CUMULATIVE IMPACTS

CHAPTER 5

5.0 CUMULATIVE IMPACTS

Cumulative impacts are defined in the Council on Environmental Quality regulations 40 CFR 1508.7 as "…the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency… or person undertakes such other actions." These actions include current and projected area development (e.g., oil and gas), management activities and authorizations on public lands (e.g., range conversion and forestry programs), land use trends, and applicable industrial/infrastructure components (e.g., utility corridors).

Foreseeable construction projects were screened to determine whether they will overlap in time and space with the Keystone Pipeline Project and thus could interact to cause cumulative impacts. Cumulative construction projects include the construction and operation of the Kinder Morgan Rockies Express (REX) Pipeline Project.

5.1 Powerlines

The construction of the electrical transmission and distribution powerlines necessary for the Keystone Pipeline Project will occur during the same timeframe and in the same general area as the Keystone Pipeline Project. Construction activities will be of short duration in any single location. Most powerlines will be co-located with other ROWs (i.e., roadways, pipeline corridors, and existing powerlines) to reduce the overall amount of habitat fragmentation and interference with agricultural operations. The amount of land associated with the powerline ROWs represents a small fraction of available native vegetation in the region. As a consequence, these powerlines do not represent a substantial cumulative disturbance to the environment.

5.2 Existing Platte Pipeline System and the Proposed Kinder Morgan REX Pipeline

The Platte Pipeline has been in place for more than 50 years (in-service since 1952) and the existing ROW has been reclaimed. However, routine maintenance and refurbishment activities along the existing Platte Pipeline ROW will have minimal cumulative impacts on resources when combined with adjacent, new pipeline construction. Any sites required for work on the Platte pipeline will be relatively isolated, located in small, discrete areas, and work will involve small crews for short-time periods. Consequently, cumulative impacts from maintenance activities along the existing Platte Pipeline system are considered to be minimal.

Kinder Morgan recently announced their plans to construct the REX Pipeline. This project calls for building a 42-inch in diameter, 1,350-mile pipeline, capable of carrying up to two billion cubic feet of natural gas per day, from the Cheyenne natural gas pipeline hub in Weld County, Colorado, to another hub in Clarington, Ohio. Pending shipper commitments and regulatory approvals, the portion of the proposed REX Project from Weld County, Colorado, to Audrain County, Missouri, is projected to commence construction in 2007 and be in-service by late 2008.

If constructed, the REX pipeline will parallel the existing Platte Pipeline system for much of its length, including the segment that will be co-located with the Keystone Pipeline from the Nebraska-Kansas border to Troy, Missouri (approximately 282 miles). The proposed location of the REX pipeline has been considered in the routing of the Keystone Pipeline.

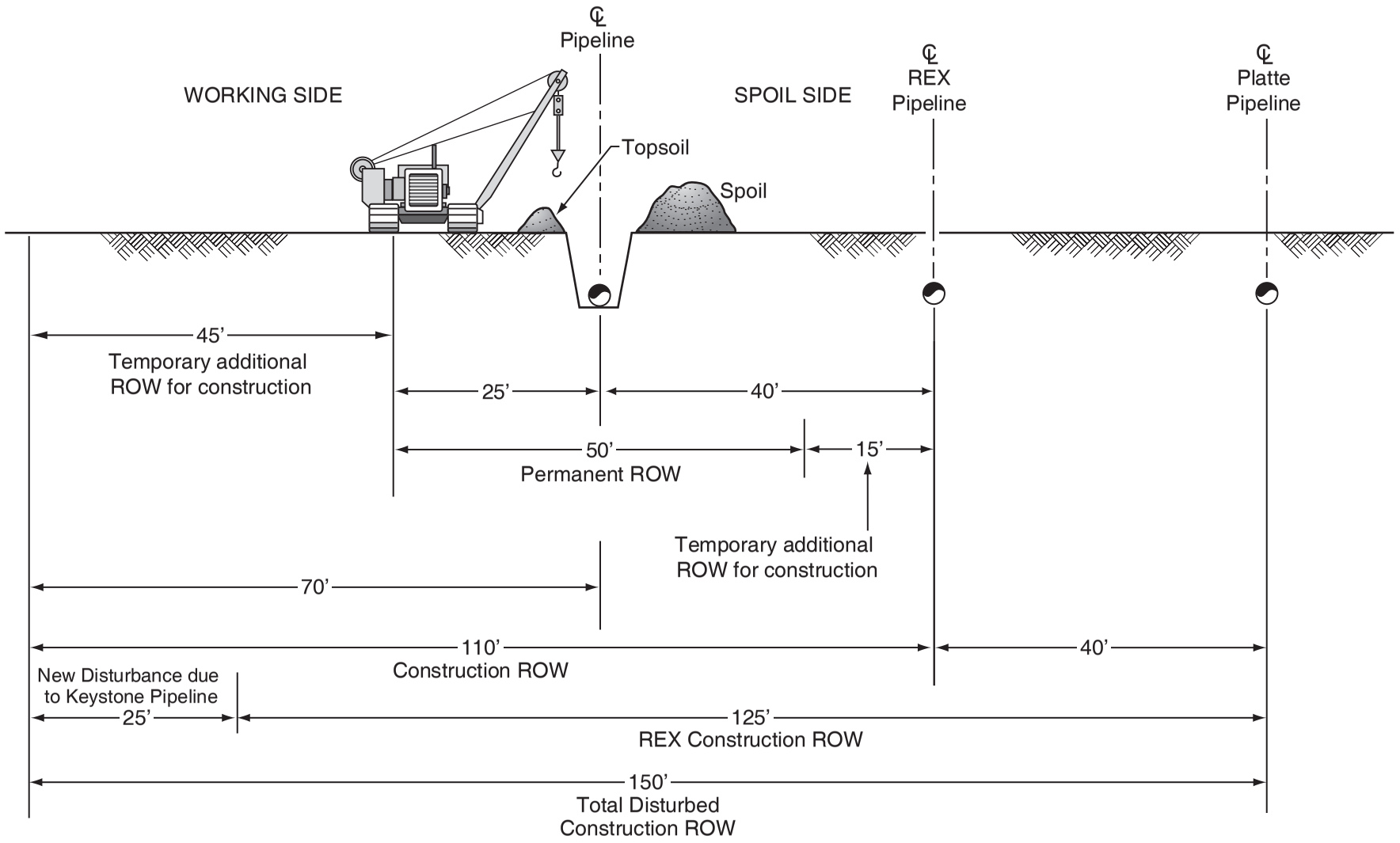
During construction, most surface disturbance associated with the REX pipeline will be related to the construction of the pipeline, with smaller disturbances associated with the compressor stations. Resources were evaluated to determine if cumulative effects are likely to occur.

The width of the construction disturbance caused by both new pipelines will depend on which side of the existing Platte pipeline that REX and Keystone are constructed. When REX and Keystone are located on the

south side of the existing Platte pipeline (**Figure 5.2-1**), the Keystone working side (the side of the construction ROW where equipment excavates the trench and lays the pipe) is located on the outside of the overall construction ROW. When REX and Keystone are located on the north side of the existing Platte pipeline (**Figure 5.2-2**), the location of Keystone's working side is located between REX and the Keystone pipeline. In both cases, the overall width of the combined construction disturbance will be approximately 150 feet. Assuming a co-location distance of 282 miles for the two new pipelines, and a combined construction ROW width of 150 feet, the REX Pipeline Project will disturb approximately 4,272 acres (some of which also was disturbed during construction of the Platte Pipeline) and Keystone will disturb an additional approximate 855 acres for a total disturbance of approximately 5,127 acres.

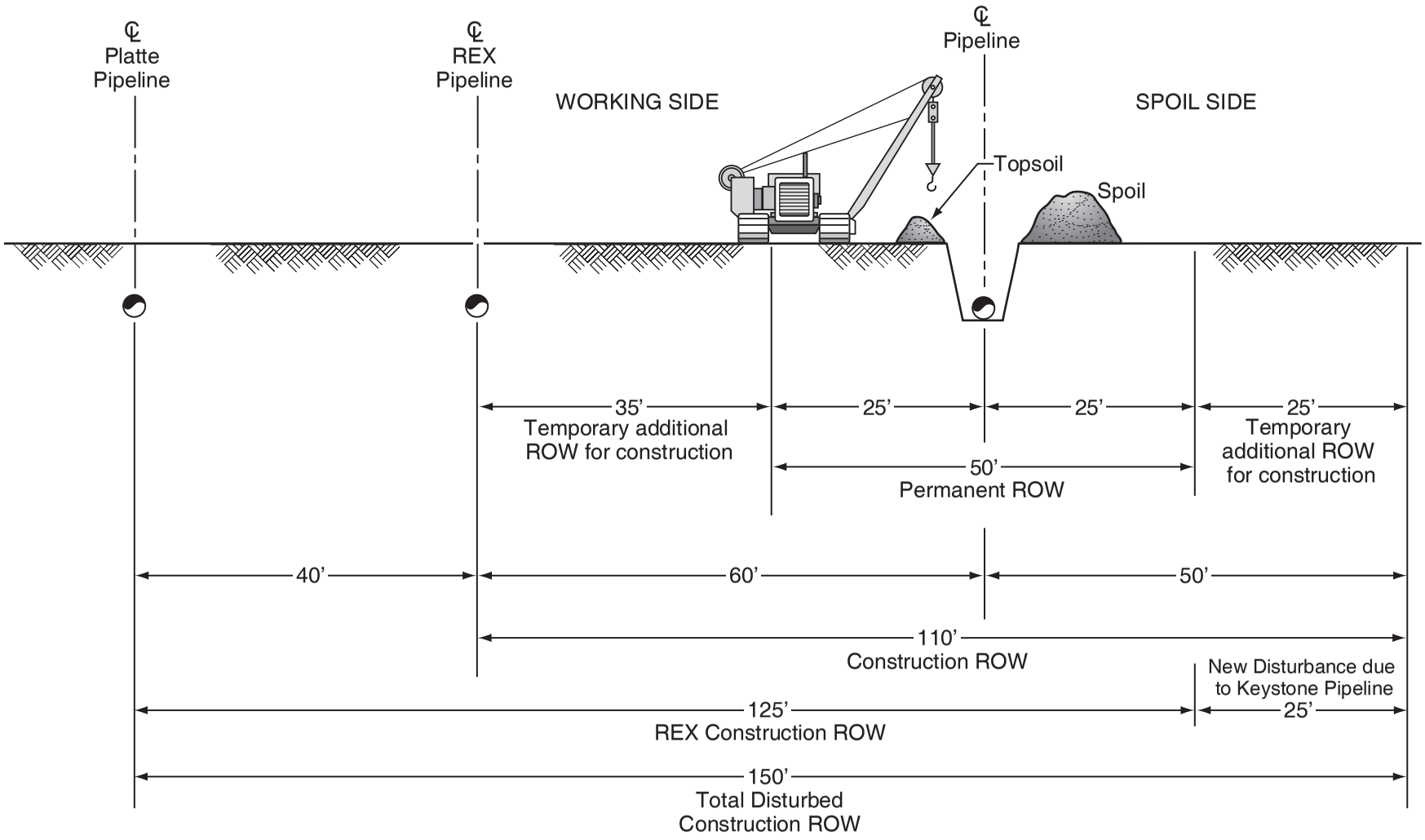
The location of the construction working side will affect the offset distances between adjacent installed pipelines. Where the Keystone pipeline is located north of the existing Platte and REX pipelines, the cumulative width of the permanent easements for the three pipelines will be 140 feet (**Figure 5.2-3**). Where the Keystone pipeline is located south of the existing Platte and REX pipelines, the cumulative width of the permanent easements for the three projects will be 130 feet (**Figure 5.2-4**).

If constructed on schedule, the REX and Keystone pipelines will be constructed in sequential years. As a result, many cumulative impacts due to construction in the same year will be avoided (e.g., construction traffic and work forces). For most resources (e.g., soils, vegetation, water, cultural resources), sequential construction will result in additive impacts. The impacts will occur along parallel and adjacent ROWs and impacts typically will directly overlap. For example, the construction of two pipelines in sequential years will result in the loss of sequential growing seasons on two adjacent strips of agricultural lands.



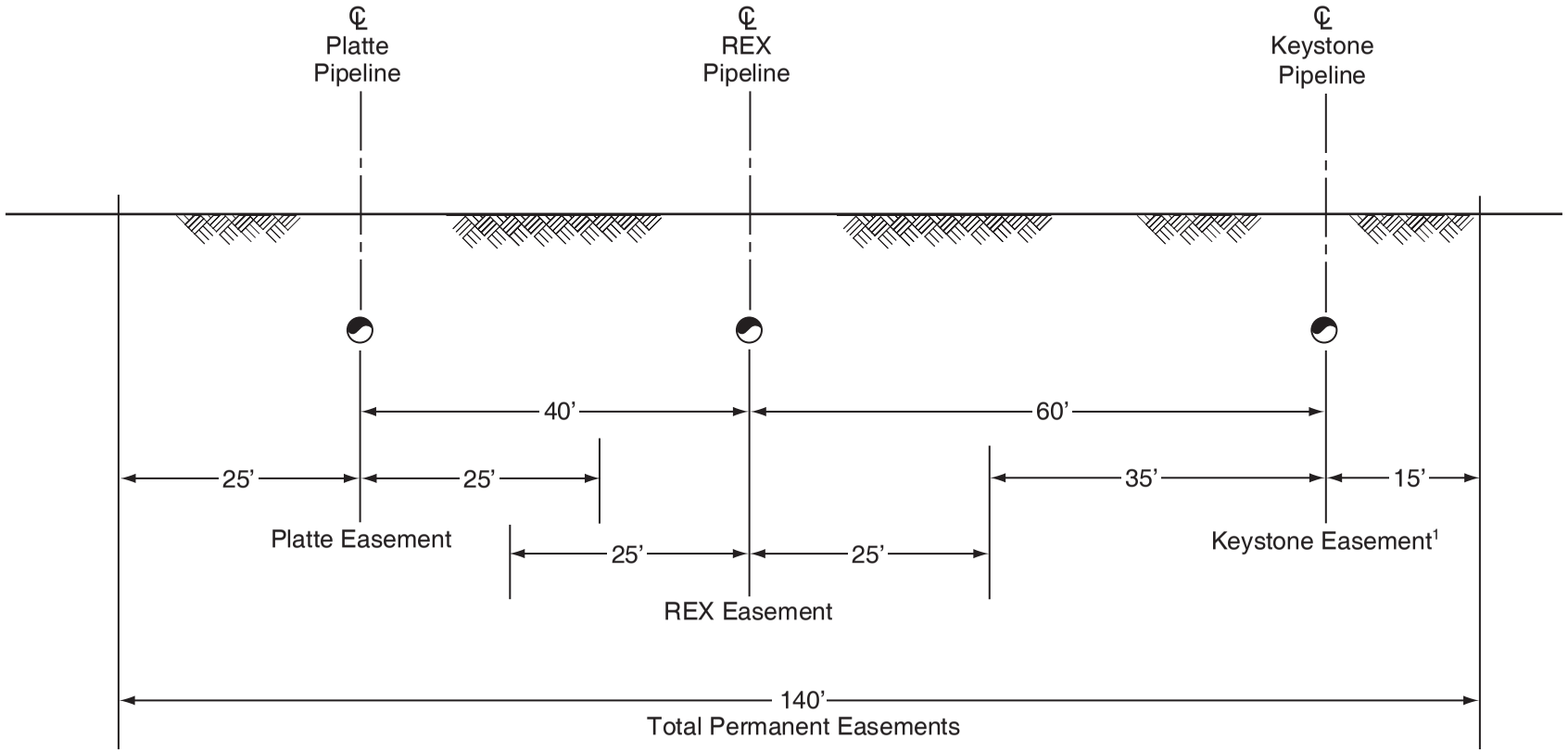
KEYSTONE PIPELINE PROJECT

Figure 5.2-1
Typical 110’ Construction Rights-of-Way where Keystone Pipeline is Co-located with REX and Platte Pipelines (Construction is South of Platte Pipeline)



KEYSTONE PIPELINE
PROJECT

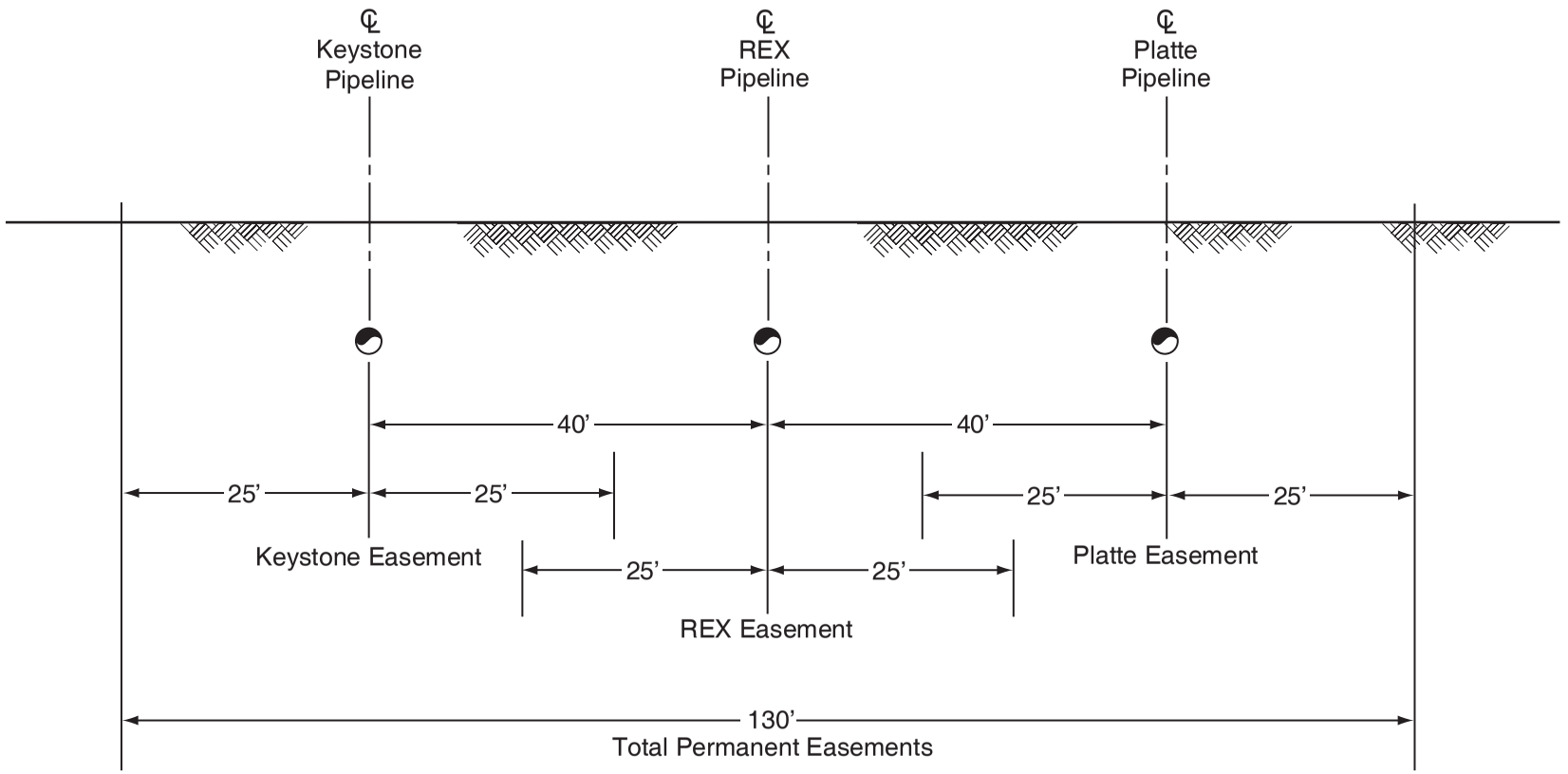
Figure 5.2-2
Typical 110’ Construction Rights-of-Way
where Keystone Pipeline is Co-located
with REX and Platte Pipelines
(Construction is North of Platte Pipeline)



[1] Keystone Permanent 50’ Easement is not centered on pipe to eliminate 10’ gap in permanent easements.

KEYSTONE PIPELINE PROJECT

Figure 5.2-3
Typical Permanent Easements where Keystone Pipeline is Co-located with REX and Platte Pipelines
(Construction is North of Platte Pipeline)



KEYSTONE PIPELINE
PROJECT

Figure 5.2-4
Typical Permanent Easements where
Keystone Pipeline is Co-located with REX
and Platte Pipelines
(Construction is South of Platte Pipeline)