5, round the number down.

506.06. Tree Spacing: For design flexibility, trees may be grouped together or spaced evenly as desired. However, trees shall be spaced no closer than eighty percent (80%) of the average mature width of the trees, as demonstrated in the following examples:



- 506.07. Parkway And Detached Sidewalks:** Sidewalks are required along all arterial streets, new developments at the edge (abutting) of existing city limits and in the impact area. The minimum width of the parkway area between the curb and the sidewalk is five feet (5'). Tree plantings within parkways less than ten feet (10') wide are restricted to Class II trees..
- 506.08. Landscaping Within Right Of Way:** The homeowner is responsible to install and maintain landscaping or lawn from their property line to the back of curb or back of sidewalk whichever is furthest.
- 506.09. Impervious Surfaces:** Allowed impervious surfaces include driveways, signs and walkways. Vehicle display pads and other related impervious surfaces are prohibited in the required street buffer.
- 506.10. Storm Water Detention:** Storm water swales may be incorporated into the buffer. Other storm water detention and retention facilities shall not be permitted in the street buffer.

507. Parking Lots

- 507.01. Right Of Way Landscaping:** A landscape buffer is required between all parking lots and adjacent streets as regulated by section 506. - "Street Buffers."
- 507.02. Perimeter Landscaping:** The following standards apply to all interior lot lines, side or rear, adjacent to parking lots or other vehicular use areas, including driveways:
- 507.02.1. Purpose:** Perimeter landscaping defines parking, loading, and other vehicular use areas and prevents two (2) adjacent lots from becoming one large expanse of paving. This requirement does not hinder the ability to provide vehicular access between lots, nor does it prohibit commercial or industrial developments with back to back truck docks from sharing paved loading areas.
- 507.02.2. Size and Location:** Provide a five foot (5') minimum perimeter landscape strip along all front lot lines and side lot lines to the rear of any building on the lot.
- 507.02.3. Landscaping:** The perimeter landscape strip shall be planted with one tree per thirty five (35) linear feet and shrubs, lawn, or other vegetative ground cover.
- 507.03. Internal Landscaping:** Interior parking lot landscaping shall be required on any parking lot with more than twelve (12) spaces.
- 507.03.1. Required Percentage:** The required amount of landscaping is based on a sliding scale as follows:

<i>Total Number of Parking Spaces</i>	<i>% of Total Area of Parking Lot that Must be an Interior Landscaped Area</i>
13-100	4 percent
101-200	6 percent
201+	8 percent

- 507.03.2. Planter Size:** Landscape planters shall contain a minimum of fifty (50) square feet and the planting area shall not be less than five feet (5') in any dimension, measured inside curbs. The only exception to the five foot (5') minimum dimension is at the tip of triangular planters located at the end of rows of angled parking.
- 507.03.3. Parking Spaces:** No linear grouping of parking spaces shall exceed fifteen (15) parking spaces in a row without an internal planter island.
- 507.03.4. Parking Lot Layout:** Interior landscaping shall, insofar as possible, be used to delineate and guide major traffic movement within the parking area so as to prevent cross space driving. Interior landscape planters shall be spaced as evenly as feasible and at the ends of rows of parking throughout the lot to consistently reduce the visual impact of long rows of parked cars.
- 507.03.5. Trees Required:** Each interior planter that serves a single row of parking spaces shall be landscaped with at least one tree and shall be covered with low shrubs, lawn, or other vegetative ground cover. Each interior planter that serves a double row of parking spaces shall have at least two (2) trees and shall be covered with low shrubs, lawn, or other vegetative ground cover. Deciduous shade trees must be pruned to a minimum height of eight feet (8') above the adjacent parking areas. Evergreen trees and Class III trees are prohibited in interior planters.
- 507.03.6. Design Flexibility:** In parking areas where the strict application of this section will seriously limit the function and circulation of the lot, up to fifty percent (50%) of the required landscaping may be located near the perimeter of the paved area to emphasize entrance corridors or special landscape areas within the general parking area. Such required interior landscaping which is relocated shall be in addition to perimeter landscape and right of way screening requirements.
- 507.03.7. Industrial Exclusion:** Industrial parking, storage, and loading areas are specifically excluded from the interior landscape requirements, but shall still be required to meet all perimeter and right of way landscape and screening requirements.
- 507.04 Existing Parking Lot Applicability:** Existing parking lots shall be required to conform to this section based upon the following guidelines:
- 507.04.1.** For re-striping, parking lot overlays, or parking lot replacement less than twenty five percent (25%) of the parking area, no additional landscaping shall be required.
- 507.04.2.** For parking lot replacement that is twenty five percent (25%) to fifty percent (50%) of the parking area, perimeter and right of way landscaping as required by this chapter shall be installed.
- 507.04.3.** For parking lot replacement that is greater than fifty percent (50%) of the parking area, all current landscape standards of this chapter shall be met.

507.04.4. If the location of an existing building or other structures prevents conformance with the requirements of this section, or if its implementation would create a nonconformity with parking standards, the applicant may apply for a variance.

508. Buffers between Different Land Uses

- 508.01. Purpose:** The landscape requirements in this section are intended to ensure that incompatible, adjoining land uses are adequately protected and are provided an appropriate amount of land separation to conduct permitted uses without causing adverse impact. An "incompatible land use" is defined as one that is more intensely developed than its neighbor and typically involves minimizing potential nuisances such as noise, dirt, litter, glare of lights, or other objectionable activities. The buffers are required along the entire contiguous property line.
- 508.02. Responsibility for Buffer Construction:** The required buffer between different land uses shall be provided by the higher intensity use and shall be located on the building site of the higher intensity use, except as determined otherwise by the City after written request. If a lower intensity use is proposed adjacent to an existing higher intensity use with no buffer, the lower intensity use must provide the required buffer.
- 508.03. Buffer Material:** The materials within the required buffer between incompatible land uses are regulated as follows:
- 508.03.1. Mix of Materials:** All buffer areas shall be comprised of, but not limited to, a mix of evergreen and deciduous trees, shrubs, lawn, or other vegetative ground cover. Fences, walls and berms may also be incorporated into the buffer area.
 - 508.03.2. Barrier Effectiveness:** The required buffer area shall result in an effective barrier within three (3) years and be maintained such that sixty percent (60%) or more of the vertical surface is closed and prevents the passage of vision through it. Trees may be spaced closer as necessary to achieve this goal.
 - 508.03.3. Buffer Walls:** Where existing or proposed adjacent land uses cannot be adequately buffered with plant material(s), the city may require inclusion of a wall, fence, or other type of screen that mitigates noise and/or unsightly uses. If a wall or fence at least six feet (6') tall is provided, the planting requirement may be set to one tree per thirty five (35) linear feet, plus shrubs, lawn, or other vegetative ground cover must be provided within the buffer area.
 - 508.03.4. Chain-link Fencing:** Chain-link fencing (with or without privacy slats) does not qualify as a sound deadening material; therefore, the buffer must be landscaped, even if a chain-link fence is provided.
- 508.04. Land Use Intensity Classifications:** The table below is intended to provide a general classification of land use intensities for commonly proposed developments and is not a comprehensive list. If a land use is not listed, the intensity classification shall be determined by the zoning authority based upon the nearest use listed.

Class I	Cemeteries Duplexes Golf courses Parks Single-family homes Vacant land zoned R-1 & R-2
Class II	Childcare facilities

	Elementary schools Libraries Multi-family dwellings Senior centers
Class III	Clinics High schools Middle schools Neighborhood commercial Offices Personal services Quasi-public uses
Class IV	General retail Grocery stores Hotel/motel Indoor manufacturing Parking garages Restaurants Storage facilities Vacant land zoned C Warehouses
Class V	Contractor yards Heavy manufacturing Processing plants Recycling Vacant land zoned CI

508.05. Minimum Buffer Widths: The minimum buffer width between incompatible land uses is based on the following table:

<i>Intensity Class of Proposed Use</i>	<i>Intensity Class of Adjacent Use</i>				
	I	II	III	IV	V
I	n/a	20	20	25	35
II	20	n/a	20	20	30
III	20	20	n/a	20	25
IV	25	20	20	n/a	20
V	35	30	25	20	n/a

Notes:

1. Buffer widths are shown in feet.
2. The buffers between land uses are required only along contiguous lot lines. If incompatible land uses are across a public street from one another, the street buffer requirements apply.

508.06. Pedestrian Access: Landscaping and screens shall not eliminate pedestrian access from residential development to abutting commercial districts and vice versa.

508.07. Existing Partial Buffers: If all or any part of the buffer has been provided on the adjacent property, the proposed use must provide only that amount of the buffer which has not been provided on the adjacent property.

508.08. Relationship to Parking Lot Perimeter Requirements: All buffers between different land uses may include any required perimeter parking lot landscape strips when calculating the minimum width of the buffer.

509. Tree Preservation

- 509.01 Purpose:** The regulations of this section are intended to promote, preserve, and protect the trees, shrubs, and plants within the city, also known as the Wilder Community Forest. This includes regulations intended to preserve existing trees four inches (4") caliper or greater from destruction during development.
- 509.02 Applicability:** Tree preservation requirements apply in all districts and zones.
- 509.03 Site Design:** Site plans shall make all feasible attempts to accommodate existing trees four inch (4") caliper or greater within their design.
- 509.04 Landscape Plan:** All existing trees greater than four inch (4") caliper shall be shown on the landscape plan. The plan shall indicate whether each tree is to be retained or removed.
- 509.05 Protection During Construction:** Retained trees shall be protected from damage to bark, branches, and roots during construction. Any severely damaged tree shall be replaced in accordance with these standards.
- 509.06 Construction Within the Drip Line of Existing Trees:** Specific requirements for construction within the drip line of existing trees are as follows:
- 509.06.1 Paving:** Whenever possible, impervious paving surfaces shall remain outside of the drip line of existing trees. When it is not possible, impervious surfaces shall be allowed at a distance from the trunk of a retained tree equal to the diameter of the tree trunk plus five feet (5').
- 509.06.2 Grade Changes:** Grade changes greater than six inches (6") are prohibited within the drip line of existing trees.
- 509.06.3 Compaction:** Most machinery caused tree damage comes from soil compaction of the root system. A fence or barrier enclosing the area beneath the tree canopy shall be installed before construction.
- 509.06.4 Mitigation:**
- 509.06.4.1** Mitigation is required for all existing trees four inch (4") caliper or greater that are removed from the site with equal replacement of total calipers lost on site. (Example: Two 10-inch caliper trees removed may be mitigated with four 5-inch caliper trees, five 4-inch caliper trees, or seven 3-inch caliper trees.)
- 509.06.4.2** No mitigation is required in the following circumstances:
1. Existing prohibited trees within the street buffer or parking lot;
 2. Existing dead, dying, or hazardous trees certified as such by the City prior to removal;
 3. Trees that are required to be removed by another governmental agency having jurisdiction over the project.
- 509.07 Landscape Requirements:** Existing trees that are retained or relocated on site may count toward the landscape requirements. Mitigation trees are in addition to all other landscaping required by these standards.

- 509.08 Incentives: The zoning authority may allow a reduction up to ten percent (10%) of the required parking spaces to accommodate existing trees.

SECTION 600 - RESERVED FOR FUTURE USE

SECTION 700 - WATER AND SEWER STANDARDS

701 General

- 701.01 All construction shall conform to the latest edition of the Idaho Standards for Public Works Construction (ISPWC).
- 701.02 Variation from these Standards may be allowed by the City when special conditions exist on a project, in accordance with Wilder City Code Title 7 Chapter 1.
- 701.03 If any section, subsection, sentence, clause, phrase, or portion of these Standards is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portions shall be deemed a separate, distinct, and independent provision and such holdings shall not affect the validity of the remaining portions thereof.

702 Water Meters

- 702.01 Water Meter specifications: All meters shall record usage in gallons. All meters shall be radio read. Electronic architecture shall be compatible and work flawlessly with existing reading equipment. The following types of water meters shall be required in the City of Wilder:
- 702.01.1. 5/8 x 3/4", through 2" size will be Neptune T-10 ProRead (radio read).
- 702.01.2. Compound Meters: This specification covers 2" through 10" compound meters.
- 702.01.3. Neptune TruFlo compound ProRead, radio read.
- 702.01.2. Turbine Meters: This specification covers 1 1/2" through 10" Neptune HP Turbine ProRead, radio read.
- 702.01.4. All meters are to be NSF 61 type enviro brass. They must be cast into brass body with no painted surfaces. All meters must be supplied with an R900 MIU for each register.
- 702.01.5. Valve Specifications: Mechanical Joint & Flange Valves or combination connection valves are to be full body valves. No thin walled body is to be allowed.

703 Fire Hydrants

- 703.01 Fire Hydrant specifications: Clow Medallion Hydrants with Storz fitting on steamer port.

703.01.1. Fire Hydrants shall be manufactured in accordance with AWWA C-502, be listed by Underwriters Laboratories, Inc. and have Factory Mutual Research approval.

703.01.2. Fire Hydrants shall be designed for 250 psi operating pressure and tested to 500 psi hydrostatic pressure.

701.01.3. Fire Hydrants shall have a mechanical joint lower connection installed with joint restraints on all mechanical joints between hydrants and main line.

703.01.4. Fire Hydrants shall be Clow Medallion red.

703.02 Fire Hydrant locations and spacing shall be approved by the Fire Chief or designee.

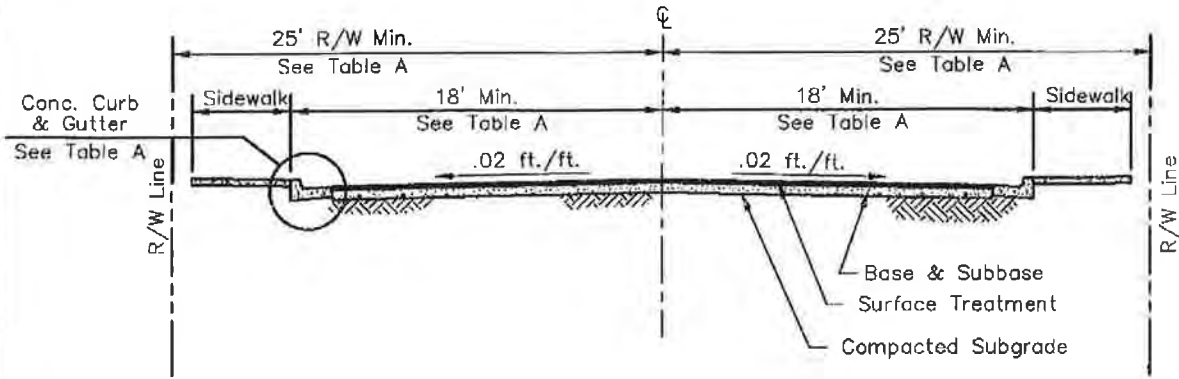
SECTION 800 - RESERVED FOR FUTURE USE

SECTION 900 - FENCE REGULATIONS

901 General

901.01 Visibility of Intersections: On a corner lot in any district, nothing shall be erected, placed, planted or allowed to grow in such a manner as to materially impede vision between a height three feet (3') and ten feet (10') above the centerline grades of the intersecting streets in the area bounded by the right-of-way lines of such corner lots and a line joining points along said street right-of-way lines twenty five feet (25') from the point of the intersection.

901.02 Fence and Wall Restriction in Front Yards: In any front yard, no fence or wall shall be permitted which materially impedes vision across such yard between the height of three feet (3') and ten feet (10').



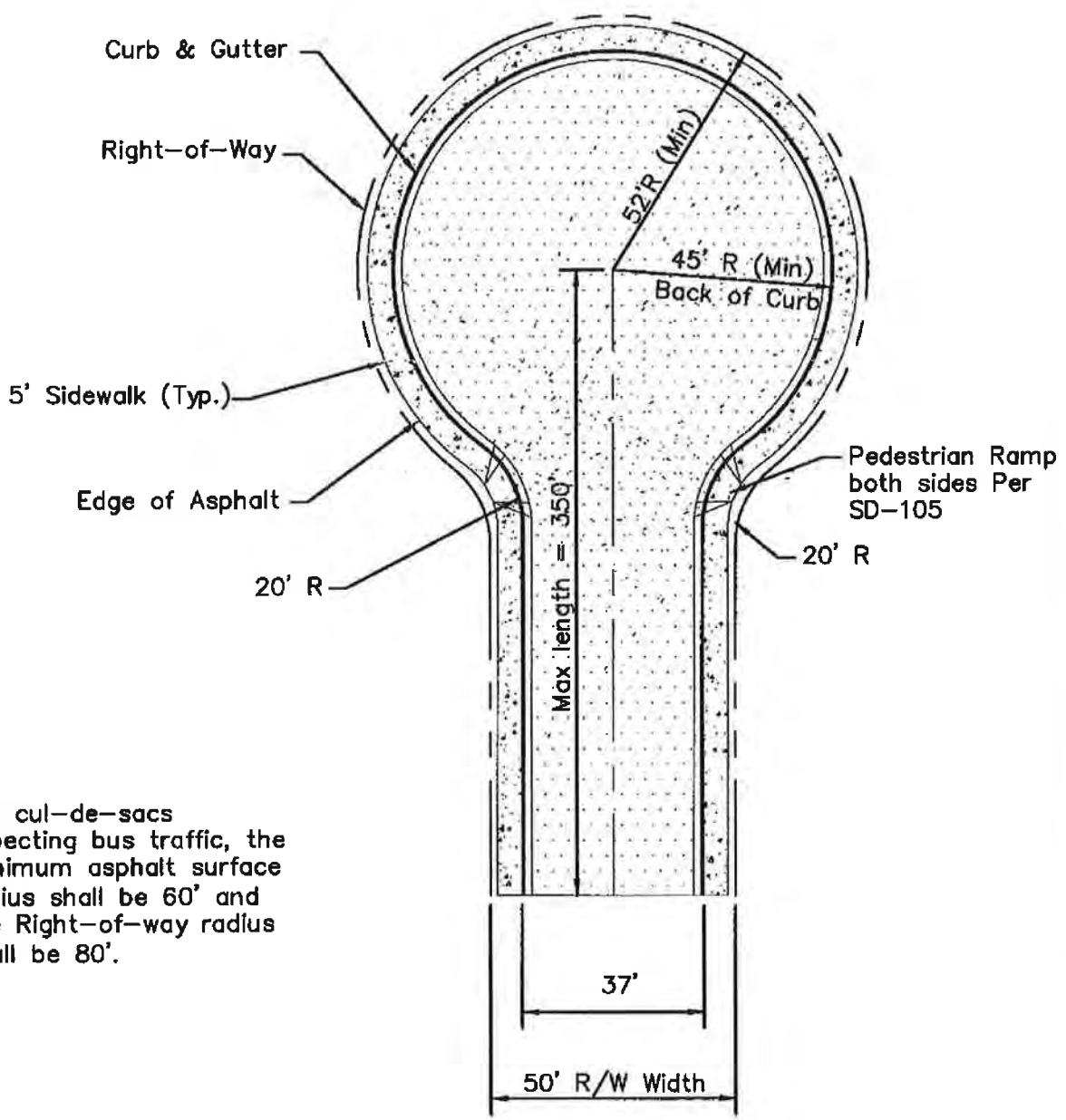
TYPICAL CURB & GUTTER SECTION

N.T.S.

TABLE A

Class of Road	Subbase or Ballast	Base Course	Plant Mix Pavement	Road Width Back to Back of Curb	Right of Way Width	Sidewalk Width	Curb Type
Minor Arterial	12"	4"	3"	49'- 0"	80'	7'	Vertical
Collector	11"	4"	3"	41'- 0"	60'	7'	Vertical
Local Commercial	10"	4"	3"	37'- 0"	60'	7'	Vertical
Local Residential	10"	4"	2 1/2"	37'- 0"	50'	5'	Roll

Road Structure Sections may vary for poor Soil conditions. Changes to these Section requirements will be based on a Geotechnical Report prepared by a Registered Professional Engineer.



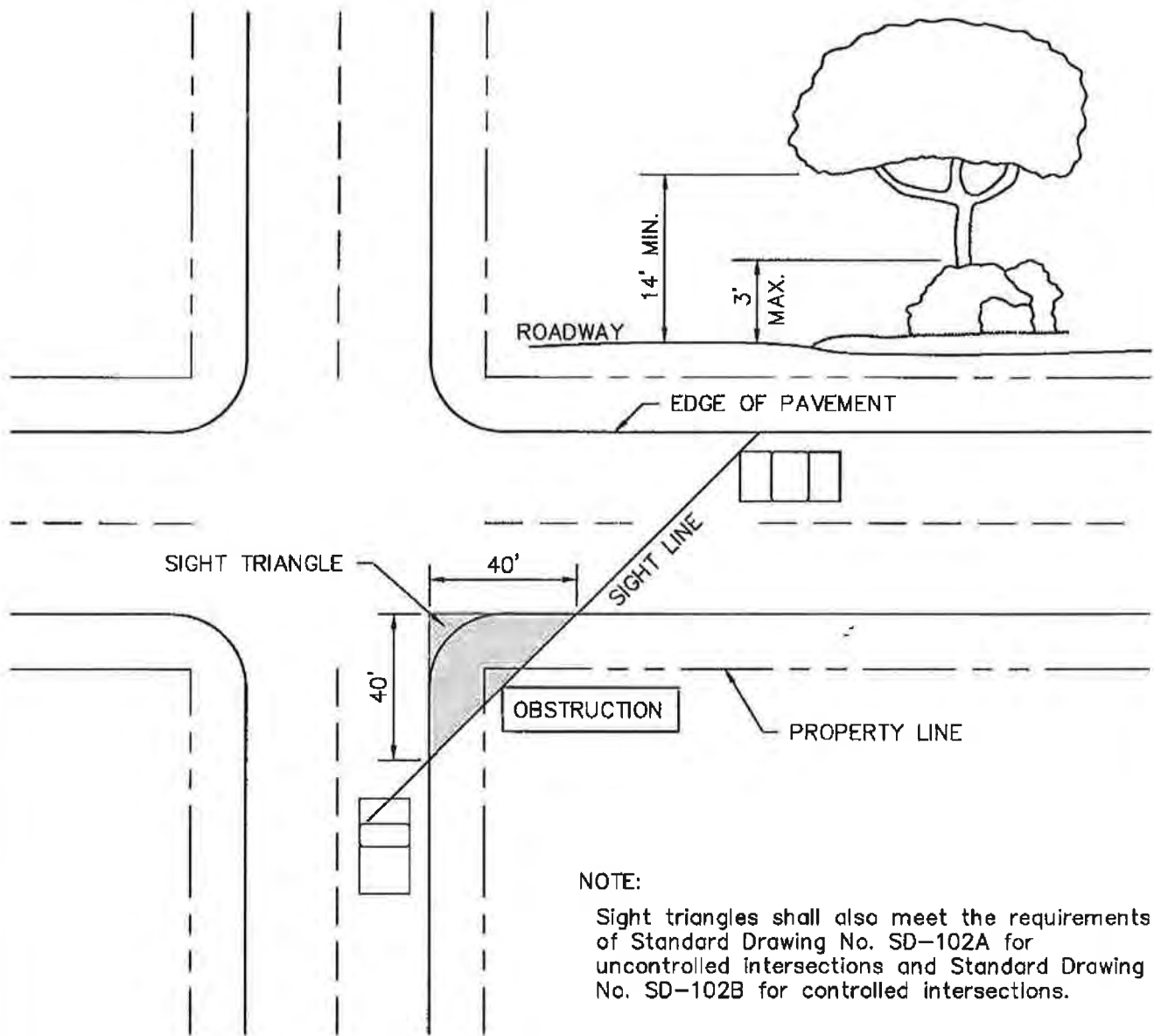
NOTES:

For cul-de-sacs expecting bus traffic, the minimum asphalt surface radius shall be 60' and the Right-of-way radius shall be 80'.

**LOCAL RESIDENTIAL
STANDARD CUL-DE-SAC LAYOUT**

N.T.S.

**STANDARD DRAWING No. SD-101
CITY OF WILDER
Updated October 2004, J-U-B Engineer Inc.**

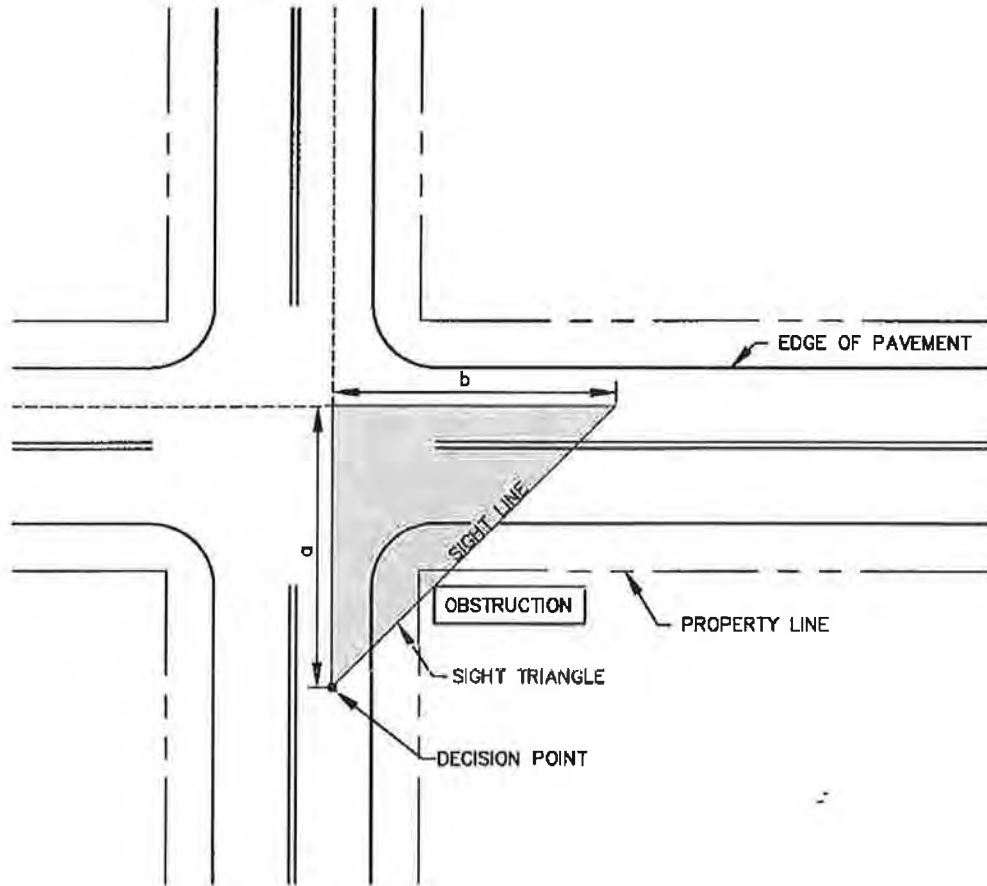


NOTE:
 Sight triangles shall also meet the requirements of Standard Drawing No. SD-102A for uncontrolled intersections and Standard Drawing No. SD-102B for controlled intersections.

CLEAR SIGHT TRIANGLE
 N.T.S.

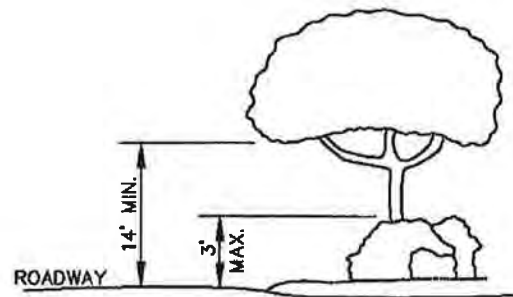
STANDARD DRAWING No. SD-102
 CITY OF WILDER

Sources: Idaho Code 49-221



Design Speed (mph)	Length of Leg [a,b] (ft)
20	90
25	115
30	140
35	165
40	195

Sight triangles for uncontrolled intersections shall also meet the Idaho Code requirements shown on Standard Drawing No. ACCHD-105



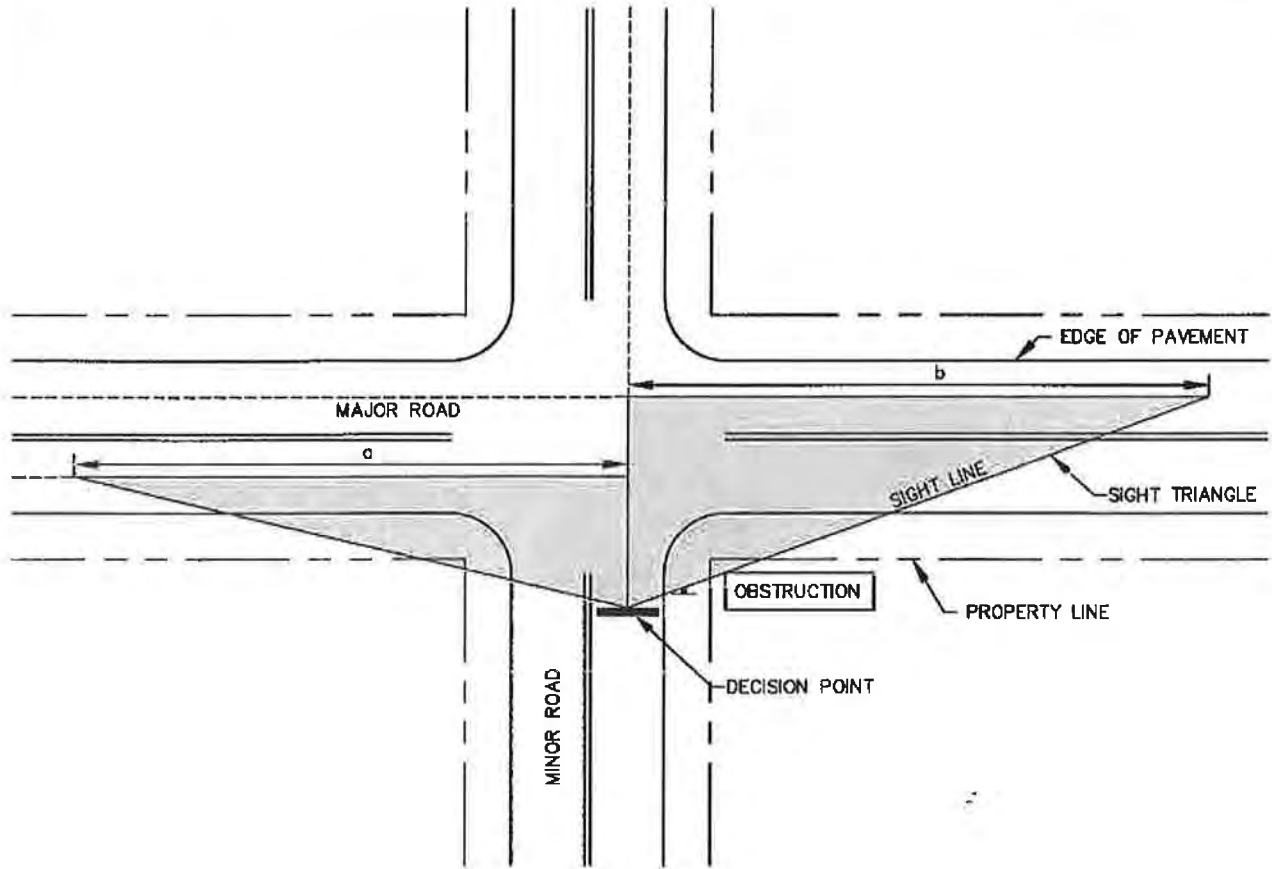
Obstructions between 3' and 10' above the roadway surface are prohibited within sight triangles

SIGHT TRIANGLE AT UNCONTROLLED INTERSECTIONS

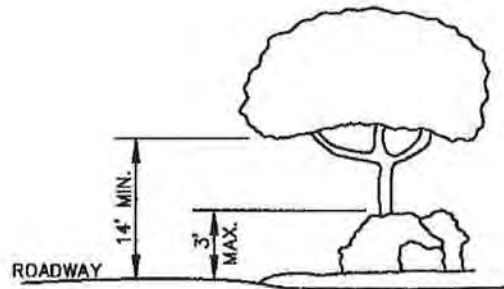
N.T.S.

STANDARD DRAWING No. SD-102A
CITY OF WILDER

MODIFIED OCTOBER 2008 J-U-B ENGINEERS, INC.



Design Speed (mph)	Stopping Sight Distance (ft)	Length of Leg a (ft)	Length of Leg b (ft)
20	115	195	225
25	155	240	280
30	200	290	335
35	250	335	390
40	305	385	445
45	360	430	500
50	425	480	555
55	495	530	610
60	570	575	665
65	645	625	720



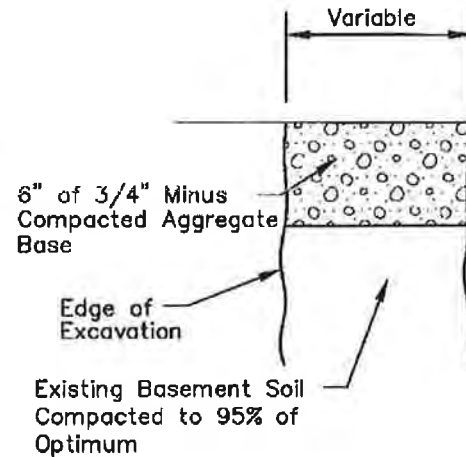
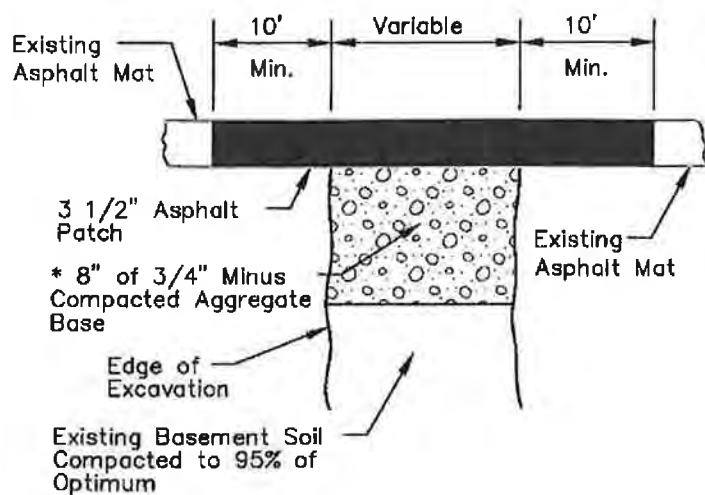
Obstructions between 3' and 10' above the roadway surface are prohibited within sight triangles

Sight triangles for controlled intersections shall also meet the Idaho Code requirements shown on Standard Drawing No. SD-102

SIGHT TRIANGLE AT CONTROLLED INTERSECTIONS

N.T.S.

STANDARD DRAWING No. SDD-102B
CITY OF WILDER



* Or Existing Design Section, Whichever is Greater

PAVED SURFACE

GRAVEL SURFACE

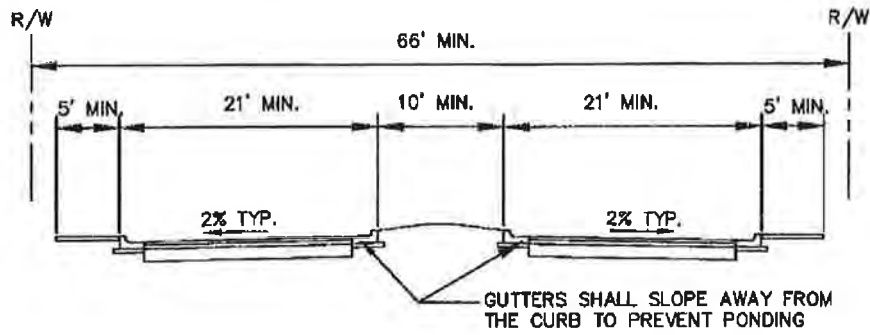
NOTES

1. Backfill of trench shall comply with Idaho Standards for Public Works Construction.
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 three 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.
5. Street surfacing shall be trimmed 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 than .03 ft./10 ft. in profile or .05 ft./10 ft. in cross-section when measured with a 10 ft. straight edge.
9. Completed patch shall not pond water.
10. Surface repair in shoulder areas within three feet of pavement edge shall be 3" depth 3/4" aggregate base.
11. Contractor shall be responsible for maintenance of street repair for two years after installation.
12. All material to be compacted to at least 95% of optimum density per appropriate AASHTO standard proctors.

STREET CUTS AND SURFACE REPAIRS

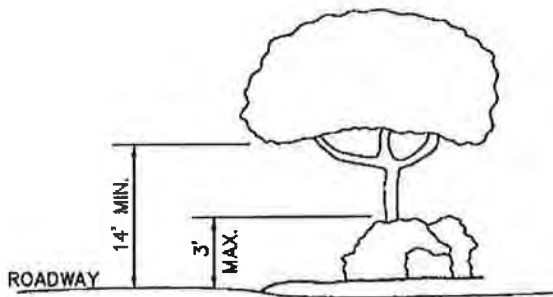
STANDARD DRAWING NO. SD-103

CITY OF WILDER

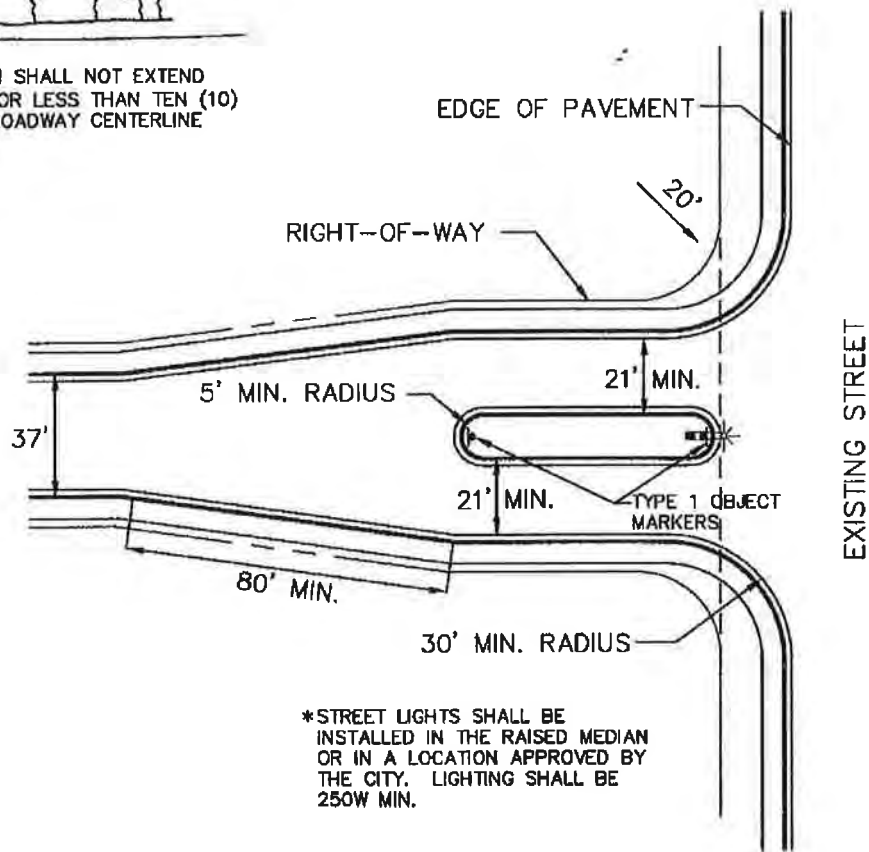


TYPICAL STREET SECTION

N.T.S.



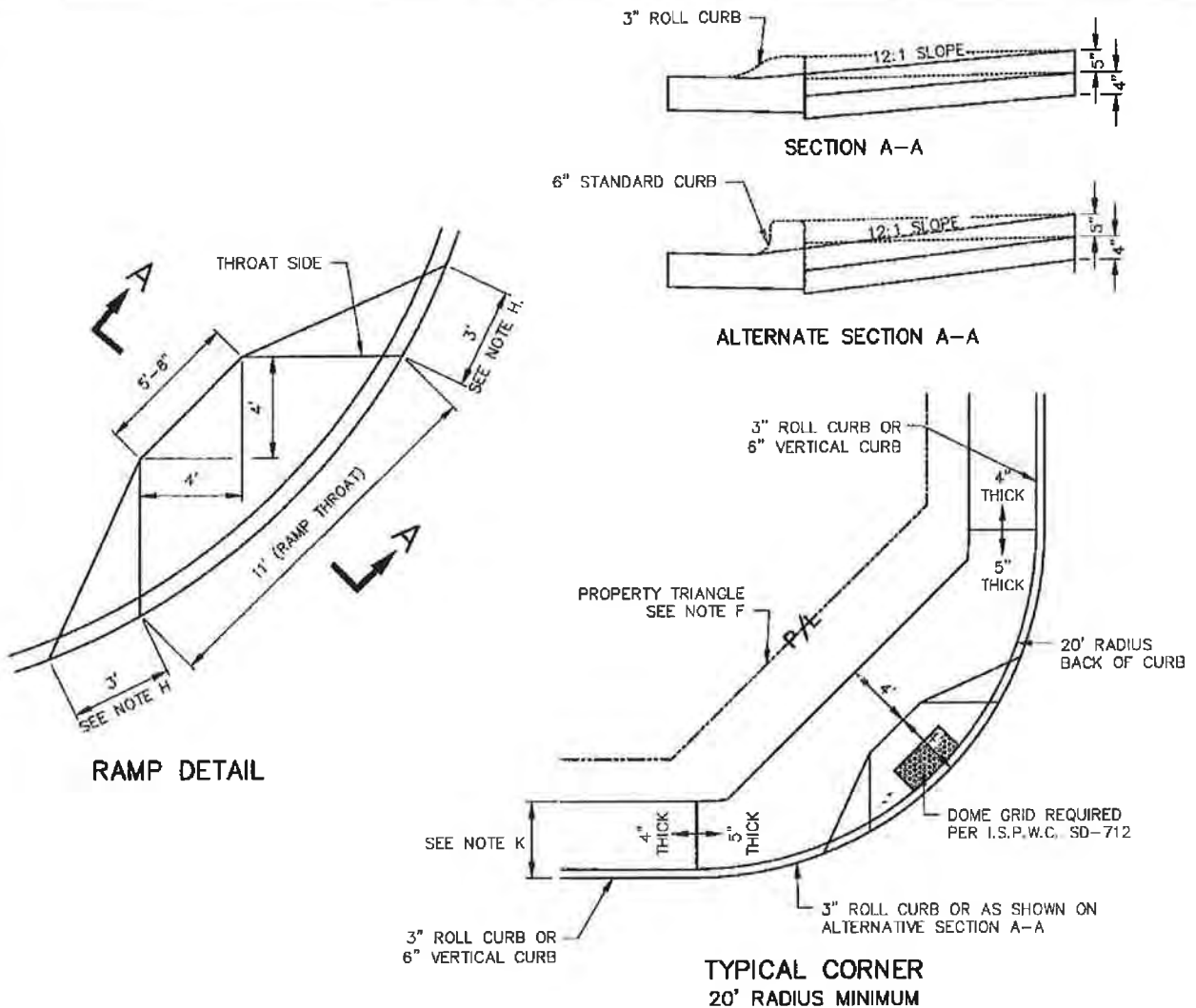
OBSTRUCTIONS IN THE MEDIAN SHALL NOT EXTEND MORE THAN THREE (3) FEET OR LESS THAN TEN (10) FEET IN HEIGHT ABOVE THE ROADWAY CENTERLINE ELEVATION.



RAISED MEDIANS

N.T.S.

STANDARD DRAWING No. SD-104
CITY OF WILDER



NOTES:

- A. THIS TYPE OF RAMP CAN BE USED FOR ANY CORNER WITH 3" ROLL CURB OR 6" VERTICAL CURB WHERE LOCAL STREETS MEET.
- B. CURB ON THE RADIUS TO BE 3" ROLL CURB FOR SHOWN DIMENSIONS. 6" VERTICAL CURB MUST TAPER @ 12:1 OR FLATTER.
- C. ALL RAMP SURFACES TO BE 12 TO 1 SLOPE TO CONFORM TO A.D.A. REQUIREMENTS.
- D. EACH CORNER TO HAVE ONE RAMP CENTERED IN RADIUS.
- E. 20' MINIMUM CORNER RADIUS.
- F. PROPERTY TRIANGLE SIZE TO BE EQUAL TO THE RADIUS SIZE AS A MINIMUM. THE OWNER MAY REQUIRE LARGER TRIANGLES TO ACCOMMODATE VARIOUS TRAFFIC EQUIPMENT AND UTILITIES.
- G. THE RAMP THROAT WIDTH TO BE 4 FEET MEASURED PERPENDICULAR TO THE THROAT SIDE. THE RAMP THROAT DEPTH TO BE 4 FEET MEASURED FROM THE FACE OF THE CURB TO THE BACK OF THE APPROACH. THE SIDE OF THE RAMP THROAT TO BE PARALLEL WITH THE EXPECTED PATH OF THE PEDESTRIAN FOR EXAMPLE: PARALLEL WITH STOP BAR.
- H. THE RAMP WINGS TO BE 3 FEET MEASURED AT THE CURB FACE FOR 3" ROLL CURB.
- I. ALL RAMPS TO HAVE A 4 FOOT WIDE CONTINUOUS PATH BEHIND THEM FOR PEDESTRIANS.
- J. ALL CONCRETE ADJOINING THE RADIUS WITHIN AND AROUND THE RAMPS TO BE 5 INCHES THICK WITH 4 INCHES OF 3/4 INCH AGGREGATE BASE.
- K. ADJUST SIDEWALK WIDTH, RAMP DEPTH AND SLOPES TO CONFORM WITH WILDER STANDARD 100 TABLE A. ALL SHOWN MEASUREMENTS ARE THE MINIMUM REQUIRED TO ASSURE COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT.

PEDESTRIAN RAMP

N.T.S.

STANDARD DRAWING No. SD-105

CITY OF WILDER

MODIFIED OCTOBER 2008 J-U-B ENGINEERS, INC.