

APPENDIX A – RIGHT OF WAY USE PERMIT APPLICATION AND CONSTRUCTION STANDARDS

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RIGHT OF WAY USE PERMIT

APPLICATION

AND

CONSTRUCTION STANDARDS

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Board of County Commissioners
Montrose County, Colorado

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Article I. GENERAL

Section 1.01 Purpose

The purposes of these Standards are to:

- Instruct applicants on how to prepare and submit plans and other documentation for Right of Way Permits;
- Describe processes, policies and requirements; and
- Define roles and responsibilities of all parties.

Section 1.02 Introduction

All individuals, contractors and public utility agencies must obtain a Right of Way Permit for any work performed within the public right of ways of Montrose County. The temporary storage of materials and equipment within the public right of ways also requires a Permit.

In order to preserve the public’s investment in street and roadway systems within Montrose County, it is the policy of the County to require the installation of new utilities across existing paved roads be done by boring or tunneling. This policy is intended to minimize the disruption and maximize the safety to the traveling public caused by construction, and reduce future maintenance problems. Open cutting of existing roads for the installation of new utilities will be permitted only when it can be proven it is not possible to use boring or tunneling techniques. Open cuts may be permitted at the discretion of the Engineer, after giving consideration to value of traffic, road surface condition, remoteness, technical difficulties, etc.

Applicants for Right of Way Permits must plan for adequate time for review and approval by the Montrose County Engineering Department and any other involved agencies. Generally, the greater the scope of work, the longer the permit review and approval process will take. Routine applications submitted with all necessary documentation are typically turned around in 1 to 2 business days.

Section 1.03 Applicability

These Standards shall apply within the unincorporated area of Montrose County.

Section 1.04 Definitions and Abbreviations

Whenever the following words, phrases or abbreviations appear in these Standards, they shall have the following meanings:

AS-CONSTRUCTED DRAWINGS – a set of construction drawings that has been red-penciled, red-inked or otherwise marked to record all changes which have occurred during the construction. Red-lined drawings shall be based upon original approved drawings and shall show the exact state of improvements as they actually expect on completion of the project.

BOARD – shall mean the Board of County Commissioners of Montrose County

CDOT – Colorado Department of Transportation

CODE – shall mean the latest official adopted ordinances, policies codes and/or regulations of Montrose County.

CONTRACTOR – shall mean a person or entity duly bonded, licensed and insured to perform work within public right of ways in the County.

COUNTY – shall mean the unincorporated Montrose County, Colorado

DAYS – intended as calendar days and not normal working days unless stipulated as working days.

DRIVEWAY, RURAL – that portion of gravel or hard surfaced roadway from the street, roadway or alley to the private property line to gain access to the private property.

DRIVEWAY, URBAN – that portion of portland cement concrete or asphalt extending from the street gutter lip to the property line for the full width of access from the public right of way to the private property.

ENGINEER – shall mean the Montrose County Engineer, or his authorized representative acting on behalf of the entity.

ENGINEERING PLANS – drawings, plans, profiles, cross sections and other required details for the construction of public or private improvements within the public right of ways or public easements, conforming with these standards.

FUNCTIONAL CLASSIFICATION - the objective grouping of roads, streets and highways into integrated systems, each ranked by their relative importance to the general welfare, the motorists and land use. The Montrose County Master Plan classifies the roads in the County as rural, local, collector, minor arterial and major arterial.

IMPROVEMENT STANDARDS – A set of regulations established by the County setting forth the details, specifications, instructions, and procedures to be followed in the planning, design, installation and construction of public or private improvements within the public right of ways or public easements.

INSPECTOR – shall mean an authorized representative of the Engineer assigned to make inspections for contract performances, standards and contract compliance.

MAY – a permissive condition. No requirement for design or application is intended.

MUTCD – Manual on Uniform Traffic Control Devices (Federal Highway Administration).

OSHA – Occupational Safety and Health Administration

RIGHT OF WAY (R.O.W.) – any strip or area of land, including surface, overhead, or underground, granted by deed, easement, dedication, prescription, or other lawful process for construction and maintenance according to designated use, such as for streets and highways, drainage ditches, irrigation canals, etc.

RIGHT OF WAY PERMIT – An official document issued by the County authorizing the performance of a specified activity or work within public right of ways and public easements by a person, contractor, company, firm, corporation, or public utility.

ROAD – a general term denoting a public way for purposes of vehicular, pedestrian and bicycle travel CRS 43-2-201 Public Highways). Any constructed facility within the right of way.

SHALL – a mandatory condition. Where certain requirements in the design or application are described with the “shall” stipulation, it is mandatory that these requirements be met.

SHOULD – an advisory condition. Where the word “should” is used, it is considered to be advisable usage, recommended but not mandatory. Deviations may be allowed when reasons are given which show intent of the standard to be modified.

TRAFFIC ENGINEER – shall mean the County Engineer or person responsible for monitoring traffic in the County.

UNCC – Utility Notification Center of Colorado (commonly referred to as “One Call”). Statewide clearinghouse for coordinating and scheduling utility locates. Most utilities, both public and private, utilize this service. Toll-free phone number for UNCC is 1-800-922-1987.

WORK DAYS – Monday through Friday – does not include Saturdays, Sundays or designated County holidays during daylight hours.

Section 1.05 Specific Conditions

A. Permit Requirements

Individual permits are required for each individual activity or occurrence within the right of way. For underground utilities, an individual permit is required for each road crossing. Parallel installations require a permit for each management segment of roadway. Segment maps are available in the Engineering office or on the County web page (www.co.montrose.co.us).

Pole lines shall require an individual permit for each parallel segment or crossing for which poles are installed in the R.O.W. Bi-annual permits are available for above ground maintenance activities such as tree trimming, brushing of overhead lines and general maintenance of overhead lines.

B. Traffic Control Plans

A Traffic Control Plan (TCP) shall be submitted prior to or submitted with the permit application for all proposed work in/on arterial and collector roads for approval by the Engineer. Work in/on local roads typically do not need a separate TCP but all signs, barricades and other necessary traffic control devices shall be placed in accordance with the MUTCD, Part VI.

C. Traffic Flow During Peak Hours

No interference with traffic flow on arterial or collector roads shall be permitted during the hours of 7:00 a.m. to 8:30 a.m. or from 4:30 p.m. to 5:30 p.m. unless authorized in writing by the Engineer.

D. End of Day Lane Conditions

ASPHALT ROAD – When work is stopped for the day, all lanes of an arterial or collector road shall be opened to traffic unless approved by the Engineer. A traffic lane shall be considered satisfactorily open only if it is graveled with Class 6 aggregate and appropriately signed.

CONCRETE ROAD – when work is stopped for the day, all lanes of an arterial or collector road shall be opened for traffic. A traffic lane shall be considered satisfactorily open only if it is surfaced with a temporary asphalt surface. In the event the road surface has been replaced in the same day as the excavation was made, the repaired areas should be properly barricaded to protect the concrete during the curing state.

E. Inspection Requests

It shall be the responsibility of the Permittee authorized by the permit to notify the Engineer or his authorized representatives that such work is ready for inspection. The Engineer requires that every request

for inspection be received at least twenty-four (24) hours before such inspection is desired. Such requests may be in writing or by telephoning or faxing the Engineer.

F. Minimum Concrete Removals/Replacements

Removal and replacement shall be to an existing joint.

G. Road Closures

Road closures will only be allowed at the approval of the Engineer where no other reasonable alternative exists and/or alternative routes for traffic flow are available.

Section 1.06 Permit Fees

The County's permit fees are established under appropriate enabling resolutions and/or ordinances and are subject to change periodically. A complete fee schedule for the Montrose County Engineering Department can be found in Appendix H of the Montrose County Standards and Specifications for Roads and Bridges.

Section 1.07 Insurance Requirements

The Permit Applicant is required to submit Certificates of Insurance for Commercial General Liability and Automobile Liability as described below (24-10-114 CRS):

A. Commercial General Liability

The Permittee shall procure and keep in force during the duration of all work covered under any Permit a policy of Commercial General Liability Insurance insuring the Permittee and naming Montrose County as an additional insured against any liability arising out of the ownership, use, occupancy, or construction of the work and all areas appurtenant thereto with a combined single limit of at least \$600,000. The limits of said insurance shall not, however, be a limit to the liability of the Permittee hereunder.

B. Automobile Liability

The Permittee shall procure and keep in force during the duration of all work covered under any Permit a policy of Automobile Liability Insurance insuring the Permittee and naming Montrose County as an additional insured against any liability for personal injury, bodily injury, or death arising from the use of motor vehicles and shall cover operations on or off the site of all motor vehicles controlled by the Permittee where they are owned, non-owned, or hired with a combined single limit of at least \$600,000. The limits of said insurance shall not, however, limit the liability of the Permittee hereunder.

C. Terms of Insurance

Insurance required shall be with companies qualified to do business in the State of Colorado with a general policyholder's financial rating of not less than "A" as set forth in the most current edition of "Best's Insurance Reports" and may provide for deductible amounts as the Permittee may deem to be reasonable for the project, but in no event greater than \$1,000. No such policies shall be cancelable or subject to reduction in coverage limits or other modification except after thirty (30) days prior written notice to the Montrose County Engineering Department. However, where cancellation of coverage is due to nonpayment of premium, a ten (10) day written notice to the Montrose County Engineering Department is required. The Permittee shall not do, nor permit to be done, anything that shall invalidate the insurance policies referred to in this section. Policies described in Sections A and B above shall be for the mutual and joint benefit and protection of the Permittee and Montrose County. Such policies shall contain a provision that Montrose County, although named as an additional insured, shall nevertheless be entitled to recovery

under said policies for any loss occasioned to it, its servants, agents, citizens, and employees by reason of negligence of the Permittee. Such policies shall be written as primary policies not contributing to and not in excess of coverage which Montrose County may carry.

The type of coverage shall be “occurrence”.

Permittee shall furnish certificates evidencing required insurance coverage to the Montrose County Engineering Department. Such certificates shall be in a form acceptable to Montrose County.

Section 1.08 Financial Security

As a condition of the issuance of any permit, the Engineer shall require the Permittee to file a guarantee of financial security in an amount established by the Engineer and payable to the County to ensure that any damage to County right of way is fully repaired to the County’s satisfaction. The Engineer may require the applicant to submit a detailed cost analysis of all proposed work for the purpose of review and approval in making financial security calculations. The base dollar amount of said security will be computed by the total planar area of the proposed work within the right of way; the unit cost factor may vary depending on the specific type of work to be permitted, and may be adjusted to more accurately reflect current construction costs. The financial security shall be calculated based upon the assumption that the County would need to contract services for repair or construction of all restorative work. The value of the security shall equal 150% of the estimated restorative costs or other value as determined by the Board to be protective of the welfare of Montrose County. The financial security may be in the form of cash, federally-insured certificates of deposit, irrevocable letters of credit issued by a bank acceptable to the Board, surety bonds issued by a company authorized to do business in Colorado, written guarantees backed by collateral acceptable by the Board, or any other form, or combination of forms, established by the Board. Montrose County may hold the financial security for two (2) years following the date of satisfactory completion of the work. It may be refunded earlier if it is determined that the work is stable and no further work will be needed.

Article II. PERMIT APPLICATION PROCESS

Section 2.01 Obtain Blank Permit Form

Blank permit forms can be obtained from the Montrose County Engineering Department. Fill out the form completely and accurately. Be sure to sign and date the form. Turn in the completed form, together with all required submittals and all copies, to the Montrose County Engineering Department a minimum of five working days (not including Saturdays, Sundays or holidays) prior to the proposed start of work.

Section 2.02 Submissions of Plans

Drawings or plans that clearly indicate the proposed work must be attached to the permit application. These drawings must be to a working scale and must show position and location of work, street/road names/numbers, widths of roads, property lines, topographic and man-made features, existing drainage patterns, and any other information which may necessary or relevant to the County's review of the permit application. Plans shall show the relative position of proposed work to existing utilities and existing improvements and shall be drawn to a scale of one (1) inch = one hundred (100) feet or as is necessary to be clear, readable and useable. All plans shall include a location reference map, north arrow and scale.

Section 2.03 Submission of Traffic Control Plans

Traffic Control Plans shall show in detail the proposed work area location and the traffic control devices being proposed. Such plan shall be on paper at least 8-1/2 inches by 11 inches and may be faxed, mailed or brought to the office of the Montrose County Engineering Department a minimum of five (5) working days prior to issuance the Permit. Traffic Control Plans may require more detail than normal at the discretion of the Engineer due to unique or unusual conditions. Traffic control shall also include construction traffic routing requirements.

Section 2.04 Payment of Fee

Acceptable methods of payment are cash or a check drawn on a Colorado Bank made payable to Montrose County. No Credit Cards are accepted. Utility providers may make billing arrangements upon approved credit.

Section 2.05 Review of Submittals

The completed submittals will be reviewed by the Engineering Department. If additional information is needed, the Applicant will be contacted. The Engineering Department will check to make certain that the Applicant has provided the required bond, license and insurance certificates.

Section 2.06 Approval of Submittals

Once the permit form and all required submittals have been reviewed and found to be complete, the Permit may be approved by the Engineer.

Section 2.07 Issuance of Permit

The approved Permit is issued to the Applicant who is hereby designated the Permittee. Any modifications to the approved permit including any schedule or scope changes must be submitted in writing to the Engineering Department for their review and approval. The Permittee is solely responsible for all work for a period of two (2) years following the project completion. All necessary repairs to the County road or right of way shall be implemented in a timely and good workmanship-like manner at the sole cost of the Permittee. Permits shall be valid for a period of three (3) months. If the permitted work is not completed within that time, a new permit shall be required before any work is done.

Section 2.08 Emergency Repairs

Emergency conditions requiring immediate action may be immediately repaired. All conditions of a valid permit shall be required. Notice shall be given to Montrose County Engineering Department by 9 a.m. next business day. A permit with fee and surety is required to be completed next business day for all emergency repairs.

Section 2.09 Other Permits

Permit Applicants are responsible for obtaining all appropriate permits or permission as may be required. Examples may be when work is proposed within the jurisdiction of CDOT, railroad, irrigation company, BLM, U.S. Forest Service or private property.

Article III. CONSTRUCTION DETAILS

Section 3.01 General Conditions

The following general conditions apply to all work done within the public right of ways such as utility line installation or repairs performed by any Permittee or utility department, public or private.

A. Protection of Existing Improvements

The Permittee shall at all times take proper precautions and be responsible for the protection of existing road surfaces, driveway culverts, street intersection culverts or aprons, irrigation systems, mail boxes, driveway approaches, curb gutter and sidewalks, and all other identifiable installations that may be encountered during construction.

The Permittee shall at all times take proper precautions for the protection of existing utilities, the presence of which are known or can be determined by field locations of the utility companies. The Permittee shall contact **the UNCC (One Call) at 1-800-922-1987** for utility locates a minimum of two (2) working days prior to his proposed start of work.

Existing improvements to adjacent property such as landscaping, fencing, utility services, driveway surfaces, etc., that are not to be removed shall be protected from injury or damage resulting from the Permittee's operations. If removed, they shall be replaced by comparable installations.

The Permittee shall at all times take proper precautions for the protection of property pins/corners and survey control monuments encountered during construction. Any damaged or disturbed survey markers shall be replaced by a Colorado registered land surveyor at the Permittee's expense and properly filed as required by state law.

The repair of any damaged improvements as described above shall be the responsibility of the Permittee.

The Permittee shall make adequate provisions to assure that traffic and adjacent property owners experience a minimum of inconvenience.

B. Removal and/or Consolidation of Facilities

At the request of the Engineer, abandoned or unused facilities may be required to be removed from the right of way as part of permit requirements for new installations. In the case where multiple lines of similar type by the same owner are installed, the Engineer may require consolidation to a single alignment of all like facilities as part of permit requirements.

C. Temporary Surfaces Required

When the final surface is not immediately installed, it shall be necessary to place a temporary surface on any road cut opening. The temporary surface installation and maintenance shall be the responsibility of the Permittee until the permanent surface is completed and accepted. It shall be either a hot mix or cold mix asphalt paving material. Temporary surfaces shall be compacted, rolled smooth and sealed to prevent degradation of the repair and existing structures during the temporary period. Permanent patching shall occur within two (2) weeks except as authorized by the Engineer in the Permit.

D. Pavement Patches

All permanent pavement patches and repairs shall be made with "in kind" materials of like quality to the surrounding road surfaces. For example, concrete patches in concrete surfaces; full depth asphalt patches with full depth asphalt (NOTE: Chip seal built up surfaces shall be repaired with a minimum of two (2) inches hot mix asphalt); concrete pavement with concrete, etc. In no case is there to be an asphalt patch in

concrete roads or concrete patch in asphalt roads, without the express written permission of the Engineer. Any repair not meeting these requirements will be removed and replaced by the Permittee at his expense. Refer to Section IV for details.

E. Work to be Done in Expedient Manner

All work shall be done in an expedient manner. Repairs shall be made as rapidly as is possible and consistent with high quality workmanship and materials. Use of fast setting concrete and similar techniques are encouraged whenever possible without sacrificing the quality of repair. Completion of the work including replacement of pavement and cleanup shall normally be accomplished within one (1) week after the repair work or activity is done. Extension of time for completion shall be with the written approval of the Engineer. If the repairs are not completed in the allotted time, the County has the right to repair the road and/or perform clean up at the Permittee's expense.

F. Removal and Replacement of Unsatisfactory Work

All work which does not conform to these Specifications or approved plans for a project shall be considered unacceptable, whether the result or poor workmanship, use of defective materials, damage through carelessness or any other cause found to exist prior to final acceptance of the work.

Unacceptable work shall be removed and replaced, at the Permittee's sole expense, according to these Specifications, prior to acceptance of the work. Removal and replacement of unsatisfactory work shall be completed within fifteen (15) days of written notification of the deficiency unless deemed an emergency requiring immediate action.

In the event the replacement work has not been completed, the County may complete the work and/or bill back all costs against the Permittee at 150% of County's costs. The County will take action upon the Permittee by any legal means available to recover all related costs to complete the work. **No further County permits of any sort shall be issued to the Permittee until all costs have been recovered.**

Section 3.02 Excavation

Excavation shall be performed in a careful and orderly manner with due consideration given to protection of adjoining property, the public, and workmen. Excavation shall consist of removal of all material necessary for the construction of the roadway section to the subgrade elevation, line and grade shown on the plans or as specified in the contract documents. Any damage to roads, parking lots, utilities, irrigation systems, plants, trees, building or structures, private property or the bench marks and construction staking shall be repaired and restored to its original conditions by the Permittee at his expense. Those areas that are not to be disturbed will be clearly fenced off by the Permittee and it will be the Permittee's responsibility to ensure that these areas are not damaged during the construction process. Following completion of construction should any of these trees, shrubs, or irrigation facilities, etc. require replacement, it shall be done at the Permittee's expense.

All excavated material shall be stockpiled in a manner that does not endanger the work or workers and that does not obstruct sidewalks, roads and driveways. No stockpiled materials shall be allowed on the asphalt surface or adjacent walkways without approval. The work shall be done in a manner that will minimize interference with traffic and/or drainage of the road. The Permittee at the end of each day shall barricade all excavations and ditch lines, remove excess material from travel ways, and thoroughly clean all roads and sidewalks affected by the excavation. If it becomes necessary to accomplish this, all roads (if asphalt or concrete) and sidewalks shall be swept or washed as required by the Engineer.

All materials determined acceptable by the Engineer acquired from roadway excavations may be used for embankment fill and backfill as needed. The entire area in the vicinity of the construction where excavation and filling has been performed shall be raked clean of all trash, wood forms, and debris after completion of the work. Material removed in excavation and not acceptable for use as backfill in the opinion of the Engineer, shall be removed from the site and disposed of daily by the Permittee at his

expense. It shall not be wasted on private property without written permission of the property owner. Waste banks shall be left with reasonable smooth and regular surfaces.

Unacceptable material defined as any earthen material containing vegetable or organic silt, topsoil, frozen material, trees, stumps, certain man-made deposits, stones, concrete or asphalt chunks larger than six (6) inches, industrial waste, sludge, landfill or other undesirable materials will be categorized as “unclassified excavation” and removed from the site and disposed of in accordance with applicable County, State and Federal requirements. All tree stumps and roots shall be removed to a minimum of two (2) feet below subgrade. Unclassified excavation includes any and all unsuitable earthen materials encountered, including rocks and boulders measuring more than one-half cubic yard in volume, during construction.

The construction or any repair activity within the road right of way shall be accomplished by open cut, jacking, boring, tunneling or a combination of these methods as approved by the permit. **The Engineer shall be required to approve any change from the approved permit.**

Trenches shall be excavated along the lines and grades established. In no case shall the continuous open (un-backfilled) segment be more than two hundred (200) feet in length. Trenches shall not be excavated or backfilled in non-continuous sections unless approved by the Engineer. Failure by the Permittee to comply with these requirements may result in an order to stop the excavation in progress until compliance has been achieved.

All excavation, shoring and trenching, and the like shall comply with **OSHA’s “Construction Industry Standards”** as well as all applicable Federal and State regulations.

Crossings under sidewalks or curbs may be made by tunneling only when approved by the Engineer. All tunneling shall be grouted closed by tremmie pipe utilizing non-shrink grout or flow fill. If the Permittee elects to remove a portion of the sidewalk or curb, the applicable County Standards shall be followed.

Grading shall be done as necessary to prevent surface water from entering the excavation; any other water accumulation therein shall be promptly removed. Surface drainage, driveways, fire hydrants, manholes, water valves, etc of adjoining areas shall be unobstructed.

When soft or unstable material or rock is encountered in the trench subgrade that will not uniformly support the pipe, such material shall be excavated to additional depths directed by the Engineer and backfilled with Type B material, as described in Section 3.07.B.

Section 3.03 Blasting

The Permittee’s blasting procedures shall conform to Federal, State and local ordinances. The Permittee shall acquire all required permits prior to the start of blasting.

Blasting for excavation will be permitted only after securing the approval of the Engineer. The Engineer will fix the hours of blasting. The Permittee shall use the utmost care to protect life and property. All explosives shall be safely and securely stored in compliance with local laws and ordinances, and all storage places shall be clearly marked “Dangerous Explosives”. No explosives shall be left unprotected where they could endanger life or property.

When blasting in trenches, the Permittee shall cover the area to be shot with earth backfill or approved blasting mats. Prior to blasting, the Permittee shall station flaggers and provide signals of danger in suitable places to warn people and stop vehicles. The Permittee shall be responsible for all damage to property and injury to persons result from blasting or accidental explosions that may occur in connection with the use of explosives.

Section 3.04 Equipment

The use of trench digging equipment will be permitted in places where its operation will not cause damage to existing structures or features, in which case hand methods shall be employed.

Large vibratory trenching equipment shall not be permitted to operate within the R.O.W. of paved roads or R.O.W.s with gas or domestic water already in place.

No tracked vehicle shall be permitted on roads unless approved by the Engineer. When tracked vehicles are allowed, existing facilities will be restored to original condition at the Permittee's expense, which may include removal and replacement of paved surfaces in minimum of ½ lane increments.

Construction equipment and material delivery routing may be made a condition of the Permit.

Section 3.05 Dewatering

Where ground water is encountered in the excavation, it shall be removed to avoid interfering with the work. It is the Permittee's responsibility to comply with all Federal, State and local permitting requirements prior to beginning any dewatering operations.

Section 3.06 Removals

A. Roads, Paved

Bituminous pavement shall be saw cut to clean, straight lines and should be perpendicular or parallel to the flow of traffic. (See Section 4.02(1)).

In existing pavement, all excavations within the paved surfaces that are within thirty-six (36) inches of the edge of the asphalt or concrete shall require removal and replacement from the edge of asphalt to the excavation edge.

Concrete pavement, used for; cross pans, driveways, roads, streets, alleys, etc. shall be removed to neatly sawed edges cut to full depth.

B. Roads, Gravel

When trenches are excavated in roads which have only a gravel surface, the Permittee shall replace such surfacing on a satisfactory compacted backfill with gravel conforming to CDOT Class 5 or Class 6 aggregate base course. Gravel replacement shall be one (1) inch greater in depth to that which originally existed, but not less than four (4) inches. The surface shall conform to the original road grade. Where the completed surface settles or is beat out by traffic, additional gravel base shall be placed and compacted by the Permittee immediately after being notified by the Engineer, to restore the roadbed surface to finished grade.

Some roads may have been treated with a special surface treatment to control dust and/or bind the aggregates together. In these cases the Permittee is responsible for installing the gravel surface in the same manner as what was existing. Such surface treatments shall be of the same chemical composition as what existed prior to the excavation work.

Section 3.07 Backfill

A. Flowable-Fill

FLOWABLE –FILL WILL BE REQUIRED AS UTILITY TRENCH BACKFILL FOR ALL TRENCHES CROSSING OR WITHIN THREE FEET (3') OF EDGE OF TRAVELED SURFACE ASPHALT, OR

BACK OF CURB UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER. Stitched or “trenchless” installations may be authorized without flowable-fill. Flow-fill shall be required for all excavations that are deeper than a 1 to 1 slope extended from the shoulder of the road prism out ten feet (10’) unless otherwise approved by the County Engineer.. Excavations above this 1 to 1 slope or beyond ten feet (10’) from the shoulder of the road prism may utilize conventional backfill. See Figure 1.

Bedding of individual utilities shall be at the discretion of the Utility Provider. Bedding depth over the utility shall not exceed twelve (12) inches without approval of the Engineer. Refer to Section V “Testing” for compaction requirements. This requirement applies to all pavement and gravel locations on existing public roads. Flowable-fill vibration may be required.

The recommended minimum cement content for flowable-fill is shown below. Standard Readymix concrete backfill will not be allowed within the public right of way. Flash-fill may be used if approved by the Engineer. Refer to CDOT specification 206.02.

	MINIMUM	MAXIMUM
INGREDIENT	POUNDS/CUBIC YARD	POUNDS/CUBIC YARD
Cement	42 lbs (.47 sack)	140 lbs (1.5 sacks)
Water	325 (39 gallons or as needed)	325 (39 gallons or as needed)
Coarse Aggregate (Size No. 57)	1700	1700
Sand (ASTM C-33)	1845	1845

The maximum desired 28-day strength is 200 psi. The above combination of material, or an equivalent, may be used to obtain the desired “flowable-fill”.

Flowable-fill or flash-fill shall be prohibited as a temporary or permanent road surface. Trenches shall initially be backfilled to the level of the original surface. After the flowable-fill has cured, the top surface of the flowable-fill shall be removed and the temporary or permanent surface shall be placed.

B. Conventional Backfill (Other Than Flowable Fill)

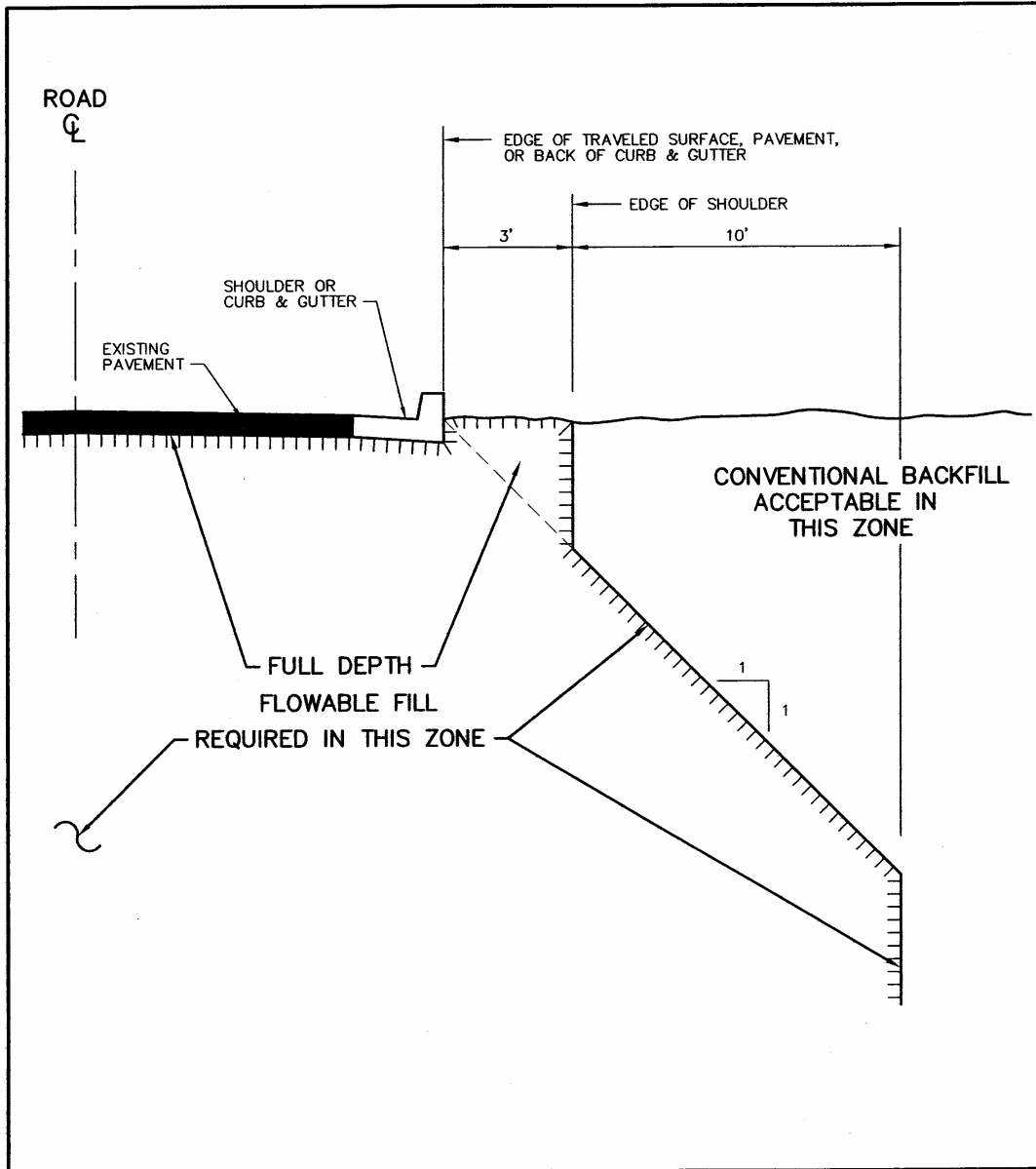
When “non-flowable-fill” backfill material has been pre-approved by the County Engineer, backfill in existing or proposed roads, curbs, cutters, sidewalks and alleys is divided into three (3) categories; initial, intermediate and final lifts as defined below:


- (1) The INITIAL LIFT, designated as Class B and generally comprised of a washed, clean gravel material, consists of the section from the bottom of the excavation to a point six to twelve (6 – 12) inches above the top of the installation. Native soils may be approved by the Engineer upon request of the Utility Provider for those installations that could be damaged by granular bedding. Placement and compaction of the initial layer shall be as specified by the Utility to protect their installation.
- (2) The INTERMEDIATE LIFT, generally comprised of native material, consists of the section above the initial layer to a point within twelve inches (12”) of the ground level or the bottom of the pavement section whichever is greater.
Excavated material may be used in the intermediate layer provided that it is deemed suitable by the Engineer.
- (3) The FINAL LIFT includes both road base and asphalt surfacing. Road base material shall be CDOT Class 5 or 6 aggregate base course or as specified by the Engineer.

Maximum dry density of all soil types used will be determined in accordance with AASHTO T180. This density shall be as referenced on the permit application.

When a hydro-hammer or drop hammer compaction machine is used for compaction of fill in trenches, the maximum layer shall be thirty (30) inches.

FIGURE 1



 <p>MONTROSE COUNTY COLORADO</p>	REV.	DATE	FIGURE 1 FLOWABLE-FILL REQUIREMENT	
	1			
	2		DRAWN BY:	FILE NAME:
	3		RDD	UTLDTL.DWG
	4		CHECKED BY:	SCALE:
5		BWW	N.T.S.	

C. Compaction Testing Requirements

See Section V “Testing”.

D. Embankment , Slopes, Trenches and Pits

- (1) The Engineer shall approve all fill material.
- (2) All embankments, slopes, trenches and pits shall conform to OSHA standards.

Section 3.08 Restoration

A. Bore Holes – Vertical and Horizontal

- (1) For openings in paved roads less than or equal to six (6) inch diameter, bore holes shall be filled with patching material (**cold mix may not be acceptable**) to prevent entry of moisture. Patching material used shall be in all cases compatible with the existing surface. Subgrade shall be replaced with flowable fill to provide necessary support to the surface. The sealing of bore holes is the responsibility of the Permittee or persons making the bore.
- (2) For openings greater than six (6) inch diameter, the limits of repair shall be identified in the permit.
- (3) The completed job shall be flush with the surrounding pavement and have no indentations, pockets, or recesses that may trap and hold water.

B. Subgrade

The subgrade for the pavement structure shall be graded to conform to the cross sections and profile required by the construction plans. Prior to the placement of aggregate base course or sub-course, the subgrade should be properly prepared. The subgrade should be scarified to a minimum depth of six (6) inches, moisture adjusted as necessary and recompacted in accordance with Section V, “Testing.”

Prior to approval to place the base or sub-base course, all utility main and service trenches shall be compacted to not less than the densities reference in Section V, “Testing.”

C. Asphalt Surfacing

Any damage, even superficial, to the existing asphalt surface in the vicinity of the work shall be repaired at the expense of the Permittee, including but not limited to gouges, scrapes, outrigger marks, backhoe bucket marks, etc. A slurry seal type covering will be considered the minimum repair. Patching may be required, at the discretion of the Engineer.

- (1) The depth of asphalt patches in asphalt roads shall typically be the depth of the existing asphalt surface plus two (2) inches or as specified by the Engineer.
- (2) The asphalt patch area for street excavations that fall within the wheel path of the vehicular travel lane shall be increased in size to the center of the lane or adjacent lane. In no circumstance will the edge of a patch area be allowed to fall within the wheel path.

All road cuts shall be patched as per the Standards of sub-section D below.

In roads that are less than five (5) years old, the County reserves the right to deny any road excavation or may require repairs that are over and above these specifications.

EXCEPTIONS – There may be situations where the patching standards are considered inappropriate. For example, rebuilding half of a road today when we know the road is due for reconstruction at a different profile in 2-3 years. In these cases when authorized by the Engineer, the Permittee can provide a more modest patch adequate to accommodate traffic for the 2-3 year period. In addition, the Permittee may be required to make a financial contribution to the road maintenance, rehabilitation or reconstruction program to support the more permanent improvements that are anticipated. This determination shall be made by the Engineer.

DISPUTE RESOLUTION – Mutual acceptance of these Standards is expected to evolve over time with experience in the field. Disagreements over requirements and cost sharing are inevitable. In cases where agreement cannot be reached, the Permittee shall comply with the specific Permit or Standards provided by this document unless approved by the Engineer.

D. Concrete Surfacing and Patching

The concrete pavement shall be replaced with 4,000 psi concrete to match the finish and thickness of the existing pavement, but not less than eight (8) inches thick. All concrete construction shall be protected from vehicular traffic, including Permittee vehicles, until the concrete has achieved eighty (80) percent of its ultimate strength. Concrete shall be coated and sealed with a uniform application of membrane curing compound applied in accordance with manufacturer's recommendations.

The use of quick curing concrete (3000 psi strength within 48 hours) shall be used on all arterial and collector roads when repair areas are less than five-hundred (500) square feet or when temperatures are below 40° F. Quick curing concrete repairs may be opened to traffic within two (2) days or when the concrete has achieved eighty (80) percent of its ultimate strength.

When existing cracks or damage are adjacent to the area being repaired the repair area shall include the cracked or damaged concrete. Pavement repairs shall include all areas of damage, including leak test holes, pot holes, equipment and/or material scarring of the existing surface.

When repairing concrete, removal perimeter shall be sawcut and replacement concrete shall be doweled into the old concrete as directed by the Engineer.

CDOT Class B concrete shall be used for non-structural flatwork such as sidewalks and paths.

E. Joint Filling

Asphalt

Following placement of the asphalt surface, the joints where the new asphalt abuts the old shall be sealed with a rubberized crack sealant or bitumen cement.

Concrete

Joints shall be thoroughly cleaned of all foreign material then filled with a hot poured elastic type joint filler conforming to M 173, ASTM D1190-80 or ASTM D1751-83, D1752-84, D3405-78, D3406-78, D3407-78 or silicone sealants or others as approved by the Engineer. Joint material shall be filled to within ½ inch of the surface. Excess material shall be scraped off to provide a smooth riding surface.

F. Landscaping

Where required by the Engineer, the Permittee will be required to replace like disturbed vegetation and /or broadcast a County Weed Department recommended seed mixture with appropriate mulch and surface preparation within disturbed limits. All costs shall be the responsibility of the Permittee.

Article IV. DEVELOPING A “QUALITY” APPROACH TO ROAD REPAIRS

Section 4.01 General

Every road and road repair situation is unique. Design criteria and construction standards cannot address every situation but, in order to maintain some form of consistency, these Standards have been developed. In most cases, they provide the minimum acceptable standards for construction or repair. Consequently when strictly applied, they will provide the minimum acceptable product. Therefore, this criteria has been developed to maintain the same integrity of the road pavement and subsurface condition prior to its being cut for utility installations.

To achieve the goal of “Quality” or “Excellence” in road repairs, these criteria shall be viewed as Standards when used in conjunction with good planning and judgment. This will restore the road to an acceptable condition with minimal patching failures. In most cases, it will be necessary to exceed the minimum standards to achieve a quality repair.

Issues that shall be considered in quality approach to road repairs are as follows (these criteria must all be balanced against the long-term maintenance needs of the utility):

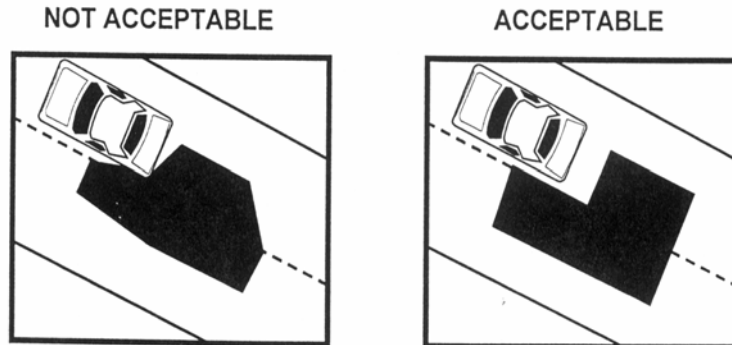
Section 4.02 Appearance

Does the final appearance of the road suggest the repairs were planned, or that they happened by accident?

Consciously or not, the driving public “rates” the appearance of the road system, including road repairs, every day. Road repairs which are satisfactory from a functional point of view may produce a negative reaction from the public if they give the appearance of being poorly planned or executed.

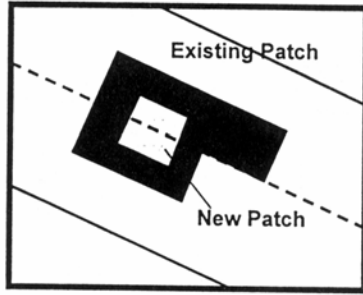
The public’s perception of road repairs is based primarily on shape, size, and orientation – the geometry of a patch. Here are some Standards for the geometry of a quality patch:

- (1) Existing pavements shall be removed to clean, straight lines parallel and perpendicular to the flow of traffic. Do not construct patches with angled sides and irregular shapes.

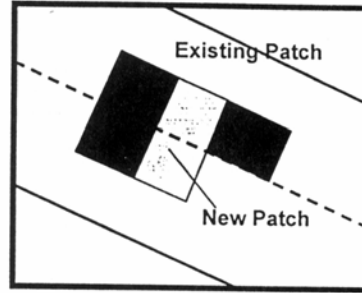


- (2) Avoid patches within existing patches. If this cannot be avoided, make the boundaries of the patches coincide.

NOT ACCEPTABLE

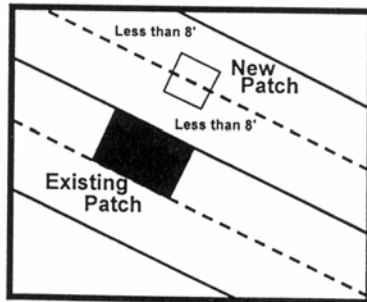


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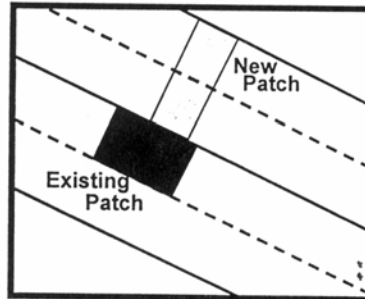


- (3) Do not “leave” strips of pavement less than one-half lane in width from the edge of the new patch to the edge of an existing patch or the lip of the gutter.

NOT ACCEPTABLE

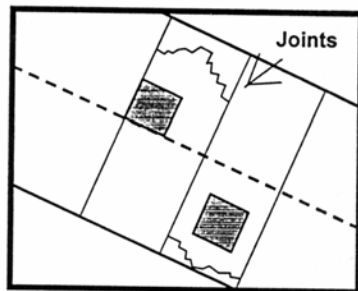


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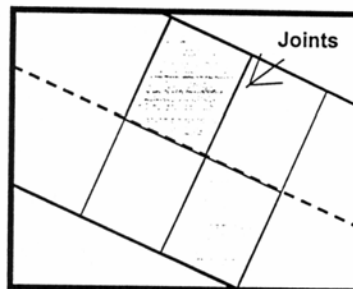


- (4) In concrete pavements, remove sections to existing joints in the case of concrete in good repair. In damaged concrete, the limits of removal shall be determined in the field by a representative of the Engineer.

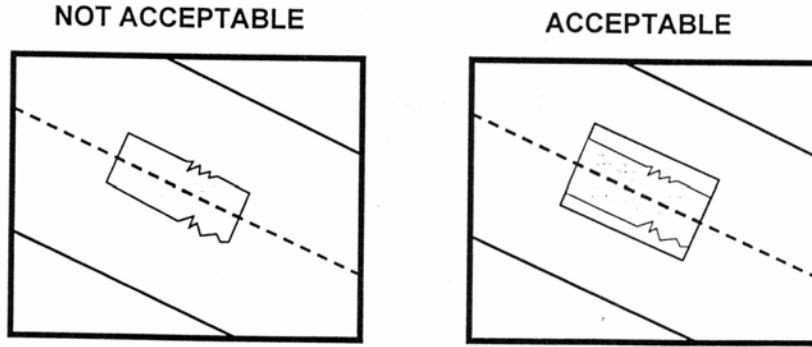
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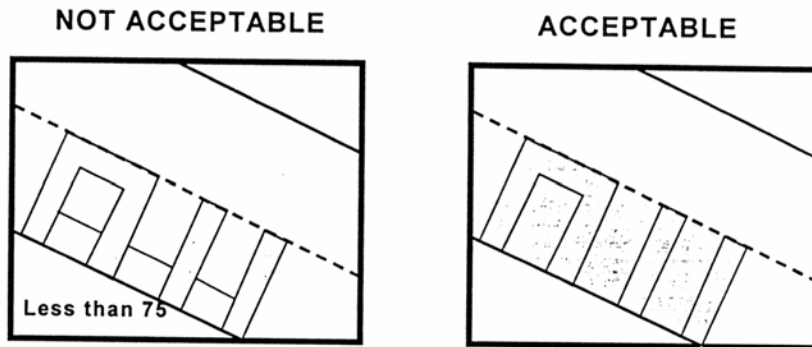
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- (5) Asphalt and concrete pavements shall be removed by saw cutting or grinding. Avoid breaking away the edges of the existing pavement or damaging the remaining pavement with heavy construction equipment.



- (6) In the case of a series of patches or service lines off a main trench, repair the pavement over the patches by grinding and overlay when the spacing between the patches is less than seventy-five (75) feet (in cases where the existing pavement is in poor condition and may require overlay within the next few years, this requirement may be modified or waived by the Engineer).

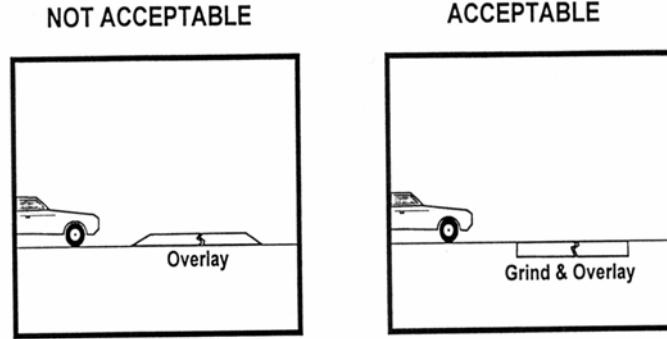


Section 4.03 Rideability

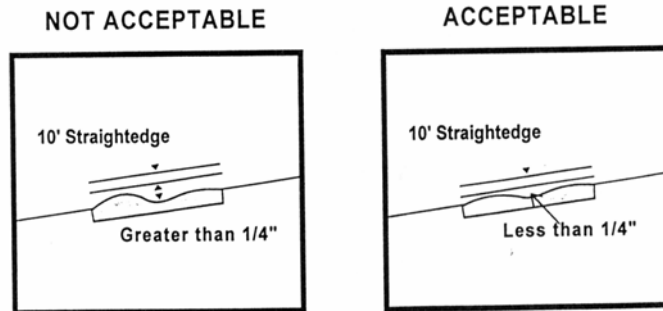
Are the transitions on and off the repair smooth? Does the patch itself offer a smooth ride? Are the joints located outside of the normal wheel path?

Complete road repairs should have rideability at least as good as, if not better than, the pavement prior to the repairs. A driver may be able to see a road repair, but in the case of a quality repair, he/she should not be able to "feel" it in driving normally down the road.

Do not place overlays with feathered edges on roads of any classification. Overlays shall be placed by first removing the existing pavement to the desired depth by grinding, and then placing the pavement flush with the adjacent surfaces.



Surface tolerances for road repairs shall meet the standard for new construction. That is, the finished surface of the road repair, when tested with a ten (10) foot straightedge parallel to the centerline or perpendicular across joints, will show variations measured from the testing face of the straightedge to the surface of the road repair which do not exceed one-quarter (1/4) inch.



Section 4.04 Pavement Management

Road repairs shall leave a pavement in a condition at least as good as, if not better than, the condition prior to the repairs.

In most cases, and particularly in the cases of extensive excavation and repairs, it is desirable to survey the existing pavement condition with a representative of the Engineering Department prior to the work. After completion of the work, survey the pavement condition again to verify that the pavement condition has been maintained or improved.

In the case of minor repairs, these pavement surveys can be made by visual observation.

However, in the case of major projects that involve excessive hauling of materials or unusually heavy construction equipment or activity, non-destructive testing of the pavement condition before and after construction may be required.

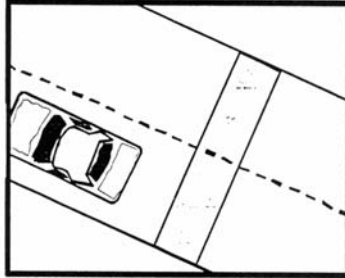
Consideration of pavement management issues may also identify opportunities for joint efforts between the Utilities and the County.

For example, suppose the repair of a utility line requires an overlay on half of a road, and that the condition of the remaining half of the road might also warrant an overlay. We may decide at some point to overlay the entire road, with the County and the Utility splitting the cost of the overlay. In such a case, the Utility may be able to save the cost of grinding half the road. The County will allocate a reasonable percentage of

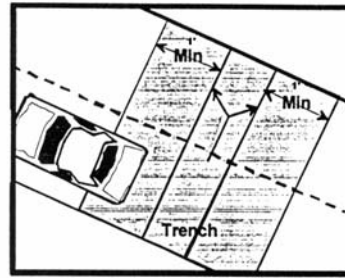
their annual overlay program to accommodate their share of these situations. This includes maintenance projects and larger capital improvement projects (major water line or gas line extensions). Coordination for these types of cooperative repairs should occur as far in advance of actual construction as possible.

Transverse patches on arterial and collector roads shall be overlaid across the entire road width for a distance of one (1) foot minimum on all sides of the trench.

NOT ACCEPTABLE

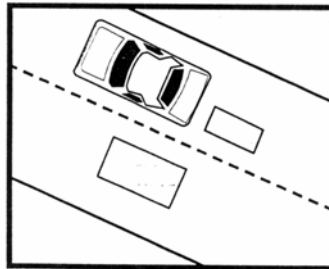


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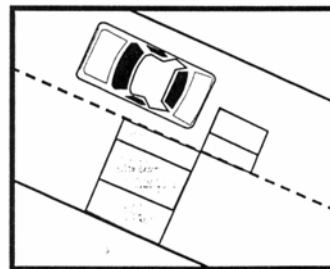


Do not allow the edges of patches to fall in existing wheel paths. The edges of patches parallel to the direction of traffic shall be limited to the boundaries of lanes or to the centerline of travel lanes.

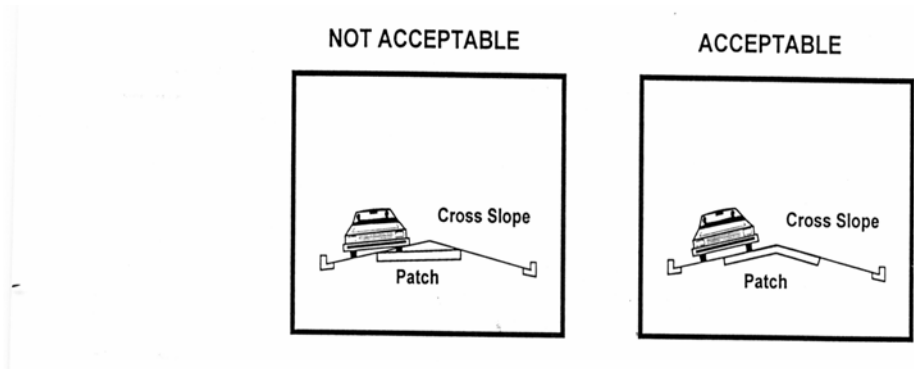
NOT ACCEPTABLE



ACCEPTABLE



Patches should have a smooth longitudinal grade consistent with the existing roadway. Patches should also have a cross slope or cross section consistent with the design of the existing roadway.



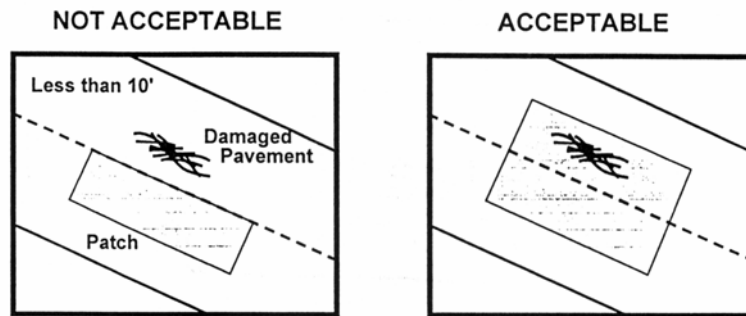
Section 4.05 Future Maintenance

Will the repair pose any future maintenance problems or make future maintenance more difficult?

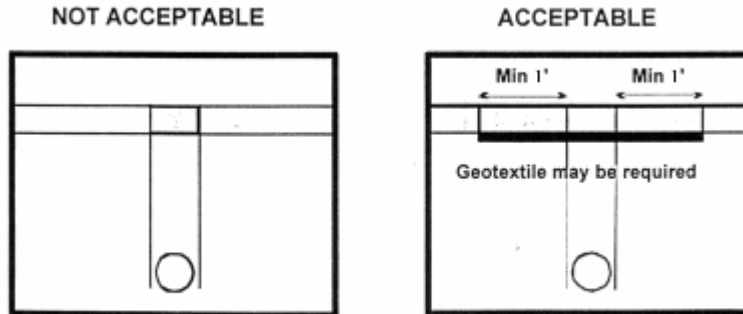
Excavations and road repairs, even well constructed road repairs, shorten a pavement's life. Several types of road distress, settlement, alligator cracking, and potholes, often show up around patches. Quality road repairs should attempt to reduce the occurrence of these types of distress.

Avoid weakening or destroying the existing pavement around an excavation with heavy construction equipment, stockpiling or delivery of materials, etc. When damage does occur, remove the damaged pavement, extending the limits of the road repair, before replacing the pavement.

When the proposed excavation falls within ten (10) feet of a section of failed pavement, the failed area shall be removed to sound pavement and patched. Scarring, gouging, or other damaged pavement adjacent to a patch shall be removed and the pavement repaired.

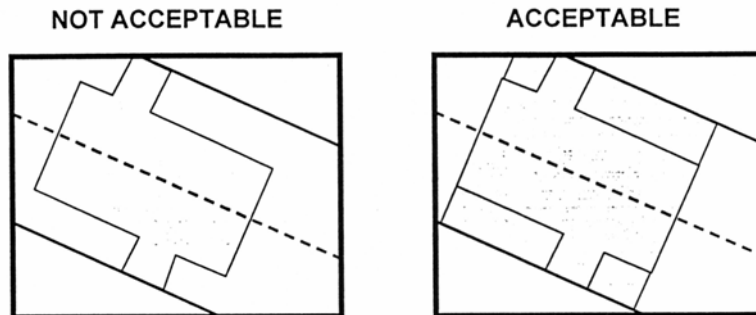


In the case of older pavement where the likelihood of cracking and potholes next to the patch is greater, it may be necessary to extend the “shoulders” of the pavement beyond the one (1) foot minimum, and reinforce this area with a geotextile. “T” cutting is required for all repairs.



For patches in asphalt, a tack coat shall be applied to all edges of the existing asphalt before placing the new pavement. After placing the new asphalt, all seams (joints) between the new and existing pavements shall be sealed with an asphalt tack coat or rubberized crack seal material.

Avoid frequent changes in width of patches. For future maintenance, this simplifies removal of adjacent pavement failures.



Article V. TESTING

Section 5.01 Description

The Permittee is required to provide material testing for each phase of the work and at no cost to the County. The Independent Geotechnical Testing Firm chosen to perform this work for the Permittee must be qualified and identified on the Permit application. Waiver of the testing requirement may be obtained by posting a standing annual bond in accordance with bonding provisions in Article VIII of the Montrose County Standards and Specifications for Roads and Bridges.

Section 5.02 Testing Frequencies

A. The number of density tests required may be increased if directed by the Engineer. The costs of any testing, as required, shall be the responsibility of the Permittee. Density Standard (Proctor) shall be determined prior to backfilling. Independent lab results shall be faxed to the Engineer as soon as possible. The horizontal frequencies of density tests are as follows:

- (1) One (1) test in each disturbed lane at within twenty (20) feet of the interface with existing roadways.
- (2) Utility Mains – One (1) test per 100 linear feet per lift.
- (3) Service Lines – One (1) test per each service per lift.
- (4) Manholes and valve boxes per each lift.

B. Following are the minimum number of tests required for each construction activity other than stated in Section 5.02.A. These tests must be submitted to the Engineer on a daily basis as acquired and shall be hand delivered or faxed to the Engineering Department.

- (1) Native or imported backfill – One (1) test for every two (2) vertical feet and every one hundred (100) feet horizontally or some fraction thereof with at least one (1) test per each lift.
- (2) Flowable-fill – Testing may be required at the discretion of the Engineer.
- (3) Concrete pavement, curbs, gutters and sidewalks – A minimum of one (1) test shall be conducted for every 100 cubic yards or portion thereof, with. The types of testing required shall be as prescribed by the Engineer.
- (4) Asphalt Pavement
 - a. Asphalt content – One (1) test per 500 tons or fraction thereof of mix produced, minimum of one (1) test per job.
 - b. Gradation – Aggregate: one (1) test per 500 tons or fraction thereof of mix produced, minimum of one (1) test per job.
 - c. In-place density – One (1) test per 500 tons or fraction thereof of mix placed, minimum of one (1) test per job.
- (5) Aggregate base course materials – One (1) test per 400 lane feet. No less than two (2) tests per excavation.

Section 5.03 Compaction Standards

A. Subgrade and all areas within ten (10) feet of edge of traveled surface or edge of pavement.

The subgrade for the pavement structure shall be graded to conform to the cross sections and profile required by the construction plans. Prior to the placement of aggregate base course or sub-course, the subgrade shall be properly prepared. The subgrade should be scarified to a minimum depth of six (6) inches, moisture adjusted as necessary, and recompacted to not less than the following:

- (1) For cohesive soils, 92% AASHTO T-180 at 2% of optimum moisture content.
- (2) For non-cohesive soils, 93% AASHTO T-180 at 2% of optimum moisture content.
- (3) For expansive soils, 90% AASHTO T-180 at 3% or greater above optimum moisture content. For highly expansive soils (swell potential 2% under 200 psf surcharge pressure), paving will not be permitted without a subgrade treatment approved by the Engineer.

B. Subbase – 93% AASHTO T-180 ± 2% of optimum moisture content.

C. Base – 95% AASHTO T-180 ± 2% of optimum moisture content.

D. All areas beyond ten (10) feet from edge of traveled way or edge of pavement - 90% AASHTO-180± 2% optimum moisture content. Testing frequency shall be as stated in section 5.02 with the exception that 5.02.A(2) Utility Mains may be reduced to one (1) test per installation or per lift per every 500 linear feet.

Article VI. INSPECTION

All construction work within the public right of ways shall be subject to inspection by the Engineer and certain types of work may have continuous inspection. It shall be the responsibility of the Permittee to provide safe access for the inspector to perform the required inspections.

It shall be the responsibility of the person performing the work authorized by the Permit to notify the Engineer or his authorized representatives that such work is ready for inspection. The Engineer requires that every request for inspection is to be received at least twenty-four (24) hours before such inspection is desired. Such request may be in writing or by telephoning or faxing the Engineer.

The Engineer may make or require other inspections of any work as deemed necessary to ascertain compliance with the provisions of these Standards. Any work performed without the required inspections shall be subject to removal and replacement at the Permittee's expense, regardless of the quality of the work.

Where large-scale projects exceed the ability of the County to provide inspection, the Permittee or Utility Company will incur the cost of a private inspection firm. This inspection firm will be mutually agreed upon by the Permit applicant and the Engineer prior to issuance of the Permit.

RIGHT OF WAY USE PERMIT APPLICATION AND CONSTRUCTION STANDARDS

RIGHT OF WAY USE PERMIT		Engineering Dept., Montrose County 121 S. Townsend Ave., Montrose, CO 81401 (970) 252-7000	
PERMITTEE Name _____ Address _____ Telephone _____	Department Use Only Date Issued _____ Permit No. _____ Road Name _____ Road Segment ID _____ Inspection Fee _____ Weed Control Fee _____		
NOTE TO PERMITEE: You must notify owners or operators of underground utility facilities at least two (2) business days prior to making or beginning excavations in the vicinity of such facilities, as required under Section 9-1.5-103 Colorado Revised Statutes. CALL UTILITY NOTIFICATION CENTER OF COLORADO (UNCC)1-800-922-1987 FOR MARKING OF MEMBER UTILITIES. CONTACT NON-MEMBER UTILITIES DIRECTLY.			
ACTIVITY DESCRIPTION: (Furnished by Permittee)			
PURPOSE <input type="checkbox"/> Installation <input type="checkbox"/> Adjustment/Relocation <input type="checkbox"/> Removal <input type="checkbox"/> Maintenance of existing facility <input type="checkbox"/> Other FACILITY (Type, size, class of transmittant, design pressure or potential, etc.) _____ WILL WORK BE SUBCONTRACTED <input type="checkbox"/> Yes <input type="checkbox"/> No NAME OF SUBCONTRACTOR _____ NATURE OF INSTALLATION <input type="checkbox"/> Longitudinal (Parallel) <input type="checkbox"/> Transverse (Crossing) <input type="checkbox"/> Fixed Object <input type="checkbox"/> Misc. Surface Disturbance <input type="checkbox"/> Open Cut <input type="checkbox"/> Boring <input type="checkbox"/> Aerial/Ground Mounted <input type="checkbox"/> Misc. Non-Surface Disturbance			
LOCATION Road Name _____ Address _____ City/Town _____ Section/Township/Range _____ Name of Person being Serviced _____ APPROXIMATE START DATE _____ ADDITIONAL REMARKS _____ For underground location information, contact: _____ Telephone _____ Surface area to be disturbed (Area) _____ (Length) _____ (Width) _____			
<input type="checkbox"/> PLANS: Attach plans or work sketch ("Exhibit A") showing location, character, dimension, and detail of the work to be done. 1 set minimum required. Compliance with the plans or sketch, as approved by the County, shall be a condition of this permit. <input type="checkbox"/> INSURANCE: A Certificate of Insurance showing compliance with the Standard Provisions shall be attached to and made part of this permit. Insurance Certificate provided for Permittee <input type="checkbox"/> Yes <input type="checkbox"/> No ; For Subcontractor <input type="checkbox"/> Yes <input type="checkbox"/> No			
INTL _____ Permittee is prohibited from commencing any work within road ROW prior to issuance of a fully endorsed and validated permit. Permit, plan exhibit, insurance certificate(s), and traffic control plans must be available on site during work.			
INTL _____ Your request to use and/or occupy county road system, right of way as described above is granted subject to the terms and conditions of this permit, including the Standard and Special Provisions, as shown on the FRONT and BACK hereof. IT IS UNDERSTOOD that the Permittee will accomplish the work at no expense to the county and will own and maintain the facilities permitted.			
INTL _____ Permittee hereby assumes, releases and agrees to indemnify, defend, and protect and save the County of Montrose harmless from and against any loss of and/or damage to the property of the County of Montrose, third parties or the Permittee's facilities, and all loss and/or damage on account of injury to or death of any person whomsoever, arising at the time, caused by or growing out of the occupation of Montrose County Road rights of way to Permittee's facilities or any part thereof, including, but not limited to, installation, adjustment, relocation, maintenance or operation, or removal of existing facilities, unless such loss and/or damage arise from the sole negligence or willful conduct of the County of Montrose or its employees or agents.			
INTL _____ Failure by Permittee to comply with any of the included terms or conditions may subject this permit to suspension or cancellation, at the discretion of the County. Working in the right-of-way without a fully endorsed and valid permit on site at work location shall constitute a violation of CRS 43-5-301, Obstructing highway - penalty.			
INTL _____ THIS PERMIT IS NOT VALID UNTIL FULLY ENDORSED AND DATED BY AUTHORIZED REPRESENTATIVES OF BOTH THE PERMITEE AND COUNTY. A fully executed copy of this permit shall be filed with the County Engineering Office. In accepting this permit the undersigned representing the Permittee verifies that he or she has the authority to sign for and bind the Permittee and that he or she has read, understand and fully accepts all of the included conditions.			
PERMITEE/AUTHORIZED BINDING AGENT		TITLE:	DATE:
SPECIAL PROVISIONS (Completed by County)			
All work shall only be in accordance with the approved plans, Standard Provisions, and Special Provisions as set forth in this permit. The County Inspector is _____ Telephone _____ Work to be completed on or before _____ Work time restrictions: _____ Required location aids (Tape, Trace Wire, Row Markers) _____ SURETY TYPE _____ Issuer _____ Identification # _____ Projected Release Date _____ OTHER: _____			
PERMIT ISSUANCE			
By _____ County Inspector Date		By _____ County Engineer/Road Supervisor Date of Issue	
WARRANTY AND SURETY RELEASE			
By _____ County Inspector Date		By _____ County Engineer/Road Supervisor Date of Release	

RIGHT OF WAY USE PERMIT APPLICATION AND CONSTRUCTION STANDARDS

STANDARD PROVISIONS FOR R.O.W. USE PERMIT

These Standard Provisions are terms and conditions of this permit.

Activity authorized under this permit shall comply with the requirements of the Montrose County Right-of-Way Use Permit Application & Construction Standards, conditions imposed by County Engineer or Designer, and applicable federal, state, and industry codes and regulations. Repair or construction of any portion of the highway facility, including the pavement structure subbase support, drainage, landscaping elements, and all appurtenant features, shall comply with the most recent provisions of the Montrose County Road & Bridge Standards and with the Colorado Standard Plans (M&S Standards).

24-10-114 CRS = Section 24-10-114, Colorado Revised Statutes 1973, as amended.
ROW = Right-of-Way or Apparent Right-of-Way, Immunity by all legal means.

COMMENCEMENT AND COMPLETION

No work on highway ROW shall commence prior to issuance of a fully endorsed and validated permit.

Permittee shall notify the Montrose County Engineer: 1) Two working days before commencing work on ROW; 2) When suspending operations for 3 or more working days; 3) Two working days before resuming suspended work; 4) Upon completion of work.

PLANS, PLAN REVISIONS, ALTERED WORK

Plans or work sketch (EXHIBIT A) are subject to Montrose County approval. A copy of the approved plans or sketch must be available on site during work.

Plan revisions, or altered work differing in scope or nature from that authorized under this permit are subject to Montrose County approval. Permittee shall promptly notify the Montrose County Engineer of changed or unforeseen conditions which may occur on the job.

INSURANCE

Permittee shall procure and maintain general public and auto liability and damage insurance covering the operation under this permit, in the amounts specified in 24-10-114 CRS. Policies shall name Montrose County as additional insured party. Like coverage shall be furnished by or on behalf of any subcontractors. Certificates of insurance showing compliance with these provisions shall be attached to and made a part of this permit. Copies must be available on site during work.

WORK WHERE COUNTY LACKS AUTHORITY

Work within municipal boundaries (pursuant to 43-2-135 CRS), or on certain public lands, may require separate approval of the appropriate jurisdictional agency or property owner.

ATTACHMENT TO HIGHWAY STRUCTURES

Permittee is responsible for designing structures and attachments, subject to the approval of the Montrose County Engineer.

DRAINAGEWAYS AND WATERCOURSES

In no case, shall the flow of water ever be impaired or interrupted. Where possible, crossings of ditches, canals or water carrying structures shall be bored beneath. Irrigation ditches or canal crossings require approval of the ditch company or owner. Damage to any drainage facility shall be repaired by the Permittee to the satisfaction of the owner.

TRAFFIC CONTROL

Whenever the work will affect the movement or safety of traffic, Permittee shall develop and implement a traffic control plan and utilize traffic control devices as necessary to ensure the safe and expeditious movement of traffic around and through the work site and the safety of the utility work force.

The traffic control plan and the application of traffic control devices will conform with the Manual on Uniform Traffic Control Devices and Colorado Supplement thereto, and with S-630-1.

Permittee's traffic control plan is subject to Montrose County approval prior to commencing work on road ROW. A copy of the approved traffic control plan must be available on site during work.

CLEAR ROADSIDE CONSIDERATIONS

Montrose County is committed to provide a roadside area that is as free as practical from nonreversible hazards and fixed objects ("clear zone"). New above ground installations may be permitted within the clear zone only upon showing that no feasible alternate locations exist. Permittee must utilize appropriate countermeasures to minimize hazards.

Permittee should remove materials and equipment from the highway ROW at the close of daily operations. The traffic control plan must include protective measures where materials and equipment may be placed on ROW.

Open trenches and other excavations within road ROW shall be addressed in the Permittee's traffic control plan.

Permittee agrees to promptly undertake mitigating or corrective actions acceptable to the County upon notification by Montrose County that the installation permitted herein had resulted in an otherwise unforeseen hazardous situation for highway users.

GENERAL CONSTRUCTION REQUIREMENTS

No work shall be permitted at night or 30 minutes before sunset, on Saturday, Sunday, or on holidays recognized by the County without prior authorization or unless specified in this permit. Montrose County may restrict work on ROW during adverse weather conditions or during periods of high traffic volume. Those areas within ROW, which must be disturbed by permit operations, shall be kept to a practical minimum.

No cleared or tracked equipment may work on or move over paved surfaces without mats.

Material removed from any portion of the roadway prism must be replaced in like kind with equal or better compaction. No segregation of materials will be permitted.

The utility facility shall be of a durable material in conformity with accepted practice or industry standards, designed for long service life, and relatively free from routine services or maintenance.

Construction or compaction by means of jetting, puddling, or water flooding is prohibited within all road ROW.

Thrust blocks will be required on all vertical and horizontal bends in pressure pipes.

All meters shall be placed upon private property. Where not feasible it shall be within 3 (three) feet of the edge of ROW.

Damage to or alteration of any survey monumentation shall be repaired or placed by a Colorado Licensed Professional Surveyor at Permittee's sole expense. Records of repair to monumentation shall be filed in accordance with State Law.

ALIGNMENT, COVER, CLEARANCE

Location and alignment of Permittee's facilities shall only be as specified in this permit or as otherwise indicated in the approved plans or work sketch (Exhibit A).

Parallel installations should be located as near as practical to the ROW line. Crossings should be at nearly perpendicular to the highway as feasible.

Where no feasible alternate locations exist, parallel installations may be permitted along roadside areas within 15 feet from edge of shoulder or back of curb. In these cases, the facilities must be so located and safeguarded as to avoid potential conflict with necessary highway appurtenances (egns, guardrail, delineators, etc.)

Parallel installations shall follow a uniform alignment, wherever practical. Due consideration must be given to conserving space available for future utility accommodations. The standard allowable deviation from the approved horizontal alignment is +18 inches.

Minimum cover shall be as per Special Provisions authorized in the permit. Normal specified cover shall be 36 inches or greater; reduced cover, 24 inches absolute minimum, may be approved where site conditions warrant.

Minimum overhead clearance shall be as per Special Provisions authorized on the permit, consistent with utility manual criteria.

*This permit is automatically released in 24 months from date of construction unless otherwise held for warranty.

ROAD CUTS AND REPAIRS

Pavement cuts permitted only when subsurface conditions will not permit boring or unless otherwise specified in this permit. Pavement shall be saw cut to a neat line.

Pavement will be replaced to a design equal or greater than that of the surrounding undisturbed pavement structure. Pavement repair shall be as per the County's Standards, Special Provisions and/or the approved plans. Repair pavement a minimum of 1 ft. beyond excavation onto undisturbed soil. Use MC70 or equivalent for tack coat.

All road cuts shall be repaired in 6" lifts with class 6 or ¾ crushed road base gravel and will be done with introduced moisture. Lifts will be compacted to 95% AASHTO T-180 or as otherwise specified in the County Standards, with proof of such compaction available upon request. Pit Run gravel may be used as a part of the reconstruction at approved by the Montrose County Engineer.

Full depth flowable fill may be used, in lieu of compacted fill if installed in compliance with Section 3.7 of the Montrose County Right-of-Way Use Permit Application and Construction Standards.

BORING, JACKING, ENCASEMENT

Unless otherwise specified, buried crossings shall be bored or jacked beneath the roadway, at least from toe of slope to toe of opposite slope. All boring shall be cased with a minimum SD-35 PVC or equivalent from portal to portal. Portals for untraced crossings more than 5 feet in depth will be bulkheaded. Minimum lateral dimensions from portal to edge of pavement is 6 feet, but in any case shall not be less than the vertical.

Water jetting or tunneling is not permitted. Water assisted boring may be permitted as determined by the Montrose County Engineer.

Boring shall not exceed 5 percent oversize. Resultant voids shall be grouted or otherwise backfilled, subject to Montrose County approval. Ends of bored sections shall not be covered before being inspected. Anticipated frost provisions for water lines shall be the responsibility of the Permittee.

INSPECTION AND ACCEPTANCE

Montrose County will determine the extent of inspection services necessary for a given installation. Permittee may be charged the cost of inspection services at \$50.00/hr or per inspection as directed by the County Engineer for significant projects. Estimate of Permit and Inspection Fees shall be paid for at time of permit issuance. Final rebates or payments shall be made prior to final inspection and closeout. Permittee shall attend final inspection as may be required.

Unacceptable work shall be promptly removed and re-placed in an acceptable manner. Final acceptance does not relieve Permittee of maintenance obligations toward those elements of the highway facility constructed under this permit.

RESTORATION OF RIGHT-OF-WAY

Prior to final acceptance, all disturbed portions of highway right-of-way shall be cleaned up and restored to their original or better condition, subject to Montrose County approval.

Seeding, sodding, and/or planting may be required for disturbances of 500 sq. ft. as specified, or otherwise approved by Montrose County. Where landscape restoration must be delayed due to seasonal requirements, such work may be authorized by separate permit.

OPERATION AND MAINTENANCE

Permittee agrees to open and maintain the installation permitted herein. The facility shall be kept in an adequate state of repair and maintained in such a manner as to cause the least interference with the normal operation and maintenance of the highway.

If any element of the highway facility, constructed or replaced as a condition of this permit, fails within 2 years from date of completion of construction due to improper construction or materials, Permittee will be responsible to make all repairs immediately as notified in writing by Montrose County.

Routine, periodic maintenance and emergency repairs may be performed under the general terms and conditions of this permit. Montrose County shall be given proper advance notice whenever maintenance work will affect the movement for safety or traffic. In an emergency, the road district office and the County Sheriff shall immediately be notified or possible traffic hazards. Emergency procedures shall be coordinated beforehand, when possible.

Maintenance activities requiring new excavation or other disturbances within highway ROW may require a separate permit.

Where highway construction or maintenance operations so require, Permittee will shut off lines, remove all combustible materials from the road right-of-way, or provide other temporary safeguards.

Should any of the permittee's facilities be abandoned, Permittee agrees to promptly notify the district office and to remove any or all portion of such facilities, as may be directed by Montrose County.

UNDERGROUND UTILITY LOCATION ASSISTANCE

Permittee may be required to identify the installation with suitable markers or a type and at locations as specified or otherwise approved. Markers shall be maintained by Permittee for the life of the installation.

Warning ribbon and/or detection wire may be required for buried facilities, "As Constructed" lines with grades will be furnished as directed.

Owners of the underground facilities should participate in a notification association information filed pursuant to 9-1-3-103 CRS.

ADJUSTMENTS DUE TO ROAD CONSTRUCTION

In the event any changes are made to the road in the future that would necessitate removal, adjustment or relocation of this installation, Permittee will do so promptly, at no cost to Montrose County except as provided by law, upon written notice from Montrose County.

EMERGENCY OPERATIONS

Should a facility failure emergency arise, contact the Montrose Sheriff's Office (911). Application for appropriate permits shall be completed during office hours of the first business day following emergency. Provisions for inspections shall be reviewed with the Montrose County Engineer.

SUSPENSION AND CANCELLATION

The Montrose County Engineer may suspend operations due to: 1) Non compliance with the provisions of this permit; 2) Adverse weather or traffic conditions; 3) Concurrent highway construction of maintenance in conflict with permit work; 4) Any condition deemed unsafe for workers or for the general public. Work may resume upon disposal of grounds for suspension.

This permit is subject to cancellation due to: 1) Persistent noncompliance with permit provisions; 2) Abandonment or transfer of ownership; 3) Superseded by new permit covering the same installation; or 4) Conflict with necessary planned road construction; 5) Unforeseen conflicts with adjacent lands; 6) Permit shall automatically cancel if construction has not commenced and remains actively in progress within 6 mos. from date of issue. Permittee must promptly terminate occupancy upon notice of cancellation of permit unless a new permit is applied for and granted.

Where Permittee does not fulfill an obligation to repair or maintain any portion of the highway facility, or control and safely maintain the flow of traffic thereon, Montrose County reserves the right, in lieu of canceling this permit, to accomplish the required work by any other appropriate means and Permittee shall be liable for the actual cost thereof, and withhold issuance of further permits until such time as the conditions of previous permits have been met. This procedure shall not restrict the County from perennual remedies available by law.

Revised 10-14-2003