Section 4 Site Inventory Maps

This section addresses Larimer County Procedural Guide for 1041 Permits, Item 4.

4.a The applicant must identify all resources and environmental conditions potentially impacted by the proposed development. The inventory must include the following features on the site and within one half mile of the boundaries of the project perimeter (1,000 feet for linear facilities). If access to adjacent land is not possible the inventory may be completed by using map resources available in the Planning Department. The inventory may include a narrative explanation and/or maps depicting the location of the features. The site inventory may be integrated with the Project Description to give a complete picture of the proposal. The title of the project must appear on each map sheet. If an aerial photo is being used, indicate the date of the photography.

Site inventory maps identify resources and environmental conditions potentially impacted by the TWP. As discussed during the Pre-Application Conference with Larimer County Planning staff on May 26, 2016, a site inventory is not required beyond the corridor. However, Thornton included an additional study buffer at most locations that includes a 500-foot buffer from the centerline of the Alternative 3 (Option C) Corridor.

The aerial imagery utilized in the creation of the site inventory maps is from multiple sources; the three main sources are Denver Regional Council of Governments (DRCOG) 2016, Digital Globe 10/22/2017, and National Agricultural Imagery Program (NAIP) 2015. The information shown in these maps is the best available data downloaded from Larimer County's website and other local agencies. Each figure lists its source information.

The Site Inventory Map(s) may be required to contain the following information:

4.b Existing buildings, structures, utilities (water transmission lines and sewer collection lines), easements and other features including irrigation facilities, fences, roads, etc.;

Figure 4.bS and **4.baS** show the best available data for existing utility corridors, which includes gas, electrical, telecommunications, water, and sanitary sewer utilities within the Alternative 3 (Option C) Corridor and Alternative I-25 Crossing Corridor, respectively. Oil and gas wells are also shown. Subsurface utility engineering will be completed during the design and construction phases of the TWP and will include surface geophysical methods and test holes to determine the locations of existing utilities.

Other existing infrastructure such as buildings, other structures, irrigation facilities, and roads are shown on the Vicinity Maps in Section 3. Infrastructure information is shown on separate maps to enhance legibility.

4.c Location of all residences, any abutting subdivision outlines and names, and the boundaries of any adjacent municipality or Growth Management Area.

The location of residences, subdivision outlines and names, and the boundaries of adjacent municipality and GMAs are shown on the Vicinity Maps in Section 3.

4.d Existing vegetation, soil types for SCS Soil Survey, water bodies, and other natural features;

Figure 4.dS and **Figure 4.daS** show soil types with the Soil Conservation Service (SCS) soil type, water bodies, and other natural features within the Alternative 3 (Option C) Corridor and Alternative I-25 Crossing Corridor, respectively. Existing vegetation information within the Alternative 3 (Option C)

Corridor and study buffer and within the Alternative I-25 Crossing Corridor can be found in the Addendum A to the Natural and Cultural Resources Assessment in **Appendix A**. Vegetation is shown on **Figure Addendum-A5** and **Figure Addendum-A6** in **Appendix A**.

4.e Officially designated 100 year flood plains with Flood Way and Flood Fringe clearly shown;

The Alternative 3 (Option C) Corridor and Alternative I-25 Crossing Corridor do not cross any designated 100-year floodplain as shown on **Figure 4.eS** and **Figure 4.eaS**, respectively. The 100-year floodplain and floodway were identified using Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM). The flood fringe is identified as those areas within the floodplain but outside the floodway.

4.f Geologic Hazards rated 3 through 7 with location and classification shown, including areas with expansive soils and other moderate hazards;

Figure 4.f-1s and **Figure 4.f-1aS** show geological hazards with rating and classifications within the Alternative 3 (Option C) Corridor and Alternative I-25 Crossing Corridor, respectively. Additional information can be found in Section 8.c, Natural Hazard Mitigation Plan.

Figure 4.f-2S and **Figure 4.f-2aS** show the Natural Resources Conservation Service (NRCS) soil erodibility K factor values within the Alternative 3 (Option C) Corridor and Alternative I-25 Crossing Corridor, respectively. K factor values represent the susceptibility of soil erosion, transportability of the sediment, and the amount and rate of runoff given a particular rainfall event. The majority of the Alternative 3 (Option C) Corridor is located within the medium soil erodibility range. The majority of the Alternative I-25 Crossing Corridor is located within the high soil erodibility range. Additional information can be found in Section 8.e, Drainage and Erosion Control Report and Plan.

4.g Wetlands – area of wetlands (See Section 8.2)

Open waters, wetlands, and riparian areas within the Alternative 3 (Option C) Corridor and study buffer and within the Alternative I-25 Crossing Corridor are described in the Addendum A to the Natural and Cultural Resources Assessment in **Appendix A**. The Alternative I-25 Crossing Corridor was assessed for potential jurisdictional waters based on a desktop review. The Alternative I-25 Crossing Corridor does not appear to contain any jurisdictional waters. **Figure Addendum-A3** shows these areas within the Alternative 3 (Option C) Corridor in the **Appendix A**.

4.h Drainage patterns and general direction of flows on and through the site;

Figure 4.hS and **Figure 4.haS** show drainage patterns and the general direction of flows in the Alternative 3 (Option C) Corridor and Alternative I-25 Crossing Corridor, respectively. Additional information can be found in Section 8.e, Drainage and Erosion Control Report and Plan.

4.i Topography with a contour interval sufficient to evaluate the proposal but no greater than 40-foot intervals. Contours must be labeled every 5 to 7 inches and every 5th contour line clearly shown by a heavier line. Areas of 20% or greater slope must be clearly shown by shading or other means;

Figure 4.iS and **Figure 4.iaS** show the topography of the Alternative 3 (Option C) Corridor and Alternative I-25 Crossing Corridor, respectively with 10-foot contour intervals and areas of 20 percent or greater slope.

4.j Wildlife habitat and migration corridors with a description of the ways wildlife use the site and the species involved, with proposed setbacks or other potential mitigation measures;

Wildlife habitat and migration corridors within the Alternative 3 (Option C) Corridor and study buffer and within the Alternative I-25 Crossing Corridor with description of the ways that wildlife use the site and the species involved, with proposed setback and other potential mitigation measures, can be found in the Addendum A to the Natural and Cultural Resources Assessment in **Appendix A**. Wildlife is shown on **Figure Addendum-A3** in **Appendix A** for the Alternative 3 (Option C) Corridor.

4.k Habitat for rare and endangered plants with species clearly indicated;

Information on habitat for rare and endangered plants, and specifically the species within the Alternative 3 (Option C) Corridor and study buffer and within the Alternative I-25 Crossing Corridor, can be found in the Addendum A to the Natural and Cultural Resources Assessment in **Appendix A**.

4.1 Wildfire Hazards with location and classification shown;

Figure 4.Is and **Figure 4.Ias** show wildfire hazards with location and classification in the area surrounding the Alternative 3 (Option C) Corridor and within the Alternative I-25 Crossing Corridor. The Alternative 3 (Option C) Corridor and Alternative I-25 Crossing Corridor are located outside of wildfire hazard areas. Additional information can be found in Section 8.c, Natural Hazard Mitigation Plan.

4.m Sites and structures listed on the State and National Register of Historic Places;

No cultural sites and structures listed on the State and National Register of Historic Places are located within the Alternative 3 (Option C) Corridor and Alternative I-25 Crossing Corridor. Additional information can be found in the Addendum A to the Natural and Cultural Resources Assessment in **Appendix A**. **Figure Addendum-A4** and **Figure Addendum-A7** show the Office of Archaeology and Historic Preservation search results within the Alternative 3 (Option C) Corridor and study buffer and within the Alternative I-25 Crossing Corridor, repsectively in **Appendix A**.

4.n Commercial Mineral Deposits with the type of mineral deposit indicated along with estimates of the quantity and quality of the mineral and the amount of overburden present.

Commercial mineral deposits are not present within the Alternative 3 (Option C) Corridor and Alternative I-25 Crossing Corridor. **Figure 4.nS** and **Figure 4.naS** show locations of commercial mineral mines, active hard rock mines, sand and gravel construction mines, and other mines from the Division of Reclamation Mining and Safety.



































