

ORDINANCE NO. 19-11

AN ORDINANCE AMENDING TITLE 14 AND TITLE 16 OF THE WASATCH COUNTY CODE TO UPDATE INFRASTRUCTURE IMPROVEMENT STANDARDS AND APPROVAL REQUIREMENTS

RECITALS

WHEREAS, Wasatch County desires to enact revised standards for excavations, trails, sidewalks, roads, snow storage, garbage storage, street lights and infrastructure that will beautify the County, and provide for the safety and welfare of its residents; and

WHEREAS, Utah Code Section 17-50-302 authorizes the County to provide services, exercise powers, and perform functions that are reasonably related to the safety, health, morals, and welfare of their inhabitants; and

WHEREAS, Utah Code Section 17-50-305 authorizes the County to acquire, construct, and control roads, bridges, and sidewalks; and

WHEREAS, Utah Code Section 17-50-309 authorizes the County to enact regulations for the control, construction, alteration, repair, and use of all public roads and highways outside of cities or towns; and

WHEREAS, Utah Code 17-27a-508(2019) may require the County to adopt standards for infrastructure under the requirements of CLUDMA if the County is going to withhold occupancy permits for failure to bond for those improvements; and

WHEREAS, so as to ensure that Title 14 requirements may be bonded for, the Wasatch County Legislative Body desires to ensure that Title 14 is adopted pursuant to the requirements of CLUDMA; and

WHEREAS, Utah Code 17-27a-502 requires Wasatch County to give notice of public hearing as provided in Utah Code 17-27a-205(1)(a), and to hold a public hearing; and

WHEREAS, Wasatch County gave notice of all public meetings and public hearings related to this ordinance as required under both the Wasatch County Code and CLUDMA, and the planning commission held a public hearing as required; and

WHEREAS, the County Legislative Body finds that these amendments more fully promote the objectives and purposes of the general plan and the Land Use and Development Code; and

WHEREAS, the County Legislative Body finds that these amendments advance the health, safety, and welfare of Wasatch County; and

NOW THEREFORE, The County Legislative Body of Wasatch County ordains as follows:

SECTION I: Enactment.

The attached copy of Title 14, as currently constituted in the Wasatch County Code, is hereby affirmed, and is further hereby adopted pursuant to the requirements of CLUDMA. This is attached as Exhibit A.

The amendments to Title 14 and Title 16 of the Wasatch County Code attached to this Ordinance are hereby enacted. This is attached as Exhibit B. The sections shown in Exhibit A are hereby modified and amended to the extent they conflict with Exhibit B.

SECTION II: Repealer. If any provisions of the County Code heretofore adopted are wholly inconsistent with this ordinance, they are hereby repealed.

SECTION III: Amendment of Conflicting Ordinances. To the extent that any ordinances, resolutions, or policies of Wasatch County partially conflict with this ordinance, they are hereby amended to comply with the provisions hereof.

SECTION IV: Effective Date. This Ordinance shall become effective immediately upon execution by the Chair of the County Council and the completion of public notice requirements imposed by state statute.

SECTION V: Severability. If any section, subsection, sentence, clause, or phrase of this ordinance is declared invalid or unconstitutional by a court of competent jurisdiction, said portion shall be severed and such declaration shall not affect the validity of the remainder of this ordinance.


SECTION VI: Public Notice. The Wasatch County Clerk, and ex officio Clerk of the Wasatch County Council, is hereby ordered, in accordance with the requirements of Section 17-53-208, Utah Code Annotated, 1953, as amended, to do as follows:

- a. Enter at length this ordinance in the ordinance book;
- b. Deposit a copy of this ordinance in the office of the County Clerk;
- c. Publish a short summary of this ordinance, together with a statement that a complete copy of the ordinance is available at the County Clerk's office and with the name of the members voting for and against the ordinance, for at least one publication in a newspaper published in and having general circulation in the county; or post a complete copy of this ordinance in nine (9) public places within the County.

APPROVED and **PASSED** this 18 day of December, 2011.

Attest:

WASATCH COUNTY COUNCIL:


Calvin Griffiths
Wasatch County Clerk / Auditor


~~Mark Nelson, Vice-Chair~~ Kendall Crittenden
Wasatch County Council

Danny Goode, Chairman
Mark Nelson, Vice-Chair
Marilyn Crittenden
Jeff Wade
Kendall Crittenden
Steve Farrell
Spencer Park

VOTE



ADOPTION OF ORDINANCE AFFIDAVIT

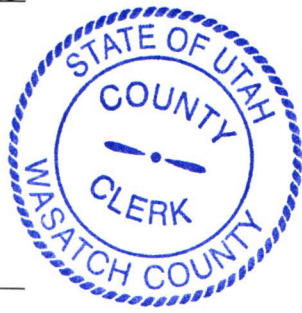
STATE OF UTAH)
): ss.
COUNTY OF WASATCH)

I, the undersigned, the duly qualified and acting County Clerk of Wasatch County, Utah, and ex officio Clerk of the Wasatch County Council do hereby further certify, according to the records of said Council in my official possession, and upon my own knowledge and belief, that I have fulfilled the requirements of Section 17-53-208, Utah Code Annotated, 1953, as amended, by:

- [x] (a) Causing this ordinance to be entered at length in the ordinance book;
[x] (b) Causing three (3) copies of this ordinance to be deposited in the office of the County Clerk;
[x] (c) Causing a short summary of this ordinance, together with a statement that a complete copy of the ordinance is available at the County Clerk's office and with the name of the members voting for and against the ordinance to be published for at least one publication in The Wasatch Wave, a newspaper of general circulation within the geographical jurisdiction of Wasatch County; or posting a complete copy of this ordinance in nine (9) public places within the County.

IN WITNESS WHEREOF, I have hereunto subscribed my official signature and impressed hereon the official seal of the County Council of Wasatch County, Utah, this 18 day of December, 2019

Calvin Griffiths
Wasatch County Clerk / Auditor



SUBSCRIBED AND SWORN to me, a Notary Public, this 18 day of December, 2019.

Wendy McKnight
Notary Public

Residing in: Wasatch
My commission expires: 09-10-2022

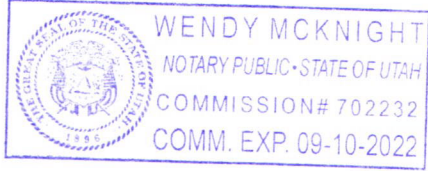


EXHIBIT A

Ent 473039 Bk 1278 Pg 1074

Title 14 - BUILDING AND ENGINEERINGChapter 14.01: BUILDING SAFETY DEPARTMENTChapter 14.02: ENGINEERING DEPARTMENTChapter 14.01: BUILDING SAFETY DEPARTMENT14.01.01: CREATION OF DEPARTMENT14.01.02: RESPONSIBILITIES OF DEPARTMENT14.01.03: RESPONSIBILITIES OF DIRECTOR OF DEPARTMENT OF BUILDING SAFETY14.01.04: ADOPTION OF BUILDING AND CONSTRUCTION CODES14.01.01: CREATION OF DEPARTMENT

There is hereby created a department of building safety. The department shall consist of one director and such other employees as are necessary to fulfill the responsibilities of the department.

HISTORY

Adopted by Ord. 2002 Code § 14.01.01 on 1/1/2002

14.01.02: RESPONSIBILITIES OF DEPARTMENT

The building department shall be responsible for the following functions and duties:

1. Provide technical expertise in the inspection of all phases of residential and commercial construction.
2. Conduct investigations of alleged building code violations and make final decisions related to code compliance and sanctions for noncompliance.
3. Exercise judgment related to continuance or discontinuance of projects for reasons related to safety, standards or project objectives.
4. Act as liaison between county and state agencies, federal agencies and private contractors.
5. Receive and examine building plans for compliance with the uniform building codes standards act as to construction, building type, occupancy and fire protection, and verify that plans conform to uniform building codes standard act.
6. Detail corrections necessary for plans to conform to state and uniform building codes standards act; interpret regulations and codes to builders and property owners to assist them in altering construction plans to meet established standards.
7. Determine building permit fees following established procedures for building type and size.
8. Issue permits for building, plumbing, electrical, heating, cooling and other construction phases as required by law.
9. Discuss and explain the uniform building codes standard act to concerned homeowners and contractors.
10. Visit building sites or existing buildings to perform inspections, including zoning, yard, location, footing, foundation, frame, wiring, plumbing, heating, insulation and drywall to assure compliance to state and county codes and ordinances.
11. Inspection of Modular Units
 1. A MODULAR UNIT is a structure built from sections manufactured in accordance with the construction standards adopted pursuant to Utah Code Title 15A as amended, and transported to a building site, the purpose of which is for human habitation, occupancy or use. Manufactured homes and mobile homes, as defined in Utah Code 15A-1-302 as amended, are not modular units.
 2. Any modular unit, or any portion thereof, shall be subject to inspections by the director of the department of building safety, or someone authorized by the director to perform inspections for Wasatch County ("inspector"). These inspections may include, without limitation, shear nail inspections, roof nailing inspections, weather barrier inspection, lath inspections-Rock, lath inspections-Plaster, framing inspections, rough electrical inspections, rough mechanical inspections, rough plumbing inspections, rough fire sprinkler inspections, hydronic tubing inspections, WUI rough inspections, insulation inspections, drywall inspections, shower pan inspections, power to panel inspections, party wall inspections (townhomes), roof penetration and fireproof roof sheathing inspections (townhome), final building inspections, final electrical inspections, final plumbing inspections, final mechanical inspections, final insulation inspections, and final sprinkler and flow test inspections. It is the responsibility of the applicant to ensure that any modular units, or any portions thereof, are open and observable for inspection. If a Wasatch County inspector cannot inspect any part of the building due to construction work, being covered up or obscured, the inspector shall refuse to pass the inspection, or issue a certificate of occupancy, until the applicant removes any materials that interfere with the subject of the inspection, and allows the inspector to inspect the modular unit, or any portion thereof.
 3. The director of the building department is authorized to allow inspectors to perform inspections of modular units, or any portion thereof, outside of Wasatch County for modular units that will be placed in Wasatch County. However, the director is required to ensure that any additional costs of out of county inspections, including, without limitation, mileage, reimbursements for airfare, and per diem costs at current county rates, are all paid by the applicant. Known expenses shall be paid in advance by the applicant. Additionally, the director of the building department is directed to prioritize requests for inspections inside the county, and if an inspection outside of the county will unreasonably interfere with the building department's ability or availability to perform in county inspections, the director of the building department shall refuse to perform out of county requests for inspection.

HISTORY

Adopted by Ord. 2002 Code § 14.01.02 on 1/1/2002

Amended by Ord. 18-07 on 6/20/2018

14.01.03: RESPONSIBILITIES OF DIRECTOR OF DEPARTMENT OF BUILDING SAFETY

1. The director of the department of building safety shall be appointed by the county manager, with the advice and consent of the county legislative body.
2. Under the supervision of the county manager, the director shall perform the following functions and duties:
 1. Performing all functions and duties pertaining to and necessary to fulfill the responsibilities as set forth in this chapter.
 2. Supervising, managing and assigning employees working in the department.
 3. Recommending to the county manager policies and procedures for operation and management of the department.
 4. Proposing changes in ordinances and codes to the county legislative body, and to county boards and commissions.
 5. Responding to requests for code and ordinance interpretation, offering correct interpretation and passing the same on to the public as the occasion arises.
 6. As requested, making reports to the county manager and county legislative body regarding the management, financial status and

operation of the department.

Ent 473039 Bk 1278 Pg 1075

HISTORY

Adopted by Ord. 2002 Code § 14.01.03 on 1/1/2002

14.01.04: ADOPTION OF BUILDING AND CONSTRUCTION CODES

1. By resolution of the county legislative body, the county shall adopt specific editions of the following codes, each of which must be approved by the state of Utah and promulgated by a nationally recognized code authority:
 1. A building code;
 2. The national electrical code promulgated by the National Fire Protection Association;
 3. A plumbing code; and
 4. A mechanical code.
5. The 2006 international wildland urban interface code, as revised by the state of Utah and Wasatch County, as indicated below, is hereby adopted as the wildland interface code of Wasatch County for those areas in the county designated by Wasatch County as wildland urban interface areas.

Revisions:

Section 101.3: Delete "The extent of this regulation is intended to be tiered commensurate with the relative level of hazard present".

Section 101.3: Second paragraph, substitute "development and" for "unrestricted".

Section 101.4: Delete the exception in this subsection.

Section 101.5: In the exception, delete "section 402.3".

Section 105.2: Delete "For building or structures erected for temporary uses, see appendix A, section A108.3, of this code.".

Section 105.2: Add a number 15 to the list of activities that need a permit to read "Other activities as determined by the code official.".

Section 202: Delete "critical fire weather"; "ignition-resistant construction class 1, 2, and 3"; and "wildland-urban interface area".

Section 202: Delete "see critical fire weather" from fire weather definition.

Section 202: Replace fuel, heavy definition with "vegetation consisting of round wood 3 inches (76 mm) or larger in diameter. The amount of fuel (vegetation) would be 6 tons per acre or greater.".

Section 202: Replace fuel, light definition with "vegetation consisting of herbaceous and round wood less than 1/4 inch (6.4 mm) in diameter. The amount of fuel (vegetation) would be 1/2 ton to 2 tons per acre.".

Section 202: Replace fuel, medium definition with "vegetation consisting of round wood 1/4 to 3 inches (6.4 mm to 76 mm) in diameter. The amount of fuel (vegetation) would be 2 to 6 tons per acre.".

Section 202: Add the term "legislative body" with the following definition:

The governing body of the political jurisdiction administering this code.

Section 202: Add the term "brush, tall" with the following definition:

Arbor-like varieties of brush species and/or short varieties of broad-leaf trees that grow in compact groups or clumps. These groups or clumps reach heights of 4 to 20 feet. In Utah, this includes primary varieties of oak, maples, chokecherry, serviceberry and mahogany, but may also include other species.

Section 202: Add the term "brush, short" with the following definition:

Low-growing species that reach heights of 1 to 3 feet. Sagebrush, snowberry, and rabbitbrush are some varieties.

Section 202: Add the term "wildland-urban interface" with the following definition:

The line, area, or zone where structures or other human development (including critical infrastructure that if destroyed would result in hardship to communities) meet or intermingle with undeveloped wildland or vegetative fuel.

Section 301: Delete entire section.

Section 302.1: Replace with:

The legislative body shall declare the wildland-urban interface areas within the jurisdiction. The wildland-urban interface areas shall be based on the maps created through section 302.

Section 302.2: Replace with:

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In cooperation, the code official and the division of forestry, fire and state lands (FFSL) wildfire representative (per participating agreement between county and FFSL) will create or review wildland urban interface area maps to be recorded and filed with the clerk of the jurisdiction. These areas shall become effective immediately thereafter.

Section 302.3: Add "and the FFSL wildfire representative" between "official" and "shall".

Section 403.2: Replace "12" with "20".

Section 403.2: Delete "driveways in excess of 200 feet...in additions to turnarounds" and "driveway turnouts shall be...as required by the code official."

Section 403.2: Delete the exception to this subsection.

Section 403.3: Replace "typically used to respond to that location" to "to protect structures and wildlands".

Section 403.7: Add:

It will be up to the code official to ascertain the standard based on local fire equipment, grade not to exceed 12%.

Section 404.1: Delete "or as required...with section 402.1.2."

Section 404.1: Delete the exception to this subsection.

Section 404.3: Delete "The draft site shall have emergency...with section 402".

Section 404.5.1: After "the required water supply...shall be 1,500 gallons per minute (95L/s for a minimum duration of" replace "30 minutes" with "2 hours".

Section 404.5.2: Replace with:

The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in table B105.1 of the international fire code. Exception: A reduction in required fire-flow of up to 75 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with section 903.3.1.1 or 903.3.1.2 of the international fire code. The resulting fire-flow shall not be less than 1,500 gallons per minute for the prescribed duration as specified in table B105.1 of the international fire code.

Section 404.6: Replace with:

The water system required by this code can only be considered conforming for purposes of determining the level of ignition-resistant construction (see table 503.1).

Section 404.8: Delete the words "and hydrants".

Section 404.9: After "...periodic test as required by the fire code official", add the sentences:

The fire code official shall establish a periodic testing schedule. Costs are to be covered by the water provider.

Section 404.9: After the last sentence, add:

Mains and appurtenances shall be installed in accordance with R309 environmental quality, drinking water rules of the state of Utah, and with standards as established by Wasatch County and its special service districts. Water tanks for private fire protection shall be installed in accordance with R309 environmental quality, drinking water rules of the state of Utah, and with standards as established by Wasatch County and its special service districts.

Section 404.10.3: After "...dependent of electrical power" and "supplied by power grid" and after "...demands shall provide" add "functional".

Section 404.10.3: Replace "ICC electrical code" with "current national electrical code".

Section 404.10.3: Replace "Exceptions" in its entirety with:

When approved by the code official, a standby power supply is not required where the primary power service to the stationary water supply facility is underground or there is an on-site generator.

Section 405: Before section 405.1 add:

The purpose of the plan is to provide a basis to determine overall compliance with this code, for determination of ignition resistant construction (IRC) (see table 503.1) and for determining the need for alternative materials and methods.

Section 405.1: After "when required by a code official, a fire protection plan shall be prepared". add the words "and approved prior to the first building permit issuance or subdivision approval".

Chapter 5: Delete Table 502.1.

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Section 502.1: Delete "Table 502.1. See also".

Section 502.2: Delete "identified in table 502.2".

Section 505.2: Replace "class B roof covering" with "class A roof covering".

Section 506.2: Replace "class C roof covering" with "class A roof covering".

Section 603.2: Replace "for the purpose of table 503.1" with "for individual buildings or structures on a property".

Section 603.2: Replace "may be increased" with "may be modified".

Section 603.2: Delete "crowns of trees and structures".

Add new section 603.3 titled "Community Fuel Modification Zones" with the following text:

Fuel modification zones to protect new communities shall be provided when required by the code official in accordance with section 603 in order to reduce fuel loads adjacent to communities and structures.

Add new section 603.3.1 titled "Land Ownership" with the following text:

Fuel modification zone land used to protect a community shall be under the control of an association or other common ownership instrument for the life of the community to be protected.

Add new section 603.3.2 titled "Fuel Modification Zone Plans" with the following text:

Fuel modification zone plans shall be approved prior to fuel modification work and shall be placed on a site grading plan shown in plan view. An elevation plan shall also be provided to indicate the length of the fuel modification zone on the slope. Fuel modification zone plans shall include, but not be limited to the following:

- (i) Plan showing existing vegetation.
- (ii) Photographs showing natural conditions prior to work being performed.
- (iii) Grading plan showing location of proposed building and structures and set backs from top of slope to all buildings or structures.

Section 604.1: Add "annually, or as necessary" after "maintained".

Section 604.4: First sentence should read "Individual trees and/or small clumps of trees or brush crowns extending to within..."

Section 607: Change "20 feet" to "30 feet".

Chapter 7: Delete entire chapter.

Appendix A is included as optional recommendations rather than mandatory.

Appendix B is adopted.

Appendix C is amended and adopted as per the attached appendix C.

Appendices D through H are expressly not adopted.

2. Subject to the requirements of section Utah Code Annotated 58-56-4, as amended, the codes adopted under this section shall constitute the building and construction codes of Wasatch County. Two (2) copies of the adopted codes shall be maintained in the building department and shall be made available for inspection by the public.
3. All provisions are hereby adopted.

HISTORY

Adopted by Ord. 2002 Code § 14.01.04 on 1/1/2002

Amended by Ord. 07-05 on 6/18/2008

Chapter 14.02: ENGINEERING DEPARTMENT

14.02.01: CREATION OF DEPARTMENT

14.02.02: RESPONSIBILITIES OF DEPARTMENT

14.02.03: RESPONSIBILITIES OF ENGINEERING COORDINATOR

14.02.04: EXCAVATION AND CONSTRUCTION AFFECTING COUNTY ROADS

14.02.05: SIDEWALKS

14.02.06: ROAD GRADE

14.02.07: GENERAL ROAD DESIGN STANDARDS

14.02.08: ROAD STANDARDS

14.02.09: APPENDIX A TO TITLE 14

14.02.10: APPENDIX B TO TITLE 14; DRIVEWAYS AND ENCROACHMENTS; REQUIREMENTS AND SPECIFICATIONS

14.02.11: APPENDIX C TO TITLE 14; ALLOWABLE ENCROACHMENT INTO PUBLIC ROAD RIGHT OF WAY

14.02.01: CREATION OF DEPARTMENT

There is hereby created a department of engineering. The department shall consist of one engineering coordinator and such other employees as may be necessary to fulfill the duties of the department.

HISTORY

Adopted by Ord. 2002 Code § 14.02.01 on 1/1/2002

14.02.02: RESPONSIBILITIES OF DEPARTMENT

The department of engineering shall be responsible for the following functions and duties:

1. Coordinate the work of review engineers hired by the county to review proposed subdivisions and other instances in which public or private infrastructure is constructed.
2. Inspect the construction of all infrastructure improvements constructed in any subdivision or in any public right of way to ensure construction conforms to the approved plans and specifications.
3. Provide for final acceptance by the county of public infrastructure improvements.
4. Authorize timely release of construction and warranty bonds issued to secure construction and proper function of infrastructure improvements.
5. Provide for management and operation of special service districts as authorized by the county legislative body.

HISTORY

Adopted by Ord. 2002 Code § 14.02.02 on 1/1/2002

14.02.03: RESPONSIBILITIES OF ENGINEERING COORDINATOR

1. The engineering coordinator shall be appointed by the county manager, with the advice and consent of the county legislative body.
2. Under the supervision of the county manager, the engineering coordinator shall perform the following functions and duties:
 1. Performing all functions and duties pertaining to and necessary to fulfill the responsibilities as set forth in this chapter.
 2. Supervising, managing and assigning employees working in the department.
 3. Recommending to the county manager policies and procedures for operation and management of the department.
 4. As requested, making reports to the county manager and county legislative body regarding the management, financial status and operation of the department.
 5. Upon request of the contractor, provide written review of development projects as to conformance with approved plans.

HISTORY

Adopted by Ord. 2002 Code § 14.02.03 on 1/1/2002

14.02.04: EXCAVATION AND CONSTRUCTION AFFECTING COUNTY ROADS

1. Permit And Bond Required:
 1. Before excavating in any county road, lane or public way, or removing any pavement or other materials forming an improvement thereon, a person shall make written application for and obtain a permit from the engineering coordinator. The application shall include a completion bond equal to 1.10 times the cost of restoring the road, lane or public way to its condition prior to excavation. The permit shall be valid for the time shown on the permit and may be extended by the engineering coordinator for additional time.
 2. Before engaging in any construction requiring persons, equipment or materials to encroach upon a county road, lane or public way, a person shall make written application for and obtain a permit from the engineering coordinator. The application shall include a completion bond equal to 1.10 times the cost of restoring the road, lane or public way to its condition prior to the encroachment. The permit shall be valid for the time shown on the permit and may be extended by the engineering coordinator for additional time.
2. Emergency Conditions: Under emergency conditions, a person may excavate in any county road, lane or public way, or remove any pavement or other materials forming an improvement thereon, or may encroach upon a county road or public way, if doing so is necessary to prevent imminent loss of life or serious damage to property. In such emergencies, the person making the excavation or encroachment shall contact and obtain a permit from the engineering coordinator at the earliest possible time, but in no case later than the first working day following the emergency excavation or encroachment. All other provisions and specifications set forth in this section shall be applicable to excavations and encroachments arising out of emergency conditions.
3. Winter Season: No permits for excavation or encroachment shall be issued during the winter season, except in emergency conditions where the engineering coordinator determines that weather and ground conditions are such that satisfactory backfilling and road restoration and repair may be completed. The winter season shall commence on November 1 and end on April 1 of each year, unless otherwise approved by the engineering coordinator.
4. Completion Bonds:
 1. The completion bond required for excavation and for encroachment in a county road, lane or public way may be cash, a letter of credit from an FDIC insured financial institution, or a corporate surety bond. The bond shall be valid for a period of one year to guarantee compliance with the requirements of this chapter. The bond shall be released upon approval of the engineering coordinator and the county manager.
 2. Applicants for excavation and encroachment permits may request permission from the engineering coordinator to secure a continuing annual completion bond in lieu of separate bonds for each excavation or encroachment. Applications for such a bond shall be made before December 31 of each year and shall be valid for the next calendar year or as determined by the engineering coordinator and approved by the county manager.
5. Excavation Procedures:
 1. Any person making any excavation affecting or impacting a county road or public way shall erect and maintain about the excavation site sufficient guards, signals, barricades and lights to give warning to approaching vehicular and pedestrian traffic. The guards, signals, barricades and lights shall remain in place until the road is restored to its original condition and all construction associated with excavation completed, including the removal of all rocks, dirt and construction materials from the road or public way.
 2. All excavations shall be restored to ninety five percent (95%) compaction unless otherwise provided by this code.
 3. The engineering coordinator shall inspect all excavation projects to ensure that the affected or impacted county road or public way is restored to an appropriate condition in accordance with generally applicable county standards.
 4. Any person making any excavation affecting or impacting a county road or public way shall indemnify and hold harmless the county from any and all claims, liabilities, demands or damages for any and all injuries to persons or property arising out of such

excavation.

5. If an excavator refuses to restore to a reasonable safe condition any county road or public way affected or impacted by the excavation, the engineering coordinator may cause the road or public way to be restored at the expense of the excavator.
6. **Cleaning And Operation Of Excavation Equipment On County Roads:**
 1. Any person making any excavation affecting or impacting a county road or public way shall provide for a suitable process to clean the excavation equipment before operating that equipment upon any county road or public way.
 2. At or near the excavation site, the excavator shall establish a cleaning area and crew to clean mud, dirt or rocks from the wheels and exterior body of all excavation equipment. The cleaning area shall allow for adequate drainage and shall not constitute a safety hazard to oncoming vehicular or pedestrian traffic.
 3. All trucks and equipment leaving the excavation site carrying earthen materials or loose debris shall be covered so as to prevent dropping of materials and debris on county roads and public ways.
 4. Ramps constructed over curbs and gutters shall not interfere with or block the passage of water along the gutter and shall be constructed of materials that will not erode in adverse weather conditions.
 5. Excavators under this chapter shall install erosion and runoff controls so as to prevent stormwater, surface water and debris from draining, washing or being carried onto any county road or public way.
 6. Excavators under this chapter shall be responsible for the immediate removal of mud, dirt or debris deposited on county roads or public ways as a result of the excavation.
 7. If an excavator under this chapter fails to remove mud, dirt and debris deposited on a county road or public way as a result of the excavation, the engineering coordinator may provide for the removal at the excavator's expense. The excavator shall be responsible for the costs of removal and any costs expended to collect, including attorney fees. The county may suspend the excavation permit or withhold a certificate of occupancy for any structure related to the excavation until such time as the costs of removal are paid in full.
7. **Construction Encroaching On County Roads:**
 1. Any person engaging in construction of any kind that requires persons, equipment or materials to encroach upon a county road or public way shall erect and maintain during the period of encroachment sufficient guards, signals, barricades and lights to give warning to approaching vehicular and pedestrian traffic. The guards, signals, barricades and lights shall remain in place until the persons, equipment or materials are permanently removed.
 2. Any person engaging in construction of any kind that requires persons, equipment or materials to encroach upon a county road or public way shall indemnify and hold harmless the county from any and all claims, liabilities, demands or damages for any and all injuries to persons or property arising out of such encroachment.
 3. The application and permit shall specify the portion of the county road or public way that may be encroached upon, and hours during which this may occur.
 4. The area of permissible encroachment shall be fenced and provision shall be made for the continuation of safe pedestrian travel along the county road or public way encroached upon.
8. **Specifications For Restoration And Repair Of County Roads:** The specifications and standards for restoration and repair of county roads, lanes or public ways after excavation and encroachment are contained in appendix A, B and C at the end of this chapter.
9. **Construction Standards:** Any construction within or encroaching upon any county road, lane or public way shall meet the construction standards as set forth in the Wasatch County design and construction standards handbook (1995), as amended from time to time, which is hereby adopted.
10. **Prohibited Conduct:**
 1. It shall be unlawful to engage in activities regulated by this chapter without obtaining the required permit, or to engage in activities regulated by this chapter that exceed the scope of the activities authorized in the required permit.
 2. It shall be unlawful for any person subject to the provisions of this chapter to fail to erect and maintain the guards, signals, barricades and lights required in this chapter.
 3. It shall be unlawful for any person to knowingly, intentionally or recklessly remove, tamper with or destroy any guard or barricade, or extinguish any signal or light erected or maintained in accordance with the requirements of this chapter.
 4. It shall be unlawful for any person responsible for an excavation affecting or impacting a county road or way to intentionally or knowingly fail or refuse to restore a county road or public way to a reasonably safe condition after having received written notice from the engineering coordinator ordering restoration.
 5. A violation of any other provision of this chapter shall constitute a class C misdemeanor. Each day a violation of this section persists shall constitute a separate offense.

HISTORY

Adopted by Ord. 2002 Code § 14.02.04 on 1/1/2002

Amended by Ord. 07-03 on 7/7/2008

14.02.05: SIDEWALKS

1. "Sidewalks" shall be defined as:
 1. A roadway easement right of way designed for optimal pedestrian use; or
 2. A pathway designed for safety that provides a probable logical connection among the units in the development in a configuration that discourages pedestrian traffic on the roadway.
2. Pedestrian sidewalks shall be required in all of the following developments as shown in section 14.02.07 of this chapter:
 1. High density;
 2. Commercial;
 3. An average frontage of less than two hundred feet (200');
 4. Multi-family residential; and
 5. Minor and major collectors and arterials.
 6. In developments, other than those listed above, options may be looked at for resort or mountainous developments where a trail system, that accomplishes the same results as a sidewalk, is desirable. The planning commission shall make a recommendation to the county council regarding where trails and not sidewalks may be used.
 7. Unless the physical terrain such as a steep grade or hillside slope makes sidewalks prohibitive or unsafe, in which case the county legislative body, upon consideration of recommendations from staff or the planning commission, may make an exception to these standards as long as alternative pathways are provided. The burden of demonstrating this exception is entirely upon the applicant

and must be shown by a clear and convincing standard.

8. Sidewalks shall be constructed with concrete or any other hard surface material, which has a manufacturer guaranteed life of at least twenty five (25) years.

HISTORY

Adopted by Ord. 2002 Code § 14.02.05 on 1/1/2002

Amended by Ord. 2004-26 on 11/17/2004

Amended by Ord. 12-15 on 11/14/2012

14.02.06: ROAD GRADE

1. The minimum allowed grade for all roadways is one-half percent (0.5%).
2. The maximum allowed grades for all roadways are as follows:
 1. Minor local, the maximum grade shall not exceed ten percent (10%);
 2. Local, the maximum grade shall not exceed ten percent (10%);
 3. Major local, the maximum grade shall not exceed ten percent (10%); and
 4. Minor collector, the maximum grade shall not exceed eight percent (8%).
3. Physical terrain may require exceptions to the above maximum grade. The following mitigating circumstances may permit an increase in the maximum grade. The burden of meeting the criteria shall be solely upon the applicant and shall be shown by a clear and convincing standard:
 1. Terrain difficulties;
 2. Nature of materials; soil and geology;
 3. Significant vegetation to be preserved;
 4. Aspect, i.e., north facing, south facing, etc.;
 5. Size of lots;
 6. Number of units serviced;
 7. Drainage considerations;
 8. Roadway classification;
 9. Pullouts provided, widths and spacing;
 10. Safety mitigation factors are added; and
 11. Length of exception requested.
4. In the event the applicant meets its burden of showing an exception, the maximum allowed grades are as follows:
 1. Local grade shall not exceed twelve percent (12%);
 2. Major local grade shall not exceed ten percent (10%); and
 3. Minor collector grade shall not exceed eight percent (8%). However, any grade above six percent (6%) requires a letter from the local school district stating that it will service the residences in that development.
5. Compliance with local road grade standards does not guarantee school bus service.

HISTORY

Adopted by Ord. 2004-26 on 11/17/2004

Amended by Ord. 11-05 on 8/18/2011

14.02.07: GENERAL ROAD DESIGN STANDARDS

These standards shall be applicable to new developments in Wasatch County:

1. Roads shall be designed at a minimum in accordance with AASHTO design criteria and per street cross section drawings shown in section 14.02.08 of this chapter.
2. The roadway design standards shall be the same for all publicly owned and all privately owned roadways.
3. In road sections designated as arterials a one hundred six foot (106') width is required as described below:
 1. The county council will approve the final section for construction. The following is a suggested section as shown in section 14.02.08, figure 1 of this chapter:
 1. A ten foot (10') asphalt meandering sidewalk through a twenty three foot (23') section between the property line and the edge of the drainage swale;
 2. A five foot (5') drainage swale;
 3. A two foot (2') gravel shoulder;
 4. A five foot (5') paved shoulder;
 5. A twelve foot (12') paved surface lane;
 6. A twelve foot (12') paved median;
 7. A twelve foot (12') paved surface lane;
 8. A five foot (5') paved shoulder;
 9. A two foot (2') gravel shoulder;
 10. A five foot (5') swale;
 11. A ten foot (10') meandering asphalt sidewalk through a twenty three foot (23') section between the property line and the drainage swale.
4. In road sections designated as a seventy five foot (75') major collector as described below:
 1. The county council will approve the final section for construction. The following is a suggested section as shown in section 14.02.08, figure 2 of this chapter:
 1. A five foot (5') concrete meandering sidewalk through a section between the property line and the drainage swale;
 2. A five foot (5') drainage swale;
 3. A two foot (2') gravel shoulder;
 4. A five foot (5') paved shoulder;
 5. An eleven foot (11') paved surface lane;
 6. A twelve foot (12') paved median;
 7. An eleven foot (11') paved surface lane;
 8. A five foot (5') paved shoulder;

9. A two foot (2') gravel shoulder;
 10. A five foot (5') swale;
 11. A five foot (5') meandering sidewalk through a section between the property line and drainage swale.
5. In road sections designated as a sixty six foot (66') minor collector roadway having ADT of two thousand one (2,001) to eight thousand (8,000):
1. With a swale, the sections shall be built as shown in section 14.02.08, figure 3 of this chapter, and shall meet the following criteria:
 1. A five foot (5') meandering sidewalk within a nine foot (9') area between the property line and drainage swale;
 2. A five foot (5') drainage swale;
 3. A two foot (2') gravel shoulder;
 4. A five foot (5') paved shoulder;
 5. Two (2) 12-foot paved surface lanes;
 6. A five foot (5') paved shoulder;
 7. A two foot (2') gravel shoulder;
 8. A five foot (5') drainage swale;
 9. A five foot (5') meandering sidewalk within a nine foot (9') area between the property line and drainage swale.
6. Major local roads with less than two hundred feet (200') of average lot frontage:
1. With a curb and gutter, the section shall be built, as shown in section 14.02.08, figure 4 of this chapter, and shall meet the following criteria:
 1. A four foot (4') sidewalk;
 2. A five and one-half foot (5.5') park strip;
 3. A two and one-half foot (2.5') curb and gutter;
 4. Two (2) 15-foot paved surface lanes;
 5. A two and one-half foot (2.5') curb and gutter;
 6. A five and one-half foot (5.5') park strip;
 7. A four foot (4') sidewalk.
7. In road sections designated minor local roadways having ADT of zero to two thousand (2,000):
1. With curb and gutter, the section shall be built, as shown in section 14.02.08, figure 5 of this chapter, and shall incorporate the following criteria:
 1. A five and one-half foot (5.5') park strip;
 2. A two and one-half foot (2.5') curb and gutter;
 3. Two (2) 15-foot paved surface lanes;
 4. A two and one-half foot (2.5') curb and gutter;
 5. A five and one-half foot (5.5') park strip. Road sections otherwise designated local roadways in developments sharing an average frontage of less than two hundred feet (200') require high density road sections.
8. In road sections designated agriculture/seasonal exemption, having ADT of zero to one thousand (1,000), with no concrete curb and gutter or sidewalk:
1. Twenty four foot (24') wide road with either road base, roto-mill tailings, or asphalt surface course as shown on section 14.02.08, figure 6 of this chapter, and shall incorporate the following criteria:
 1. Road Base Surface: Twenty four foot (24') width of a minimum nine inches (9") commercial road base. An additional section width may be required depending on subgrade soils.
 2. Roto-Mill Tailings Surface: Twenty four foot (24') width of a minimum section comprised of four inches (4") of roto-mill tailings and six inches (6") of commercial road base. An additional section width may be required depending on subgrade soils.
 3. Asphalt Surface: Twenty four foot (24') wide asphalt surface course with two (2) 2-foot gravel shoulders. A minimum section width of three inches (3") of asphalt and nine inches (9") of road base is required. An additional section width may be required depending on subgrade soils.
 4. Road Grade: A five foot (5') wide ditch to be on the cut side of the road. If road grade is steeper than five percent (5%), the ditch is to be lined with a C-350 fabric or better, or six inches (6") of riprap. If the road grade is steeper than five percent (5%), check dams spaced no more than every two hundred feet (200') will be required.
9. A designated fire/emergency road with no curb and gutter or sidewalk which may only be used in extraordinary circumstances and must be expressly approved by the county council on a case by case basis. A fire/emergency road must have controlled access on each end point to prevent ordinary daily traffic:
1. Twenty foot (20') wide road with road base, roto-mill tailings or asphalt surface course as shown on section 14.02.08, figure 7 of this chapter, and shall incorporate the following criteria:
 1. Road Base Surface: Twenty foot (20') width of a minimum nine inches (9") of commercial road base. An additional section width may be required depending on subgrade soils.
 2. Roto-Mill Tailing Surface: Twenty foot (20') width of a minimum of four inches (4") of roto-mill tailings and six inches (6") of commercial road base. An additional section width may be required depending on subgrade soils.
 3. Asphalt Surface: Sixteen foot (16') wide asphalt surface course with two (2) 2-foot gravel shoulders. A minimum section width of three inches (3") of asphalt and nine inches (9") of road base is required.
 4. Road Grade: A four foot (4') wide ditch to be on the cut side of the road. If road grade is steeper than five percent (5%), the ditch is to be lined with a C-350 fabric or better, or six inches (6") of riprap. If the road grade is steeper than five percent (5%), check dams spaced no more than every two hundred feet (200') will be required.
 5. Year Round Basis: If it is determined that a fire emergency road is required to be maintained on a year round basis the surface material must be asphalt.
10. A designated mountain road having ADT of zero to two thousand (2,000), with no concrete curb and gutter or sidewalk:
1. A twenty four foot (24') wide asphalt road as shown on section 14.02.08, figure 8 of this chapter, and shall incorporate the following criteria:
 1. A twenty four foot (24') wide asphalt surface course with two (2) 2-foot wide gravel shoulders. A minimum section width of three inches (3") of asphalt and nine inches (9") of road base. An additional section width may be required depending on subgrade soils.
 2. A five foot (5') wide ditch to be on the cut side of the road. If road grade is steeper than five percent (5%), the ditch is to be lined with a C-350 fabric or better, or six inches (6") of riprap. If the road grade is steeper than five percent (5%), check dams spaced no more than every two hundred feet (200') will be required.

11. A designated shared driveway with no concrete curb and gutter or sidewalk: Per section [16.27.31](#) of this code, a shared driveway can only service three (3) lots or less provided the driveway is twenty feet (20') wide.
1. A twenty foot (20') wide asphalt road as shown on section [14.02.08](#), figure 9 of this chapter, and shall incorporate the following criteria:
 1. A twenty foot (20') wide asphalt surface course with two (2) 2-foot wide gravel shoulders. A minimum section width of three inches (3") of asphalt and nine inches (9") of road base. An additional section width may be required depending on the subgrade soils.
 2. A five foot (5') wide ditch to be on the cut side of the road. If the road grade is steeper than five percent (5%), the ditch is to be lined with a C-350 fabric or better, or six inches (6") of riprap. If the road grade is steeper than five percent (5%), check dams spaced no more than every two hundred feet (200') will be required.
12. All utilities will be located as shown in section [14.02.08](#), figure 10 of this chapter.

Intent

In some circumstances alleys can be used to enhance the pedestrian experience by removing driveways, garage openings, loading docks, garbage containers, utility services and other erive activities from the front of buildings. Alleys shall be used on a limited basis and will be private with public access and public utility easements. By utilizing alleys some utilities, loading docks, dumpsters and other service needs are kept to the back o the buildings and the pedestrian amenities. Alleys are not intended as a tool to avoid having a public street or private pedestrian plaza that meets the standards of a public street at the front of the buildings. The use of alleys must be approved by the Wasatch County Engineer and Wasatch County Fire District.

Definition

"Alley" means a public access privately maintained within a block primarily intended for service and access to abutting property by vehicles and not designed for general travel and allowed when units have frontage on a road or pedestrian plaza built to the applicable County standard.

General Conditions

Alley or Lane way access is permitted under the following conditions. If all conditions are not met then the use of alleys, are prohibited.

1. Land use access must be available from a public street or private street/plaza built to the public standard as well as the alley or lane.
2. Alleys or Lanes are built to specific standards as provided below.
3. Water and sewer utilities shall be in the street unless approved by the County Engineer or Fire Marshall. If underground wet utilities, sanitary sewer, waterlines, storm drains, etc. installed in alleys shall be constructed prior to the surfacing of the alley and per Wasatch County Standards.
 - a. If utilities are consructed within the alley then connections for all underground utilities and sanitary sewers shall be laid prior to the asfalt or concrete to avert the necessity for disturbing the alley improvements, when service connections thereto are made.
4. Alleys constructed of concrete will be 20' wide with an inverted crown and a centerline drainage collection system. Alleys constructed of concrete shall have a minimum pavement section of 8 inches of PCC over 6 inches of base rock, placed or geotextile fabric, or approved per geotechnical recommendations and approved by the County Engineer for H-2O loading. Asphalt construction may be used with a concrete water way for drainage at the center of the alley. A minimum of 3" of asphalt over 9" of road base will be required. In conditions where asphalt construction is used, concrete ribbon curbing will be required outside the 20' width of the asphalt section to protect the edge of the asphalt. Said curbing shall be 2' wide for a total drivable surface of 24'. If the natural soils have a CBR under 20, then a thicker section will be required as determined by the developer's geotechnical engineer in agreement with the Counties Engineer. The applicant must show all private improvementsw and how they will impact the alley including garages or other structures, stairs, vaults, fences, walls, driveways, parking lots,walkways, or other items. Indicate existing drainage patterns and show private drainage inlets, outlets, and pipes beyond the alley right-of-way that will be impacted by the alley construction.
 - a. Joint Pattern: The PCC pavement shall be placed full width in one pour, with no longitudinal joints. The alley design shall include a transverse joint pattern, shown on the plans, so that the joints are spaced to create panel lengths that are 0.75 to 1.25 times the alley width. The joint pattern will be coordinated to intersect with utility features such as poles, manholes, and catch basins.
 - b. Alley Approaches: Alley approaches shall be constructed as commercial driveways in all respects, except that the structural section will be increased to 10 inches or match the alley pavement structure for which it provides access, whichever is greater, or approved per geotechnical recommendations and the County Engineer for H-2O loading. Alley approaches with a standard curb return shall not be used without approval of the County Engineer.

Length

Alleys shall be continuous from street to street wherever possible. If an alley is not through and greater than 150 feet then a turnaround must be provided to accommdate a fire truck as per code.

Parking

No person shall park a vehicle within an "alley" except during the necessary and expeditious loading and unloading of merchandise. No parking signs are required at 100 foot intervals. The alley must remain open at all times.

Setbacks

Alley garage setbacks in residential uses shall be 20 feet or greater as measured from the edge of the alley paving. Alley's leading to parking structures or to commercial/hospitality uses such as hotels or retail shall have a minimum setback of 4 feet as measured from the edge of the alley paving. The four foot setback shall remain open and unobstructed. If an alley exceeds 150 feet and is adjacent to buildings exceeding 30

feet, then the alley must have 26 feet of hard surface for fire truck downriggers.

Parking garage structures shall have a side yard setback of no less than 15 ft.

Snow Storage

An additional area of 15% of the alley paved area must be set aside for snow storage. A snow storage plan exhibit must be submitted as part of the alley plan to show that the required amount of snow storage has been provided.

M. All Wasatch County roads shall be classified by the county master transportation plan. The right of way requirements for each classification will be as follows:

- Local: Sixty feet (60') wide;
- Minor collector: Sixty six feet (66') wide;
- Major collector: Seventy five feet (75') wide;
- Arterial: One hundred six feet (106') wide;
- Expressway: One hundred fifty feet (150') wide.

N. Wasatch County roadway design standards:

Design Element	Roadway Functional Classification (Average Daily Trip) [Single-Family Units]							
	106' Arterial (>8,000 [>800]	75' Major Collector (>8,000) [>800]	66' Minor Collector (2,001 - 8,000) [201 - 800]	Major Local ¹ (0 - 2,000) [151 - 200]	Minor Local (0 - 2,000) [16 - 150/0 - 15]	Agricultural/ Seasonal Road (0 - 1,500) [16 - 150/0 - 15]	Fire/Emergency Shared Driveway (0 - 1,000) [16 - 150/0 - 15]	Mountain Road (0 - 1,000) [16 - 150/0 - 15]
Minimum design speed (V)	Varies with terrain and volume							
Typical section elements:								
Right of way width	106 feet	75 feet	66 feet	60 feet	60 feet	60 feet	60 feet	60 feet
Pavement width	46 feet	44 feet	34 feet	30 feet	30 feet	30 feet	24 feet	Fire/emergency 16 feet Driveway 20 feet
Side cut/fill slopes	3:1 up to 5 feet high and 2:1 above 5 feet high						2:1	2:1
Horizontal design elements:								
Minimum mid block centerline curve	Varies with V and superelevation					100 feet	60 feet	75 feet
Minimum tangent distance between reverse centerline curves	Varies with V and superelevation					50 feet	40 feet	50 feet
Maximum cul-de-sac length ²	Not allowed	Allowed only on local streets. 1,300 feet or 30 dwelling units, whichever is less						
Cul-de-sac travelway turnaround diameter	Not allowed	Not allowed				80 feet		
Maximum superelevation rate	6%	6%				2%	Not applicable	2%
Vertical design elements:								
Minimum centerline grade	0.50%	0.50%						
Maximum centerline grade ³	10%	8%	10%					
Maximum grade in cul-de-sac	Not allowed	Not allowed				5%		
Maximum centerline grade across designated crosswalks	4%	4%						5%
Maximum grade break without vertical curve	0.50%				1%	2%		

Minimum crest vertical curve K value ⁴	Varies with V		19					
Minimum sag vertical curve K value ⁴	Varies with V		37					
Minimum length of vertical curve	Per traffic engineer	3V	120 feet	80 feet	60 feet	60 feet	50 feet	60 feet
Intersections:								
Minimum angle of intersection	80°		70°	60°	60°	60°	50°	60°
Minimum offset between intersections	Study required	Study required	150 feet	125 feet				
Maximum centerline offset	0 feet	5 feet						
Maximum centerline grade across intersections ⁵	4%		5%					
Minimum corner radius (edge of travelway)	30 feet		25 feet					
Pavement component minimum thickness⁶:								
Asphaltic concrete	Per geotechnical report		3 inches					
Road base	Per geotechnical report		9 inches					
Subbase	Per geotechnical report							
Subgrade	Property prepared per geotechnical report							

Notes:

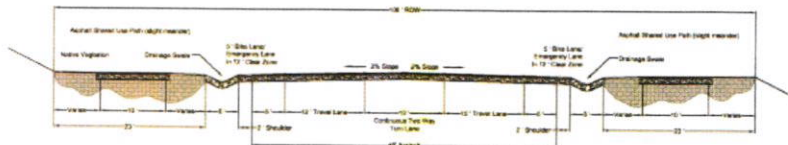
1. See section 14.02.05 of this chapter for sidewalk requirements.
2. The length of a cul-de-sac is measured along the centerline from the intersection to the center of the turnaround.
3. Physical terrain may require exceptions to the following maximum grades. See section 14.02.06, "Road Grade", of this chapter for further discussion.
4. Design speed for vertical curves shall be 5 miles per hour greater than the anticipated speed limit.
5. Grade must extend at least 100 feet beyond the edge of the traveled way of the outside lane of the intersecting street.
6. A geotechnical report including pavement design shall be submitted. The minimum road base and asphalt thicknesses shall be 9 inches and 3 inches, respectively. The thickness of 1 or more of the pavement components shall be increased as needed to achieve the required strength as specified in the geotechnical report.

HISTORY

Adopted by Ord. 2004-26 on 11/17/2004
 Amended by Ord. 07-03 on 7/7/2008
 Amended by Ord. 09-01 on 2/2/2009
 Amended by Ord. 11-05 on 8/18/2011
 Amended by Ord. 12-15 on 11/14/2012
 Amended by Ord. 16-01 on 7/6/2016

14.02.08: ROAD STANDARDS

106' ARTERIAL CROSS SECTION
 FIGURE 1

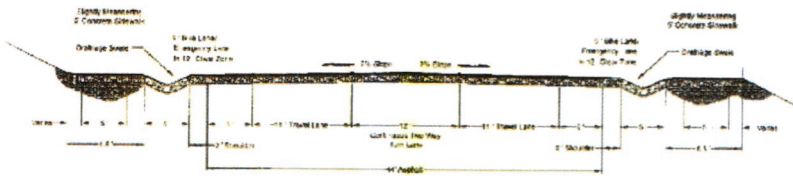


Notes:

1. If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subbase level, a granular subbase layer may be omitted (to be determined by the geotechnical engineer).
2. All disturbed surfaces shall be covered with 4 to 6 inches of topsoil and seeded.
3. Lane striping as per cross section.
4. Shoulder will be constructed with compacted road base.
5. The subtle meandering shared use path will have 3 inches of asphalt over 9 inches of road base.
6. Road will have 3 inches of asphalt over 9 inches of road base.
7. Thickness may increase due to site specific soils engineering recommendations.

75' COLLECTOR CROSS SECTION
 FIGURE 2

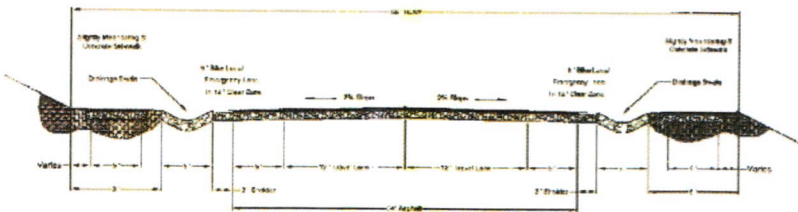




Notes:

1. If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subbase level, a granular subbase layer may be omitted (to be determined by the geotechnical engineer).
2. The subtle meandering shared use path will have 5 inches of concrete over 6 inches of road base.
3. All disturbed surfaces shall be covered with 4 to 6 inches of topsoil and seeded.
4. Lane striping as per cross section.
5. Shoulder will be constructed with compacted road base.
6. Road will have 3 inches of asphalt over 9 inches of road base.
7. Thickness may increase due to site specific soils engineering recommendations.

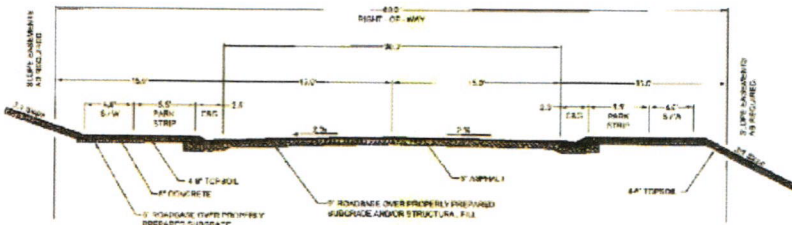
66' MINOR COLLECTOR CROSS SECTION
FIGURE 3



Notes:

1. If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subbase level, a granular subbase layer may be omitted (to be determined by the geotechnical engineer).
2. The subtle meandering shared use path will have 5 inches of concrete over 6 inches of road base.
3. All disturbed surfaces shall be covered with 4 to 6 inches of topsoil and seeded.
4. Lane striping as per cross section.
5. Shoulder will be constructed with compacted road base.
6. Road will have 3 inches of asphalt over 9 inches of road base.
7. Thickness may increase due to site specific soils engineering recommendations.

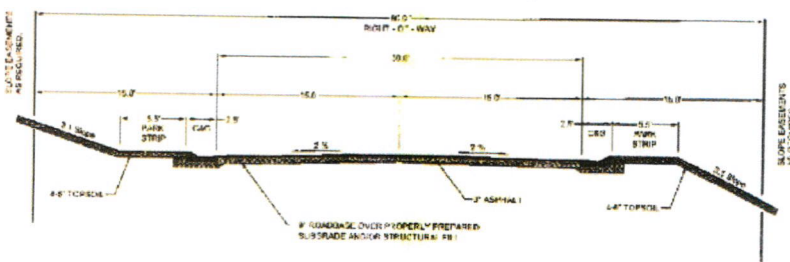
MAJOR LOCAL
FIGURE 4



Notes:

1. If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subbase level, a granular subbase layer may be omitted (to be determined by the geotechnical engineer).
2. Road section thickness may increase due to site specific soils engineering recommendations.
3. All disturbed surfaces require 4 to 6 inches of topsoil and seeded.

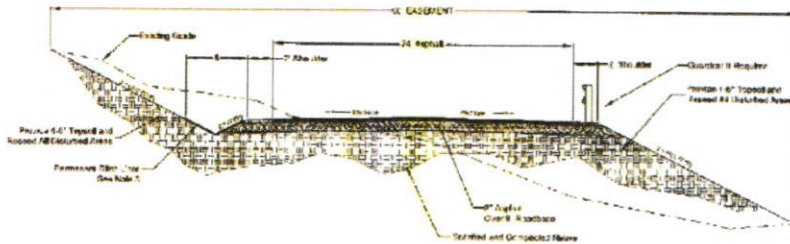
MINOR LOCAL
FIGURE 5



Notes:

1. If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subbase level, a granular subbase layer may be omitted (to be determined by the geotechnical engineer).
2. Road section thickness may increase due to site specific soils engineering recommendations.
3. All disturbed surfaces require 4 to 6 inches of topsoil and seeded.

AGRICULTURAL/SEASONAL ROAD
FIGURE 6
SECTION:



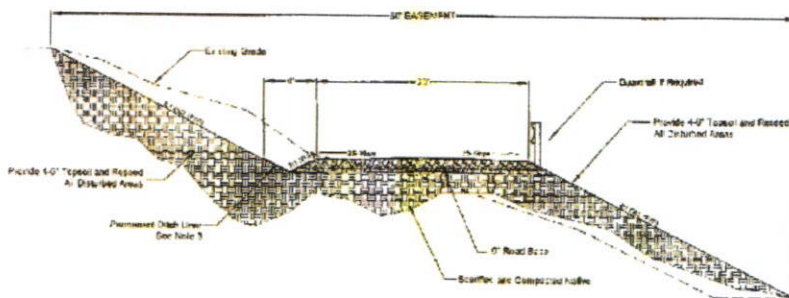
Notes:

1. If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subgrade level, a granular subbase layer may be omitted. To be determined by the geotechnical engineer.
2. Section width to be a minimum of the following: 9 inches of road base, or 4 inches of roto-mill tailings over 6 inches of road base, or 3 inches of asphalt over 9 inches of road base.
3. Permanent erosion control mat* required for ditch slopes greater than 5 percent.
4. Check dams required for ditch slopes greater than 5 percent.
5. Cut or fill slopes steeper than 3:1 to be designed and approved by a geotechnical engineer.
6. Guardrail required on all fill slopes steeper than 3:1 where the vertical drop of the slope is greater than 8 feet.

* Permanent erosion control mat to conform to the following minimum specifications:

* Thickness	0.4 inches
* Ground cover factor	74 percent
* Tensile strength	170 X 125 pound/foot
* Tensile elongation	50 percent maximum
* Ultraviolet stabilization 1,000 hours	80 percent

Fire / Emergency Road
Figure 7



Notes:

1. Fire/emergency roads will have no lot frontage and will have controlled access on each end of the road, restricting any traffic using them, unless for the purpose of an emergency.
2. If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subgrade level, a granular subbase layer may be omitted. To be determined by the geotechnical engineer.
3. Section width to be a minimum of the following: 9 inches of road base, or 4 inches of roto-mill tailings over 6 inches of road base, or 3 inches of asphalt over 9 inches of road base, asphalt width to be 16 feet. If plowed, must be asphalt.
4. Permanent erosion control mat* required for ditch slopes greater than 5 percent.
5. Check dams required for ditch slopes greater than 5 percent.
6. Cut or fill slopes steeper than 3:1 to be designed and approved by a geotechnical engineer.
7. Guardrail required on all fill slopes steeper than 3:1 where the vertical drop of the slope is greater than 8 feet.

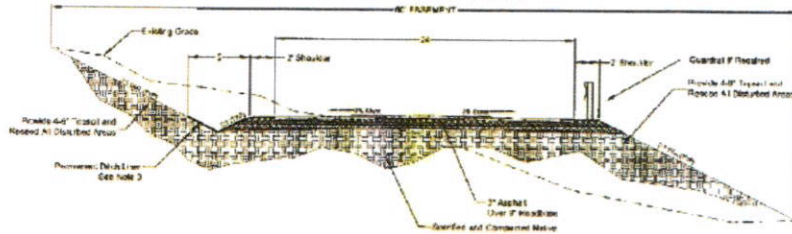
* Permanent erosion control mat to conform to the following minimum specifications:

* Thickness	0.4 inches
* Ground cover factor	74 percent

- * Tensile strength
- * Tensile elongation
- * Ultraviolet stabilization 1,000 hours

170 X 125 pound/foot
 50 percent maximum
 80 percent

MOUNTAIN ROAD
 FIGURE 8



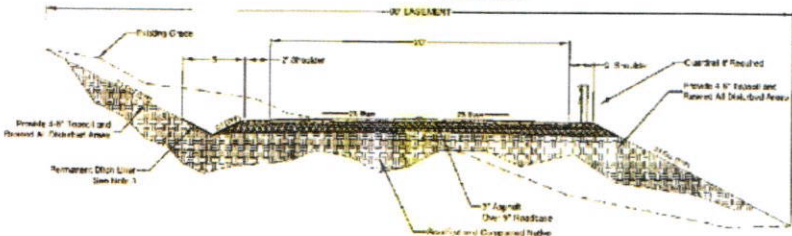
Notes:

1. If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subgrade level, a granular subbase layer may be omitted. To be determined by the geotechnical engineer.
2. Section width to be a minimum of 3 inches of asphalt over 9 inches of road base.
3. Permanent erosion control mat* required for ditch slopes greater than 5 percent.
4. Check dams required for ditch slopes greater than 5 percent.
5. Cut or fill slopes steeper than 3:1 to be designed and approved by a geotechnical engineer.
6. Guardrail required on all fill slopes steeper than 3:1 where the vertical drop of the slope is greater than 8 feet.

* Permanent erosion control mat to conform to the following minimum specifications:

- * Thickness 0.4 inches
- * Ground cover factor 74 percent
- * Tensile strength 170 X 125 pound/foot
- * Tensile elongation 50 percent maximum
- * Ultraviolet stabilization 1,000 hours 80 percent

SHARED DRIVEWAY
 FIGURE 9



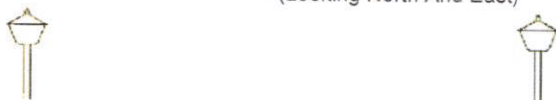
Notes:

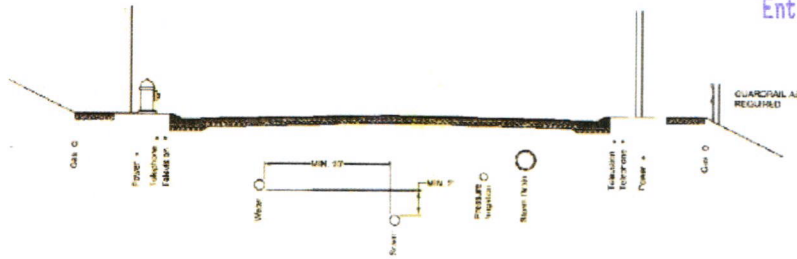
1. Per section 16.27.31 of this code, shared driveways can only service 3 lots or less.
2. If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subgrade level, a granular subbase layer may be omitted. To be determined by the geotechnical engineer.
3. Section width to be a minimum of 3 inches of asphalt over 9 inches of road base.
4. Permanent erosion control mat* required for ditch slopes greater than 5 percent.
5. Check dams required for ditch slopes greater than 5 percent.
6. Cut or fill slopes steeper than 3:1 to be designed and approved by a geotechnical engineer.
7. Guardrail required on all fill slopes steeper than 3:1 where the vertical drop of the slope is greater than 8 feet.

* Permanent erosion control mat to conform to the following minimum specifications:

- * Thickness 0.4 inches
- * Ground cover factor 74 percent
- * Tensile strength 170 X 125 pound/foot
- * Tensile elongation 50 percent maximum
- * Ultraviolet stabilization 1,000 hours 80 percent

TYPICAL UTILITY LOCATIONS
 FIGURE 10
 (Looking North And East)





Typical Cover Over Utilities

- * Sewer, 8 feet
- * Water per local water agency
- * Storm drain, 30 inches minimum
- * Gas, 30 inches
- * Power, 40 inches
- * Telephone, 24 inches
- * Television, 24 inches

Typical Utility Separation

- * Sewer/water - 10 feet horizontal, 2 feet vertical
- * Gas - minimum 3 feet horizontal* Power - minimum 12 inches horizontal* Telephone - minimum 12 inches horizontal* Television - minimum 12 inches horizontal

Notes:

1. Streetlights required at fire hydrants and intersections.
2. Fire hydrant spacing per current international fire code.
3. Minimum vertical clearance where closer than 10 feet or at sewer/water crossing.
4. Sign locations per current WUTCD code.
5. Sewer manholes to be located in center of road.
6. Hydrant location determined by speed and road grade. May be required to be on back of walk.
7. Guardrail required on all fill slopes steeper than 3:1 where the vertical drop of the slope is greater than 8 feet.

HISTORY

Adopted by Ord. 12-15 on 11/14/2012

14.02.09: APPENDIX A TO TITLE 14

1. Excavation Requirements And Specifications:

1. Boring Preferred In Paved Right Of Way: Boring is the preferred method for crossing paved county rights of way. Excavation shall not be approved unless it can be demonstrated that boring is infeasible or impractical as an alternative.
2. Minimum Depths For Buried Cables And Lines: All small cables, conduits or pipelines to be buried in county rights of way for utility purposes shall be a minimum of twenty four inches (24") below final surface grade.
3. Manner Of Excavation:

1. General:

1. All excavation shall be unclassified.
2. The applicant shall perform all excavation of every description and of whatever substances encountered, to the depth specified on the plans and/or required to accomplish the work.
3. During the excavation operations, the material, which might be found suitable for use in backfilling, shall be piled in an orderly manner of sufficient distance from the banks of the trench for convenience in operation equipment, to avoid embankment overloading, and to prevent slides and cave ins.
4. All excavated materials not required or not suitable for backfilling shall be promptly removed from the site of the work and wasted in an area to be provided by the applicant with the approval of the inspector.
5. Grading shall be performed as may be necessary to prevent surface water from flowing into trenches or other excavations, and any water accumulated therein shall be promptly removed by pumping or by other approved method.

2. Safety:

1. All excavating materials shall be piled in such a manner as will cause a minimum of inconvenience to public travel, the provisions shall be made for urgent traffic as necessary.
2. The applicant will be responsible for providing barricades at all excavation sites while open trenches are present.
3. Barricades must be lighted if open trenches are left overnight.
4. Free access shall be provided to all fire hydrants, water valves and meters, and clearance shall be left to enable free flow of stormwater in all gutters, conduits and natural watercourses.
5. The applicant shall utilize appropriate traffic signs, markers and procedures in all construction activities as defined in the federal "Manual Of Uniform Traffic Control Devices".

3. Methods:

1. Unless otherwise indicated, trench excavation shall be by open cut, except that short sections of the trench may be tunneled under existing structures if the pipe can be safely and properly installed in such tunneled sections.
2. In those areas where the utility is to be installed under existing curbs and gutters and/or sidewalks, the applicant has the option whether to tunnel and backfill or to cut and remove the curb, gutter or sidewalk.
3. In the latter case, he shall, at his expense, replace the curb, gutter or sidewalk to match the existing structures in line, grade and type of construction.

4. Exceptions to the methods of excavation are listed in section [14.02.05\(2\)\(e\)](#) of this chapter.
4. Backfill:
1. Class A backfill:
 1. This class of backfill shall be used in areas where immediate compaction and completion of the trench backfill is required.
 2. The trench above the pipe zone shall be backfilled with suitable and approved material placed in layers consistent with the type of compaction equipment to be used.
 3. Each layer shall be sprinkled and thoroughly tamped by means of hand operated or mechanically operated tampers.
 4. Backfilling and compaction shall be done to the satisfaction of the inspector and shall be continued on each layer of backfill until a compaction of ninety six percent (96%) of maximum density is obtained as determined by ASTM designation D-698-70.
 5. The final one foot (1') of backfill is to be compacted to one hundred percent (100%) of maximum density.
 2. Class D backfill:
 1. This class of backfill is intended for use in areas that are ultimately to be planted and where minimum compaction (above the pipe zone) is required at the present time.
 2. The entire depth of the trench above the pipe zone shall be backfilled with a suitable material, as approved by the inspector, to a point slightly above the existing ground surface or the finish grade if the latter is shown.
 3. The surface shall be continually pneumatically rolled by patrol, roller and/or crawler tractor, as the backfilling process proceeds.
 4. The trench backfill along the pipe centerline shall be left with a final fill above the existing ground surface of finish grade of at least one foot (1').
 5. The final layers of material to be replaced shall be specified in section [14.02.05\(2\)\(e\)](#).
 6. The surface shall be maintained by blading, sprinkling, rolling, adding additional material, etc., to maintain a safe, uniform surface satisfactory to the inspector until the required final surfacing material has been placed.
5. Restoring Surface: Restoring shall be commenced as soon as possible following excavation. Complete restoration shall be diligently pursued until complete. Unless specifically authorized by the engineering department, restoration shall be completed within seventy two (72) hours of initial excavation of the total area impacted by the excavation. Excavation shall be as specified in section [14.02.04](#) of this chapter, with the following exceptions:
1. Before trench excavation is begun, any bituminous pavement to be removed shall be cut with a saw or pneumatic tool to provide a straight, neat construction line.
 2. Pavement removed during excavation shall be wasted and not be used in backfilling the trench.
 1. Backfill: Backfilling shall be class A as specified with the following exceptions:
 1. Class A Street Repair: Class A street repair is intended for existing streets with an asphalt surface. The final thirteen inches (13") of backfill shall consist of nine inches (9") of one inch (1") or three-fourths inch ($\frac{3}{4}$ ") road base and four inches (4") of asphalt plant mix.
 2. Class B Street Repair: Class B street repair is intended for existing asphalt streets and seal coat applications. The final thirteen inches (13") of backfill shall consist of nine inches (9") of thoroughly compacted three-fourths inch ($\frac{3}{4}$ ") road base material and four inches (4") of asphalt plant mix.
 3. Class C Street Repair: The final six inches (6") of backfill shall be thoroughly compacted with sound, tough, durable gravel or rock meeting the following requirements for grading:
 1. Passing one inch (1") sieve: One hundred percent (100%),
 2. Passing three-fourths inch ($\frac{3}{4}$ ") sieve: Eighty five percent (85%) to one hundred percent (100%).
 3. Passing no. 4 sieve: Forty five percent (45%) to fifty percent (50%).
 4. Passing no. 10 sieve: Thirty percent (30%) to fifty percent (50%).
 5. Passing no. 200 sieve: Five percent (5%) to ten percent (10%).
 6. The surface shall be maintained by blading, sprinkling, rolling, adding additional material, etc., to maintain a safe, uniform surface satisfactory to the inspector until the required final surfacing material has been placed.
 2. Asphalt Pavement Replacement: All asphalt cut edges shall be tacked prior to asphalt replacement. Asphalt must be compacted with the technical compaction equipment. The inspector may require that asphalt be feathered out over cut area.
 1. Class A and B Streets: After the backfill and three-fourths inch ($\frac{3}{4}$ ") surfacing material have been thoroughly compacted, the remaining four inches (4") shall be backfilled to the level of the existing asphalt with a bituminous surface course as specified above. The seal coat shall then be applied in accordance with section 403 of the "Standard Specification For Highway Construction".
 3. Materials:
 1. Surfacing Material: Surfacing material shall be three-fourths inch ($\frac{3}{4}$ ") maximum crushed gravel meeting the requirements of section 301 of the "Wasatch County Design Construction Standards Handbook".
 2. Bituminous Surface Course: The material for the bituminous surface course shall be plant mix meeting the requirements of section 403 of the "Wasatch County Design Construction Standards Handbook". The asphalt mix design for the plant mix bituminous surface course to be used on the project shall be prepared and submitted to the inspector by the applicant prior to the beginning of the construction.
 3. Tack Coat: Material for bituminous tack coat shall be either MC-70, MC250 or grade ss-1H emulsive applied at 0.25 gallons/square yard.
 4. Seal Coat: Materials used in the application of the seal coat shall be as follows:
 1. Asphalt seal coat material shall be CRS-2H.
 2. Cover coat material shall be type 2.
 3. Seal coating shall meet the requirements of section 406 of the "Wasatch County Design Construction Standards Specifications".

HISTORY

Adopted by Ord. 2002 Code § 14.02.09 on 1/1/2002

Amended by Ord. 2004-26 on 11/17/2004

14.02.10: APPENDIX B TO TITLE 14; DRIVEWAYS AND ENCROACHMENTS; REQUIREMENTS AND SPECIFICATIONS

1. Existing Driveways Or Encroachments: Access to county roads by means of driveways or encroachments in existence at the time of the effective date hereof may continue to the same extent and degree as before; any change in the driveway or the degree of use shall first require a permit and compliance with the terms of this section.
2. Notification Of Potential Condemnation Right Of Way Required: Except as otherwise provided in subsection B1 of this section, no building or structure shall be erected, reconstructed, structurally altered or enlarged, and no encroachment permit shall be issued thereon on any lot or parcel of land which abuts a county road or other public street which does not conform to current county width standards, unless the portion of such lot or parcel within the standard right of way width has been dedicated to the county or the developer or applicant has been dedicated to the county or the developer or applicant has been notified and has acknowledged that such portion may be condemned for public use at some future time.
 1. Exceptions To Right Of Way Notification Dedication Requirement:
 1. The maximum area to be dedicated shall not exceed ten percent (10%) of any lot or parcel that was of record on the effective date hereof in the Wasatch County recorder's office. In determining the amount of area for dedication for purposes of this exception, any highway area that previously has been dedicated to the public through public use shall not be included.
 2. Neither notice, acknowledgement or dedication is required for remodeling, additions and accessory buildings incidental to a single-family dwelling, used as a residence, existing on the lot as of the effective date hereof; provided, that no additional dwelling units are created.
 2. Dedication Procedure:
 1. Any person, or other entity, desiring to dedicate land under the provisions of this section shall execute an offer to dedicate and a warranty deed or other deed form acceptable to the county, properly executed by all parties of interest. At the request of said person or entity, the offer to dedicate and deed shall be prepared by the applicant and as approved by Wasatch County attorney's office in such terms as to be binding on the owner, his heirs, assigns or successors in interest. The dedication shall be complete when the deed is recorded in the office of the county recorder after its acceptance by the county council.
 2. The applicant shall provide such survey information as the Wasatch County surveyor's office requires in order to establish property boundary lines.
 3. For the purpose of this section, dedication shall be considered as satisfactorily assured when the county attorney's office approves the offer to dedicate the deed as described herein.
 3. Encroachment Permit Issuance: When the provisions of this section have been completed or assured as provided herein, an encroachment permit may be issued.
 4. Lots Affected By Dedication: On a lot affected by a dedication, acknowledgement or notification under the provisions of this section, all required yards, setbacks, parking areas, loading spaces and building locations for new buildings or structures or additions to buildings or structures shall be measured and calculated from the new lot lines created by dedication or future right of way potential. However, in applying all other provisions of the development code of Wasatch County, such lot shall be considered an area as that which existed immediately prior to dedication.
 5. Appeal Of Notice, Acknowledgement Of Dedications Provisions:
 1. Any person may appeal any determination in connection with the administration, enforcement and other provisions of this section as set forth below to the Wasatch County board of adjustment.
 2. The board of adjustment may make modifications in the requirements of this section as necessary to prevent undue hardship or an unreasonable burden under the facts of each individual case. However, no such modification shall be granted less it is in conformity with the spirit and intent of this section.
3. Spacing: Access driveways or encroachments shall be spaced according to the following:
 1. Minimum distance:
 1. Street type, local:
 1. Minimum spacing: Thirty five feet (35') apart;
 2. From intersections: Fifty feet (50').
 2. Street type; collector:
 1. Minimum spacing: Fifty feet (50') apart;
 2. From intersections: Seventy five feet (75').
 3. Street type, arterials:
 1. Minimum spacing: Seventy five feet (75') apart;
 2. From intersections: One hundred fifteen feet (115').
 2. Each property shall be entitled to at least one access driveway or encroachment.
 3. Driveways or encroachments shall not create hazardous driving conditions.
 4. Curves in the roadway and the crests of hills shall be avoided, where possible, for driveway locations. Reasonable sight distances shall be maintained on either side of the encroachment.

HISTORY

Adopted by Ord. 2002 Code § 14.02.10 on 1/1/2002

Amended by Ord. 2004-26 on 11/17/2004

14.02.11: APPENDIX C TO TITLE 14; ALLOWABLE ENCROACHMENT INTO PUBLIC ROAD RIGHT OF WAY

1. General: No structure, retaining wall, wall, utility box, mailbox or other obstacle shall be placed in the right of way of a county road without the necessary permit therefor; structures will only be allowed within public rights of way where it can be shown that no reasonable alternative location exists and that the public safety will not be impaired by such placement.
2. Fences: Fences shall not be located within the road right of way.

HISTORY

Adopted by Ord. 2002 Code § 14.02.11 on 1/1/2002

Amended by Ord. 2004-26 on 11/17/2004

EXHIBIT B
CODE AMENDMENTS AND ADDITIONS

14.02.01: CREATION OF DEPARTMENT AND DEFINITIONS

A. There is hereby created a department of engineering. The department shall consist of one engineering coordinator or as contracted by the County Manager and such other employees or contract as may be necessary to fulfill the duties of the department.

B. Definitions:

County Road: Any public road, right of way, highway, avenue, boulevard, street, alley, lane, court, place, viaduct, tunnel, culvert, bridge, subway, public easement, or other way laid out or erected for public use, or dedicated or abandoned to the public, or made public in an action for the partition of real property, or stated on a plat, including the entire area within the right-of-way. Roads that have been dedicated by public use may be determined by the County Manager. Utah Code 72-3-107 (2018), as amended. ~~Or as stated on the plat~~

Engineering Coordinator: The director of the engineering department, with the responsibilities as defined in Wasatch Code 14.02.03 and in the job description maintained by the Office of Personnel Management, if any. The County Manager shall serve as the Engineering Coordinator if no engineering coordinator has been appointed, or if the Engineering Coordinator is terminated. ~~(definition)~~

Private Road: Any road, right of way, highway, avenue, boulevard, street, alley, lane, court, place, viaduct, tunnel, culvert, bridge, subway, public easement, or other way laid out or erected for the use or benefit of more than one property, that is not a county road.

Road: a county road or a private road.

Sidewalks: An easement, right of way, or dedication allowing the public or other property owners to use the easement or right of way for pedestrian travel, and other non-motorized travel. Sidewalks have an impermeable improved surface.

Trails: An easement, right of way, or dedication allowing the public or other property owners to use the easement or right of way for pedestrian travel, and other non-motorized travel.

14.02.02: RESPONSIBILITIES OF DEPARTMENT

The department of engineering shall be responsible for the following functions and duties:

1. Coordinate the work of review engineers hired by the county to review proposed subdivisions and other instances in which public or private infrastructure is constructed.
2. Inspect the construction of all infrastructure improvements constructed in any subdivision or in any public right of way to ensure construction conforms to the approved plans and specifications.
3. Provide for final acceptance by the county of public infrastructure improvements.
4. Authorize timely release of construction and warranty bonds issued to secure construction and proper function of infrastructure improvements.
5. Provide for management and operation of special service districts as authorized by the county legislative body.
6. Establish rules, applications, and guidelines for the issuance of permits issued by the department, in conformity with applicable laws.
7. Oversee and inspect all construction on private property requiring a permit. Permits for work outside the counties right of way are defined in the next section.
8. Approve applications required or authorized by this Chapter 14.02.
9. Investigate and advance enforcement actions for violations of Chapter 14.02.
10. Enforce current AASHTO, UDOT, Utah APWA and Utah Water Quality (NOI) Standards, as applicable to any application, permit, or requirement of this Title. These standards are hereby adopted by reference.

14.02.04: EXCAVATION AND CONSTRUCTION AFFECTING COUNTY ROADS

~~I think this whole section needs some work and in many cases just needs to be re-written. The bond stuff isn't legal anymore and hasn't been for a long time so I think it is worth it at this time to make the changes. This is not my forte, but to help facilitate I will add some language to help stimulate others brain cells. I started editing the first section but feel it needs to be changed entirely. I left my notes below for thinking points but will create a new section A. and B.~~

- ~~A. Permits: Before excavating in any county road, lane or public way, or removing any pavement or other materials forming an improvement thereon, or before engaging in any construction requiring persons, equipment, or materials to encroach upon a county road, lane, or county way a person shall make written application for and obtain a permit from the engineering coordinator. The county has 4 different permit types available to be used. The pPermit types and instruction for use are shown below:~~
- ~~1. Driveway and Encroachment Permit: This permit is required for personsthose individuals connecting their driveway to a Wasatch County roadRoad, or landscaping in thee Wasatch County right of wayroad, or applicants requesting a permit for building aa driveway without an approved building permit. The County Manager has sole discretion on whether or not to allow landscaping in the County road. In order to be eligible for a Driveway and Encroachment Permit to build a driveway, tThe length of the driveway must be less than~~

200' long with a grade of less than 10%, with no structures like retaining walls or stacked rock walls. Issues not covered here will be in the next section (driveways) A Grading Permit will be required for any driveway or road construction issues not covered in this section.

2. Grading Permit: This permit is required for if you are excavating, constructing berms, drainage ditches, ponds, driveways that are not eligible for a Driveway and Encroachment Permit, longer than 200' structures, slope retainage, stockpiling or transporting common or granular material. On agricultural property, grading activities solely to promote farming activities for the benefit of the property, such as plowing or leveling of fields, do not require a permit. Disturbances over 1 acre?? A storm water pollution prevention plan and a copy of the NOI filed with the State of Utah is required for all permits where more than 1 acre will be disturbed.
3. Right of Way Excavation Permit: This permit is required for any any excavation work within a the county roadway right of way, primarily for utility installation.
4. Subdivision Construction Permit: This permit is necessary to install infrastructure for areate a subdivision, split a parcel, create a shared driveway, or any other surface or infrastructure improvements that are not included in the other Title 14 permit sete.

B. Bonding;

1. Performance Bond: For Subdivision Construction Permits, a performance bond shall be posted with Wasatch County prior to any final approved plat recorded in a principal amount of one hundred percent (100%) of the total estimated cost of any improvement or other performance required by or promised to Wasatch County as part of the development, provided the improvements or other performance are not completed and accepted by Wasatch County prior to any final approved plat being recorded. The bond must include protection for the county legislative body, must meet county standards or county code. The bond shall consist of cash, and the bond agreement shall be on a form approved by the County Attorney. The Bond Agreement shall require the infrastructure improvements to be completed before building permits can be issued. The County Manager, in his sole discretion, may accept a letter of credit from an FDIC insured financial institution, or an escrow as approved by the County. The bond must be subject to the laws of the State of Utah and Wasatch County, and must provide the forum of Wasatch County. The bond may name the developer or the contractor as the "principal". Each bond shall be accompanied by a bond agreement between the developer, county and financial institution (if applicable). The estimated cost shall be based upon the estimate of the engineering coordinator, who shall take into account some or all of the following factors when making his estimate:

 - a) The developer's engineering estimate;
 - b) The estimate of any reviewing engineer;
 - c) The average cost paid for the same type of performance in Wasatch County in the past; and
 - d) Any other relevant information.
1. The county may approve partial releases of the performance bond prior to final release. Each release must be approved by all of the following: county engineering coordinator, county manager and county attorney. When the number of releases exceeds two (2), a two hundred dollar (\$200.00) fee will be assessed for each release thereafter to cover administrative costs. The releases approved by the county shall not exceed the percentage of work completed and, at no time prior to final acceptance of the improvements by the county, may the total amount of the bond be allowed to be reduced lower than the greater of: a) one hundred ten percent (110%) of the value of the county manager or engineering coordinator's estimate of the incomplete improvements or other promised performance.

Until complete, the County may maintain a balance of a minimum of 25% of the total bond amount.

2.

3. Warranty Bond: A warranty bond in the amount of ten percent (10%) of either the county engineer's approved estimate of completion of all public infrastructure, or the actual cost of competing the public infrastructure, is required for excavation and for encroachment in a county road, the County to accept any infrastructure improvement, or prior to allowing a final plat to be recorded that includes any public infrastructure, lane or public way. The bond must be cash, a letter of credit from an FDIC insured financial institution, or a corporate surety bond as approved by the county. The bond shall be valid for a period of one year from the time of final acceptance of construction to guarantee compliance with the requirements of this chapter, but may be for up to two years if the County Manager or engineering coordinator finds good cause. The bond shall be released upon approval of the engineering coordinator and the County Manager. The warranty bond shall be on a form approved by the County Attorney.

4.

Applicants for any excavation and encroachment permits may request permission from the engineering coordinator to secure a continuing annual completion bond in lieu of separate bonds for each excavation or encroachment. A Warranty Bond if deemed necessary will be required prior to approval of a Driveway Encroachment Permit, Grading Permit, or Right of Way Excavation Permit. A warranty bond will be required to be in place for a Subdivision Construction Permit at the time of final acceptance.

5. Weed Bond: A cash weed bond is required on all Subdivision Construction Permits. The bond is refundable after a 3 year period after a project has received final approval or until the Wasatch County noxious weed manager approves the bond release. The weed bond agreement, and release forms can be found on the Wasatch County's web site in the Engineering department under forms. A non refundable weed fee is charged on the other Title 14 three permit types. The warranty bond shall be on a form approved by the County Attorney. (If the form is posted on the web site it should be an approved form).

B.C. Permit And Bond Required:

1. Before excavating in any county road or trail, lane or public way, or removing any pavement or other materials forming an improvement thereon, or before engaging in any construction requiring persons, equipment, or materials to encroach upon a county road, lane, or county way a person shall make written application for and obtain a permit from the engineering coordinator. The application shall include a completion bond equal to 1.100 times the cost of restoring the road, lane or public way to its condition prior to excavation. The permit shall be valid for the time shown on the permit and may be extended by the engineering coordinator for additional time.

2. Before engaging in any construction requiring persons, equipment or materials to encroach upon a county road, lane or public way, a person shall make written application for and obtain a permit from the engineering coordinator. The application shall include a completion bond equal to 1.10 times the cost of restoring the road, lane or public way to its condition prior to the encroachment. The permit shall be valid for the time shown on the permit and may be extended by the engineering coordinator for additional time.

C.D. Emergency Conditions: Under emergency conditions, a person may excavate in any county road, lane or public way, or remove any pavement or other materials forming an improvement thereon, or may encroach upon a county road or public way, if doing so is necessary to prevent imminent loss of life or serious damage to property. The person shall bear responsibility for all

liability. In such emergencies, the person making the excavation or encroachment shall contact and obtain a permit from the engineering coordinator at the earliest possible time, but in no case later than the first working day following the emergency excavation or encroachment. All other provisions and specifications set forth in this section shall be applicable to excavations and encroachments arising out of emergency conditions.

E. Winter Season: ~~Permits~~ ~~No permits~~ for excavation or encroachment ~~shall can~~ be issued during the winter season ~~,with the expressed approval of the county manager or engineering coordinatorengineer, which may be withheld at his or her sole discretion. Best engineering practices must be followed for winter time work, except in emergency conditions where the engineering coordinator determines that weather and ground conditions are such that satisfactory backfilling and road restoration and repair may be completed. The winter season shall commence on November 1 and end on April 1 of each year, unless otherwise approved by the engineering coordinator.~~

F. Completion of Site Improvements Before Building Permits: Building permits, including footing and foundation permits for lots in new developments, shall not be issued until all required improvements in the development are ~~to be~~ installed or completed by the developer and are accepted in writing by Wasatch County. Upon a showing of good cause and adequate protection for the county, this regulation may be waived or amended on a case by case basis for attached single-family, multi-family, commercial, industrial or institutional development, by approval of the county planning, engineering and building departments.

D. ~~Completion Bonds:~~

- ~~1. The completion bond required for excavation and for encroachment in a county road, lane or public way may be cash, a letter of credit from an FDIC insured financial institution, or a corporate surety bond. The bond shall be valid for a period of one year to guarantee compliance with the requirements of this chapter. The bond shall be released upon approval of the engineering coordinator and the county manager.~~
- ~~2. Applicants for excavation and encroachment permits may request permission from the engineering coordinator to secure a continuing annual completion bond in lieu of separate bonds for each excavation or encroachment. Applications for such a bond shall be made before December 31 of each year and shall be valid for the next calendar year or as determined by the engineering coordinator and approved by the county manager.~~

14.02.05: SIDEWALKS AND TRAILS

A. "Sidewalks and Trails" shall be defined as:

- ~~1. A roadway easement right of way designed for optimal pedestrian use; or~~
- ~~2. A pathway designed for safety that provides a probable logical connection among the units in the development in a configuration that discourages pedestrian traffic on the roadway.~~

B.A. _____ Pedestrian sidewalks and/or trails shall be required in all of the following developments as shown in section 14.02.07 of this chapter:

1. High density;
2. Commercial;
3. An average buildable lot frontage of less than two hundred feet (200');
4. Multi-family residential; and
5. Minor and major collectors and arterials.
6. In developments, other than those listed above, options may be looked at for resort or mountainous developments where a trail system, that accomplishes the same results as a sidewalk, is desirable. The planning commission shall make a recommendation to the county council regarding where trails and not sidewalks may be used. The legislative body may waive sidewalks in these limited circumstances if it determines the health, safety, and welfare of the development will not be negatively impacted by the waiver.
7. Unless the physical terrain such as a steep grade or hillside slope makes sidewalks prohibitive or unsafe, in which case the county legislative body, upon consideration of recommendations from staff or the planning commission, may make an exception to these standards as long as alternative pathways are provided. The burden of demonstrating this exception is entirely upon the applicant and must be shown by a clear and convincing standard.
8. Sidewalks shall be constructed with a minimum of 5" thick concrete or ~~any~~ other hard surface material approved by the County Manager or engineering coordinator, which has a manufacturer guaranteed life of at least twenty five (25) years. ~~Trails may be constructed of a minimum 3" thick asphalt over 6" road base, with a weed barrier.~~ Trail standards are established in the Wasatch County Code 16.38 as amended. If the trail standard is not established in 16.38, the trail shall be a minimum of 3" thick asphalt over 6" road base with a weed barrier.

14.02.06: ROAD GRADE

1. The minimum allowed grade for all roadways is one-half percent (0.5%).
2. The maximum allowed grades for all roadways are as follows:
 1. Minor local, the maximum grade shall not exceed ten percent (10%);
 2. Local, the maximum grade shall not exceed ten percent (10%);
 3. Major local, the maximum grade shall not exceed ten percent (10%); and
 4. Minor collector, the maximum grade shall not exceed eight percent (8%).
3. Physical terrain may require exceptions to the above maximum grade. The following mitigating circumstances may permit an increase in the maximum grade. The burden of meeting the criteria shall be solely upon the applicant and shall be shown by a clear and convincing standard:
 1. Terrain difficulties;
 2. Nature of materials; soil and geology;
 3. Significant vegetation to be preserved;
 4. Aspect, i.e., north facing, south facing, etc.;
 5. Size of lots;
 6. Number of units serviced;
 7. Drainage considerations;
 8. Roadway classification;
 9. Pullouts provided, widths and spacing;
 10. Safety mitigation factors are added; and
 11. Length of exception requested.
4. In the event the applicant meets its burden of showing an exception, the maximum allowed grades are as follows:

1. Local grade shall not exceed twelve percent (12%);
 2. Major local grade shall not exceed ten percent (10%); and
 3. Minor collector grade shall not exceed eight percent (8%). ~~However, any grade above six percent (6%) requires a letter from the local school district stating that it will service the residences in that development.~~
5. Compliance with local road grade standards does not guarantee school bus service.

14.02.07: GENERAL ROAD DESIGN STANDARDS

Roads shall be designed at a minimum in accordance with AASHTO design criteria and per street cross sections shown in section 14.02.08 of this chapter. The roadway design standards shall be the same for publically owned and all privately owned roadways. These standards shall be applicable to new developments in Wasatch County:

~~A. Roads shall be designed at a minimum in accordance with AASHTO design criteria and per street cross section drawings shown in section 14.02.08 of this chapter.~~

~~B. The roadway design standards shall be the same for all publicly owned and all privately owned roadways.~~

~~C.A. One Hundred and Six Foot In road sections designated as arterials a one hundred six foot (106') width is required as described below: Arterial: To be used where the potential of traffic at build out is greater than 8000 ADT requiring a minimum of 3 driving lanes (including the turn lane) and 5' asphalt shoulders for bike/emergency lane. Drainage to be controlled with a drainage swale, no curb and gutter. In areas where the profile grade is steeper than 5% the drainage swale must be lined with an approved fabric or rip rap. There will be no private resident access allowed. There will be no on street parking allowed. Larger right of ways allows for two meandering ten foot (10') asphalt paths on each side of the road.~~

1. The county council will approve the final section for construction. The following is a suggested section as shown in section 14.02.08, figure 1 of this chapter:
 - (a) A ten foot (10') asphalt meandering sidewalk through a twenty three foot (23') section between the property line and the edge of the drainage swale;
 - (b) A five foot (5') drainage swale;
 - (c) A two foot (2') gravel shoulder;
 - (d) A five foot (5') paved shoulder;
 - (e) A twelve foot (12') paved surface lane;
 - (f) A twelve foot (12') paved median;
 - (g) A twelve foot (12') paved surface lane;
 - (h) A five foot (5') paved shoulder;
 - (i) A two foot (2') gravel shoulder;
 - (j) A five foot (5') swale;
 - (k) A ten foot (10') meandering asphalt sidewalk through a twenty three foot (23') section between the property line and the drainage swale.

~~D.B. In road sections designated as a Seventy Five Foot (75') Major Collector: as described below: To be used where the potential of traffic at build out is greater than 8000 ADT requiring a minimum of 3 driving lanes (including turn lane) and 5' asphalt shoulders for bike/emergency lane. Drainage to be controlled with a drainage swale, no curb and gutter. In areas where the profile grade is steeper than 5% the drainage swale must be lined with an approved fabric or rip rap. There will be no private residential access allowed except for very specific exceptions for existing buildable lots/properties bordering a 75' county right of way in~~

circumstances where the applicant has proven safety concerns can be adequately mitigated. These exceptions can only be approved by the County Manager and Engineering Coordinator. There will be no on street parking allowed. The right of way allows for two meandering five foot (5') walkways on each side of the road.

1. The County Council will approve the final section for construction. The following is a suggested section as shown in section 14.02.08, figure 2 of this chapter:
 - (a) A five foot (5') concrete meandering sidewalk or an eight foot (8') paved trail based on the county overall trail plan, located through a section between the property line and the drainage swale;
 - (b) A five foot (5') drainage swale;
 - (c) A two foot (2') gravel shoulder;
 - (d) A five foot (5') paved shoulder;
 - (e) An eleven foot (11') paved surface lane;
 - (f) A twelve foot (12') paved median;
 - (g) An eleven foot (11') paved surface lane;
 - (h) A five foot (5') paved shoulder;
 - (i) A two foot (2') gravel shoulder;
 - (j) A five foot (5') swale;
 - (k) A five foot (5') meandering sidewalk through a section between the property line and drainage swale.

E.C. In road sections designated as a Sixty Six foot (66') Minor Collector Roadway: having ADT of two thousand one (2,001) to eight thousand (8,000). To be used where the potential of traffic at build out is between 2000 and 8000 ADT. Roadway to have two driving lanes with 5' asphalt shoulders for bike/emergency lanes. Drainage to be controlled with a drainage swale, no curb and gutter. In areas where the profile grade is steeper than 5% the drainage swale must be lined with an approved fabric or rip rap. There will be no private resident access allowed except for very specific exceptions for existing properties bordering a 66' county right of way. Exceptions to be approved by the County Manager or Engineering Coordinator. There will be no on street parking. Right of way allows for two meandering five foot (5') walkways on each side of the road.

1. With a swale, the sections shall be built as shown in section 14.02.08, figure 3 of this chapter, and shall meet the following criteria:
 - (a) A five foot (5') meandering sidewalk within a nine foot (9') area between the property line and drainage swale;
 - (b) A five foot (5') drainage swale;
 - (c) A two foot (2') gravel shoulder;
 - (d) A five foot (5') paved shoulder;
 - (e) Two (2) 12-foot paved surface lanes;
 - (f) A five foot (5') paved shoulder;
 - (g) A two foot (2') gravel shoulder;
 - (h) A five foot (5') drainage swale;
 - (i) A five foot (5') meandering sidewalk within a nine foot (9') area between the property line and drainage swale.

F.D. Sixty Foot (60') Major Local Road: with less than two hundred feet (200') of average lot frontage. This is the primary residential road standard where the average lot frontage is less than one hundred fifty feet (150'). The traffic potential at build out will be less than 2000 ADT. The overall road width to be 30' of asphalt. On street parking may be allowed. Due to

the potential for numerous driveways, the drainage is to be controlled with curb and gutter. This Major Local Road includes 4' sidewalk on each side of the street.

1. With a curb and gutter, the section shall be built, as shown in section 14.02.08, figure 4 of this chapter, and shall meet the following criteria:
 - (a) A four foot (4') sidewalk;
 - (b) A five and one-half foot (5.5') park strip;
 - (c) A two and one-half foot (2.5') modified or rolled curb and gutter;
 - (d) Two (2) 15-foot paved surface lanes;
 - (e) A two and one-half foot (2.5') modified or rolled curb and gutter;
 - (f) A five and one-half foot (5.5') park strip;
 - (g) A four foot (4') sidewalk.

~~G. In road sections designated minor local roadways having ADT of zero to two thousand (2,000):~~

- ~~1. With curb and gutter, the section shall be built, as shown in section 14.02.08, figure 5 of this chapter, and shall incorporate the following criteria:~~

- ~~(a) A five and one-half foot (5.5') park strip;~~
- ~~(b) A two and one-half foot (2.5') curb and gutter;~~
- ~~(c) Two (2) 15-foot paved surface lanes;~~
- ~~(d) A two and one-half foot (2.5') curb and gutter;~~

E. A five and one-half foot (5.5') park strip. Road sections otherwise designated local roadways in developments sharing an average frontage of less than two hundred feet (200') require high density road sections. Major Local with Swales: To be used for local roadways, with RA-1 or greater zoning, with a minimum 150' lot frontage. The traffic potential at build out will be less than 2000 ADT. Drainage to be controlled with a drainage swale, no curb and gutter. In areas where the profile grade is steeper than 5% the drainage swale must be lined with an approved fabric. Rip Rap will not be allowed.

1. The section shall be built, as shown in section 14.02.08, figure 5 of this chapter, and shall incorporate the following criteria:

~~—A fourteen~~fifteen foot (145') area ~~adjacent~~on one side of to the right of way for an eight (8') wide meandering paved trailwalk. The trail needs to only be on one side of the street. Location to be determined or approved by Wasatch County Planning and Engineering departments. Center line of paved surface of the motor vehicle road to be off set six feet (6') from center line of the right of way to allow more room for trail to meander. Only for this Major Local with Swales standard, the width and material that the trail is built from supersede the width and material standards for trails in Title 16 of the Wasatch Code—What is the total ROW? Measurements from CL of road will not be accurate as regulated in title 16 and front setback measurements of 30' from CL.

- ~~(a) A five foot (5') drainage swale. Drainage swales to be topsoil and seeded, no cobble lined ditch. Permanent erosion control fabric to be installed if road grade is greater than 5%.~~
- (a) A five foot (5') drainage swale. Drainage swales to be topsoil and seeded, no cobble lined ditch. Permanent erosion control fabric to be installed if road grade is greater than 5%.
- (b) A two foot (2') gravel shoulder;
- (c) Two (2), ~~fifteen~~fifteen foot (15') paved surface lanes for motor vehicles.
- (d) A two foot (2') gravel shoulder.
- (e) A five foot (5') drainage swale on each side of the asphalt. Drainage swales to be topsoil and seeded, no cobble lined ditch. Permanent erosion control fabric to be installed if road grade is greater than 5%.

(e)(f) ~~_____~~ A two foot (2') open space between edge of swale and right of way.

~~H.F. _____ In road sections designated as Agriculture/Seasonal: exemption, having ADT of zero to one thousand (1,000), with no concrete curb and gutter or sidewalk: To be used for private local roadways to support agricultural uses, with RA-15 or less dense greater zoning, with a minimum 2300' lot frontage. The traffic potential at build out will be less than 500 1000-ADT. Drainage to be controlled with a drainage swale, no curb and gutter. In areas where the profile grade is steeper than 5% the drainage swale must be lined with an approved fabric or rip rap. Any other road surface besides asphalt must be approved by the engineering coordinator and the county council, and may only be approved in these limited circumstances where the applicant has proven and the County Council finds health, safety, and welfare of the road and the public will not be negatively impacted.~~

1. Twenty four foot (24') wide road with either road base, roto-mill tailings, or asphalt surface course as shown on section 14.02.08, figure 6 of this chapter, and shall incorporate the following criteria:
 - (a) Road Base Surface: Twenty four foot (24') width of a minimum nine inches (9") commercial road base. An additional section width may be required depending on subgrade soils.
 - (b) Roto-Mill Tailings Surface: Twenty four foot (24') width of a minimum section comprised of four inches (4") of roto-mill tailings and six inches (6") of commercial road base. An additional section width may be required depending on subgrade soils.
 - (c) Asphalt Surface: Twenty four foot (24') wide asphalt surface course with two (2) 2-foot gravel shoulders. A minimum section width of three inches (3") of asphalt and nine inches (9") of road base is required. An additional section width may be required depending on subgrade soils.
 - (d) Road Grade: A five foot (5') wide ditch to be on the cut side of the road. If road grade is steeper than five percent (5%), the ditch is to be lined with a C-350 fabric or better, or six inches (6") of riprap. If the road grade is steeper than five percent (5%), check dams spaced no more than every two hundred feet (200') will be required.

~~I.G. A designated Fire/Emergency Road: with no curb and gutter or sidewalk which may only be used in legally non-conforming subdivisions or lots of record extraordinary circumstances and must be expressly approved by the engineering coordinator and the county council on a case by case basis where the applicant has proven and the County Council finds health, safety, and welfare of the road and the public will not be negatively impacted. The Fire/ Emergency Road and may not be used as a secondary access.~~ A fire/emergency road must have controlled access on each end point to prevent ordinary daily traffic:

1. Twenty foot (20') wide road with road base, roto-mill tailings or asphalt surface course as shown on section 14.02.08, figure 7 of this chapter, and shall incorporate the following criteria:
 - (a) Road Base Surface: Twenty foot (20') width of a minimum nine inches (9") of commercial road base. An additional section width may be required depending on subgrade soils.
 - (b) Roto-Mill Tailing Surface: Twenty foot (20') width of a minimum of four inches (4") of roto-mill tailings and six inches (6") of commercial road base. An additional section width may be required depending on subgrade soils.
 - (c) Asphalt Surface: Sixteen foot (16') wide asphalt surface course with two (2) 2-foot gravel shoulders. A minimum section width of three inches (3") of asphalt and nine inches (9") of road base is required.

- (d) Road Grade: A four foot (4') wide ditch to be on the cut side of the road. If road grade is steeper than five percent (5%), the ditch is to be lined with a C-350 fabric or better, or six inches (6") of riprap. If the road grade is steeper than five percent (5%), check dams spaced no more than every two hundred feet (200') will be required.1
- (e) Year Round Basis: If it is determined by the County Manager or the Fire Chief that a fire emergency road is required to be maintained on a year round basis the surface material must be asphalt.

~~J.H.A designated mMountain rRoad: This road standard is designed for connective road traffic through mountainous terrain. It is not intended to allow frontage for any residential use. having ADT of zero to two thousand (2,000), with no concrete curb and gutter or sidewalk. Potential traffic is less than 1000 ADT. Drainage to be controlled with a drainage swale, no curb and gutter. In areas where the profile grade is steeper than 5% the drainage swale must be lined with an approved fabric or rip rap. No Very minimal driveway access is allowed. A mountain road Mmay not be plowed in the winter by the county maintenance department. Emergency services may not be available in areas accessed on Mountain Roads when there is snow on the road.~~

1. A twenty four foot (24') wide asphalt road as shown on section 14.02.08, figure 8 of this chapter, and shall incorporate the following criteria:
 - (a) A twenty four foot (24') wide asphalt surface course with two (2) 2-foot wide gravel shoulders. A minimum section width of three inches (3") of asphalt and nine inches (9") of road base. An additional section width may be required depending on subgrade soils.
 - (b) A five foot (5') wide ditch to be on the cut side of the road. If road grade is steeper than five percent (5%), the ditch is to be lined with a C-350 fabric or better, or six inches (6") of riprap. If the road grade is steeper than five percent (5%), check dams spaced no more than every two hundred feet (200') will be required.

~~K.I.A designated sShared dDriveway: This standard, per 16.27.31, is designed for situations in which where three or less residential homes share one driveway access. with no concrete curb and gutter or sidewalk. Per section 16.27.31 of this code, a shared driveway can only service three (3) lots or less provided the driveway is twenty feet (20') wide. A shared driveway cannot be more than 1,300-500 feet long. All shared driveways shallto be maintained, including snow removal activities, by the private residents. Drainage shallto be controlled with adequate whatever means necessary to divert storm water away from buildings. Added run-off must be accommodated in the overall detention design for the community. A sStorm water plan mustto be approved by the engineering coordinator. A sShared driveway mustto be designed to allow for emergency access to all buildings. If driveways extend beyond 150' from main access road, a turnaround must be provided for emergency vehicles. Shared driveways must have the express ed-written consent of the fire marshal.~~

1. A twenty foot (20') wide asphalt road as shown on section 14.02.08, figure 9 of this chapter, and shall incorporate the following criteria:
 - (a) A twenty foot (20') wide asphalt surface course with two (2) 2-foot wide gravel shoulders. A minimum section width of three inches (3") of asphalt and nine inches (9") of road base. An additional section width may be required depending on the subgrade soils.
 - (b) A five foot (5') wide ditch to be on the cut side of the road. If the road grade is steeper than five percent (5%), the ditch is to be lined with a C-350 fabric or

better, or six inches (6") of riprap. If the road grade is steeper than five percent (5%), check dams spaced no more than every two hundred feet (200') will be required.

J. Utility Location: ~~U~~All utilities in the road will be located as shown in section 14.02.08, figure 10 of this chapter.

K. Alley Way Standard; Intent In some circumstances alleys can be used to enhance the pedestrian experience by removing driveways, garage openings, loading docks, garbage containers, utility services and other ~~ed~~drive activities from the front of buildings. Alleys shall be used on a limited basis and will be private with public access and public utility easements. By utilizing alleys, some utilities, loading docks, dumpsters and other service needs are kept to the back of the buildings and away from the pedestrian amenities. Alleys are **not** intended as a tool to avoid having a public street or private pedestrian plaza that meets the standards of a public street at the front of the buildings. The use of alleys must be approved by either the Wasatch County Manager or the engineering coordinator, Engineer and also the Wasatch County Fire District. The Typical alley way section is shown in section 14.02.08, figure 11.

L.

— **Definition:**

1. "Alley" means a public access privately maintained within a block primarily intended for service and access to abutting property by vehicles and not designed for general travel and only allowed when units have frontage on a road or pedestrian plaza built to the applicable County standard.

—

— **General Conditions:**

— Alley or ~~Lane way~~ access may be is permitted under the following conditions. If all conditions are not met then the use of alleys is, are prohibited.

2.

— 1. Building Land use access must be available from a public street or private street/plaza built to the public standard as well as the alley ~~or lane~~.

(a)

— 2. Alleys or Lanes are built to specific standards as provided below.

(b)

— 3. Water and sewer utilities shall be in the street unless approved by the County Manager or the engineering coordinator, Engineer or Fire Marshall. If underground wet utilities, sanitary sewer, waterlines, storm drains, etc. are installed in alleys, they shall be constructed prior to the surfacing of the alley and per Wasatch County Standards.

(c)

— a. If utilities are constructed within the alley then connections for all underground utilities and sanitary sewers shall be laid prior to the asphalt or concrete to avert the necessity for disturbing the alley improvements, when service connections thereto are made.

1.

— 4. Alleys constructed of concrete will be 20' wide with an inverted crown and a centerline drainage collection system. Alleys constructed of concrete shall have a minimum pavement section of 8 inches of PCC over 6 inches of base rock, placed over geotextile fabric, or approved per geotechnical recommendations and

approved by the County ~~Manager or the engineering coordinator~~ Engineer for H-2O loading. Asphalt construction may only be used with a concrete water way for drainage at the center of the alley. A minimum of 3" of asphalt over 9" of road base will be required. In conditions where asphalt construction is used, concrete ribbon curbing will be required outside the 20' width of the asphalt section to protect the edge of the asphalt. Said curbing shall be 2' wide for a total drivable surface of 24'. If the natural soils have a CBR under 20, then a thicker section will be required as determined by the developer's geotechnical engineer, with approval in of agreement with the County ~~ies~~ Manager or e Engineering coordinator. The applicant must show all private improvements w and how they will impact the alley, including garages or other structures, stairs, vaults, fences, walls, driveways, parking lots, walkways, or other improvements tems. The applicant must indicate existing drainage patterns and show private drainage inlets, outlets, and pipes beyond the alley right-of-way that will be impacted by the alley construction.

(d)

a. Joint Pattern: The PCC pavement shall be placed full width in one pour, with no longitudinal joints. The alley design shall include a transverse joint pattern, shown on the plans, so that the joints are spaced to create panel lengths that are 0.75 to 1.25 times the alley width. The joint pattern will be coordinated to intersect with utility features such as poles, manholes, and catch basins.

1.

2. b. Alley Approaches: The aAlley approaches shall be constructed as commercial driveways in all respects, except that the structural section will be increased to 10 inches, or shall or match the alley pavement structure for which it provides access, whichever is greater, or as approved per geotechnical recommendations recommendations by and the County Manager or the e Engineering coordinator for H-2O loading, whichever is greater. Alley approaches with a standard curb return shall not be used without approval of the County Manager or e Engineering coordinator.

(e) Length: Alleys shall be continuous from street to street wherever possible. If an alley is not through and longer than 150 feet, then a turnaround must be provided to accommodate a fire truck, or such additional standards as may be required by the fire code.

(f) Parking: No person shall park a vehicle within an "alley" except during the necessary and expeditious loading and unloading of merchandise. No parking signs are required at 100 foot intervals. The alley must remain open at all times.

(g) Setbacks: Alley garage setbacks in residential uses shall be 20 feet or greater as measured from the edge of the alley paving. Alley's leading to parking structures or to commercial/hospitality uses such as hotels or retail shall have a minimum setback of 4 feet as measured from the edge of the alley paving. The four foot setback shall remain open and unobstructed. If an alley exceeds 150 feet and is adjacent to buildings exceeding 30 feet, then the alley must have 26 feet of hard surface for fire truck downriggers. Parking garage structures shall have a side yard setback of no less than 15 ft.

(h) Snow Storage: An additional area of 15% of the alley paved area must be set aside for snow storage. A snow storage plan exhibit must be submitted as part of

the alley plan to show that the required amount of snow storage has been provided.

(i) The alley must be allowed under the Land Use and Development Code.

7

Length

~~Alleys shall be continuous from street to street wherever possible. If an alley is not through and greater than 150 feet then a turnaround must be provided to accommodate a fire truck as per code.~~

Parking

~~No person shall park a vehicle within an "alley" except during the necessary and expeditious loading and unloading of merchandise. No parking signs are required at 100 foot intervals. The alley must remain open at all times.~~

Setbacks

~~Alley garage setbacks in residential uses shall be 20 feet or greater as measured from the edge of the alley paving. Alley's leading to parking structures or to commercial/hospitality uses such as hotels or retail shall have a minimum setback of 4 feet as measured from the edge of the alley paving. The four foot setback shall remain open and unobstructed. If an alley exceeds 150 feet and is adjacent to buildings exceeding 30 feet, then the alley must have 26 feet of hard surface for fire truck downriggers.~~

~~Parking garage structures shall have a side yard setback of no less than 15 ft.~~

Snow Storage

~~An additional area of 15% of the alley paved area must be set aside for snow storage. A snow storage plan exhibit must be submitted as part of the alley plan to show that the required amount of snow storage has been provided.~~

LM. All Wasatch County roads shall be classified by the county master transportation plan. The right of way requirements for each classification will be as follows:

Local: Sixty feet (60') wide;

Minor collector: Sixty six feet (66') wide;

Major collector: Seventy five feet (75') wide;

Arterial: One hundred six feet (106') wide;

Expressway: One hundred fifty feet (150') wide.

L. Road Section; Prior to preliminary approval of a development, the developer has to provide a geotechnical, and geological review performed by a licensed geotechnical engineer and professional geologist. The review must address onsite soil conditions and make recommendations for a typical road section for the project. The reviewer has to take into consideration the amount of full build out traffic ADT's based on an approved traffic control plan. The county has minimum section requirements as shown below:

1. Roadway Excavation; For new road construction the entire road platform, including cut and fill areas, must be cleared of all vegetation, topsoil, organic material, and soft clays. If the geotechnical engineer classifies the sub grade soils to be collapsible, further actions may be necessary to prepare the sub grade based on the geotechnical engineer's recommendation. The Wasatch County engineer coordinator has the option to require

additional sub grade preparation and section materials above and beyond the geotechnical review engineer's recommendation.

- 2. Sub Grade; Minimum Sub Grade preparation for all road standards will meet the requirements of follow the table below:**

<u>AASHTO Soil Classification</u>	<u>Requirement</u>
<u>A-1</u>	<u>The sub grade shall be scarified to a depth of 12" and the loosened material shall be moistened and compacted to 95% per AASHTO T-180</u>
<u>A-2, A-3, A-4, or A-5</u>	<u>The sub grade shall be over excavated a minimum of ten inches (10"), scarified, and properly compacted to 95%. The 10" of material removed will be replaced with an A-1 granular material and properly compacted to 95%</u>
<u>A-6 or A-7</u>	<u>The sub grade shall be over excavated a minimum of sixteen inches (16"), scarified and properly compacted to 95%. The 16" material removed will be replaced with an A-1 granular material properly compacted to 95%.</u>

- 3. Road Base and Asphalt;** Road sections designated 106' Arterial, 75' Major Collector, and 66' Minor Collector, will have a minimum of nine inches (9") of road base and four inches (4") of asphalt. For all other roads requiring asphalt, a minimum of eight inches (8") of road base and three inches (3") of asphalt will be required.
- 4. Excavation Through an Existing Street;** This section covers any trench excavation through an existing road, and is anticipated to be used mainly to install utilities across existing roadsstreets. If at all possible, the preferred method for installing utilities under existing paved roads is to have them bored.
- (a)** Any excavation work in a county road requires a permit.
 - (b)** A traffic control plan meeting the MUTCD guidelines is required and must be approved by the engineering coordinator. Minimal traffic impact including full road width or lane closures is required on existing roads.
 - (c)** Material removed by the excavation is not to be used as backfill for any portion of the trench under the road paved section unless it meets an A-1 granular requirement.
 - (d)** Pipe bedding to conform to the specific utility companies requirement, including the dry utility companies (communication, electric, and gas), the special service district's requirements for wet utilities, and APWA requirements for storm drain pipe.
 - (e)** The remaining trench to be filled with select A-1-A granular product up to the existing road section.
 - (f)** The top of the trench will have a minimum of 4" of asphalt placed in 2 lifts over road base to match the existing section or 8" minimum. Trench work shall be scheduled so that the trench can be completed including asphalt within a minimum of 2 days. Trenches left unpaved for longer than 2 days require specific approval in writing from the engineering coordinator.

(g) Any work within an existing road requires inspection from the county to be scheduled by the contractor completing the work.

NQ. Wasatch County roadway design standards:

Design Element		Roadway Functional Classification (Average Daily Trip) {Single-Family Units}							
106' Arterial (>8,000 0) {>800}	75' Major Collector (>8,000) {>800}	66' Minor Collector (2,001 -8,000) {201- 800}	Major Local† (0- 2,000) {151- 200}	Minor Local (0- 2,000) {16- 150/0- 15}	Agricultural/ Seasonal Road (0-1,500) {16-150/0- 15}	Fire/Emergency-Shared Driveway (0-1,000) {16-150/0- 15}	Mountain Road (0- 1,000) {16- 150/0- 15}		
Minimum design speed (V)		Varies with terrain and volume							
Typical section elements:									
	Right of way width	106 feet	75 feet	66 feet	60 feet	60 feet	60 feet	60 feet	60 feet
	Pavement width	46 feet	44 feet	34 feet	30 feet	30 feet	24 feet	Fire/emergency-16 feet Driveway-20 feet	24 feet
	Side cut/fill slopes	3:1 up to 5 feet high and 2:1 above 5 feet high						2:1	2:1
Horizontal design elements:									

Minimum mid-block centerline curve	Varies with V and superelevation		100 feet	60 feet	75 feet
Minimum tangent distance between reverse centerline curves	Varies with V and superelevation		50 feet	40 feet	50 feet
Maximum cul-de-sac length ²	Not allowed	Allowed only on local streets. 1,300 feet or 30 dwelling units, whichever is less			
Cul-de-sac travelway turnaround diameter	Not allowed	Not allowed	80 feet		
Maximum superelevation rate	6%	6%	2%	Not applicable	2%
Vertical design elements:					
Minimum centerline grade	0.50%	0.50%			
Maximum centerline grade ³	10%	8%	10%		
Maximum grade in cul-de-sac	Not allowed	Not allowed	5%		

Maximum centerline grade-across designated crosswalks	4%	4%	5%						
Maximum grade-break without vertical curve	0-.50%		1%	2%					
Minimum crest vertical curve-K value ⁴	Varies with V		19						
Minimum sag-vertical curve-K value ⁴	Varies with V		37						
Minimum length-of vertical curve	Per traffic engineer	3V	80-foot	60-foot	60-foot	50-foot	60 feet		
Intersections:									
Minimum angle-of intersection	80°		70°	60°	60°	50°	60°		
Minimum offset between intersections	Study required	Study required	150 feet	125-foot					

	Maximum centerline offset	0-feet	5-feet						
	Maximum centerline grade across intersections ⁵	4%		5%					
	Minimum corner radius (edge of travelway)	30-feet		25-feet					
	Pavement component minimum thickness ⁶ :								
	Asphaltic concrete	Per geotechnical report		3-inches					
	Road-base	Per geotechnical report		9-inches					
	Subbase	Per geotechnical report							
	Subgrade	Property prepared per geotechnical report							

Roadway Functional Classification								
	Arterial	Major Collector	Major Local	Major Local with Swale	Agricultural Seasonal Road	Fire Emergency	Mountain Road	Shared Driveway
ROW Width	106'	75'	66'	60'	60'	60'	60'	60'
Average Daily Trips	> 8000	> 8000	8,000-2,001	2,000-0	< 500	Emergency Only	< 200	< 200
Single Family Units	< 800	< 800	< 500	<200	150-0	0	Minimal	1-3
Pavement Width	46'	44'	37'	30'	24'	16'	24	20
Side cut/fill slopes	3:1 up to 5 feet high and 2:1 above 5 feet					2:1	2:1	2:1
Horizontal Design Elements								
	Arterial	Major Collector	Major Local	Major Local with Swale	Agricultural Seasonal Road	Fire Emergency	Mountain Road	Shared Driveway
Minimum mid block centerline curve	Varies with V and superelevation				100'	60'	75'	60'
Minimum tangent distance between reverse centerline curves	Varies with V and superelevation				50'	40'	50'	40'
Maximum cul-de-sac length ³	Not Allowed							
Cul-de-sac travelway turnaround diameter	Not Allowed				80'	80'	80'	80'
Maximum superelevation	6%	6%	6%	6%	N/A			N/A
Vertical Design Elements								
	Arterial	Major Collector	Major Local	Major Local with Swale	Agricultural Seasonal Road	Fire Emergency	Mountain Road	Shared Driveway
Minimum crest vertical curve K value ⁵	Varies with speed limit				19	19	19	19
Minimum sag vertical curve K value ⁵	Varies with speed limit				37	37	37	37
Minimum length of vertical curve	Per traffic engineer	3*V	120'	80'	60'	50'	60'	60'
Minimum centerline grade ⁴	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Maximum centerline grade	10%	8%	10%	10%	10%	10%	10%	10%
Maximum grade in cul-de-sac	Not Allowed				5%	5%	5%	5%
Maximum centerline grade across designated crosswalks	4%	4%	4%	5%	5%	5%	5%	5%
Maximum grade break without vertical curve	0.50%	0.50%	0.50%	1%	2%	2%	2%	2%

Intersections								
	Arterial	Major Collector	Major Local	Major Local with Swale	Agricultural Seasonal Road	Fire Emergency	Mountain Road	Shared Driveway
Minimum angle of intersection	80°	80°	70°	60°	60°	50°	50°	50°
Minimum offset between intersections	Study required	Study required	150'	125'	125'	125'	125'	125'
Maximum centerline offset	0'	5'	5'	5'	5'	5'	5'	5'
Maximum centerline grade across intersections ⁶	4%	4%	4%	5%	5%	5%	5%	5%
Minimum corner radius (edge of travelway)	30'	30'	30'	25'	25'	25'	25'	25'
Pavement Component Minimum Thickness ⁷								
	Arterial	Major Collector	Major Local	Major Local with Swale	Agricultural Seasonal Road	Fire Emergency	Mountain Road	Shared Driveway
Asphaltic concrete	Per geotechnical report, 4" minimum			3"	3"	3"	3"	3"
Road Base	8" minimum			8"	8"	8"	8"	8"
Subbase	PER SECTION 14.02.07, SECTION L							
Subgrade	PER SECTION 14.02.07, SECTION L							
Notes:								
1 Roads shall be designed at a minimum in accordance with AASHTO design criteria.								
2 See section 14.02.05 of this chapter for sidewalk requirements								
3 The length of a cul-de-sac is measured along the centerline from the intersection to the center of the turnaround.								
4 Physical terrain may require exceptions to the following maximum grades. D24 See section 14.02.06 "Road Grade" of this chapter for further discussion.								
5 Design speed for vertical curves shall be 5 miles per hour greater than the anticipated speed limit.								
6 grade must extend at least 100 feet beyond the edge of the traveled way of the outside lane of the intersecting street.								
7 A geotechnical report including pavement design shall be submitted. The thickness of 1 or more of the pavement components shall be increased as needed to achieve the required strength as specified in the geotechnical report and approved by the								

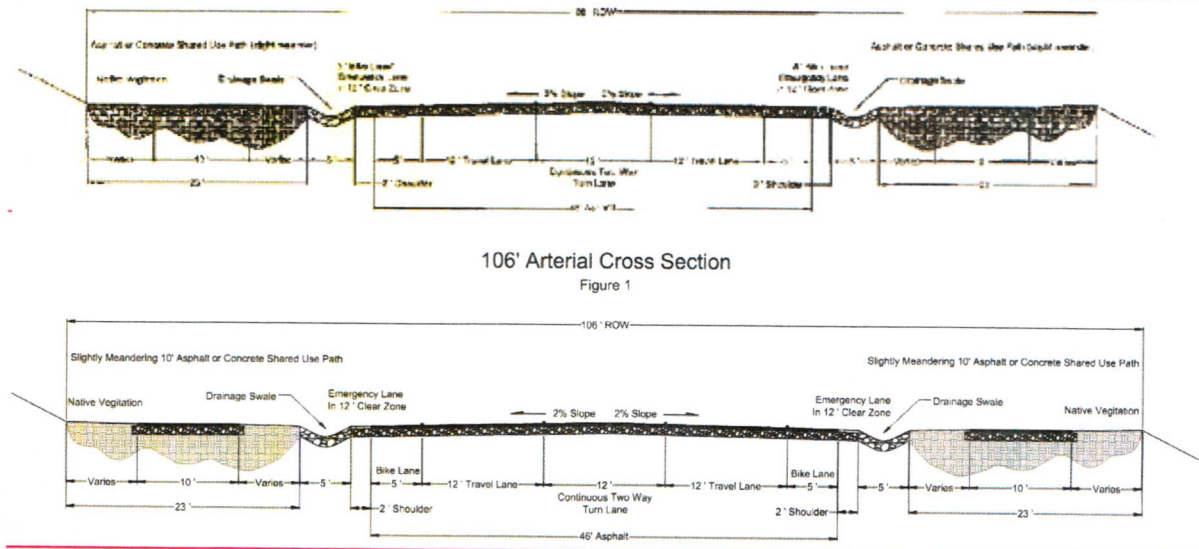
Notes:

1. See section [14.02.05](#) of this chapter for sidewalk requirements.
2. The length of a cul-de-sac is measured along the centerline from the intersection to the center of the turnaround.
3. Physical terrain may require exceptions to the following maximum grades. See section [14.02.06](#), "Road Grade", of this chapter for further discussion.
- ~~4. Design speed for vertical curves shall be 5 miles per hour greater than the anticipated speed limit.~~
- ~~5.4. The primary street of the intersection shall not exceed the maximum centerline grades as allowed for each of the roadway functional classifications. Stop-controlled secondary intersecting grades must not exceed the reduced approach values as given in this table. The intersection centerline approach grades of the secondary or intersecting street Grade must extend at least 100 feet beyond the edge of the paved traveled way of the outside lane of the intersecting primary through street before exceeding these values.~~

6. A geotechnical report including pavement design shall be submitted. The minimum road base and asphalt thicknesses shall be 9 inches and 3 inches, respectively. The thickness of 1 or more of the pavement components shall be increased as needed to achieve the required strength as specified in the geotechnical report.

14.02.08: ROAD STANDARDS

~~106' ARTERIAL CROSS SECTION~~
~~FIGURE 1~~



Notes:

1. ~~If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subbase level, a granular subbase layer may be omitted (to be determined by the geotechnical engineer). Sub Grade preparation and road section to be per 14.02.07 L.~~
2. All disturbed surfaces shall be covered with 4 to 6 inches of topsoil and seeded.
3. Lane striping as per cross section.
4. Shoulder will be constructed with compacted road base.
5. The subtle meandering shared use path will have 3 inches of asphalt over 9 inches of road base.
- 6.5. Road will have a minimum of four inches (4") ~~3 inches~~ of asphalt ~~over 9 inches of road base.~~

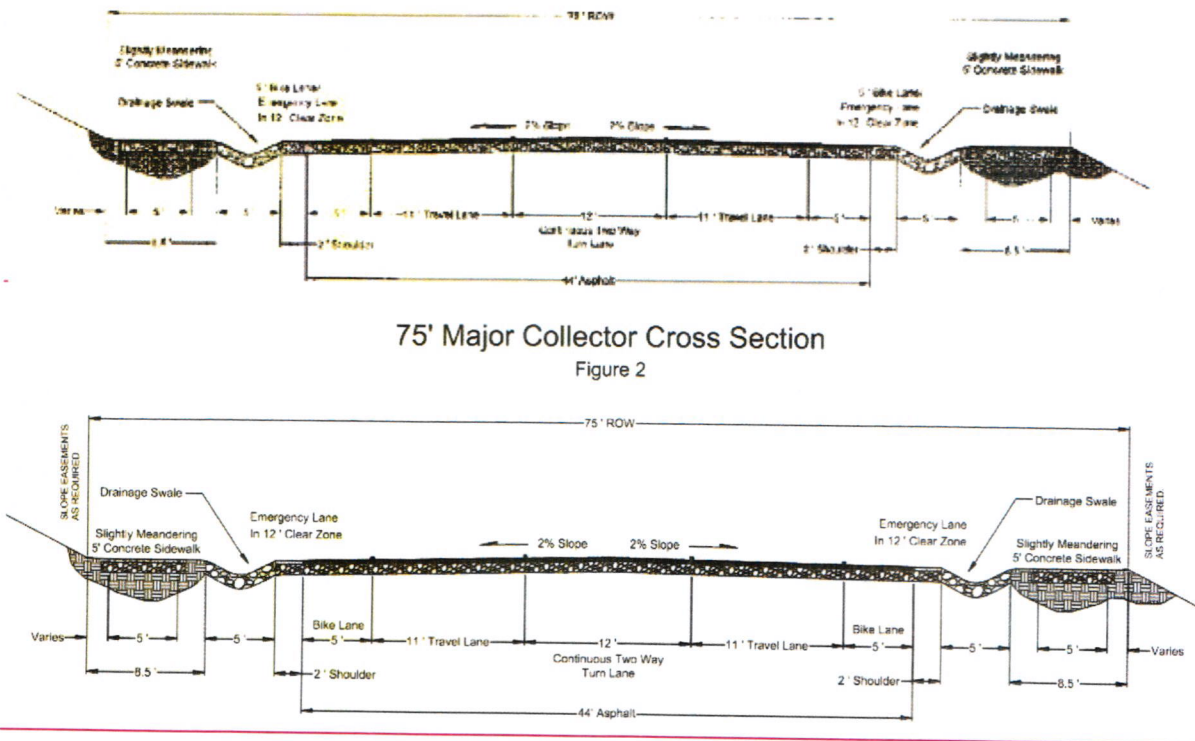
7.6. Permanent erosion control mat* or minimum 6" thick rip rap required in drainage swale for road slopes greater than 5%. Thickness may increase due to site specific soils engineering recommendations.

*PERMANANT EROSION CONTROL MAT TO CONFORM TO THE FOLLOWING:

- THICKNESS- 0.4 IN
- GROUND COVER FACTOR 74%
- TENSILE STRENGTH 170 X 125 LB/FT
- TENSILE ELONGATION 50% MAX
- ULTRAVIOLET STABILIZATION 1000 HRS 80%

75' COLLECTOR CROSS SECTION

FIGURE 2



Notes:

1. If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subbase level, a granular subbase layer may be omitted (to be determined by the geotechnical engineer). Sub Grade preparation and road section to be per 14.02.07 L.
2. The subtle meandering shared use path will have 5 inches of concrete over 6 inches of road base.
3. All disturbed surfaces shall be covered with 4 to 6 inches of topsoil and seeded.
4. Lane striping as per cross section.
5. Shoulder will be constructed with compacted road base.

6. Road will have a minimum of four inches (4")~~3 inches~~ of asphalt over nine inches (9") of road base.

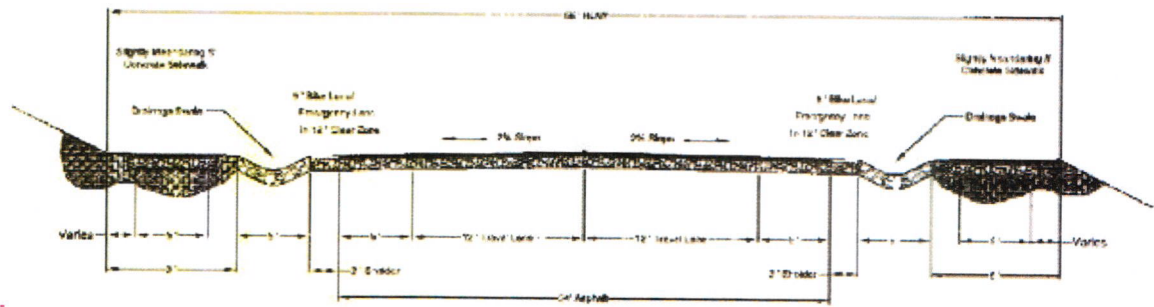
Permanent erosion control mat* or minimum 6" thick rip rap required in drainage swale for road slopes greater than 5%. Thickness may increase due to site specific soils engineering recommendations.

7.

*PERMANANT EROSION CONTROL MAT TO CONFORM TO THE FOLLOWING:

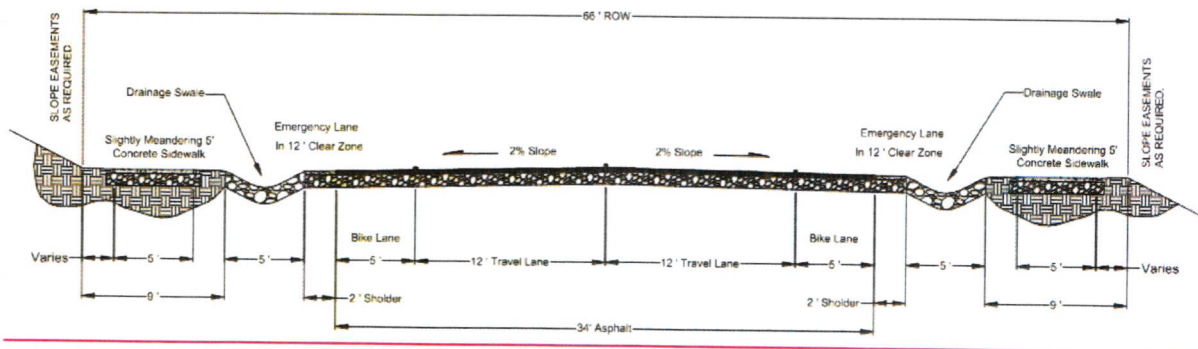
- THICKNESS 0.4 IN
- GROUND COVER FACTOR 74%
- TENSILE STRENGTH 170 X 125 LB/FT
- TENSILE ELONGATION 50% MAX
- ULTRAVIOLET STABILIZATION 1000 HRS 80%

~~—66' MINOR COLLECTOR CROSS SECTION
FIGURE 3~~



66' Minor Collector Cross Section

Figure 3

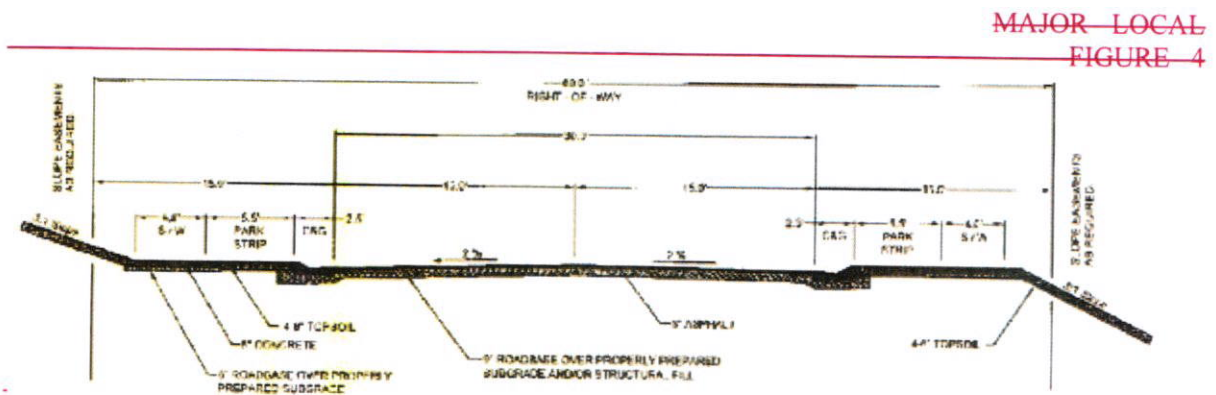


Notes:

1. ~~If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subbase level, a granular subbase layer may be omitted (to be determined by the geotechnical engineer). Sub Grade preparation and road section to be per 14.02.07 L.~~
2. The subtle meandering shared use path will have 5 inches of concrete over 6 inches of road base.
3. All disturbed surfaces shall be covered with ~~4 to~~ 6 inches of topsoil and seeded.
4. Lane striping as per cross section.
5. Shoulder will be constructed with compacted road base.
6. Road will have a minimum of four inches (4") ~~3 inches~~ of asphalt over nine inches (9") ~~inches~~ of road base.
7. Permanent erosion control mat* or a minimum of 6" of rip rap required for ditch slopes greater than 5%. ~~Thickness may increase due to site specific soils engineering recommendations.~~

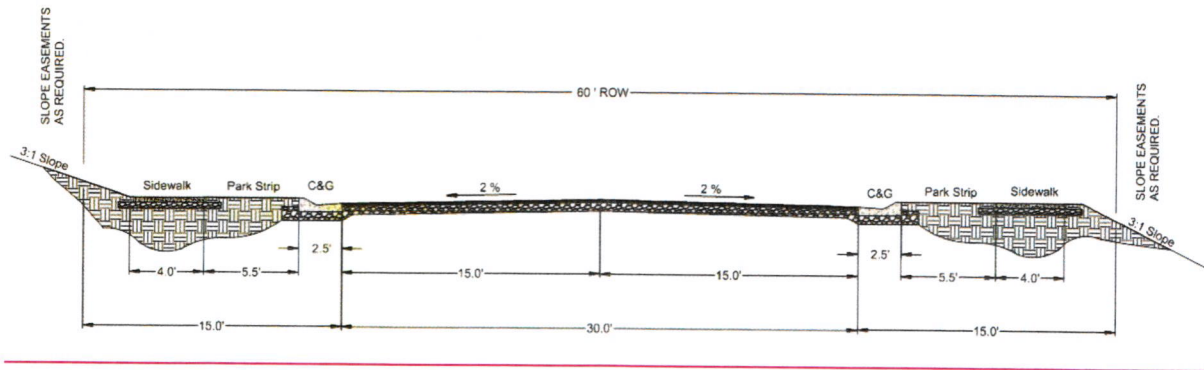
*PERMANANT EROSION CONTROL MAT TO CONFORM TO THE FOLLOWING:

<u>• THICKNESS</u>	<u>0.4 IN</u>
<u>• GROUND COVER FACTOR</u>	<u>74%</u>
<u>• TENSILE STRENGTH</u>	<u>170 X 125 LB/FT</u>
<u>• TENSILE ELONGATION</u>	<u>50% MAX</u>
<u>• ULTRAVIOLET STABILIZATION 1000 HRS</u>	<u>80%</u>



60' Major Local Cross Section

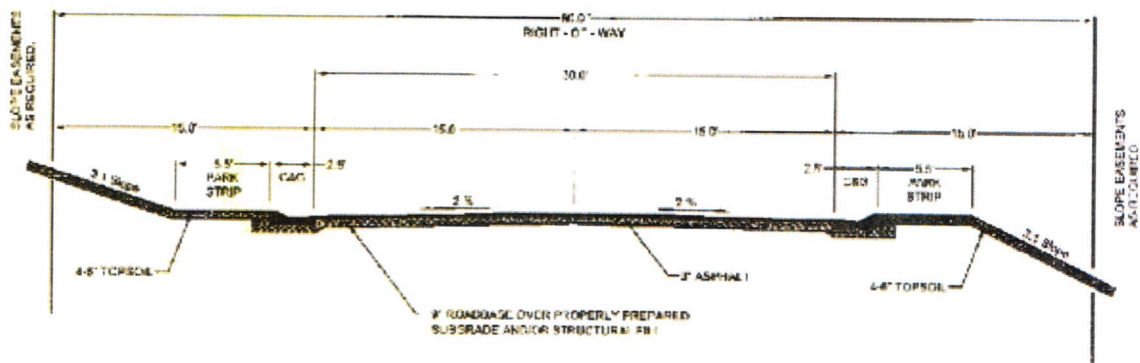
Figure 4



Notes:

1. ~~If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subbase level, a granular subbase layer may be omitted (to be determined by the geotechnical engineer). Sub Grade preparation and road section to be per 14.02.07 L.~~
2. ~~The sidewalk will have 5" of concrete over 6 inches of road base. Road section thickness may increase due to site specific soils engineering recommendations.~~
3. ~~All disturbed surfaces require 4 to 6 inches of topsoil and seeded.~~
- 3-4. ~~Road will have a minimum of 3 inches of asphalt.~~

MINOR LOCAL
FIGURE 5



Notes:

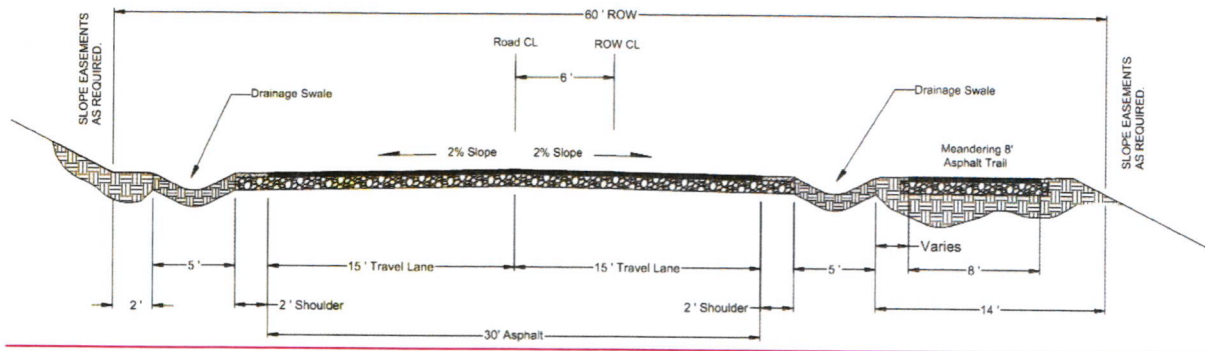
1. ~~If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subbase level, a granular subbase layer may be omitted (to be determined by the geotechnical engineer).~~

2. ~~Road section thickness may increase due to site specific soils engineering recommendations.~~

3. ~~All disturbed surfaces require 4 to 6 inches of topsoil and seeded.~~

60' Major Local with Swales Cross Section

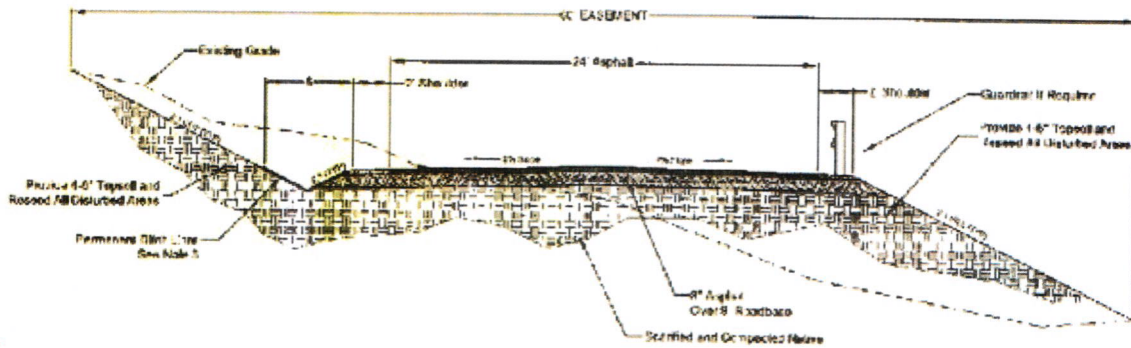
Figure 5



1. Sub Grade preparation and road section to be per 14.02.07 L.
2. The meandering shared use path will have 5 inches of concrete over 6 inches of road base.
3. All disturbed surfaces shall be covered with 6 inches of topsoil.
4. Shoulder will be constructed with compacted road base.
5. Road will have a minimum of 3 inches of asphalt.
6. Permanent erosion control mat* required for ditch slopes greater than 5 percent.

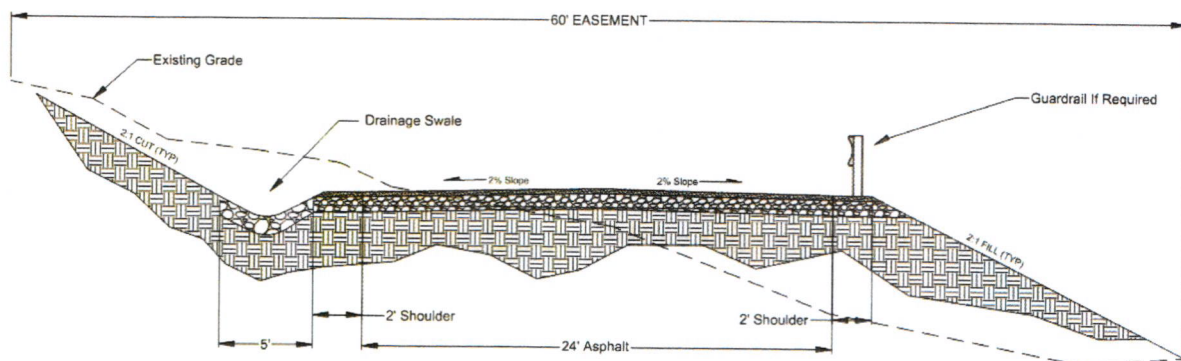
* Permanent erosion control mat to conform to the following minimum specifications:

* <u>Thickness</u>	<u>0.4 inches</u>
* <u>Ground cover factor</u>	<u>74 percent</u>
* <u>Tensile strength</u>	<u>170 X 125 pound/foot</u>
* <u>Tensile elongation</u>	<u>50 percent maximum</u>
* <u>Ultraviolet stabilization 1,000 hours</u>	<u>80 percent</u>



Agricultural / Seasonal Road

Figure 6



Notes:

1. If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subgrade level, a granular subbase layer may be omitted. To be determined by the geotechnical engineer. Sub Grade preparation and road section to be per 14.02.07 L.
2. Section width to be a minimum of the following: 9 inches of road base, or 4 inches of roto-mill tailings over 6 inches of road base, or 3 inches of asphalt over 9 inches of road base. (The rendering above only shows asphalt, but these other surfaces are also allowed.)
3. Permanent erosion control mat* required for ditch slopes greater than 5 percent.
4. Check dams required for ditch slopes greater than 5 percent.
5. Cut or fill slopes steeper than 3:1 to be designed and approved by a geotechnical engineer.
6. Guardrail required on all fill slopes steeper than 3:1 where the vertical drop of the slope is greater than 8 feet.
- 6-7. All disturbed surfaces shall be covered with 6 inches of topsoil and seeded.

* Permanent erosion control mat to conform to the following minimum specifications:

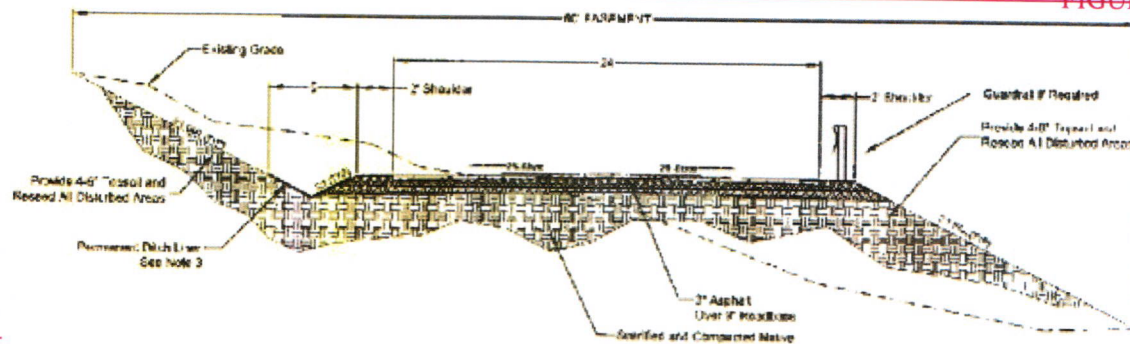
1. Fire/emergency roads will have no lot frontage and will have controlled access on each end of the road, restricting any traffic using them, unless for the purpose of an emergency.
2. ~~If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subgrade level, a granular subbase layer may be omitted. To be determined by the geotechnical engineer. Sub Grade preparation and road section to be per 14.02.07 L.~~
3. ~~Section width to be a minimum of the following: 9 inches of road base, or 4 inches of roto mill tailings over 6 inches of road base, or 3 inches of asphalt over 9 inches of road base, asphalt width to be 16 feet.~~ If plowed, must ~~behave a minimum of 3 inches of~~ asphalt.
4. Permanent erosion control mat* or a minimum of 6 inches of rip rap required for ditch slopes greater than 5 percent.
5. Check dams required for ditch slopes greater than 5 percent.
6. Cut or fill slopes steeper than 3:1 to be designed and approved by a geotechnical engineer.
7. Guardrail required on all fill slopes steeper than 3:1 where the vertical drop of the slope is greater than eight feet (8').

7.8. All disturbed surfaces shall be covered with 6 inches of topsoil and seeded.

* Permanent erosion control mat to conform to the following minimum specifications:

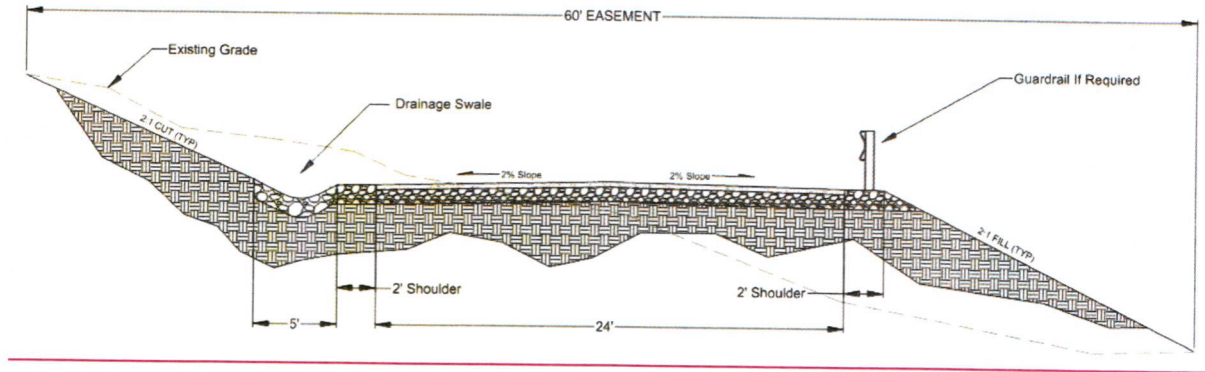
* Thickness	0.4 inches
* Ground cover factor	74 percent
* Tensile strength	170 X 125 pound/foot
* Tensile elongation	50 percent maximum
* Ultraviolet stabilization 1,000 hours	80 percent

~~MOUNTAIN ROAD~~
FIGURE 8



Mountain Road

Figure 8

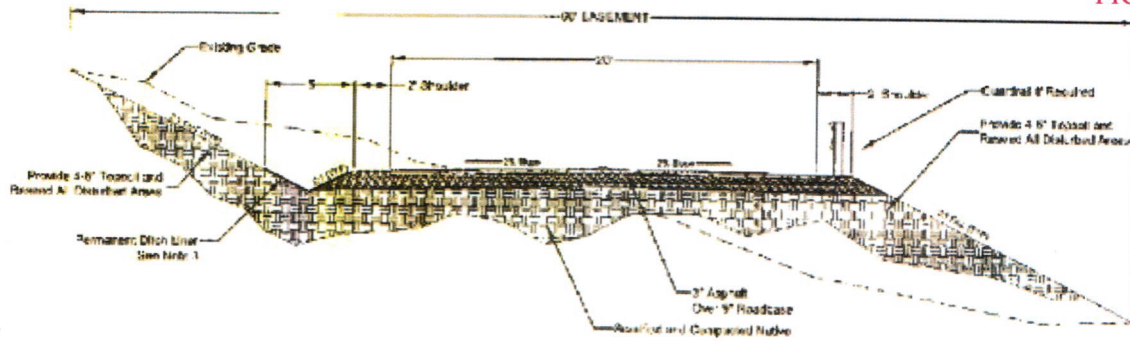


Notes:

1. If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subgrade level, a granular subbase layer may be omitted. To be determined by the geotechnical engineer. Sub Grade preparation and road section to be per 14.02.07 L.
2. Road to have Section width to be a minimum of 3 inches of asphalt, over 9 inches of road base.
3. Permanent erosion control mat* or a minimum of six inches (6") of rip rap required for ditch slopes greater than 5 percent.
4. Check dams required for ditch slopes greater than 5 percent.
5. Cut or fill slopes steeper than 3:1 to be designed and approved by a geotechnical engineer.
6. Guardrail required on all fill slopes steeper than 3:1 where the vertical drop of the slope is greater than 8 feet.
- 6.7. All disturbed surfaces shall be covered with 6 inches of topsoil and seeded.

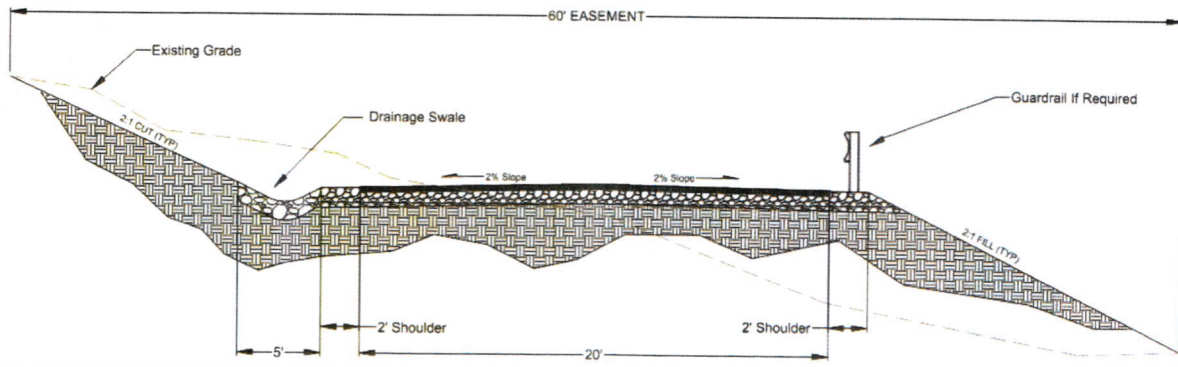
* Permanent erosion control mat to conform to the following minimum specifications:

* Thickness	0.4 inches
* Ground cover factor	74 percent
* Tensile strength	170 X 125 pound/foot
* Tensile elongation	50 percent maximum
* Ultraviolet stabilization 1,000 hours	80 percent

~~SHARED DRIVEWAY~~
FIGURE

Shared Driveway

Figure 9



Notes:

1. Per section [16.27.31](#) of this code, shared driveways can only service 3 lots or less.
2. ~~If durable bedrock or granular soil with CBR of 20 or greater are encountered at the subgrade level, a granular subbase layer may be omitted. To be determined by the geotechnical engineer. Sub Grade preparation and road section to be per 14.02.07 L.~~
3. ~~Road to have~~Section width to be a minimum of 3 inches of asphalt ~~over 9 inches of road base.~~
4. Permanent erosion control mat* or a minimum of six inches (6") of rip rap required for ditch slopes greater than 5 percent.
5. Check dams required for ditch slopes greater than 5 percent.
6. Cut or fill slopes steeper than 3:1 to be designed and approved by a geotechnical engineer.
7. Guardrail required on all fill slopes steeper than 3:1 where the vertical drop of the slope is greater than 8 feet.
- 7-8. All disturbed surfaces shall be covered with 6 inches of topsoil and seeded.

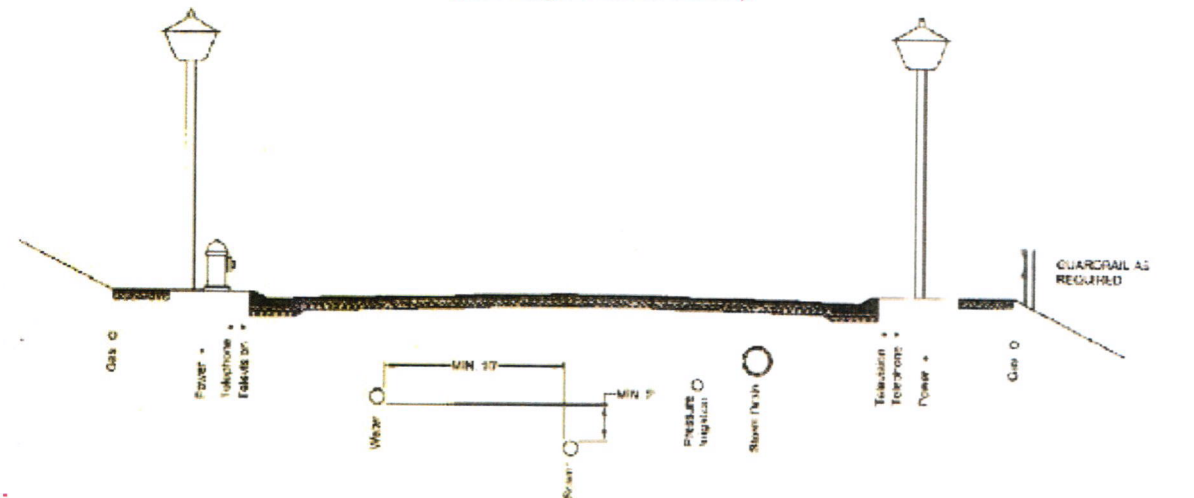
* Permanent erosion control mat to conform to the following minimum specifications:

* Thickness	0.4 inches
* Ground cover factor	74 percent
* Tensile strength	170 X 125 pound/foot
* Tensile elongation	50 percent maximum
* Ultraviolet stabilization 1,000 hours	80 percent

TYPICAL UTILITY LOCATIONS

FIGURE 10

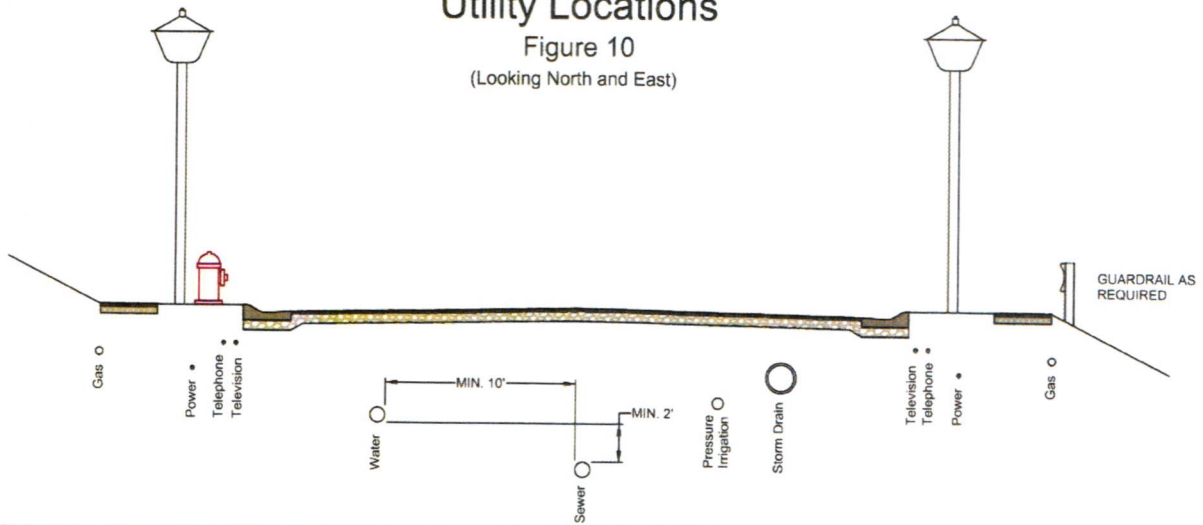
(Looking North And East)



Utility Locations

Figure 10

(Looking North and East)



Typical Cover Over Utilities

- * Sewer, 8 feet
- * Water per local water agency

- * Storm drain, 30 inches minimum
- * Gas, 30 inches
- * Power, 40 inches
- * Telephone Communication, 24 inches
- * Television, 24 inches

Typical Utility Separation

- * Sewer/water - 10 feet horizontal, 2 feet vertical
- * Gas - minimum 3 feet horizontal
- * Power - minimum 12 inches horizontal
- * Telephone Communication - minimum 12 inches horizontal
- * Television - minimum 12 inches horizontal

Notes:

1. Streetlights required at fire hydrants and intersections.
2. Fire hydrant spacing per current international fire code.
3. Minimum vertical clearance where closer than 10 feet or at sewer/water crossing.
4. Sign locations per current WMUTCD code.
5. Sewer manholes to be located in center of road.
- 5-6. No dry utilities including gas, power, telephone, or cable will be allowed under the paved road section except at localized crossings. Any dry utilities under the road will be encased in conduit.
- 6-7. Hydrant location determined by speed and road grade. May be required to be on back of walk.
- 7-8. Guardrail required on all fill slopes steeper than 3:1 where the vertical drop of the slope is greater than 8 feet.

HISTORY

Adopted by Ord. 12-15 on 11/14/2012

Add 14.02.12, Appendix D, Snow Storage

Where parking availability will be affected by weather conditions, the Owner must provide adequate non-hard surfaced and landscaped snow storage areas. Said snow storage areas must be on-site and equivalent to fifteen percent (15%) of the total hard-surfaced area in the road. The hard surface area includes: -the paved surface of the road, parking spaces, islands, driveways, curbing, gutters, and sidewalks. Snow storage areas to be in a usable, readily accessible location for a snow plow to directly push snow into. Landscaping of these areas shall accommodate snow plowing removal and storage on-site.

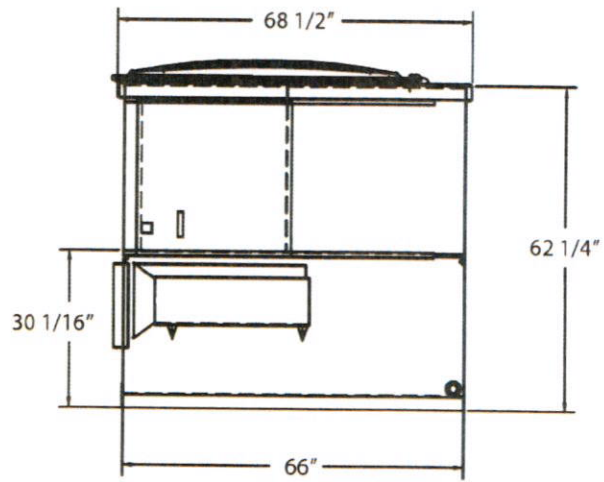
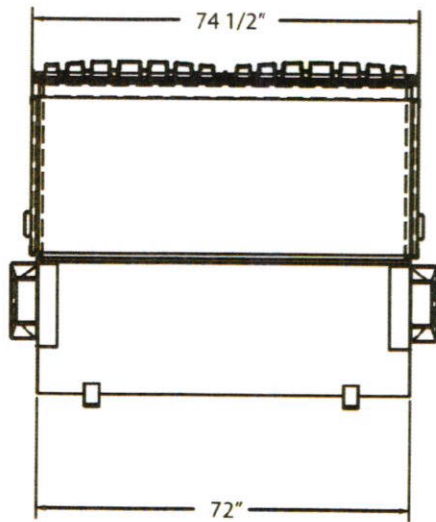
Add 14.02.13, Appendix E, Trash Dumpster Location and Design

In developments with planned multiple unit apartment complexes or commercial properties, dumpsters are the preferred choice of trash refuse. Prior to preliminary plan approval, the developer is required to get a will serve letter from Wasatch County Sanitation Department Solid Waste. The following is a list of guidelines for developers to incorporate when designing for dumpster volume, location, and enclosures.

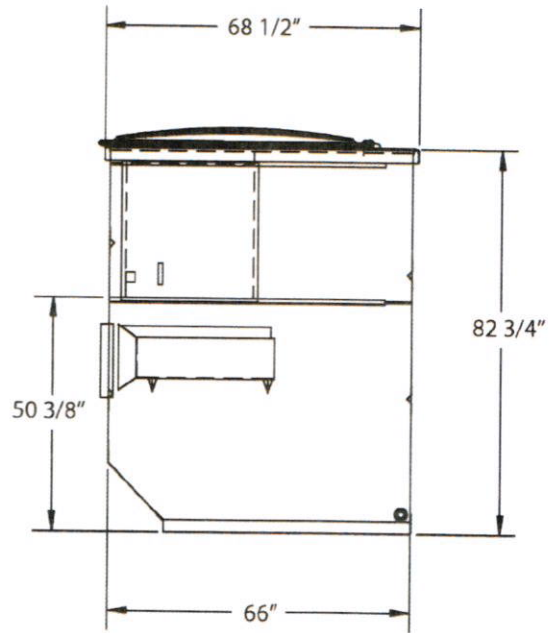
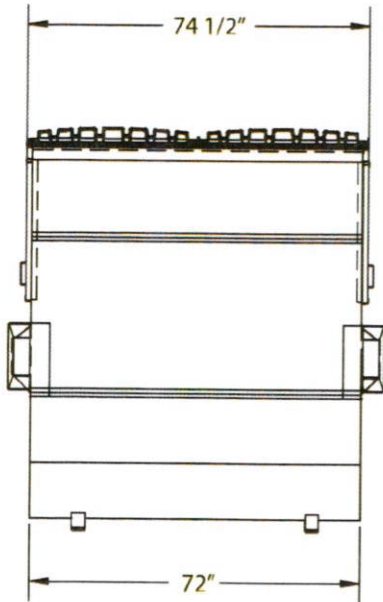
- A. Dumpster Volume: In general the Wasatch County Solid Waste sanitation department would like requires single family home owners to use single family receptacles if possible. If, due to high density, requiring too many receptacles would be placed on the road, the second option is dumpsters may be approved by Wasatch County Solid Waste. Wasatch County Solid

Wastesanitation department will determine this prior to issuing a will serve letter. At the time of the adoption of this code, Wasatch County Solid Waste The county offers two sizes of dumpster that can be picked up with the equipment available, a 6 CY dumpster and an 8 CY dumpster. The dDrawings below show the physical dimension of dumpsters available at the time of the adoption of this code. The developer should verify that these options remain available at the time of application.

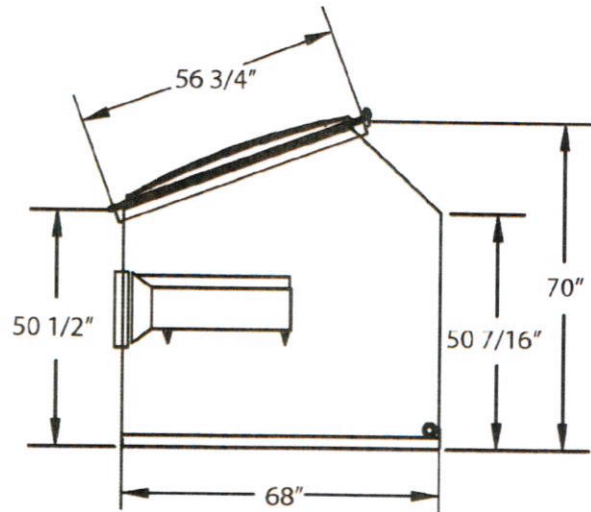
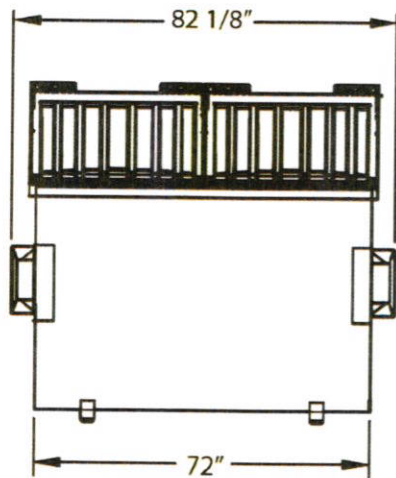
6 YARD FLAT



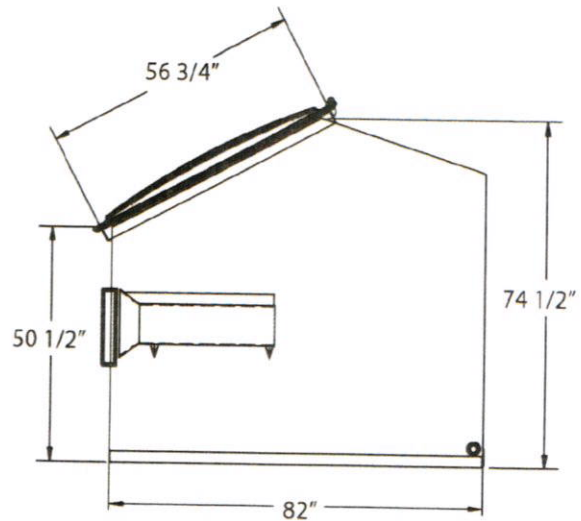
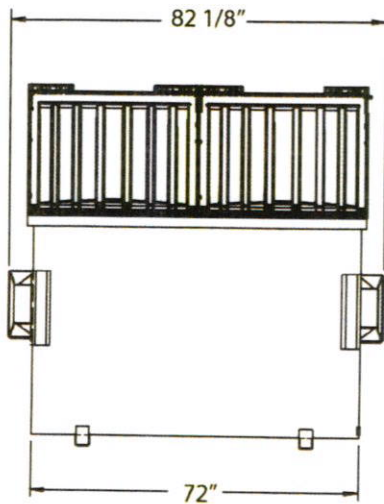
8 YARD FLAT



6 YARD SLANT



8 YARD SLANT



The developer must plan for a worst case scenario of 100% occupancy. For apartment complexes or multi floored town homes where dumpsters are required, the county requires the owner to plan for 1 CY of refuse per unit per week. For high density developments, the dumpster may be picked up 2 times a week. Space must be provided for the dumpsters and enclosures to accommodate the requested density.

For commercial properties the developer must show that they can provide adequate area for dumpster locations based on type, and size of businesses proposed. The dumpsters will not be picked up more than 2 times a week.

C. Location: Planned dumpster locations must be designed where the service equipment can readily access it, engage in the dumpster, dump it and retreat, all without damaging the enclosure.

Following are specifics for dumpster location design:

- a. Larger trucks that pick up dumpsters are roughly 35' long with the forks up. There needs to be enough tail room for a truck to drive **straight** forward with the forks down to engage the dumpster.
- b. Dumpsters are on large casters and cannot be placed on slopes greater than 5%.
- c. The longitudinal and cross slope of the road has to be similar to the dumpster pad grade and cross slope for accessing the container.
- d. The greatest challenge for the Wasatch County Solid Waste's ~~counties~~ truck drivers is during the winter conditions. Grades play an integral part when the roadways are ice covered. Snow storage areas must be located away from dumpster locations so that plowed snow does not pile up in front of the enclosure gates.

D. Enclosures: It is the developer's responsibility to design and build dumpster enclosure locations that are durable, large enough, practical, and esthetically pleasing. Damage to enclosures will be the responsibility of the developer or Home Owners Association. ~~It is in the best interest of all, that the enclosure must be built to last at least 25 years, stand the test of time and to withstand the wear and tear of Wasatch County Solid Wastesanitation's removal equipment truck drivers.~~

- a. Enclosures should be at a minimum 1.5' outside the dimensions of the dumpsters designed to be placed in them.
- b. Dumpster must have gates. The gates must be durable, of high quality and function properly and efficiently. ~~If the truck driver must be able to can't get the gates open the gate and easily keep them open or keep them open the dumpster will not get emptied.~~
- c. ~~The concept of having an enclosure is somewhat to-~~ enclosure must hide the unsightly nature of trash and to help keep the local wild life out. It is imperative that the structures match the style and quality of the surrounding construction in the area. The planning department oversees the materials selection for dumpster enclosures. Rock faced concrete stem walls or block, heavy duty bollards, and or extremely heavy duty fencing ~~may~~ all be acceptable materials for enclosures, provided they match the style and quality of the surrounding construction.

16.01.09: PERMITS TO COMPLY WITH LAND USE REGULATIONS

- A. Permits shall not be granted for the construction, reconstruction or alteration of any building or structure, or for the moving of a building onto a lot, or for the change of the use of any land, building or structure if such construction, alteration, moving or change in use violates any of the provisions of Wasatch County Code, including, without limitation, Title 14 of the Wasatch County Code~~this title.~~

- B. No sewer service line and/or wastewater treatment facility, no water service line and/or water facility, or electrical utilities shall be installed to serve such premises if such use violates this title.

16.21.09: PUBLIC AND COMMONLY OWNED IMPROVEMENTS

The developer shall be responsible for the dedication and improvement of all off site and on site public improvements, or improvements that are anticipated to be commonly owned by owners of property in the development, in accordance with this title and other standards of the Wasatch County code, including, without limitation, Title 14 of the Wasatch County Code.