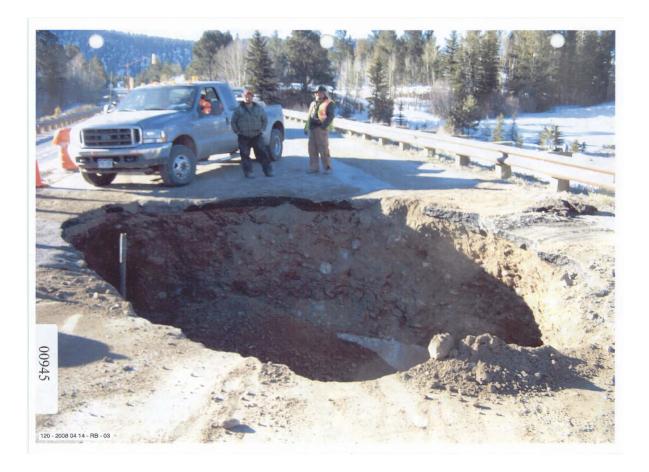
UTILITY MANUAL of the Colorado Department of Transportation



GUIDELINES FOR ACCOMMODATING UTILITIES IN THE STATE HIGHWAY RIGHTS OF WAY PURSUANT TO 2 C.C.R. 601-18



Effective January 31, 2011

UTILITY MANUAL of the Colorado Department of Transportation

GUIDELINES FOR ACCOMMODATING UTILITIES IN THE STATE HIGHWAY RIGHTS OF WAY PURSUANT TO 2 C.C.R. 601-18

TABLE OF CONTENTS

4.1 UTILITY COORDINATION PROCEDURES

4.1.1	Purpose.	5
4.1.2	Definitions, Abbreviations, and References.	5
4.1.3	Utility Permit and Application Forms.	6
4.1.4	Organization and Responsibility.	6
4.1.5	Legal Assistance.	7
4.1.6	FHWA Role.	7
4.1.7	Cooperation Within and Among CDOT Regions.	7
4.2	UTILITY PERMITTING GUIDELINES	
4.2.1	Delegation of Issuing Authority to a Local Authority Involvement.	8
4.2.2	Permit Application, Review, and Issuance.	8
4.2.3	Intradepartmental Review of Permit Application.	9
4.2.4	Utility Permit Terms and Conditions.	10
4.2.5	Variances.	12
4.2.6	Appeals.	12
4.2.7	Inspection and Monitoring of Utility Permit Activities.	12
4.2.8	Utility Permitting on Active CDOT Construction Projects.	13
4.2.9	Recovery of Costs or Damages.	13
4.2.10	Utility Permit Records.	13
4.3	APPLICATION OF REQUIREMENTS	
4.3.1	Alignment, Cover, Clearances.	14
4.3.2	Industry Codes and Standards.	14
4.3.3	Clear Zone.	14
4.3.4	Right of Way.	15
4.3.5	Urban Areas.	15
4.3.6	Utility Plans.	15

4.3.7	Pipe and Conduit Materials.	15
4.3.8	Encasement and Related Protection of Utility Lines.	16
4.3.9	Traffic Control.	16
4.3.10	Pavement Cuts, Trenched Construction.	16
4.3.11	Trenchless Construction.	16
4.4	PROJECT PRECONSTRUCTION COORDINATION	
4.4.1	Area-Wide Coordination Meeting.	17
4.4.2	Local Agency Sponsored Federal Aid Highway Projects.	17
4.4.3	Project Scoping and Programming.	17
4.4.4	Preliminary Design Review.	18
4.4.5	Inventory of Existing Utilities.	18
4.4.6	Subsurface Utility Investigations.	19
4.4.7	Development of Relocation Plans.	19
4.4.8	Replacement of Right of Way or Areas of Common Use.	20
4.4.9	Scheduling and Performance of Relocation Work.	20
4.4.10	Installation of Facilities which Serve a Highway Purpose.	21
4.4.11	Adjustments by CDOT Contractor at the Utility's Expense.	21
4.4.12	Safety/Aesthetic Improvements at CDOT's Election and Expense.	22
4.4.13	Project Utility Clearance and Specifications.	22
4.4.14	Issuance of a Utility Relocation Permit.	23
4.5	PROJECT CONSTRUCTION COORDINATION	
4.5.1	Utility Adjustments Prior to Highway Construction.	24
4.5.2	Project Preconstruction Conference.	24
4.5.3	Utility Adjustments Coordinated with Highway Construction.	25
4.5.4	Emergency or Unanticipated Utility Work.	25
4.5.5	Utility Delays.	26
	UTILITY AGREEMENTS AND CONTRACTING PROCEDURES	
5.1	PURPOSE AND TYPES OF AGREEMENTS	
5.1.1	Purpose.	27
5.1.2	Standard Utility Agreements and Appendix.	27
5.1.3	Contractor Adjusted Utility Agreements.	27
5.1.4	Agreements for Highway Lighting and Utility Services to Project.	28
5.1.5	Agreement for Work Reimbursable to CDOT by Utility.	28
5.1.6	Contract Amendments	29

5.1.7	Common Use Agreement.	29
5.2	REIMBURSEMENT GUIDELINES	
5.2.1	Conformance with State or Federal Law and Regulation.	30
5.2.2	General Eligibility for Reimbursement.	30
5.2.3	Compensable Property Interest.	31
5.2.4	Governmental Subdivision, Abutting Landowner.	32
5.2.5	Preliminary Engineering.	32
5.2.6	Right of Way Costs.	33
5.2.7	Force Account Construction by Utility.	33
5.2.8	Construction Engineering.	34
5.2.9	Actual Incurred Cost Agreements.	35
5.2.10	Lump Sum Agreements.	35
5.2.11	Contingencies.	35
5.2.12	Credits.	36
5.2.13	Cost Sharing Arrangements.	36
5.3	GENERAL CONTRACT PROVISIONS	
5.3.1	Provisions Incorporated by Reference.	37
5.3.2	State Controller Special Provisions.	37
5.3.3	Costs Incurred Prior to Authorization.	37
5.3.4	Subcontractors Subject to Agreement Provisions.	37
5.3.5	Utility Cost Estimate.	38
5.3.6	Contract Time.	38
5.3.7	Additional Work; Cost Overruns.	38
5.3.8	Retainage.	38
5.3.9	Record-Keeping and Audit Provisions.	39
5.4	APPROVAL, BILLING, AND AUDIT PROCEDURES	
5.4.1	Contract Signatories.	39
5.4.2	Contract Submittal.	39
5.4.3	Authorization of Expenditures for Utilities Phase.	40
5.4.4	Contract Routing, Approval, and Encumbrance of Funds.	40
5.4.5	Authorization Letter and Notice to Proceed.	41
5.4.6	Use of Contract Modification Tools.	42
5.4.7	Utility Billings and Payments.	42
5.4.8	Audit and Follow-up.	43

4 UTILITY COORDINATION PROCEDURES

SECTION 4.1 - GENERAL

4.1.1 Purpose.

- (a) Section 4 outlines the CDOT organization and responsibilities and provides operating procedures and guidelines to ensure the uniform statewide implementation of the Code.
- (b) Section 4 guidelines may serve as interpretations or explanations of various Code provisions but do not have the legal effect of a rule. This manual contains <u>guidelines</u> which may be revised from time to time to reflect CDOT's current policies or procedures.

4.1.2 <u>Definitions, Abbreviations, and References.</u>

(a) The definitions, abbreviations, and references adopted as part of the Code (2CCR 601-18) also apply to this Utility Manual, with the following additions:

AGREEMENT: A written contract between CDOT or a local agency and a utility which sets forth the obligations of the parties for performance of work and the basis of payment.

FORCE ACCOUNT or F/A: Method of construction where the contractor is selected without competitive bidding to perform work on an actual cost, agreed unit price, or lump sum basis.

GOVERNMENTAL SUBDIVISION: Cities, counties, a city and county, incorporated towns, a department or division of Colorado State government, and quasi-governmental statutory special districts such as water, sanitation, fire protection, and other non-profit districts which are authorized to raise revenues to provide certain public services.

PERMIT COORDINATOR or PERMIT WRITER: The CDOT region representative with utility permitting responsibility within the region as described in subsection 501.04.

PROJECT ENGINEER: The Chief Engineer's duly authorized representative who is in direct charge of a highway construction project and is responsible for the design, construction, administration and/or satisfactory completion of the contract.

RESIDENT ENGINEER or RE: The CDOT region representative who supervises the activities of Project Engineers within a subdivision of that region.

REGION UTILITIES ENGINEER or RUE: The CDOT region representative with regional utilities program responsibility as described in subsection 5.1.4.

STANDARD SPECIFICATIONS: The CDOT "Standard Specifications for Road and Bridge Construction," and Supplemental Specifications thereto, adopted pursuant to 43-2-107(a), C.R.S.

STATE CONTROLLER: The director of the Division of Accounts and Control of the Colorado Department of Administration, who implements State fiscal laws and rules and has sole authority to approve utility agreements. The State Controller may delegate certain authority to the CDOT Controller who functions in a similar capacity.

(b) Copies of frequently used references and other informational material are included as appendices to this manual. Additional information is cited in the bibliography.

4.1.3 <u>Utility Permit and Application Forms.</u>

- (a) All approved utility accommodations on SH ROW shall be documented on CDOT Form No. 333, "Utility Permit", or Form No. 1284, "Utility Relocation Permit."
- (b) All applications for utility permit shall be made on CDOT Form No. 1233, "Utility Permit Application."
- (c) All CDOT forms are available online at <u>http://www.coloradodot.info/library/forms</u>.
- (d) All permit applicants will be provided the "CDOT Environmental Clearance Information Summary."

4.1.4 Organization and Responsibility.

- (a) Management of the CDOT utilities program is divided between headquarters staff under supervision of the Chief Engineer, and the respective transportation regions ("region"), each under supervision of an RTD. Central staff establishes and maintains uniform statewide policies and procedures, and renders other assistance. Region personnel perform ongoing utility coordination activities.
- (b) The Chief Engineer is the chief administrative officer of the Highway Operations and Maintenance Division or the Engineering, Design and Construction Division, and is responsible to implement the code. The Chief Engineer may enter into utility agreements on behalf of CDOT, and is the highest Departmental authority on formal administrative appeals. The Chief Engineer may delegate certain authority to central and region staff.
- (c) The State Utility Engineer shall establish and maintain the Code and the CDOT Utilities Manual ("manual"), train, advise and assist region staff, inform the Chief Engineer and/or FHWA on utilities policy matters and coordinate centralized reviews and approvals on utility agreements and policy matters.
- (d) The RTD has overall responsibility for utility accommodations permitted on SH ROW within the region. The RTD is the highest regional authority on informal appeals and may delegate certain authority among region staff.
- (e) The Region Utilities Engineer ("RUE") is designated by the RTD to ensure that all utility

accommodations on SH ROW conform with the Code. The RUE is the primary liaison with utilities and local agencies on project utility matters, and shall develop and administer CDOT/utility agreements. The RUE may also serve as Permit Coordinator, or as the next higher authority within the region on utility permitting matters.

- (f) A Permit Coordinator or Permit Writer may be designated by the RTD to review, issue, and/or monitor utility permits within the region. The Permit Coordinator shall report to or coordinate with the Region Utilities Engineer.
- (g) A utility permit Inspector may be designated to monitor, inspect, and approve activities on individual permits. Utilities inspection may be either full time or collateral duty.

4.1.5 Legal Assistance.

- (a) The Department's legal staff is under the direction of the First Assistant Attorney General who acts as chief counsel for CDOT; and is headquartered at the Department of Law, Natural Resources Section, 1525 Sherman Street 7th Floor, Denver, Colorado, 80203.
- (b) An Assistant Attorney General will be designated to advise CDOT on legal aspects of utility contracts and/or other utility policy matters. All requests for legal opinions shall be coordinated with or through the State Utility Engineer.

4.1.6 FHWA Role.

- (a) FHWA retains certain authority over utility accommodation matters, as in (b) below. In most cases, however, FHWA will have delegated such authority to CDOT. This is accomplished through the approval processes described in 23 CFR 645.119 (utility adjustments), 645.209 (freeways), and 645.215 (policies and procedures); and through the "FHWA/CDOT November 2009 Stewardship Agreement" at the following link: http://www.coloradodot.info/business/permits/accesspermits/references/stewardship-agreement.pdf.
- (b) CDOT shall obtain FHWA concurrence before approving any utility accommodation request which:
 - (1) does not conform with CDOT Utility Accommodation Code (2CCR 601-18); or
 - (2) involves longitudinal use of interstate, freeway or expressway ROW; or
 - (3) involves longitudinal use by other than a public utility.
- (c) The State Utility Engineer shall coordinate all required FHWA approval.

4.1.8 Cooperation Within and Among CDOT Regions.

(a) Region utilities personnel shall consult and cooperate with their counterparts in adjacent regions to ensure the uniform and consistent statewide treatment of utilities.

- (b) The regions shall inform or consult the State Utility Engineer on new developments or on matters where the Code provisions and/or the Utilities Manual are lacking or unclear. The State Utility Engineer will in turn disseminate current information and/or recommendations to all regions.
- (c) Staff and region CDOT utilities personnel shall meet each fall (and at other times as necessary) to review current procedures, exchange information, and develop methods to maintain uniformity and/or improve customer service.

SECTION 4.2 - UTILITY PERMITTING GUIDELINES

4.2.1 <u>Delegation of Issuing Authority to a Local Authority Involvement.</u>

- (a) If CDOT consults a local authority on permit requests (see 2CCR 601-18 Section 2.1.1), it should include in an approved permit any reasonable requirements of that local which do not conflict with the Code or applicable laws or regulations.
- (b) In determining whether to delegate issuing authority to a local, CDOT should consider such factors as:
 - (1) potential for increased efficiency, reduced overall administrative costs between agencies, and improved interagency cooperation;
 - (2) whether the local already issues permits to its street system;
 - (3) whether the local is adequately staffed to administer the additional permits; and
 - (4) conformance with all requirements of 2CCR 601-18 Section 2.1.1.
- (c) State Utility Engineer will assist with the written arrangements for delegating issuing authority to a local authority.
- (d) If issuing authority was delegated to a local prior to October 30, 2009 (<u>e.g.</u>, as may have been understood within "contract maintenance" areas), such arrangements shall be renegotiated if necessary to conform with 2CCR 601-18.
- (e) Any request to use other than CDOT-prescribed forms shall be subject to a determination by CDOT that such alternate forms are consistent with the purposes and requirements of 2CCR 601-18.
- (f) To assure conformance under any delegation, the Permit Coordinator shall periodically review the local authority's permit practices and inspect utility permit sites.

4.2.2 <u>Permit Application, Review, and Issuance.</u>

- (a) Permit Writers shall consider applications on a first-come basis, but shall make reasonable efforts to accommodate "rush" requests.
- (b) CDOT shall not accept applications which lack any required third party approvals pursuant to 2CCR 601-18, unless such approvals must be coordinated by CDOT, or are made subject to the proposed terms and conditions to a permit.
- (c) If an applicant has failed to fulfill an obligation under a previously issued permit, CDOT may, after notice to the applicant and a reasonable opportunity to cure, make any subsequent permit expressly subject to the satisfactory prior completion of such obligations pursuant to 2CCR 601-1. (i.e., "conditional permit").
- (d) Permit Writers should evaluate and act on accepted applications within 45 days unless additional time is negotiated pursuant to 2CCR 601-18).
- (e) To be permissible, the requested accommodation must satisfy all applicable criteria of 2CCR 601-18.
- (f) To deter potential misuse and ensure completeness of records, CDOT <u>shall not</u> sign a permit until after the utility has signed and returned such a permit to CDOT.
- (g) The commencement/completion dates assigned to a permit shall make reasonable allowance for anticipated mobilization and/or shut-down time.
- (h) Permit Writers shall review information provided in permit applications related to environmental clearances or permits that the utility permitee will need to obtain for their proposed activity. The utility permit shall include a special provision requiring the utility permitee to obtain any environmental clearances or permits has identified within their permit application.

4.2.3 Intradepartmental Review of Permit Application.

- (a) The Permit Coordinator will consult other CDOT staff or offices as follows, whenever necessary to properly review or act on an application, which may include but shall not be limited to:
 - (1) The Project and/or Resident Engineer, if the permit request involves a CDOT design or construction project.
 - (2) The Staff Bridge Design Branch, for approval of bridge structure attachment proposals.
 - (3) Staff or Region Hydraulics, for concurrence of a proposed modification of highway drainage.
 - (4) The Region Environmental Manager, for review/acceptance concerning potential impacts to wetlands, archaeological or historical resources, or other

environmental elements.

- (5) The Region Traffic Engineer for review/approval of a Traffic Control Plan ("TCP") of unusual or complex nature.
- (6) The Region Materials Engineer regarding non-standard material proposals or pavement replacement requirements.
- (7) The Region Survey Coordinator, Traffic Signal foreman, Maintenance foreman, and/or others as necessary, regarding the location and protection of highway property.
- (8) The State Utility Engineer regarding any proposed accommodation which is beyond the scope of 2CCR 601-18, or for which Code requirements may be lacking or unclear.
- (b) The Permit Coordinator must coordinate such reviews as in (a) above to allow the permit request to be acted on within a timely manner in accordance with 2CCR 601-18.
- (c) The Permit Coordinator should regularly (not less than weekly) enter permit application activity into the Utility Permit Database UP2009.
- (d) An approved permit shall consider and may incorporate any appropriate recommendations of all reviewing office(s) or individual(s).

4.2.4 Utility Permit Terms and Conditions.

- (a) A permit is subject to all applicable requirements of 2CCR 601-18, whether or not expressly stated.
- (b) The utility permit form will include standard provisions as a means of emphasizing certain Code requirements which apply in most situations. State Utility Engineer will periodically coordinate and maintain updated standard provisions.
- (c) The Permit Coordinator may assign special provisions as additional terms and conditions of an approved utility permit, as provided in 2CCR 601-18, Section 3.1.4. Examples of such provisions may include but are not limited to:
 - (1) Inspector designation, planned completion date, and specific notification requirements.
 - (2) Access, work hour, or traffic control restrictions.
 - (3) Alignment, cover, or clearance requirements.
 - (4) Backfill, compaction, or pavement replacement specifications.

- (5) Encasement requirements.
- (6) Site restoration, seeding or sodding provisions.
- (7) Approved variances to Code requirements.
- (8) Protective requirements for CDOT property and/or other natural or cultural features located on SH ROW.
- (9) Any part or all of the CDOT Standard Specifications for Road and Bridge Construction, if applicable.
- (d) To avoid diminishing the effect of 2CCR 601-18, no special provision should duplicate an express requirement of the Code.
- (e) The permit shall include a special provision prescribing the types and amounts of insurance applicable to that permit, as provided in 2CCR 601-18, Section 3.1.5. Unless greater coverages are specified therein, the minimum amounts acceptable to CDOT, based on provisions of 24-10-114, C.R.S., are as follows:
 - (1) Workers Compensation Insurance in accordance with prevailing laws.
 - (2) Commercial General Liability Insurance
 \$1,000,000 each occurrence
 \$2,000,000 general aggregate
 \$2,000,000 products and completed operations aggregate; and
 \$50,000 any one fire
 - (3) Automobile Liability Insurance with a maximum limit of \$1,000,000 each accident combined single limit.
 - (4) Professional Liability Insurance with maximum limits of liability of \$1,000,000 each claim and \$1,000,000 annual aggregate.
 - (5) Pollution Legal Liability Insurance with a minimum of \$1,000,000 each claim and \$1,000,000 annual aggregate.
 - (6) Umbrella or Excess Liability Insurance with minimum limits of \$1,000,000, which shall become primary (drop down) in the event the primary Liability Policy limits are impaired or exhausted.
- (f) A special provision shall cite the relevant section of the Code that the special provision is intended to modify, clarify, or emphasize.
- (g) When appropriate, the Permit Coordinator shall include special provisions for routine, periodic maintenance and/or emergency repairs, as provided in 2CCR 601-18, Section

2.3.3, to reduce the need for subsequent permits for such work.

4.2.5 Variances.

- (a) A permit, and permit record, shall document any variances from the procedures, criteria, and specifications of the code that are requested or approved in accordance with 2CCR 601-18, Section 2.2.5.
- (b) A variance request that is based solely or primarily on the added cost of compliance shall demonstrate how such added cost would have significant adverse impact on the utility, its' customers, and/or the public.
- (c) CDOT shall periodically review all variances issued to possibly identify a need for future amendment(s) of the Code.

4.2.6 Appeals.

- (a) The region shall make reasonable efforts to resolve any appeals on an informal basis, as described in 2CCR 601-18, Section 2.2.7.
- (b) If necessary, the Permit Coordinator may refer an unresolved informal appeal to any appropriate higher authority in the region, for further consideration.
- (c) A decision by the RTD shall be considered final action on any informal appeal; and any further appeal of such decision shall be in accordance with section 2.2.7.
- (d) When requested, the State Utility Engineer shall review and make recommendations on any appeal.

4.2.7 Inspection and Monitoring of Utility Permit Activities.

- (a) The Permit Coordinator and/or Inspector will provide for a level of inspection of utility permit activities as deemed necessary to ensure compliance with all permit terms and conditions (see Section 2.3.1).
- (b) Activities such as work within State highway ROW may justify full-time inspection. If only periodic inspections will be made, CDOT should focus on activities which should be observed while in progress, such as lane closures, boring operations, or trench backfill operations. Certain other activities may be inspected and accepted upon completion.
- (c) If deemed necessary to ensure permit conformance with the Code, CDOT may require the permittee to furnish licensed professional engineer and/or land surveyor certification of any element of the permitted work, as provided in 2CCR 601-18, Section 3.3.4.
- (d) Maintenance patrols shall be advised of all permit operations within their area.

- (e) CDOT may order utility work forces off SH ROW for performing work without an approved permit, and/or if permit, plans, TCP, or insurance documentation are not available at the work site.
- (f) Any significant action which is ordered by CDOT to revise, correct, or suspend a permit operation shall be given to the permittee in writing, with date and time of order noted thereon.

4.2.8 <u>Utility Permitting on Active CDOT Construction Projects.</u>

- (a) Whenever the State highway construction or maintenance project necessitates the installation, adjustment or relocation of utility facilities, the work shall be covered by a utility permit issued in accordance with section 4.4.14 of this manual and the Code.
- (b) If a utility that was not otherwise involved on the highway project requests a permit for accommodations within the project limits, the Permit Coordinator will consult the RUE and the Project Engineer and/or the Resident Engineer during the application review period.

4.2.9 <u>Recovery of Costs or Damages.</u>

- (a) CDOT may require a permittee to reimburse the costs of CDOT-furnished inspection services <u>only</u> if:
 - (1) required engineering, surveying, or traffic control services are not independently available through the permittee, as provided in 2CCR 601-18, Sections 3.3.4 and/or 3.4.2; and
 - (2) required services are of such a nature and duration that they would unreasonably impair the assigned CDOT inspector from performing their other required duties.
- (b) Any anticipated reimbursement arrangements, such as in (a) above, shall be expressly stated in the permit or in a separate agreement.
- (c) A 2CCR 601-18, Section 2.1.2 action (i.e., CDOT performing an unfulfilled obligation of the utility and billing utility for same) shall be considered an alternative of last resort.
- (d) To the extent practicable, CDOT shall hold the utility directly responsible for remedial actions, in lieu of accepting cash restitution.
- (e) The filing of any claim for damages shall be coordinated through the State Utility Engineer with the Office of the Attorney General.

4.2.10 Utility Permit Records.

(a) The region will maintain complete and permanent records of all existing permitted

accommodations, including permits issued by the region, any permits issued by a local authority on behalf of CDOT, and revisions thereto.

- (b) Permits should be indexed by State highway number, marker point number, and any other appropriate item of reference and entered into the statewide utility permit database.
- (c) Where a highway crosses region boundaries, duplicate permit records should be maintained in each region for the portion of such highway which is near the boundary.

SECTION 4.3 - APPLICATION OF SECTION 4 REQUIREMENTS

4.3.1 <u>Alignment, Cover, Clearances.</u>

- (a) Alignment, cover, and/or clearances specified for a given situation should consider potential interference with the highway or highway maintenance, traffic safety and operations, and existing or future utility installations.
- (b) Where local conditions reasonably require, the permit may specify cover or clearance in excess of the Code. The permit record shall contain and support such a determination.
- (c) Refer to 2CCR 601-18, Section 3.3.11 for additional requirements to protect buried lines with less than minimum cover.
- (d) Code requirements are intended to systematically improve compatibility between highway and utility facilities. A variance shall not be approved merely because current requirements exceed the cover/clearance provided for existing utilities.

4.3.2 Industry Codes and Standards.

- (a) Region utilities offices should maintain copies of all regulations and standards incorporated by reference in the Code; or consult the State Utility Engineer for assistance.
- (b) The utility is responsible for compliance with industry codes and standards; and whenever necessary and CDOT may require additional compliance documentation.

4.3.3 <u>Clear Zone.</u>

- (a) Clear zone requirements for low-speed (40 mph or less) highways as shown in 2CCR 601-18, Section 3.3.3 are generalized from the AASHTO Guide and the AASHTO "Roadside Design Guide," for ease of application. The 1.5 foot [absolute] minimum specified in 3.3.3 is intended only where ROW width or adjacent development precludes a more desirable clear zone width.
- (b) The AASHTO "Roadside Design Guide" provides a general indication of the appropriate clear zone for areas with design speeds of 40 mph or greater.

(c) Consult a CDOT region design engineer for clear zone recommendations on proposed extensive longitudinal utility installations.

4.3.4 <u>Right of Way.</u>

- (a) In determining the additional ROW needs of a highway project, CDOT may consider in addition to the transportation requirements, possible joint use by utilities (see 23 CFR 645.111(a)(1)).
- (b) To satisfactorily address utilities' conditional legal rights to occupy SH ROW, any denial of SH ROW use should have considered not only highway or safety requirements but also any reasonable joint-use arrangements and/or adjustments of existing lines to accommodate the proposed facility.

4.3.5 Urban Areas.

- (a) The Code anticipates that utility accommodations in urban areas may be subject to unique local conditions (limited ROW, closely abutting improvements, proliferation of existing or proposed utility lines, etc.) that make compliance with all code requirements difficult or impractical. A variance may be granted to address such conditions when found reasonably necessary.
- (b) The application of code requirements in urban areas shall be consistent with local practice, to the extent that a local authority has certain authority to allow utilities in streets that are also SH's (see 2CCR 601-18, Section 1.2.2).

4.3.6 <u>Utility Plans.</u>

- (a) At minimum, utility plans must be sufficiently detailed to establish the location of the facility within SH ROW, demonstrate conformance with the Code, and verify the proposal does not conflict with the highway facility or other existing or future utilities.
- (b) The utility is responsible to ascertain the presence and location of other existing utilities. CDOT may furnish such information, if available, to the utility.
- (c) The utility's submission of certified "as-constructed" plans, as provided in section 3.3.4, should be considered in such cases as: (a) extensive longitudinal buried installations on varying alignment; (b) locations subject to a proliferation of utilities; (c) where clearances cannot be inspected during installation or readily verified upon completion; and (d) where CDOT has implemented improved standards, such as GIS (Geographical Information Systems) or electronic plan files, for mapping ROW features.

4.3.7 <u>Pipe and Conduit Materials.</u>

(a) The utility is responsible to demonstrate that materials, other than those which may be specified or approved by CDOT, meet applicable Codes and industry standards and are

otherwise suitable for the intended application.

4.3.8 Encasement and Related Protection of Utility Lines.

- (a) 2CCR 601-18, Section 3.3.11 is intended to systematically identify protective measures appropriate to a given installation, based on a consideration of the potential causes and consequences of damage to underground lines.
- (b) Do not "automatically" prescribe a casing pipe where other, perhaps more appropriate protective measures exist (such as added cover or thicker wall pipe) exist, as described in 2CCR 601-18, Section 3.3.11.
- (c) Highway research suggests that casings may be detrimental to certain cathodically protected pipeline systems; however, if 2CCR 601-18, Section 3.3.11 otherwise indicates the use of a casing, the utility shall justify a variance and proposed alternative.

4.3.9 <u>Traffic Control.</u>

- (a) CDOT's acceptance of a utility's TCP and/or MHT's does not relieve the utility of responsibility for compliance of such plans or methods with the MUTCD and Colorado Supplement.
- (b) CDOT shall require the utility to furnish a TCS, as provided in 2CCR 601-18, Section 3.4.2 after considering such factors as complexity of the TCP, traffic volume, ability of CDOT to inspect or monitor the work site, and operational needs of the highway.
- (c) A TCS may be required for any utility work within the fully controlled access portions of State highway ROW.

4.3.10 Pavement Cuts, Trenched Construction.

- (a) Regions may individually develop and specify pavement, trenching or backfill requirements, provided they do not unreasonably deviate from statewide practice.
- (b) Typical embankment and pavement requirements are included in the statewide listing of commonly used utility permit Special Provisions, however the RUE shall consult a CDOT design or materials engineer for recommendations in all unique or unusual circumstances.

4.3.11 <u>Trenchless Construction.</u>

- (a) The utility must demonstrate that its proposed method of trenchless construction (wet boring, directional boring, ramming, etc.) meets the requirements of 2CCR 601-18, Section 3.4.5 and will not result in damage to the highway facility or other utilities.
- (b) CDOT shall approve the proposed method of construction only after considering the

experience and qualifications of a utility or utility contractor in the particular specialty.

SECTION 4.4 - PROJECT PRECONSTRUCTION COORDINATION

4.4.1 Area-Wide Coordination Meeting.

- (a) The RUE should conduct periodic meetings between CDOT and representatives of utilities, local agencies, and/or developers to promote an understanding of the Department's utility accommodation policies, and to encourage joint highway and utility planning and development efforts on highway projects in accordance with 23 CFR 645.205(b).
- (b) Coordination meetings may be held on an annual or other basis, and may encompass the region or be limited to areas such as municipalities or metropolitan planning regions. The meeting should address the CDOT Transportation Improvement Program, local road/street improvement programs, utility construction programs, and other planned developments. The meeting objectives should identify potential scheduling and/or construction conflicts and develop efficient, effective, and safe joint development strategies.

4.4.2 Local Agency Sponsored Federal Aid Highway Projects.

- (a) A project agreement between CDOT and the affected local agency normally makes the local agency responsible to coordinate and clear utilities on such projects. Pursuant to 23 CFR 645.209(g), such agreement will provide for compliance with the applicable requirements of 23 CFR 645, and for a degree of protection to the highway at least equal to that provided by the Code.
- (b) The RUE and the CDOT Project Engineer, may assist the local agency as necessary to effectively coordinate utility involvement on such projects.

4.4.3 <u>Project Scoping and Programming.</u>

- (a) At the project scoping stage, to assist with preparation of CDOT Form No. 463 (Design Data), the RUE will advise the Project Engineer of known utilities, the potential nature and extent of utility involvement, and whether utilities should be programmed as a separate phase on the proposed project. The assessment will consider such factors as: type of highway construction; right of way requirements; existing or planned utility facilities; anticipated relocation requirements; and eligibility for reimbursement.
- (b) Utilities must be programmed, and subsequently authorized, as a separate phase (function 3988) of a project <u>only</u> if CDOT anticipates reimbursing utilities directly from project funds for performance of necessary relocation work. Utilities need <u>not</u> be programmed for the following types of work:
 - (1) Installations, adjustments, or relocations by and at the expense of the utility

owner.

- (2) Relocations performed by the highway contractor on either a bid or force account basis.
- (3) Relocations by the utility which are coordinated by and paid through the highway contractor.
- (4) The installation or adjustment of utilities which serve a highway purpose.
- (c) Accurate information is seldom available at the scoping stage; therefore the RUE and the Project Engineer should update an initial assessment whenever necessary.
- (d) The request for FHWA approval of program/phase authorization information will be coordinated among the RUE, project design staff, business office, and the Office of Financial Management and Budget (OFMB), using ProMIS (Project Management Information System) (see Section 5.4.3).
- (e) See subsection 5.4.3 for phase authorization procedures.

4.4.4 <u>Preliminary Design Review.</u>

- (a) As early as practicable in the preliminary design phase, the RUE will: identify known utilities within the project limits; request and/or compile information on the location of existing facilities; and notify utility owners of planned highway construction.
- (b) The RUE should conduct a Utilities Field Inspection Review ("Utilities FIR") concurrent with or immediately following the design project FIR. The purposes of such review are to: (1) describe planned highway or utility construction; (2) verify locations of existing facilities; (3) identify or verify potential highway-utility conflicts; (4) establish reimbursability; and (5) determine additional investigative requirements.

4.4.5 <u>Inventory of Existing Utilities.</u>

- (a) Information on existing utilities should be sufficient to enable CDOT to identify potential conflicts as early as practicable in the project design phase, and thereby: avoid or mitigate the conflict in a cost effective manner; and prevent construction delays or contract claims due to unanticipated conflicts.
- (b) Information on the type and location of existing utilities can be obtained from:
 - (1) "As-constructed" CDOT or other project plans, and
 - (2) Utility "key maps" or "base maps" of existing systems, and
 - (3) Utility permit or agreement records, and

- (4) Field observations and/or survey topographic data, and
- (5) Subsurface utility investigations (see Section 4.4.6 below).
- (c) All necessary plan and profile information on existing utilities will be compiled and transcribed onto the project plans, and will be updated as new or corrected information becomes available.

4.4.6 Subsurface Utility Investigations.

- (a) The emerging technology of "Subsurface Utility Engineering" (or "SUE") is an efficient and cost effective method of detecting, and of determining the precise horizontal and vertical location of, buried utility lines.
- (b) CDOT will make professional SUE services available to individual projects on an areawide, as-needed basis, or may provide for such services within survey or design consultant contracts; or may request that the services be utilized on local agency sponsored projects. Similar services may be provided for in highway construction contracts, for use during planned excavations.
- (c) State Utility Engineer will initiate SUE contracts and the RUE will coordinate services provided pursuant to such contracts.
- (d) Certain utilities may agree to detect and surface-mark their underground facilities, at no cost to CDOT, for survey and/or design purposes. For additional information the RUE should contact the owner directly or through the Utility Notification Center of Colorado.
- (e) If SUE services are unavailable or impractical, spot locations of buried facilities may be obtained by conventional "pot-holing" methods. Backhoe services for pot-holing are available via Purchase Order.

4.4.7 <u>Development of Relocation Plans.</u>

- (a) When the preliminary project design and utility investigations reveal a conflict between the project and existing or proposed utilities, the Project Engineer, RUE, and utility should attempt to minimize or eliminate the conflict, if feasible, considering such factors as:
 - (1) Whether a minor change in the alignment, grade, or other project detail could eliminate the conflict; and the cost of such change, and
 - (2) The potential cost of utility relocation, whether performed at CDOT's or the utility's expense, and
 - (3) The impact of the existing or relocated utility on the operation, safety, maintenance, or future improvement of the highway facility, and

- (4) The capacity, structural integrity, and remaining service life of the existing utility facility.
- (b) If CDOT determines that the utility must be relocated, the RUE will: notify the utility of such need; determine and advise whether the utility can be reimbursed for eligible costs incurred; initiate any required agreement; and request that the utility provide its relocation proposal and schedule.
- (c) A utility's eligibility for reimbursement of relocation costs is based on the provisions of 2CCR 601-18, Section 2.3.5, and on guidelines in Section 5.2 below.
- (d) If the relocation will be at CDOT expense, the utility may perform the preliminary engineering work as provided in Section 5.2 below, or may request that CDOT perform such work. If CDOT agrees to perform the work, the design may incorporate any utility standards which do not conflict with the Code, and CDOT will obtain the utility's approval of the final design and final acceptance.
- (e) Final design of utility relocations should commence not later than the Final Office Review ("FOR") stage of project design. The location and any necessary details of the existing and relocated facilities should be shown and described in the completed highway project plans and specifications.

4.4.8 <u>Replacement of Right of Way or Areas of Common Use.</u>

- (a) The Project Engineer should consult the RUE and the utility to determine the right of way requirements of the relocated utility. If the utility must relocate at project expense outside of the ROW, either CDOT or the utility may acquire the necessary rights of way.
- (b) Right of way acquisitions by or on behalf of the utility and at project expense will be coordinated through the Region Right of Way Manager. Revised rights of way will be shown on the project plans.
- (c) If the utility will retain a compensable interest in the land occupied by its facilities and such land is to be jointly occupied and used for highway and utility purposes, CDOT and the utility may enter a Common Use Agreement, as provided in section 501, setting forth the respective rights and obligations of the parties.

4.4.9 <u>Scheduling and Performance of Relocation Work.</u>

- (a) If the utility must relocate at its own expense, it will be responsible to perform all construction work except as provided in Section 4.4.11 below. The RUE will consult the utility and determine the utility's anticipated construction schedule.
- (b) If the utility relocation is at CDOT expense, the RUE, Project Engineer, and utility will cooperatively determine the appropriate method of construction, including any of the

following:

- (1) Work by the utility's forces or subcontractors, as provided in Section 5.2 below and in accordance with a Standard Utility Agreement (CDOT Form #690).
- (2) Work by CDOT's construction contractor in accordance with a Contractor Adjusted Utility Agreement (CDOT Form #691). Such agreement will include provisions for the utility to inspect, approve and provide final acceptance of the utility portion of the work.
- (3) Work by contract force account, whereby the highway contractor coordinates and pays for work by the utility, and CDOT reimburses the contractor pursuant to the highway contract. This method should be utilized only where details of the anticipated work cannot be resolved prior to project advertisement and/or in time to cover the work with a Standard Utility Agreement (CDOT Form #690).
- (c) When feasible, all proposed utility construction work should be completed prior to highway construction. If such work must be coordinated with construction, the project specifications and the utility's permit or other authorization will include all necessary provisions to ensure contractor/utility cooperation and to expedite their respective operations.

4.4.10 Installation of Facilities which Serve a Highway Purpose.

- (a) CDOT will be responsible for the planning, design, construction, and cost of all utility facilities which serve a highway purpose, such as highway lighting, power sources, or telephone, water, or similar utility service to a rest area, weigh station, or other highway appurtenance.
- (b) For such work, CDOT may consult and cooperate with an affected utility owner on matters such as design standards, installation, operation and maintenance requirements, and service connection arrangements.
- (c) The construction work may be incorporated into the highway contract and performed by or coordinated through CDOT's contractor, or CDOT may enter into an agreement for the utility to provide such services. Such work by the utility is subject to applicable requirements of 23 CFR 635B ("Force Account Construction") and of Section 5.2 below.
- (d) The project plans and specifications will show the work and incorporate any bid or force account items necessary for performance of the work.

4.4.11 Adjustments by CDOT Contractor at the Utility's Expense.

(a) At the utility's request, CDOT and the utility may enter an agreement for the utility to reimburse CDOT for certain adjustments performed by the highway contractor on behalf of the utility (see Section 5.1.6 below). Examples of such work are:

- (1) Adjustment of manholes, valves, or other appurtenances which must otherwise be relocated at the utility's expense.
- (2) Utility system betterments such as: an extension of the existing utility distribution network; or an increase in capacity by replacing existing lines with lines of a larger size or higher operating pressure.
- (b) Such work should be incorporated into the highway contract only under the following conditions:
 - (1) Consolidating the utility and highway work will lessen the impact of construction activities on the highway facility and the traveling public.
 - (2) The highway contractor can perform the work in an efficient and cost effective manner.

4.4.12 Safety/Aesthetic Improvements at CDOT's Election and Expense.

- (a) Subject to applicable funding criteria, CDOT may reimburse the utility for adjustments which enhance safety or the aesthetic quality of the highway, such as: relocating an existing facility underground; reconfiguring above ground facilities to meet aesthetic standards for rest areas, scenic areas, public parks, or historical sites; or safety corrective measures as provided in 23 CFR 645.209(k).
- (b) Unless the expenditure is authorized under CDOT's Enhancement or other program(s), a public interest finding is required and will include the following determinations:
 - (1) The improvement is solely for the benefit of the highway users and does not result in a betterment of the utility facility. Should the utility gain a partial benefit, costs will be pro-rated.
 - (2) Under the circumstances, the utility cannot be compelled to provide the desired improvement at its own expense.
 - (3) CDOT would not attain the desired benefit unless it bears the adjustment costs.
- (c) The Attorney General must concur that CDOT has the legal basis to make any discretionary payment for such improvements. Federal participation in such costs may also require FHWA approval.

4.4.13 Project Utility Clearance and Specifications.

(a) The RUE must clear a project of all known utility involvement prior to project advertisement, pursuant to 23 CFR 635.3.9(b), in order to certify that "all...utility work has been completed or that all necessary arrangements have been made for it to be undertaken and completed as required for proper coordination with the physical construction schedules."

- (b) The RUE must furnish a project utility clearance letter to the Project Manager as a condition for advertising the project.
- (c) The clearance shall list: all known utilities which are involved; whether the work is at CDOT expense; the means (agreement, plan force account, etc.) of construction; and the project to which any expenditures will be charged. A copy of any required project utility specifications will be attached.
- (d) A clearance should not be issued until any necessary utility agreements have been fully executed, however the RUE should consult the State Utility Engineer to determine if any pending agreement will be executed in a timely manner. If so, the RUE may clear the project but the clearance will note the status of such agreements.
- (e) When required, the RUE will prepare a "Utilities" specification for inclusion as a project special provision. The specification will cover utility requirements and conditions peculiar to the project, such as:
 - (1) List of known utilities which either are or are not expected to be involved, plus the name and telephone number of the contact person for that utility.
 - (2) Description of utility work to be performed by the highway contractor, and/or work to be performed by the utility owner or agent.
 - (3) Any notification, coordination, or inspection requirements of the contractor or utility which are pertinent to, or conditions of, performance of the work.
 - (4) General provisions such as reference to: pertinent Standard Specifications; excavation requirements in Article 1.5, Title 9, C.R.S.; and disclaimers regarding incidental costs and/or the accuracy of available information.
- (f) Any utility work to be performed as a plan force account item should be listed in the "Force Account" project special provision, and cross-referenced in the utility specification.

4.4.14 Issuance of a Utility Relocation Permit.

- (a) The RUE will issue (or cause to be issued through the Permit Coordinator) a utility relocation permit (CDOT Form # 1284) for any utility accommodation addressed in this Section, except for facilities which will be constructed, owned, and operated by CDOT. Such permit will be issued in accordance with the Code and with all Section 4 guidelines.
- (b) The permit shall identify the owner as the permittee, whether the owner or others actually perform the work and incorporate by reference any agreement under which the work will

be performed.

- (c) Any approved permit for work to be performed concurrently with highway construction will include all necessary terms and conditions for performing such work at a time convenient to and in proper coordination with the highway project, and may include:
 - (1) designation of CDOT project personnel to monitor and inspect permit work; and
 - (2) coordinating elements of the permit work, such as traffic control, with similar operations of the highway contractor; and
 - (3) subjecting details of the permittee's work or schedule to concurrence by the Project Engineer, highway contractor and/or subcontractor(s); and/or
 - (4) work schedule commitments of the utility.

SECTION 4.5 - PROJECT CONSTRUCTION COORDINATION

4.5.1 <u>Utility Adjustments Prior to Highway Construction.</u>

- (a) Utility adjustments shall be scheduled and completed prior to highway construction whenever feasible. A copy of the utility permit for such work will be furnished to the RUE and to the Resident Engineer ("RE") who will supervise the project.
- (b) The RUE or Permit Coordinator will consult the RE and/or Project Engineer to determine if the work is to be inspected by the construction project personnel, or by another designated Inspector.
- (c) An Inspector will advise the RUE, and the RE or Project Engineer, of the status and progress of permit activities. The RUE shall monitor the work to ensure compliance with any related utility agreement. If the work is revised or if additional work is encountered, the RUE shall be notified immediately so that an agreement can be revised if necessary.
- (d) Upon completion of the work, the RUE and/or the RE shall participate in the final inspection, and each should be provided a copy of "As Constructed" utility plans.

4.5.2 <u>Project Preconstruction Conference.</u>

- (a) All utilities with facilities within the construction area, whether or not actively involved, should attend or be represented at the preconstruction conference. The conference will serve to inform utilities of the highway contractor's proposed construction methods and address previously unforeseen concerns.
- (b) Specific time should be allotted during the conference to discuss utility coordination measures.
- (c) If utility adjustments will be performed by the highway contractor, the contractor and

utility should resolve such items as notification, inspection, or testing requirements of the owner; and schedules for any utility-furnished items.

- (d) If adjustments will be performed by the utility, the conference discussion should include: sequence of operations; notification requirements of either the utility or the contractor; CDOT inspection requirements; supplier schedules; and any special coordination measures as in Section 5.5.3 below.
- (e) Utilities shall be furnished copies of the preconstruction conference minutes.

4.5.3 <u>Utility Adjustments Coordinated with Highway Construction.</u>

- (a) The Project Engineer will oversee the utility's operations either directly through a designated Inspector, or indirectly through the highway contractor as in (f) below.
- (b) Cooperation and coordination between the highway contractor and the utility is essential. The contractor shall be subject to the applicable provisions of Section 105 of the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, 2005 edition.
- (c) A utility permit will specify the utility's anticipated schedule based on the preconstruction conference proceedings or other pertinent information.
- (d) If a plan force account ("F/A") item involves work by the utility which is to be coordinated by the contractor, the Project Engineer shall ensure that the contractor is given timely authorization to proceed. If a plan F/A item requires a utility agreement, the Project Engineer shall coordinate with the RUE to ensure the agreement is in place when needed.
- (e) The RUE shall monitor any utility work covered by agreement. The Project Engineer or the Inspector must immediately advise the RUE of any changes or extra work not covered by such agreement, so that the RUE can revise the agreement if necessary.
- (f) The highway contractor may be assigned overall responsibility for measures such as traffic control, erosion control, or wetland or hazardous materials mitigation. In such event, the highway project specifications will detail the specific authority of the contractor, and the utility permit special provisions will detail the responsibilities of the utility. The utility shall cooperate directly with the contractor on such measures.

4.5.4 <u>Emergency or Unanticipated Utility Work.</u>

- (a) The Project Engineer and RUE will immediately be notified if unanticipated utility work is encountered during the highway project, and will determine the appropriate and expedient method for accomplishing such work.
- (b) If the work is not eligible for reimbursement, the utility will be notified and will be issued

an appropriate permit for such work.

- (c) If the work is reimbursable and is unrelated to an existing utility agreement, it may be performed by one of the following methods:
 - (1) Develop and execute an appropriate CDOT/utility reimbursement agreement authorizing the utility to perform the work.
 - (2) Coordinate the utility's performance of the work through the highway contractor in accordance with subsections 104.03 and 109.04 of the CDOT "Standard Specifications for Road and Bridge Construction." The contractor will be reimbursed for the invoiced costs as incurred by the utility plus the standard loading to account for the contractor's administrative expense.
 - (3) Execute a Contractor Adjusted Utility Agreement providing for the highway contractor to perform the work on the utility's behalf; and modify the highway contract accordingly.
- (d) If the work is related to an existing utility reimbursement agreement, it may be authorized by an Option Letter, Supplemental Agreement or by other acceptable means.
- (e) An existing permit covering planned utility work will be revised accordingly to account for any related unanticipated work.
- (f) Emergency work may be authorized and performed immediately, if necessary to protect the public health, safety, or welfare. If the utility would be reimbursed for such work, a request for retroactive approval must be made to the State Controller in accordance with section 5.4. A potential delay of the highway contractor's operations does not normally constitute an emergency. Before taking emergency action involving reimbursement, the RUE should consult the State Utility Engineer.

4.5.5 <u>Utility Delays.</u>

- (a) A utility permit will specify any necessary coordination and scheduling requirements with respect to the highway construction operations. In the event the utility fails to comply with such requirements, CDOT may take any appropriate action prescribed by the Code, and/or the highway contractor may seek relief from the utility pursuant to subsection 105.21 of the CDOT "Standard Specifications for Road and Bridge Construction."
- (b) Any claim of the highway contractor for delays, inconvenience, or damage sustained due to utility facilities or utility operations will be handled in accordance with Sections 104.03 and 109.04 or 105.21 of the CDOT "Standard Specifications for Road and Bridge Construction."

END OF SECTION

5- UTILITY AGREEMENTS AND CONTRACTING PROCEDURES

SECTION 5.1 - PURPOSE; TYPES OF AGREEMENTS

5.1.1 Purpose.

- (a) Section 5 provides guidelines and procedures covering project-related utility accommodations that are performed under agreement with the utility owner. State Utility Engineer and the Agreements and Consultant Management Office will assist with developing any special purpose agreements not covered herein.
- (b) Compliance with Section 5 procedures is a condition for obtaining State and/or federal participation in utility accommodation costs if the utility is otherwise eligible for reimbursement.

5.1.2 Standard Utility Agreements and Appendix.

- (a) See section 4.4.9.
- (b) A "Standard Utility Agreement" (CDOT Form # 690) or "Standard Off-System Utility Agreement" (CDOT Form # 687), are utilized if: the utility facilities are in conflict with highway construction and must be relocated; the utility owner or its subcontractors will perform the work; the owner's costs are eligible for reimbursement; and the highway agency will reimburse the owner directly for eligible costs incurred.
- (c) CDOT Form # 690 is used for projects on the State highway system and is executed by CDOT and the utility owner. CDOT Form # 687 is used for local agency sponsored projects and is executed by the local agency and the utility owner.
- (d) Such agreements may provide for preliminary and/or construction engineering, right of way acquisition, and/or construction.
- (e) The completed CDOT Form # 690 will contain the type, location, and description of work; agreement amount and method of reimbursement; and contract time, and information on the type of work and basis for reimbursement, and documents that the owner acknowledges certain reimbursement conditions.
- (f) A Standard Utility Agreement attachments include a Cost Estimate supporting the agreement amount; plans showing existing and proposed facilities; evidence of real property interest or other basis for reimbursement; and completed "Consultant Certification" (CDOT Form 637), when necessary.

5.1.3 <u>Contractor Adjusted Utility Agreements.</u>

(a) See Section 4.4.9.

- (b) A "Contractor Adjusted Utility Agreement" (CDOT Form # 691) or "Contractor Adjusted Utility Agreement (Off System)" (CDOT Form # 987) is utilized if: the facilities are in conflict with highway construction; the utility and the highway agency agree that the work will be performed by the highway contractor; and the work is eligible for reimbursement.
- (c) CDOT Form # 691 is used for projects on the State highway system and is executed by CDOT and the utility owner. Form # 937 is used for local agency sponsored projects and is executed by the local agency and the utility owner.
- (d) The agreements provide for the owner to inspect and approve the work, and the completed forms include location, type, and description of the work.

5.1.4 Agreements for Highway Lighting and Utility Services to Project.

- (a) See Section 4.4.10.
- (b) These agreements provide for reimbursement to the utility owner for the installation of highway lighting, power source, telephone, water, and certain other utility services outlined in Section 4.4.10.
- (c) The work must meet the requirements of 23 CFR 636B regarding force account construction by the utility. Work is not covered by the blanketed cost effectiveness finding in 23 CFR 635.205 may require an individual finding may for justification.
- (d) A Highway Lighting Project Agreement is restricted to facilities which will be owned, operated, and maintained by the utility in accordance with a lighting service agreement between the utility and CDOT or local authority. Highway lighting which will be owned by CDOT shall be performed as part of the highway contract.
- (e) The costs of the work are chargeable to the highway construction project, and are coded as function 3301 when payment is based on actual incurred costs, or function 3302 for a lump sum payment.
- (f) A completed agreement contains the type, location, and description of the highway project and the utility work; agreement amount and basis of payment; and contract time. It attaches the Cost Estimate supporting the agreement amount and Plans.

5.1.5 Agreement for Work Reimbursable to CDOT by Utility.

- (a) See Section 4.4.11.
- (b) This agreement provides for the utility to reimburse CDOT for work performed by the CDOT highway contractor on behalf of the utility. It also provides for the owner to inspect, approve and accept the work, and to request changes in the work based on unit

bid prices received or other factors.

- (c) Such work shall meet the requirements of subsection 4.4.11 regarding incorporation of the work in the highway contract.
- (d) The completed agreement contains the location, type and description of the highway project and the utility work; and contract amount and basis of payment. It attaches a Cost Estimate, Plans, and evidence that the owner has appropriated sufficient funds to pay for the work.
- (e) The work will be shown as a non-participating cost recovery item on the plans, estimate, and project financial statement.

5.1.6 Contract Amendments

- (a) Vacant.
- (b) A supplemental agreement will be required if it is necessary to modify or supplement an existing valid ("basic") utility agreement to authorize extra work and/or revised costs that are beyond the scope of the basic agreement.
- (c) The completed supplemental agreement incorporates the basic agreement by reference and describes the revised work and costs, reason for the change, basis of payment, and revised contract time. It attaches Revised Cost Estimate, and Revised Plans.
- (d) See section 5.4.06 for other modification tools.
- (e) The RUE should develop an appropriate supplemental agreement in consultation with the State Utility Engineer.

5.1.7 Common Use Agreement.

- (a) See Section 4.4.8.
- (b) A "Common Use Agreement" (CDOT Form # 986) should be executed when the utility will retain a compensable property interest in a portion of SH ROW, and it is not necessary to remove or relocate the utility facilities located therein to accommodate the highway project. The agreement provides for the utility to be reimbursed if required to relocate in the future. It precludes the need for CDOT to immediately acquire exclusive rights to the highway ROW when it is not otherwise necessary to relocate the existing utility.
- (c) The agreement also provides: that neither party will use the area of common use in a manner that interferes with the rights of the other party; and that in the event the utility must relocate in the future to accommodate requirements, it will cede and abandon its property interests within the SH ROW.

- (d) The completed agreement contains a legal description of the property/right of way which is held in common by the parties, and a description of the facilities located therein.
- (e) The RUE should coordinate such agreement with the Region Right of Way Manager. The agreement should be recorded with the appropriate County Recorder. One fully executed original agreement should be provided to the owner and one should be retained by Central Files in a permanent, cumulative folder for such agreements and a copy of the agreement should be placed in the project file.

SECTION 5.2 - REIMBURSEMENT GUIDELINES

5.2.1 <u>Conformance with State or Federal Law and Regulation.</u>

- (a) As applicable, reimbursement to utilities for costs incurred to install or relocate their facilities shall conform with the following State or Federal laws or regulations:
 - (1) Section 24-30-202, C.R.S., "Procedures vouchers and warrants rules penalties."
 - (2) Part 14 of Article 30, Title 24, C.R.S., "Negotiation of Consultants' Contracts."
 - (3) Article 91 of Title 24, C.R.S., "Construction contracts with Public Entities."
 - (4) Article 92 of Title 24, C.R.S., "Construction Bidding for Public Projects."
 - (5) Articles 101 through 106 of Title 24, C.R.S., the "State Procurement Code."
 - (6) Section 43-1-225, C.R.S., "Power of Transportation Commission relocation of utility facilities payment of cost."
 - (7) 2CCR 601-18l, "The State Highway Utility Accommodation Code."
 - (8) 23 CFR 172, "Administration of Engineering and Design Related Service Contracts."
 - (9) 23 CFR 635B, "Force Account Construction."
 - (10) 23 CFR 645A, "Utility Relocations, Adjustments, and Reimbursement."
- (b) If the eligibility of the utility or of a particular cost is in question, the RUE should consult the State Utility Engineer and/or the Attorney General.

5.2.2 General Eligibility for Reimbursement.

(a) A utility may be reimbursed for eligible installation, adjustment or relocation costs only

in accordance with the provisions of 2CCR 601-18, Section 2.1.2 or Section 4.4.11 hereinabove.

- (b) The utility's eligibility is subject to any terms or conditions to the contrary of a permit or agreement between CDOT and the utility.
- (c) Federal aid participation in utility relocation costs is subject to the provisions of 23 CFR 645.107.
- (d) If eligibility for reimbursement is unclear, the RUE should consult the State Utility Engineer and/or the Attorney General's Office prior to submitting proposed reimbursement agreements.

5.2.3 <u>Compensable Property Interest.</u>

- (a) A utility's claim of compensable property interest may be documented by:
 - (1) Citation of recorded title (County, Book, Page) as filed with the appropriate County Recorder, or
 - (2) Copy of easement, deed, or similar instrument, or
 - (3) Affidavit, CDOT Form No. 307, for an easement by oral consent, or
 - (4) Affidavit, CDOT Form No. 308, for title by adverse possession, or
 - (5) Affidavit, CDOT Form No. 309, for title by adverse possession and payment of taxes, or
 - (6) Affidavit, CDOT Form No. 310, for an unrecorded written easement which has been lost or destroyed, or
 - (7) Affidavit, CDOT Form No. 311, documenting and attaching an unrecorded written easement.
- (b) Where an owner's claim is based on deeded right of way which crosses or overlaps with existing highway right of way, such as that for an irrigation canal, a records search should be conducted by the region ROW manager to determine if the utility's property interest predates the establishment of SH ROW and/or was subsequently acquired by CDOT.
- (c) A permit or license held by the utility in its existing location is generally a matter of privilege rather than of right; may be revocable at the will of the landowner; and may or may not be compensable, depending on its terms. A compensable property interest claim based on such instruments will be subject to Attorney General concurrence.
- (d) A right of way granted to a utility by a federal agency such as the Bureau of Land

Management may be compensable. Such grants may provide for long-term use by the grantee and may be revocable only for cause, and as such may be construed to convey a property interest. Attorney General review and concurrence is recommended.

(e) A joint use agreement between two or more utilities, such as where an electric utility allows the secondary use of its pole line by another utility, does not convey a property interest to the secondary user. In such cases, the primary user's relocation costs may be reimbursable but the secondary user would be required to relocate at its own expense whenever required to do so by the facility owner. A review of the specific terms of such agreement, and/or Attorney General opinion, is necessary to ascertain the secondary user's eligibility for reimbursement.

5.2.4 Governmental Subdivision, Abutting Landowner.

- (a) Section 43-1-225, C.R.S., authorizes reimbursement of costs incurred by a governmental subdivision of the State, or by an abutting landowner, to relocate facilities which are located within SH ROW. If the affected facilities lie beyond either existing or proposed ROW, the owner must hold a compensable interest in such location in order to qualify for reimbursement.
- (b) An entity's governmental subdivision status is presumed if it is included in the list of counties, municipalities, and special districts published annually by Colorado Department of Local Affairs, Division of Local Government (copies available through State Utility Engineer).
- (c) The legislative intent of the "abutting landowner" provision of Section 43-1-225, C.R.S. has not been established, however, it is generally understood to apply to facilities such as private lines which serve parcels adjacent to the ROW, and other similar situations.
- (d) If the utility's status as described in (b) and (c) above is in question, the RUE should consult the State Utility Engineer and/or the Attorney General. Additional information such as the utility's by-laws may be necessary to support any determination.

5.2.5 <u>Preliminary Engineering.</u>

- (a) Preliminary engineering for reimbursable utility work will meet the requirements of 23 CFR 645.109.
- (b) Preliminary engineering may be performed by any of the following means:
 - (1) CDOT's or the utility's engineering forces, or
 - (2) CDOT's consultant with the utility's concurrence, or
 - (3) The utility's consultant with CDOT's approval.

- (c) If the utility performs its own preliminary engineering, the RUE shall verify that the utility is adequately staffed to perform such work.
- (d) If the utility selects a consultant to perform preliminary engineering, the RUE will, as conditions to CDOT approval, verify that the selection was made by appropriate competitive negotiation procedures, and that the costs are reasonable. Consultant selection shall conform with the requirements of 23 CFR 172 and Part 14 of Article 30, Title 24, C.R.S.
- (e) To support determinations required in paragraph (d) above, proposed consultant contracts may be subject to review and approval by the Agreements and Consultant Management Office in accordance with established CDOT procedures. Such review may include an audit review of proposed costs.
- (f) In lieu of selecting a consultant for a specific agreement, the utility may use services provided under an existing written continuing contract, provided that such work is performed regularly for the utility in its own work that the costs are reasonable. The RUE will verify the consultant's eligibility.
- (g) A utility agreement which includes reimbursement provisions for consultant services will attach and incorporate a completed CDOT Form No. 637, "Consultant Certification."

5.2.6 Right of Way Costs.

- (a) Pursuant to 23 CFR 645.111, costs of replacement ROW for a utility may be reimbursed if the following conditions are met:
 - (1) The utility is eligible for reimbursement in its existing location, or the acquisition of additional ROW is made in the interest of project economy or is necessary to meet the requirements of the highway project.
 - (2) The utility does not charge the project for the portion of its existing ROW which it transfers to CDOT for highway purposes.
- (b) If the utility will be reimbursed through the utility agreement for such ROW costs, the RUE will consult the Region ROW Manager, to verify the reasonableness of costs. Right of way costs will be invoiced separately on utility billings.
- (c) See Appenidix D-10, "Reimbursement Guidelines For Utility Easements and Associated Real Property Interests" for additional guidance.

5.2.7 Force Account Construction by Utility.

(a) 23 CFR 635B and 23 CFR 645.115 contain blanket cost effectiveness findings allowing the utility to perform certain work with its own forces, including: relocations of the utility's existing facilities; and minor installations of new facilities such as minor

lighting, telephone, water, or similar service, provided that such work cannot feasibly be done as incidental to a major new installation such as an extensive highway lighting system. To support such determination, the RUE will verify that:

- (1) The utility is adequately staffed and equipped to perform the work at a time convenient to and in proper coordination with highway construction.
- (2) The work is of a minor nature, involves the utility's own facilities, and is routinely performed by the utility with its own forces.
- (b) If the proposed work does not meet the requirements of (a) above, the work may be performed by any of the following means:
 - (1) Inclusion in the CDOT highway construction contract or as a separate contract let by CDOT, as agreed by the utility.
 - (2) A contract awarded by the utility to the lowest qualified bidder, based on appropriate solicitation. The RUE will verify that the utility substantially complies with public notice, bid opening, and award procedures followed by CDOT and as otherwise prescribed in Article 92 of Title 24, C.R.S. The utility will furnish the RUE with the results of the bid and award process.
 - (3) An existing continuing contract, provided the costs are reasonable. The RUE will verify the existence of such contract and the reasonableness of costs.
 - (4) A contract for low cost incidental work, such as tree trimming or traffic control, awarded without competitive bidding, provided the costs are reasonable. The procurement should not exceed \$10,000 for any single contract, and should be based on informal quotations from not less than three (3) independent sources. The utility will document its selection process and the RUE will verify the reasonableness of costs.
 - (5) Force account construction by the utility, based on an individual cost effectiveness finding as prescribed in 23 CFR 635.204. The utility's cost estimate must be less than CDOT's estimate for performing the work by a competitive bid contract.

5.2.8 <u>Construction Engineering.</u>

- (a) The applicable provisions of Section 5.2.5 hereinabove regarding preliminary engineering will also guide the performance of construction engineering associated with reimbursable utility work.
- (b) Construction engineering ("CE") costs incurred for utility work will be included in the total of CE costs for the highway construction project associated with the utility work.
 Pursuant to 23 CFR 140.203(b), Federal participation in CE costs is limited to 15% of the

costs of construction.

5.2.9 Actual Incurred Cost Agreements.

- (a) The preferred method for the development and recording of relocation costs is on the basis of actual direct and related indirect costs accumulated in accordance with a work order accounting procedure prescribed by the applicable Federal or State regulatory body, except when another method such as a lump sum agreement is approved by CDOT and FHWA. Allowable costs are detailed in 23 CFR 645.117.
- (b) Individual cost elements include direct labor costs, labor surcharges, overhead and indirect costs, material and supply costs, equipment costs, transportation costs, and credits.
- (c) To the extent practicable, a utility agreement cost estimate will follow the owner's format for recording costs, to facilitate a comparison between estimated and actual costs.
- (d) Prior to accepting the utility's cost estimate, the RUE should verify that estimated costs are allowable as provided in this subsection. For questioned costs, the RUE may request additional substantiation from the utility or may refer the matter to State Utility Engineer or the CDOT Audit Division.

5.2.10 Lump Sum Agreements.

- Lump sum agreements shall include total costs for labor, total costs for equipment, and total costs for materials. Such agreements may be utilized in lieu of an actual incurred cost agreement when: (1) the work is well-defined; (2) estimated costs are reasonable; and (3) potential cost inaccuracies would likely be offset by reduced administrative and record-keeping costs.
- (b) The RUE will document conformance with the requirements of paragraph (a) above when submitting a lump sum agreement for State approval.
- (c) Pursuant to 23 CFR 645.113(f), when proposed utility relocation and adjustment work on a project for a specific utility company can be clearly defined and the cost can be accurately estimated, the FHWA may approve an agreement between CDOT and the utility company for a lump-sum payment without later confirmation by audit of actual costs.

5.2.11 Contingencies.

(a) Contingencies are possible future conditions which may arise from presently known causes, the outcome of which is presently indeterminable. Examples in the context of this section are anticipated or probable variations, due to actual conditions encountered, in the quantities or costs of labor, materials, or equipment necessary to perform utility agreement work.

- (b) Utility agreement cost estimates may include a reasonable allowance for contingencies. The amount may be expressed as a percentage of total costs or of any portion thereof.
- (c) A properly developed contingency allowance helps avoid unauthorized agreement cost overruns without unreasonably encumbering excessive funds. Specific justification will be provided for contingency allowances which exceed 20% of total estimated costs.

5.2.12 Credits.

- (a) The utility shall credit the highway project for: the cost of betterments; the salvage value of materials recovered from the project; accrued depreciation of certain facilities which are replaced; and as otherwise provided in 23 CFR 645.117(h).
- (b) No betterment credit is required if the additions or improvements are: (1) required by the highway project; (2) of equivalent although not identical; or of the next higher grade or size and the facilities being replaced are no longer regularly manufactured; or (3) required by current law or regulation, or by the utility's current design practice, and there is a direct benefit to the highway project.
- (c) Salvage credit is not required if: (1) the value is less than \$5,000; (2) the salvaged materials become the utility's subcontractor's property pursuant to the provisions of such subcontract; or (3) the salvaged materials will be reused in future highway projects.
- (d) Credit for accrued depreciation is not required for a segment of a utility's service, distribution, or transmission line, and is otherwise required only as provided in 23 CFR 645.117(h)(2).
- (e) The utility's cost estimate will show anticipated credits, and the final billing will itemize credits separately. The RUE will verify that necessary credits were applied and may adjust billings for credits due but not shown.

5.2.13 Cost Sharing Arrangements.

- (a) When relocation involves both work to be done at CDOT expense and work to be done at the utility's expense, an agreement will state the share to be borne by each party.
- (b) As agreed upon by the RUE and the utility, each party's share of costs may be based on actual costs allocable to each party, or on pro-rated total costs.
- (c) The contract amount shown in a reimbursement agreement for such work should represent only the utility's share of costs. Utility billings and payments will be consistent with the cost sharing arrangements indicated in the agreement.

SECTION 5.3 - GENERAL CONTRACT PROVISIONS

5.3.1 **Provisions Incorporated by Reference.**

- (a) A utility agreement will incorporate by reference certain applicable provisions including but not limited to the 2CCR 601-18 and 23 CFR 645.
- (b) The review and approval of utility agreements will ensure conformance with all other applicable State or Federal fiscal requirements, including those cited in Section 5.2.1 above, whether or not cited in the agreement.

5.3.2 State Controller Special Provisions.

(a) Per State fiscal rules, a utility agreement will attach and incorporate "Special Provisions," as prescribed by the State Controller. Any request to modify such provisions is subject to prior approval by the State Controller.

5.3.3 Costs Incurred Prior to Authorization.

- (a) Pursuant to Section 24-30-202, C.R.S., a CDOT/utility agreement shall not be deemed valid until it has been approved by the State Controller or designee; any costs incurred prior to the effective date of the State's authorization of such agreement may not be reimbursed; and any person who incurs an obligation on behalf of the State without prior, appropriate fiscal authorization may be held personally liable for such costs.
- (b) Any request for retroactive approval of costs, such as for emergencies, cost overruns, or other special circumstances, is subject to approval by the State Controller.
- (c) Pursuant to 23 CFR 1.9, any costs incurred prior to the Federal authorization date for such costs shall not be eligible for Federal participation except as provided therein, upon request to and approval by the FHWA Administrator.
- (d) An agreement will stipulate that work shall not begin until the agreement has been fully executed and the utility has received a written Notice to Proceed.
- (e) A utility must notify CDOT and obtain an appropriate agreement in advance of performing work, if it seeks reimbursement of such work costs; however, if the utility fails to do so, CDOT may at its discretion and after considering the circumstances, enter an agreement to accept an after-the-fact cost obligation.

5.3.4 <u>Subcontractors Subject to Agreement Provisions.</u>

- (a) Utility subcontracts in excess of \$10,000 will be subject to the selection, cost accounting, record-keeping and audit provisions of the primary CDOT/utility agreement.
- (b) All subcontractors are subject to the insurance and indemnification requirements set forth in the agreement and in the policy.

(c) The utility owner must notify subcontractors of any applicable agreement provisions.

5.3.5 <u>Utility Cost Estimate.</u>

- (a) As necessary, the utility agreement will attach and incorporate an itemized "Cost Estimate."
- (b) The cost estimate will be of sufficient detail to substantiate the agreement amount, permit a determination of reasonableness, and provide a basis for comparison between estimated and actual costs.

5.3.6 Contract Time.

- (a) Contract time is the estimated number of working days, as determined by the RUE and the utility, to complete the work provided for in an agreement. Contract time will be a basis for specifying the planned completion date for any agreement activities to be performed pursuant to a utility permit.
- (b) Contract time begins to accumulate on the date the agreement is signed by the State Controller and the work may begin upon the utility receipt of a written Notice to Proceed from CDOT.
- (c) In determining whether a utility met scheduling commitments to a highway construction project, CDOT should rely on the completion date specified in a permit, rather than contract time shown in an agreement.

5.3.7 Additional Work; Cost Overruns.

- (a) If the utility determines during performance of the work that the estimated work costs will exceed the Cost Estimate, the utility must obtain a supplemental agreement (see Section 5.1.7 hereinabove) or other form of authorization (see Section 5.4.6 below) before performing any work which exceeds the current estimated cost.
- (b) The utility will be solely responsible for any costs incurred in noncompliance with agreement provisions unless such costs are otherwise approved in advance by CDOT.
- (c) The utility will itemize all cost increases on the final billing.

5.3.8 <u>Retainage.</u>

(a) Pursuant to Section 24-91-103, C.R.S., for agreement amounts in excess of \$80,000, CDOT will retain 10% of billed costs, up to a maximum of 5% of the original agreement amount, prior to the required audit by the State. Subject to the provisions of such statute, CDOT may, with justification and at the utility's request, authorize payment from the withheld percentage. (b) For agreements of \$80,000 or less, the State will not withhold retainage.

5.3.9 <u>Record-Keeping and Audit Provisions.</u>

- (a) The utility will retain all work-related records, including cost records and contract records between the utility and subcontractors, for a period of three (3) years after final payment.
- (b) The utility will permit the State or FHWA reasonable access to such records at any reasonable time during performance of the work and up to three (3) years after receipt of final payment.

SECTION 5.4 - APPROVAL, BILLING, AND AUDIT PROCEDURES

5.4.1 Contract Signatories.

- (a) The utility's representative who signs an agreement certifies they are duly authorized to enter the agreement and that the statements made are true and complete to the best of their knowledge. CDOT may require other verification and any require such signature be attested.
- (b) The Chief Engineer or designee will sign utility agreements on behalf of CDOT. The CDOT Chief Clerk may attest the Chief Engineer's signature. The signature of an Assistant Attorney General attests to the legal sufficiency of an agreement. The signature of the State Controller or designee validates the agreement and is required to authorize the financial obligation of the State.
- (c) The Transportation Controller may be delegated limited authority to sign the "Standard Utility Agreement, CDOT Form # 690—based on an approved template—on behalf of the State Controller, except for agreements which involve an exception to State law or fiscal rules, or other deficiency, which may be subject to State Controller approval.

5.4.2 <u>Contract Submittal.</u>

- (a) The RUE will prepare or guide the preparation of proposed utility agreements. When details are complete the RUE will transmit unexecuted agreement forms to the utility for signature. Three original-signature duplicate agreements are required: the utility receives one original executed agreement; one is retained by the CDOT Accounting Branch; and one is retained permanently in Central Files. One extra original-signature duplicate agreement is required on all utility agreements that vary from a State Controller-approved template, which will be retained by the State Controller upon signature.
- (b) The utility will return the partially executed agreements to the RUE along with the estimate, plans, and other supporting information as specified in Section 5.1. The RUE will assemble a complete agreement package which includes but is not limited to all

required attachments (cost estimate, plans, etc.) for each original-signature agreement provided.

(c) If the agreement requires Chief Engineer and Controller signatures, the RUE will transmit the agreement packages to State Utility Engineer for central processing. The transmittal will include such information as: contract coding information; whether sufficient funds are available; owner's Taxpayer Identification Number (TIN); project advertisement date; whether the utility can proceed immediately upon approval or other coordination information; and the designated resident engineer for the highway project.

5.4.3 <u>Authorization of Expenditures for Utilities Phase.</u>

- (a) Utilities phase expenditures (function 3988) on federal aid projects may be authorized provided that: (1) utilities have been programmed for that project; (2) sufficient unobligated funds are available to cover the participating share of agreement costs; and (3) utilities phase costs for that project are included in the appropriate CDOT quarterly obligation plan.
- (b) The Federal Aid Program Office, of the Office of Financial Management and Budget, develops the quarterly obligation plan based on the planned phase start date and costs as shown in ProMIS. The RUE and the Project Engineer are responsible to ensure the necessary data is entered and updated in a timely manner.
- (c) If the conditions of paragraph (a) are met, the Program Officer will issue an authorization covering the federal aid share of utilities phase costs.
- (d) Utilities phase authorization for non-federal-aid projects is entered in CDOT's financial reporting system at the time utilities are programmed. Construction phase expenditures such as function codes 3301 or 3302 are authorized as needed by the CDOT Accounting Branch, provided that highway project construction has already been authorized.
- (e) State Utility Engineer will verify utilities phase authorization status prior to processing utility agreements.

5.4.4 Contract Routing, Approval, and Encumbrance of Funds.

- (a) Upon receipt of a partially executed agreement, State Utility Engineer will determine if the submittal conforms with CDOT requirements, and may require corrections or additional substantiation for nonconforming or incomplete submittals.
- (b) If the agreement is acceptable, State Utility Engineer will obtain the Chief Engineer or designee signature on all original-signature duplicate agreements; prepare and release a Purchase Order, enter the agreement into the State Contract Management System, verify that the utility is in good standing with the Secretary of State, prepare a contract submittal letter and complete a contract routing form including any required financial coding information. The transmittal letter describes the work and addresses any special

circumstances which require further review and/or which support approval. State Utility Engineer will submit the agreements, routing information, and transmittal letter to the AG.

- (c) The AG will determine if the agreement is legally sufficient and may require corrections or clarification as a signature condition. State Utility Engineer will perform or coordinate any follow-up. The AG may take any of the following actions:
 - (1) If the agreement is legally sufficient, the AG will sign the agreements and forward the partially executed agreements to the CDOT Controller.
 - (2) If the agreement is deficient but can still be executed, the unsigned agreements and AG recommendations will be forwarded to the CDOT Controller.
 - (3) If the AG determines that the State should not execute the agreement, the unsigned agreements will be returned to State Utility Engineer with an explanation of the grounds for disapproval.
- (d) The CDOT Controller may execute the agreement if sufficient unencumbered funds remain in the project budget. Approval by the CDOT Controller of any deficient agreement will be based on a determination that such agreement would not be detrimental to the State's interest.
- (e) The CDOT Accounting Branch will record the amount encumbered by the executed agreement and retain one original agreement; an effective date will be assigned; and all remaining original-signature agreements will be returned to State Utility Engineer.

5.4.5 <u>Authorization Letter and Notice to Proceed.</u>

- (a) State Utility Engineer will notify the utility when an agreement has been authorized. The authorization letter will advise, based on information provided by the RUE, when the utility may begin work, whom to contact in the CDOT region organization, and whether any special conditions apply.
- (b) If the utility may begin agreement work immediately, the authorization letter may constitute a Notice to Proceed, subject to issuance of any required permit. If the utility must delay commencing work, it will be advised that the RUE or RE will issue a Notice to Proceed at a later date.
- (c) A valid utility permit covering the agreement work should accompany or closely follow the written Notice to Proceed for any activities within highway right of way. The Notice to Proceed should remind the utility of contract time for the agreement and/or the planned completion date specified in a permit.
- (d) The utility will receive an original executed agreement along with the authorization letter. A PDF copy of the agreement and authorization are e-mailed to the RUE who will

distribute copies to all other interested CDOT region offices. State Utility Engineer will retain a PDF copy in the HQ server Public\TrafUtil\Railroad and Utilities\Utilities\Standard Utility Agreements in a subfolder for the respective fiscal year, filed by Routing Number and will forward the original-signature agreement and all pertinent correspondence to Central Files for permanent retention.

5.4.6 Use of Contract Modification Tools.

- (a) Section 24-30-202, C.R.S. authorizes the State Controller to prescribe the form of all commitment vouchers. Pursuant to the State Controller's policies, the approved contract modifications forms that would be applicable to CDOT Utility Agreements are: contract amendments, option letters. Contract amendments are described in Section 5.1.7 below. Option letters are described in this Section.
- (b) Option letters may be used for the following purposes:
 - (1) To make changes to specifications <u>within the original Scope of Work.</u>
 - (2) To increase or decrease the total contract value based on the level of service provided or goods ordered using the established unit prices in the original contract.
 - (3) To increase or decrease the contract term <u>only</u> when there are changes to the specifications or level of service that requires an adjustment in time of performance. Option letters cannot be used to modify the original contract Scope of Work or to modify the original term of a contract where there are not accompanying changes to specifications within the original contract Scope of Work.
 - (4) To increase or decrease the funding provided by the State in Federal or State grant type contracts wherein the State has little or no control over the scope of services being provided by the sub-grantee.
 - (5) Contract amendments must be reviewed by the State Attorney General or designee.
 - (6) Once the State Controller or a designee has executed a State contract containing an Option Letter, the contract modification may be executed without further legal review by the State Attorney General or designee.

5.4.7 <u>Utility Billings and Payments.</u>

(a) CDOT will pay the utility for agreement work completed when requested and properly billed. The utility will submit a final billing not more than 120 days after completion of all work, and may submit progress billings at not less than monthly intervals. The utility owner must bill CDOT (or the local agency for off system projects) directly whether the

work is performed by the utility or by the subcontractors.

- (b) The utility's invoice must reference the appropriate CDOT project number and utility agreement, and should indicate: description of work performed; progress billing number; amount of the current billing; amount billed to date; and whether or not the billing is final. The billing must provide sufficient detail to compare work performed against costs billed, and to verify compliance with the agreement provisions.
- (c) The RUE will verify the billing and funds availability, prepare and sign a payment voucher and transmittal memo. The RUE may require additional substantiation from the utility and can adjust the billed amount for errors, deficiencies, and/or retainage. The RUE will stamp and sign the billing as approved to the extent it can be field-verified, subject to any required audit. The utility will be provided an explanation of any adjustments.
- (d) The voucher will include necessary coding information and will reference the appropriate agreement. The transmittal memo will recapitulate billing information such as that shown in paragraph (b) above. The RTD or designee will approve the vouchered amount.
- (e) The billing package, including the transmittal memo, voucher, original invoice and supporting information, and all distribution copies, will be routed to the CDOT Accounts Payable Section. The voucher will attach all original documentation. Copy sets are provided for the utility, Accounts Payable, Accounting Federal Aid Section, and for Central Files for permanent retention.
- (f) Accounts Payable will process and pay the billing in accordance with applicable CDOT procedures and State fiscal rules. Copies of billing documents will be mailed to the utility along with the payment warrant.

5.4.8 Audit and Follow-up.

- (a) Any required audit of agreement costs should be performed within three years of final payment. The CDOT External Audit Branch is responsible to audit utility agreements.
- (b) The purposes of the audit are to verify that any costs paid were actually incurred, and to determine compliance with agreement provisions and with applicable laws and regulations. The External Auditor will determine the appropriate level of review for each agreement, based on CDOT policy and established accounting principles.
- (c) The audit report on an agreement may include any of the following findings:
 - (1) That billed costs were actual and allowable under federal regulations and contract terms; and therefore no adjustment is necessary.
 - (2) That billed and actual costs do not agree; and therefore, an adjustment is due CDOT or to the utility. The utility will be billed for any overpayments, or CDOT

will issue a warrant for the underpaid amount, subject to any required funds authorization.

- (3) That billed costs were actual but not allowable under regulations and contract terms; and therefore, an adjustment may be due, subject to additional findings.
- (d) CDOT and the utility owner will have the opportunity to address pending and outstanding citations and to provide additional information which would eliminate or mitigate the basis for the findings. The final or revised audit report will incorporate any such information which is acceptable to the auditor.
- (e) If an area of noncompliance is cited as the basis for a proposed adjustment, CDOT may recommend that the utility be billed for any overpayment, or may accept such costs as billed, after considering any good faith actions of the utility, and/or any procedural deficiencies of CDOT which relate to the citation. If CDOT accepts any such costs which involve federal funds, the costs will be re-coded as non-participating.
- (f) State Utility Engineer and/or the RUE will perform or coordinate follow-up on items in paragraphs (d) and (e) of this subsection. Recommendations to accept cited costs or to restore federal participation will be subject to Chief Engineer concurrence. The Chief Engineer may act on behalf of FHWA and will advise FHWA of such actions and with applicable procedures in the CDOT "Construction Manual."

END OF SECTION