

Mr. Douglas Bennett
Federal Highway Administration
12300 W. Dakota Avenue
Lakewood, CO 80228

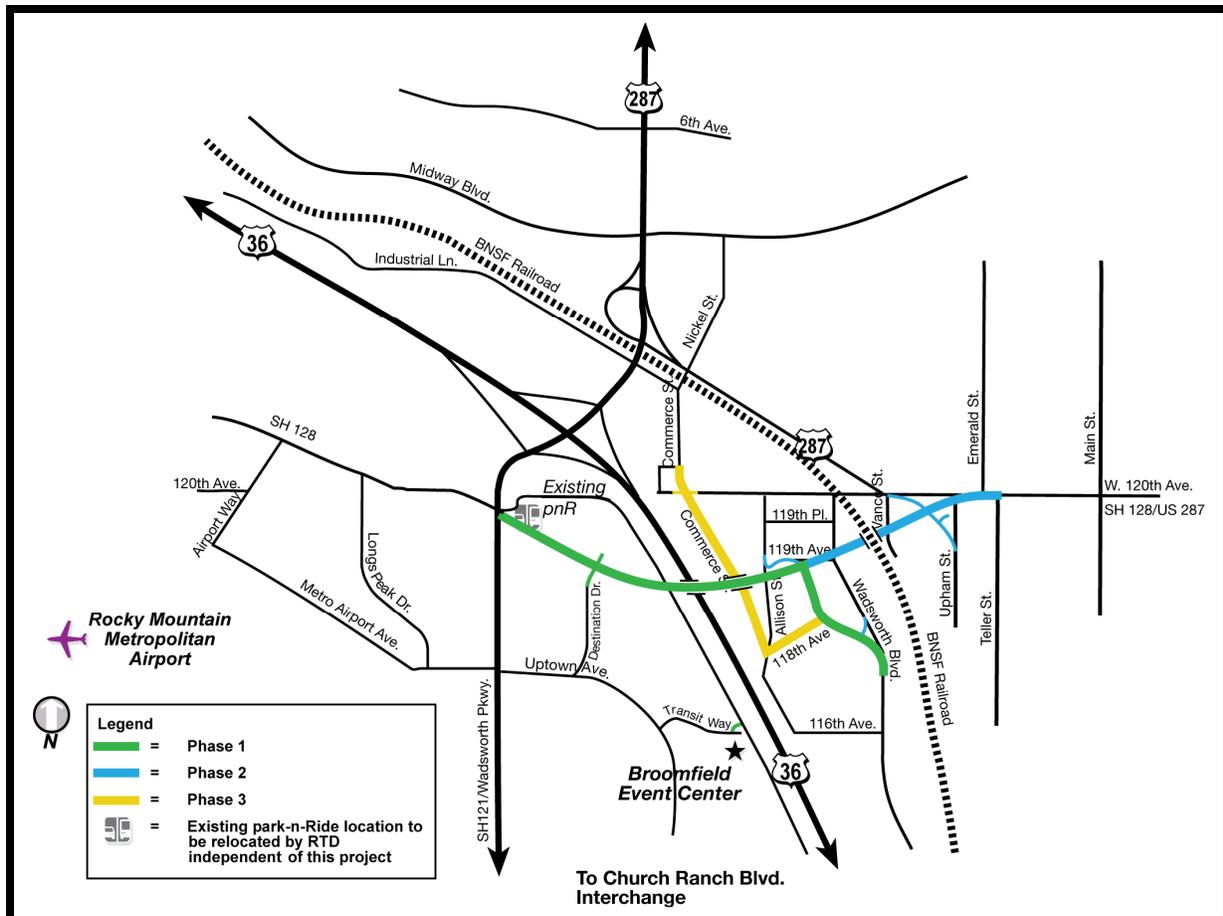
March 4, 2008

Re: SH 128 (120th Avenue Connection), Wadsworth to SH 287
Environmental Assessment Update

Dear Mr. Bennett;

This purpose of this letter is to update the Environmental Assessment (EA)/Finding of No Significant Impact (FONSI) for the 120th Avenue Connection project, signed by FHWA on January 17, 2006. Since the EA and FONSI, the City and County of Broomfield have proposed minor geometric revisions to the Preferred Alternative roadway network. Due to funding constraints, the project has also been divided into three phases, as shown in **Figure 1**.

Figure 1
Proposed Construction Phasing



Phase 1 improvements include the construction of the 120th Avenue Connection from Wadsworth Parkway on the west, over US 36, and building a new local road that ties into (Old) Wadsworth Boulevard. Construction of Phase 1 is scheduled to begin late in 2008 or early 2009.

Phase 2 will complete the connection to 120th Avenue with a road that goes under the BNSF Railroad tracks and ties into existing W. 120th Avenue at approximately Teller Street. Only partial funding is currently available for this phase.

Phase 3 includes construction of a new north south connection that extends Commerce Street to the south, going under the 120th Avenue Connection to provide improved local travel. Depending on the availability of funds, some elements of Phase 3 could be constructed with Phase 1. These elements include the north/south connection between 120th Avenue and Wadsworth Boulevard and its supporting local roadway network.

The remainder of this letter will identify those areas of the Phase 1 and Phase 3 portion of the project that have changed from the original EA. Phase 2 of the 120th Avenue Connection will be re-evaluated once funding is available for construction.

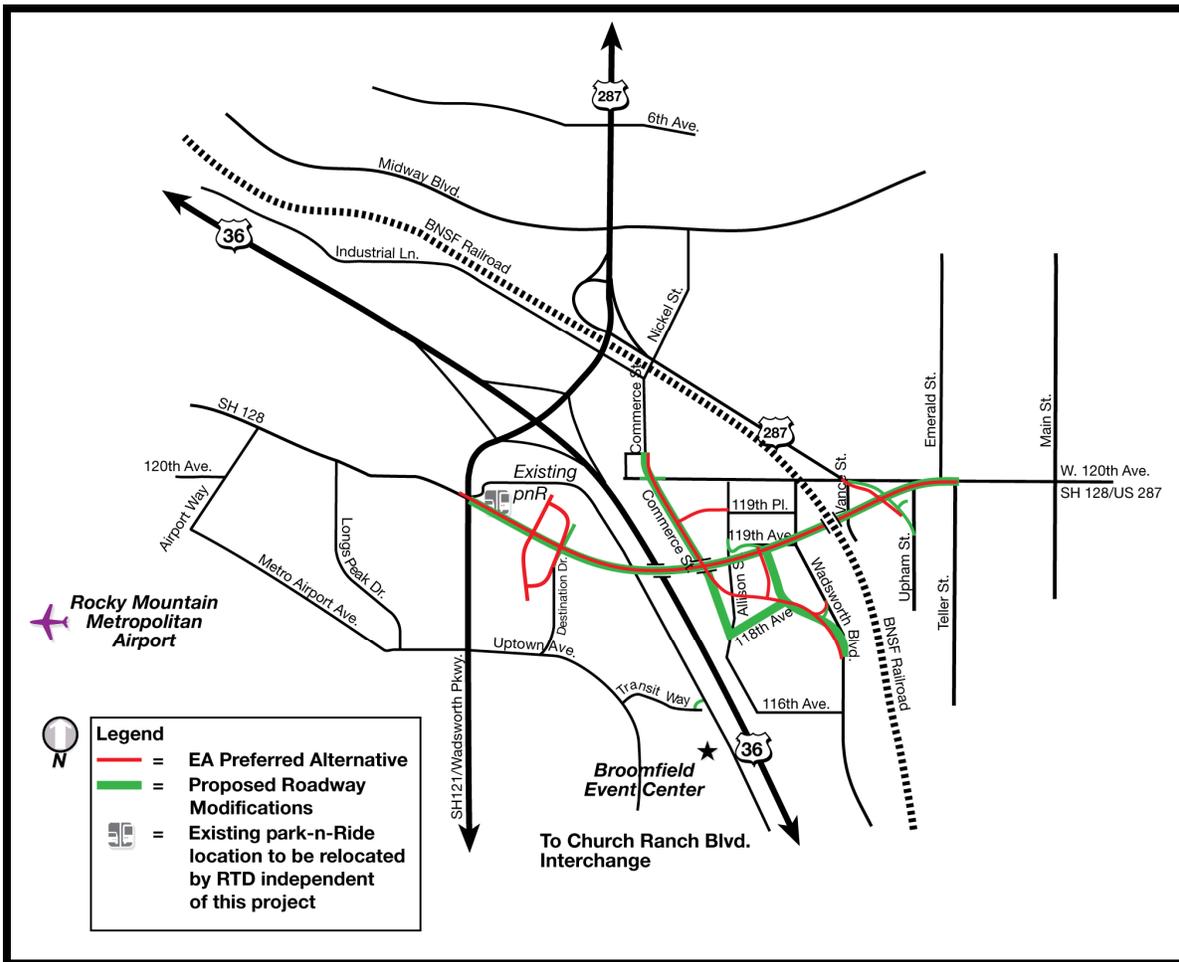
Phase 1 and Phase 3 Design Modifications

Revisions to the Preferred Alternative roadway network are shown in **Figure 2**. They include:

- ▶ A more grid-like roadway network south of 120th Avenue.
- ▶ Modification of the Allison Way connection to (Old) Wadsworth Boulevard.
- ▶ Elimination of the 119th Place connection at Commerce Street.
- ▶ Revision of Broomfield Transit Village access (from a right-in right-out access and looped road underpass of 120th to a three-quarter movement access).

These changes were initiated to better accommodate planned transit-oriented development in the area associated with the Northwest Rail commuter rail corridor and to reflect ongoing feedback from residents of the area north of the connection.

Figure 2
Revisions to the Proposed Roadway Network



EA Resource Updates

- ▶ **Land Use and Zoning:** In 2005 the City and County of Broomfield completed an update to its Comprehensive Plan. Future land uses within study area include transit-oriented development, mixed uses, industrial, commercial and some residential uses.

Land use plans described in the original EA are currently being implemented. The transit village that was planned between US 36 and Wadsworth Parkway is now under construction as part of the Arista development. Immediately west of US 36 the new Broomfield Events Center and housing, retail, and a parking structure have also been constructed.

Impacts to this resource remain consistent with the original EA.

- ▶ **Farmland:** Impacts to this resource (no impacts) remain consistent with the original EA. Additional coordination with the NRCS is not required.

- ▶ **Social/Environmental Justice:** Emergency service providers would experience some out-of-direction travel during the interim condition. This would primarily affect emergency responders approaching the Arista development from the north and east.

Residents of the Broomfield Mobile Home Park (identified as a low-income area in the original EA) would experience travel time delays and traffic-related impacts during the interim condition. Although peak hour traffic volumes would increase along (Old) Wadsworth Boulevard by 150 vph (AM) to 360 vph (PM), traffic-related impacts are not anticipated to be substantial because peak hour traffic volumes (625 vph (AM) and 820 vph (PM)) and speed limits (25 mph) would remain low in this area. In addition, Phase 1 would install an intersection south of the mobile home park, which would encourage lower speeds. The additional traffic associated with Phase 1 would be a temporary condition that would improve once the remainder of 120th Avenue is completed. Interim air quality, noise, and visual impacts are described in the sections that follow.

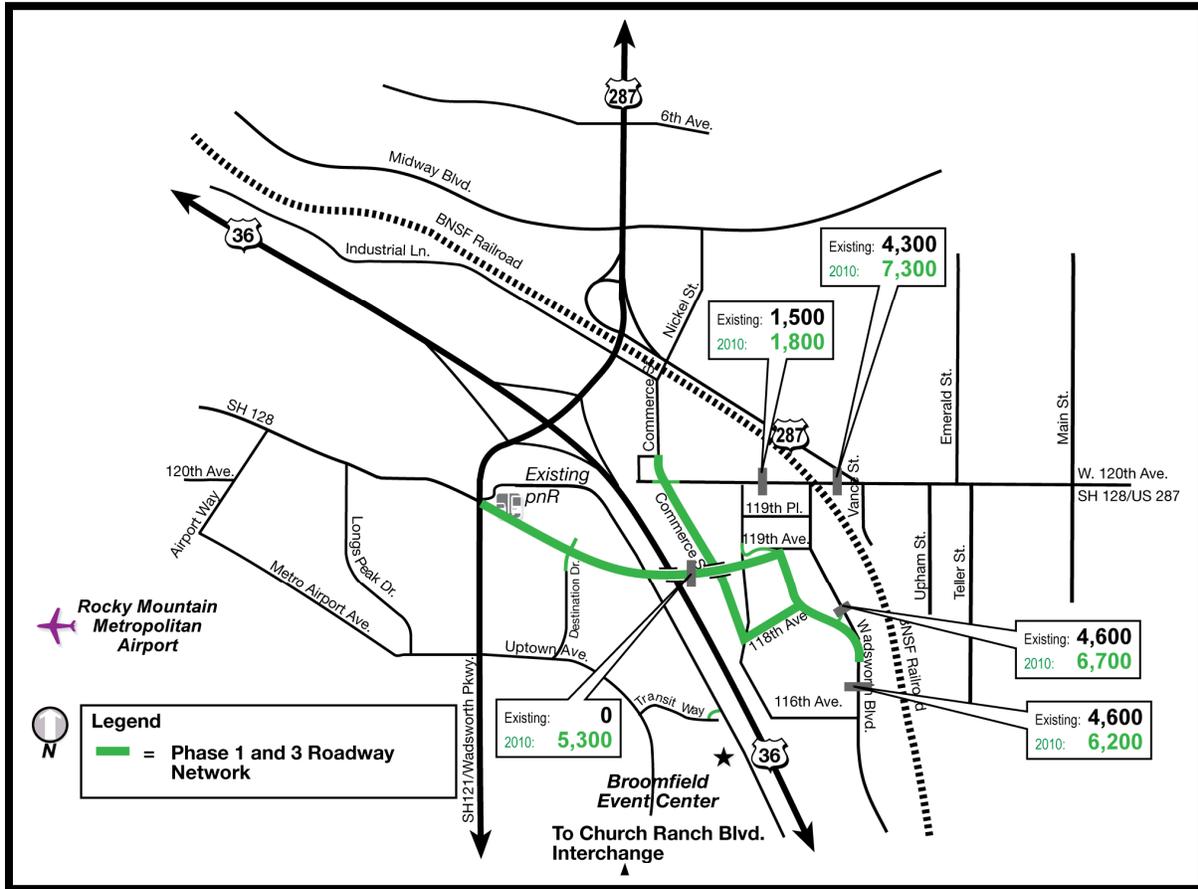
The elimination of the 119th Place connection at Commerce Street would re-distribute traffic and traffic-related impacts from single-family residences along 119th Place to those along 120th Avenue.

The original EA recommended that a 340-foot noise wall be constructed along the north line of the mobile home property. This wall will be constructed during the second phase of the project. To ensure that residents of the Broomfield Mobile Home Park are informed about the project and provided an opportunity to comment, project information will be hand delivered to the community prior to the Public Open House to be held February 27, 2008.

- ▶ **Right-of-Way and Relocations:** Revisions to the local roadway network south of 120th Avenue affect two additional properties: Veterans of Foreign Wars (11700 Wadsworth Boulevard) and Renewable Fiber (11605 Wadsworth Boulevard). To accommodate the southern connection to (Old) Wadsworth Boulevard, approximately 0.1 acres of right-of-way would be required from the northern edge of Renewable Fiber, resulting in the partial acquisition of this parcel. A construction easement may also be required from RF Holdings (south of 116th Avenue, east of Wadsworth Boulevard) for an improved ditch outfall adjacent to Wadsworth Boulevard toward Airport Creek. These changes would not affect access or result in the displacement or relocation of personal property.
- ▶ **Economic:** As greater numbers of people travel along (Old) Wadsworth Boulevard during Phase 1, business activity could increase. Impacts are otherwise consistent with the original EA.
- ▶ **Transportation:** The Phase 1/Phase 3 roadway network was evaluated in September 2007 to assess interim traffic conditions. Traffic volumes were inflated to 2010 levels by adding 20 percent to existing volumes to account for growth in local and regional traffic. This assumes that the remainder of the 120th Avenue connection under the railroad would be completed within three years after constructing Phase 1/Phase 3 improvements. During this initial phase, traffic would shift to the completed portion

of 120th Avenue, increasing traffic volumes on local roads and key intersections as shown in **Figure 3**.

Figure 3
Existing and 2010 Traffic Conditions (two-way vehicles per day)



During the interim condition traffic volumes would increase by approximately 2,100 vehicles per day (vpd) along Wadsworth Boulevard near 119th Avenue. Peak hour traffic volumes in this area would increase from 475 vehicles per hour (vph) to 625 vph during the AM peak hour and from 460 vph to 820 vph during the PM peak hour. The PM peak increase is larger because the Phase 1 connection provides a greater benefit for the predominantly eastbound traffic flow in the evening.

Once the construction of Phase 1 is complete (2010) the right turn at the existing 120th Avenue eastbound onto US 287 eastbound would operate at level of service (LOS) F in the PM peak. Without mitigation it would be assumed that the delay along the various east/west routes would reach equilibrium, with drivers using alternatives like Nickel Street to US 287 or going south to 112th Avenue until those routes also reached capacity. If the Phase 1 traffic patterns deviate substantially from these forecasts, and alternative routes cannot reasonably accommodate these temporary traffic patterns, alternative mitigation will need to be addressed. Any temporary measures would be removed once Phase 2 opens to traffic.

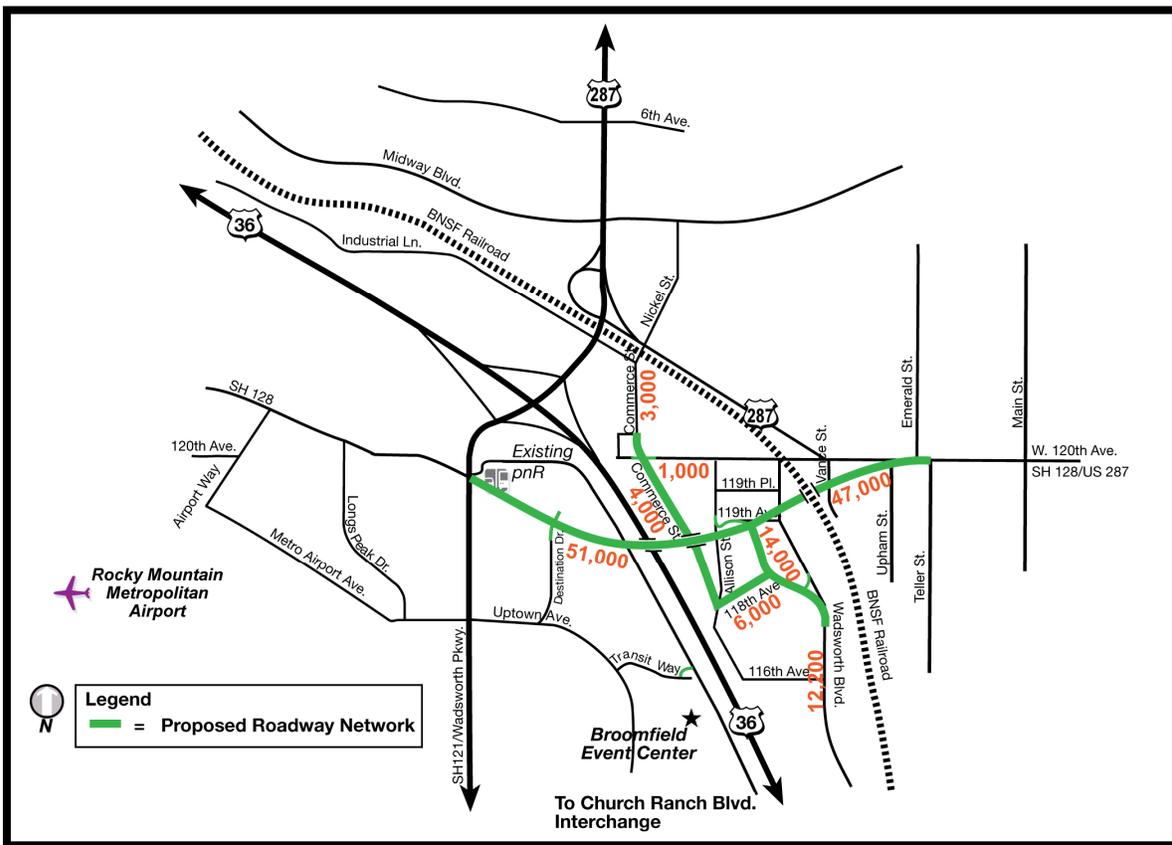
The new intersection at Wadsworth Boulevard will be designed with a three-way stop. This will provide enough capacity for 40 percent more traffic than is projected for 2010, allowing for eight to ten additional years of growth at this intersection and the Phase 1 connection of 120th Avenue, and operation at LOS B.

Traffic operations and safety will be monitored at the Broomfield Transit Village access. If the three-quarter movement does not meet acceptable thresholds Broomfield will implement the looped road underpass of 120th as defined in the original EA and FONSI.

The original EA included a traffic analysis for the existing and future roadway network (2025). Analysis of 2030 traffic volumes indicates that traffic volumes have decreased slightly from the 2025 forecasts provided in the original EA (by less than 5%). This likely reflects minor network or land use changes made in the traffic model over the past three to four years.

Figure 4 shows the 2030 daily traffic forecasts on the revised roadway network. In general, traffic volumes would not be affected by the proposed revisions.

Figure 4
2030 Traffic Volumes (vehicles per day)



Traffic volumes on 119th Place or on 120th Avenue would likely never exceed existing volumes (1,500 vpd) once the new 120th arterial is completed. The remaining routes through Old Broomfield would only serve existing businesses and housing in that area. Even with 120th Avenue directly connecting Commerce Street

and US 287, this route does not offer any travel time advantage for regional traffic over Nickel Street or the new 120th Avenue arterial. Therefore, there would be no difference between connecting 119th Place to Commerce Street (as shown in the EA), or connecting Old 120th Avenue to Commerce Street.

The intersection of Wadsworth Boulevard and 118th Avenue will likely require signalization prior to 2030. When signalized, it is forecasted to operate at LOS C, which is similar to the EA alternative where Allison Street would have intersected with Wadsworth Boulevard.

The proposed changes to the local network have no effect on the intersection of the new 120th Avenue arterial and Wadsworth Boulevard (previously named Allison Street in the EA).

- ▶ **Pedestrian and Bicycle Facilities:** Impacts to this resource remain consistent with the original EA.
- ▶ **Air Quality:** In July 2007, elevated values of eight-hour ozone caused the Denver metro region three-year average to violate EPA's 8-hour standard for ozone. Currently, EPA considers atmospheric ozone concentrations of 0.08 parts per million (ppm) measured at ground-level to be in exceedance of the standard. The Denver metro area was designated as nonattainment for the 8-hour ozone standard in 2002, but with a deferred effective date because of the area's participation in EPA's ozone Early Action Compact program. On November 20, 2007 the EPA announced that it will not grant another extension date for Denver to meet EPA's 8-hour ozone standard. The result is a federal nonattainment designation for the Denver area. The Denver area counties designated as nonattainment are: all of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson along with the southern portions of Weld and Larimer counties.

Carbon monoxide conditions resulting from traffic increases from Phase 1 construction and completion of the 120th Avenue connector between SH 121/Wadsworth Parkway and (Old) Wadsworth Boulevard would not substantially change. Traffic on the local roadway network near the existing residential areas and mobile home park would increase due to planned development and growth. Phase 1 traffic flow would carry through-traffic south of the mobile home park to connect with (Old) Wadsworth Boulevard. This intersection would experience queuing until interim conditions warrant signalization. Queues in the AM peak would be less than 50 feet. In the PM peak, the maximum queue for those wanting to turn left from (Old) Wadsworth Boulevard to the re-aligned Wadsworth Boulevard would be 200 feet (8 vehicles). Residents of the mobile home park are not expected to experience increased emissions as a result of interim queuing, since queues would be more than 200 feet from the mobile home park. After signalization, this intersection would operate at a LOS C.

In the original EA, CO "hot spot" modeling results were below the NAAQS using 2025 traffic volumes. Since the traffic volumes for 2030 are not expected to increase over the 2025 volumes, additional modeling was not conducted. Also, EPA's guidance states that intersections which would operate at LOS C or better do not

require modeling because they are not anticipated to cause a violation of carbon monoxide standards.

In the original EA, the Interagency Consultation team concluded that there would be no impact on PM10 emissions or concentrations associated with the Preferred Alternative. Phase 1 interim year traffic would remain consistent with these estimates.

FHWA has recently issued guidance on the analysis of Mobile Source Air Toxics (MSATs) for highway projects in relation to the NEPA process (FHWA, 2006). The guidance describes a tiered approach for analyzing MSATs depending on specific project circumstances. A quantitative analysis would be recommended for projects involving the creation or alteration of a major intermodal freight facility, or that would have projected annual average daily traffic (AADT) in the range of 140,000 or higher in the design year, and would be in close proximity to concentrations of vulnerable populations (schools, nursing homes, hospitals, etc.). The 120th Avenue Connection project does not meet these criteria, but instead falls into the second category for which FHWA recommends a qualitative analysis of MSATs. This analysis is attached as an Appendix to this letter of Re-evaluation. The key conclusions are summarized below.

- For each alternative evaluated in the original EA, the amount of MSATs emitted would be proportional to the vehicle miles traveled, or VMT, assuming that other variables such as fleet mix are the same. Analysis of 2030 traffic volumes indicates that traffic volumes have decreased slightly from the 2025 forecasts provided in the original EA. Therefore, 2030 VMT would be less than the 2025 VMT predicted in the original EA for both the No-Action and Preferred Alternatives (97,020,326 vehicles per day (vpd) and 97,000,603 vpd, respectively). Because VMT would not increase over what was predicted for 2025, higher levels of local MSATs are not expected. However, local increases in traffic volume would be expected during the interim condition, which could result in temporary localized increases in MSAT emissions as described below.
- EPA's national control programs are projected to reduce MSAT emissions by 57 to 87 percent between 2000 and 2020. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. Because of the inclusion of new connector roadways, there may be localized areas where VMT would increase, and other areas where VMT would decrease. Therefore it is possible that localized increases and decreases in MSAT emissions may occur. The localized increases in MSAT emissions would likely be most pronounced along the new roadway sections that would be built at SH 121 and the 120th Avenue Connection. Although current tools and science are not adequate to quantify these increases, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in virtually all locations.
- ▶ **Noise:** The project team reviewed 2030 and Phase 1 interim traffic conditions to determine whether additional noise modeling is necessary. Analysis of 2030 traffic volumes indicates that traffic volumes have decreased slightly from the 2025

forecasts provided in the original EA (by less than 5%). This likely reflects minor network or land use changes made in the traffic model over the past three to four years. Therefore, the system wide noise analysis remains consistent with the original EA. However, local increases in traffic volume would be expected during the interim condition as described below.

Along Wadsworth Boulevard near 119th Avenue, AM peak hour traffic volumes would increase from 475 vehicles per hour (vph) to 625 vph through 2010. PM peak hour traffic volumes would increase from 460 vph to 820 vph. This would primarily affect residents of the Broomfield Mobile Home Park. Because existing peak hour traffic volumes and speed limits are low in this area (25 mph), and the additional traffic associated with Phase 1 would be a temporary condition, additional noise modeling is not recommended.

The original EA recommended that a 340-foot noise wall be constructed along the north line of the mobile home property to mitigate noise associated with 120th Avenue. This wall will be constructed during the second phase of the project. The design of this wall will be verified during final design for Phase 2 to ensure that it complies with the intent of the mitigation proposed in the original EA.

- ▶ **Water Resources and Water Quality:** Since the original EA, approximately 400 feet of Dry Creek Valley ditch west of US 36 has been relocated into a pipe that travels under the development to the south.

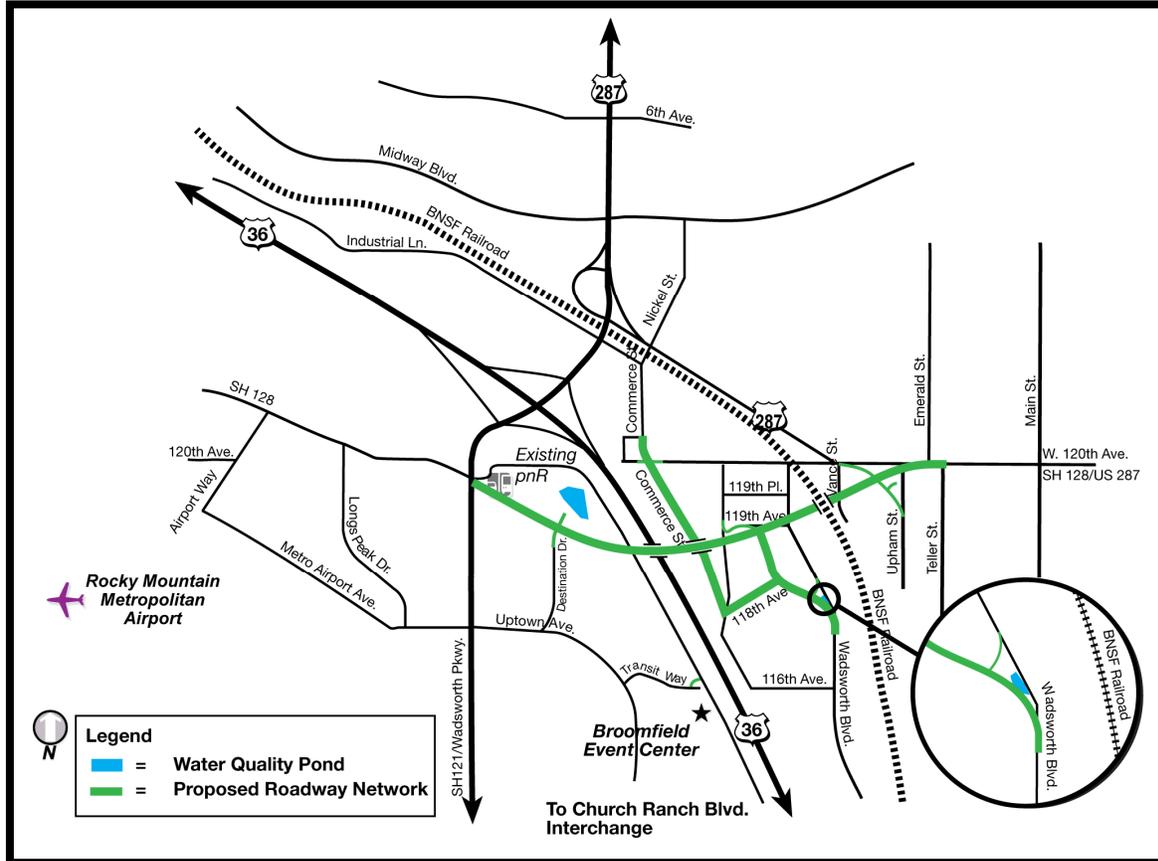
In accordance with MS4 regulations, two detention/water quality ponds have been designed for Phase 1 (**Figure 5**).

A more detailed analysis of the hydrology in the Airport Creek basin identified the need for an improved outfall system from the Wadsworth Boulevard detention/water quality pond to accommodate increased storm runoff beyond historic levels. The improved outfall will consist of an improved ditch and larger driveway culverts south of the project roadway limits toward Airport Creek until the existing ditch within the Wadsworth Boulevard right-of-way can accommodate the increased flows.

Other impacts to this resource are consistent with the original EA.

- ▶ **Floodplains:** Federal Emergency Management Agency (FEMA) and County maps were reviewed for amendments to original floodplain data. Impacts to this resource (no impacts) remain consistent with the original EA.

Figure 5
Water Quality Pond Locations



► **Wetlands:** Wetlands were reviewed in September 2007. Since the original EA, the Dry Creek Valley ditch west of US 36 has been relocated into a pipe that travels under the development to the south. Because the ditch no longer conveys flows, wetlands 11, 12, 13, and 14 and approximately 400 feet of the Dry Creek Valley Ditch have dried up. A portion of wetland 4, just south of 120th Avenue has also dried up. As a result, there are approximately 0.90 fewer acres of wetlands in the study area overall.

Since the original EA, a water quality detention pond has been constructed at the southeastern quadrant of the Wadsworth Parkway/120th Avenue intersection as part of improvements that have been completed under a separate action for Wadsworth Parkway. This pond is manmade and lacks wetland vegetation, soils, and hydrology.

The remaining wetlands are not located in areas where the project has been modified from its original design. As a result, impacts to these wetlands remain consistent with the original EA.

Construction of Phase 1 would result in non-jurisdictional wetland impacts of approximately 0.335 acres. In order to offset these impacts, Broomfield County would require wetland creation/restoration (on-site mitigation) or purchase of mitigation credits from a local mitigation bank (off-site mitigation). On-site

mitigation would not be reasonable since the study area mostly consists of man-made ditches.

The proposed water quality pond west of US 36 and north of the proposed 120th Avenue would also be unable to function as a restoration site because it does not receive a dependable source of water from the Dry Creek Valley Ditch (owned by Dry Creek Valley Ditch Company). Therefore, off-site mitigation would be the preferred option to mitigate for wetland impacts.

This project is within the Big Dry Creek basin and the primary service area of two (2) mitigation banks: Middle South Platte River and Mile High. Currently, mitigation credits at both mitigation banks are approximately \$70,000 per acre. Since CDOT mitigates at a ratio of 1:1, the total cost of off-site mitigation is anticipated to be \$23,450.

No Section 404 permit will be needed for these wetland impacts. CDOT will revise the wetland finding prior to construction to reflect changed conditions.

► **Vegetation, Wildlife and Aquatic Resources:**

- *Vegetation:* Impacts to vegetation and noxious weeds remain consistent with the original EA.
- *Wildlife and Aquatic Resources:* Since the original EA, black-tailed prairie dogs have expanded into the median and open space areas adjacent to US 36 on both the east and west side of the roadway.

The original EA documented impacts to 1.2 acres of prairie dog habitat. While prairie dogs are no longer present in this location, they have expanded further to the north, into the limits of construction for the 120th Avenue Connection. As a result, approximately 2.7 acres of prairie dog habitat would now be impacted.

CDOT will follow the *Impacted Black- tailed Prairie Dog Policy* (June 2005) and will coordinate with Broomfield to identify appropriate mitigation.

Correspondence with the City and County of Broomfield indicates that relocation of the impacted prairie dogs may be impractical because suitable release sites on City and County open space are at capacity and only accept a limited number of prairie dogs each year for the health of the colonies. When relocation to alternative sites is not practicable, Broomfield's *Policies for Prairie Dog Conservation and Management* (Spring 2003) recommends that euthanized dogs be donated to the black-footed ferret or Rocky Mountain Raptor recovery programs.

Broomfield's *Policies for Prairie Dog Conservation and Management* is consistent with CDOT's *Impacted Black- tailed Prairie Dog Policy*.

Prior to construction, CDOT (in coordination with the City and County of Broomfield and the Colorado Division of Wildlife) will complete a survey to

determine the size and population density of the impacted prairie dog habitat. CDOT will obtain the appropriate permits from both the City and County of Broomfield and the Colorado Division of Wildlife (CDOW) for prairie dog relocation or removal.

If prairie dogs are relocated or removed during the burrowing owl nesting season (April 1 through July 31), the affected habitat will be surveyed by a qualified biologist for the presence of burrowing owls.

Impacts to aquatic resources remain consistent with the original EA.

- ▶ **Threatened and Endangered Species:** Since the original EA, the bald eagle has been de-listed as a threatened species and is no longer protected under the Endangered Species Act. However, the bald eagle is still a State Threatened Species for Colorado and is also protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act.

Impacts to Threatened and Endangered Species are consistent with the original EA.

- ▶ **Historic and Archaeological Preservation/Paleontological Resources:** Impacts to cultural resources remain consistent with the original EA.
- ▶ **Hazardous Waste:** The study area was revisited in October 2007 to verify conditions reported in the original EA. Since the last field review in 2004, two sites have changed ownership: Site # 5 (Former Broomfield Conoco) is now Grease Monkey and Site #13 (Goodyear Auto Service Center) is now an office/industrial center.

One additional site with the potential for recognized environmental conditions was identified during the 2007 field visit. The site is located at 11605 Wadsworth Boulevard and is currently occupied by Renewable Fiber, a landscaping business. While storage tanks and tires were noted on site, records have shown no violations, as indicated in the report compiled by Environmental Data Resources Inc. (EDR). Only a sliver of the northernmost portion of this site is within the limits of construction for Phase 1. For this reason, additional analysis is not warranted.

The eight sites identified in the original EA as having the potential to impact the Preferred Alternative are all located within the Phase 2 portion of the project. These sites will be addressed in a separate re-evaluation for Phase 2 improvements.

- ▶ **Visual Resources:** The transit village that was planned between US 36 and Wadsworth Parkway is now under construction as part of the Arista development. Immediately west of US 36, the Broomfield Events Center, and a parking structure have also been constructed. This alters the visual character of the study area somewhat but is consistent with land use plans for the area. The 120th Avenue connection bridge over US 36 would be 4 to 5 feet lower than originally anticipated. This would lessen the visual impact to the traveling public. Impacts to this resource are otherwise consistent with the original EA.
- ▶ **Parks and Recreation Properties:** Impacts to this resource (no impacts) remain consistent with the original EA.

Conclusion

The construction activities and environmental resource impacts and mitigation proposed for Phase 1/Phase 3 of the 120th Avenue Connection project are consistent with the scope provided in the original EA, with very few exceptions. The inconsistencies are due to changes in the affected environment, modifications to the original design, and project phasing. Notable inconsistencies with the original EA are summarized below.

- ▶ Increasing traffic volumes on local roads and key intersections during the interim condition, resulting in travel time delays and traffic-related impacts for residents of the Broomfield Mobile Home Park. These impacts are not anticipated to be substantial because existing and Phase 1 peak hour traffic volumes and speed limits are low in this area and the additional traffic associated with Phase 1 would be a temporary condition that would improve once the remainder of 120th Avenue is completed.
- ▶ Approximately 0.335 acres of non-jurisdictional wetlands would be impacted for the construction of a water quality pond. Consistent with CDOT's policy to mitigate wetland impacts at a ratio of 1:1, this loss will be offset by purchasing 0.4 credits from a mitigation bank prior to construction.
- ▶ Since the original EA, prairie dogs have expanded into the limits of construction for Phase 1, resulting in 2.7 acres of impact to prairie dog habitat. CDOT will follow the *Impacted Black-tailed Prairie Dog Policy* (June 2005), Broomfield's *Policies for Prairie Dog Conservation and Management* (Spring 2003) and will coordinate with the City and County of Broomfield and the CDOW to obtain the necessary permits and determine whether the most appropriate course of action is relocation or removal.

If construction occurs during the burrowing owl nesting season (April 1 through July 31), the affected habitat will be surveyed by a qualified biologist for the presence of burrowing owls.

Prior to construction, the study area will be surveyed by CDOT for any migratory birds.

All of the update actions needed for the resources listed in the original EA have either been completed or are in the process of being completed for Phases 1 and 3. Therefore, CDOT requests concurrence that the EA for Phases 1 and 3 of this project is sufficiently refreshed. If you have any questions regarding the content of this letter, please contact me at (303) 757-9385 or Jim.Paulmeno@dot.state.co.us.

Sincerely,

Jim Paulmeno
CDOT – Region 6
Planning and Environmental Manager

I Concur
Douglas Bennett - FHWA