APPENDIX C

AGENCY CORRESPONDENCE

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
DENVER REGULATORY OFFICE, 9307 S. WADSWORTH BOULEVARD
LITTLETON, COLORADO 80128-6901

May 20, 2009

Jon Chesser
CDOT- Region 6
Planning & Environmental
2000 South Holly Street
Denver, Colorado 80222

RE: U.S. 36 Corridor EIS

Dear Mr. Chesser:

I'm writing this letter in response to a meeting you had on May 12, 2009 with Ms. Margaret Langworthy of my staff, and subsequent discussions I had with Ms. Langworthy. At the meeting, the U.S. 36 Project Team (Team) presented the results of the detailed analysis of alternatives conducted in the Draft EIS.

Through this analysis, a Preferred Alternative, referred to as the Combined Alternative Package (CAP), was developed. At the conclusion of the meeting, the Team requested that the Corps provide concurrence, in accordance with the NEPA/404 Merger Agreement, that the Preferred Alternative appears to be the Least Environmentally Damaging, Practicable Alternative (LEDPA) that meets the project's purpose and need. In response to the Team's request, the Corps concurs that the Preferred Alternative (CAP) appears to be the LEPDA. Our formal determination of it being the LEDPA would occur if a Section 404 permit is issued.

In accordance with the NEPA/404 Merger Agreement, please send a complete permit application to Ms. Langworthy prior to release of the Final EIS, so that the public review period for the Final EIS and the permit application coincide. To allow sufficient time for preparation of the Corps' public notice, the complete application should be received by the Corps two weeks prior to release of the Final EIS.

Thank you for the opportunity to participate in this collaborative effort. If you have any questions, please call me at (303) 979-4120.

Sincerely,

Timothy T. Carey
Chief, Denver Regulatory Office

CF:

Monica Pavlik
Federal Highway Administration
Colorado Federal Aid Division
12300 W. Dakota Avenue, Suite 180
Lakewood, Colorado 80228

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Colorado Department
of Public Health
and Environment

August 20, 2009

Ms. Jennifer Schaufele
Executive Director
Denver Regional Council of Governments
1290 Broadway St., Suite 700
Denver, CO 80203

Dear Ms. Schaufele:

The Colorado Air Quality Control Commission has reviewed your agency's conformity determination document for Cycle 2 Amendments to the 2035 Regional Transportation Plan and 2008/2013 Transportation Improvement Program. We support the determination, finding that the plan and program presented to us August 20, 2009 conform to the relevant SIP elements.

Air quality analyses indicate that area emissions budgets in current SIPs for carbon monoxide, PM-10, NOx associated with PM-10, and ozone precursors (under the 1-Hour Ozone Standard) would not be exceeded in any of the horizon years. In addition, projected emissions of ozone precursors for the 8-Hour Ozone Standard do not exceed the 2002 base case emissions.

Therefore, the Commission comments favorably on the conformity determination.

Should you have any questions regarding the Commission's action, please contact Mr. Doug Lempke at (303) 692-3478.

Sincerely,

Barbara Roberts, Chair

Cc:
Steve Cook, DRCOG
Michelle Li and Gail Hoffman, CDOT
Lisa Silva, APCD
Tim Russ, EPA
Bill Haas, FHWA

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Environmental Programs Branch
4201 East Arkansas Avenue
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(303) 757-9011

September 29, 2009

Paul Tourangeau
Director
Air Pollution Control Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, CO 80222

RE: US 36 FEIS Air Quality Phasing and Conformity

Dear Mr. Tourangeau,

The Colorado Department of Transportation (CDOT) is preparing a Final Environmental Impact Statement (FEIS) to identify and evaluate impacts of multi-modal transportation improvements in the United States Highway 36 (US 36) corridor, an existing highway alignment between Interstate 25 (I-25) in Adams County and Foothills Parkway/Table Mesa Drive in Boulder (a distance of approximately 18 miles). The Preferred Alternative has been identified in the FEIS as the Combined Alternative Package (CAP).

CDOT is seeking concurrence from APCD on the items described below regarding conformity of the CAP and additional air quality modeling for Phase I.

REGIONAL AQ CONFORMITY

To determine regional air quality conformity for the US 36 EIS future design, the responsible metropolitan planning organization (DRCOG) has included the first of 3 phases or Phase I of the CAP transportation system in their modeling network to evaluate air quality impacts and ensure that, in aggregate, the Phase I proposed transportation system will conform with the State Implementation Plans and the National Ambient Air Quality Standards (NAAQS).

Only Phase I of the CAP has undergone full fiscally constrained transportation conformity modeling and is incorporated into the *2009 Amendment Cycle 1 DRCOG Conformity Determination (CO, PM_{10}, and 1-hour Ozone) for the Amended Fiscally Constrained 2035 Regional Transportation Plan* and the *Amended 2008-2013 Transportation Improvement Program*.

Phase I of the CAP includes:

1. A managed lane from Federal Boulevard to east of the Foothills Parkway/Table Mesa Drive interchange. In this project the managed lane is a limited access, uni-directional travel lane that provides a systemic capacity increase for qualifying vehicles, such as a toll or HOV vehicles. The managed lanes will act to siphon off traffic from non-managed through-travel lanes resulting in increased level of service and improved average speeds. For this project the managed lane includes both the BRT (transit) configuration and the HOV lane.
2. Improvements to the Sheridan Boulevard and Wadsworth Parkway interchanges;
3. Replacement of four bridges;
4. Pavement rehabilitation and shoulder widening;
5. BRT station enhancements;
6. Construction of the bikeway;

7. Intelligent transportation system elements (fiber optics system) related to the managed lane and BRT operations. The fiber optic cable is critical for BRT operations providing access to real-time travel information. Managed lanes will include toll rate signs that display the dynamic toll rates, safety information and other messages as needed. Traffic monitoring stations will be required to monitor traffic operating conditions in the lanes. Additionally, the system will include closed circuit television cameras, variable message signs, bus instrumentation to collect real-time transit data, and ramp metering.

Phase I of the project satisfies the regional transportation conformity requirements, thus is not expected to cause significant regional air quality impacts. When funding becomes available, separate conformity modeling of the other Phases would be required for future inclusion in the RTP and TIP.

To demonstrate that this project would not cause significant air quality impacts and would comply with the SIP when it is fully constructed, the entire CAP (Preferred Alternative) with all the proposed improvements was modeled in a separate, *non-fiscally constrained* 2035 regional modeling run conducted by DRCOG. Modeling results indicated that no future air quality issues would be caused by the Preferred Alternative if it were to be constructed in its entirety before 2035. This long-range non-fiscally constrained model was produced to ensure that there would not be any significant regional air quality impacts once all phases of the project are funded and completed.

PROJECT LEVEL CONFORMITY

To determine the localized air quality impacts of the CAP, CDOT analyzed the two most affected intersections in the project area that would operate at Level of Service D, E, or F (after mitigation) in future years, along with the highest traffic volumes and the greatest idle time delays per vehicle. Once the worst two intersections were screened (Exhibit 1), an evaluation of a worst-case emissions scenario was modeled via a CAL3QHC carbon monoxide (CO) hotspot analysis using 2035 traffic volumes and 2005 emissions factors provided by APCD. This modeling methodology is used for the CAP to determine any potential exceedances of carbon monoxide versus the National Ambient Air Quality Standards and ensure that no interim build years emissions levels could be worse than what was modeled.

The highest modeled eight-hour average carbon monoxide concentration was 8.6 ppm for 2035 traffic volumes and existing 2005 conditions emissions factor representative of the CAP. Therefore, this project will not cause or contribute to an exceedance of the federal eight-hour average carbon monoxide standard of 9.0 ppm.

PROJECT PHASING

Due to funding limitations, the CAP will be approved in phases based on the fiscally constrained plan. Only Phase I as described above will be fiscally constrained within the design target of 2035. Phases 2 and 3 will follow conformity regulations at the time funding has been identified and a decision document has been prepared.

In order to demonstrate project-level conformity for areas within the Preferred Alternative, but not directly improved by construction of Phase I, a third CO hotspot analysis was completed for the worst operating intersection remaining in the unimproved portion of the corridor. This analysis represents a scenario where there would be increased future traffic and no associated roadway improvements to alleviate congestion related to partial completion of the Preferred Alternative. This analysis will be documented as part of the Record of Decision. CDOT will submit a request to APCD for final concurrence pursuant to the conformity provisions of the Clean Air Act Amendments of 1990 before the decision document for this study is approved.

CDOT has identified the Dillon-McCaslin intersection for CO hotspot analysis (Exhibit 1) that is considered representative of the worst traffic volumes and operational conditions evidenced by project-wide traffic analyses for intersections located within the remaining project area after Phase I improvements have been completed. This additional intersection was modeled for project-level conformity using worst-case emissions scenario of 2035 un-

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improved (No Action) traffic volumes and 2005 emissions factors, resulting in a CO concentration of 7.8 ppm.

CDOT proposes that hotspot analysis of this intersection would adequately evaluate project-level conformity for operations located outside of the Phase I improvements by providing analyses of the worst anticipated emissions years of the entire CAP.

If you concur with the results of the air quality analysis and the conclusions regarding conformity for the CAP up to this point of the project, and proposed methodology for the proposed CO analysis for Phase I, please sign below and return this letter by October 13, 2009.

Thank you.
Very truly yours,

Bradley J. Beckham
Manager
Environmental Programs Branch

I Concur: _____ 10/6/09
Paul Tourangeau — Date

Exhibit 1- 2035 Intersection Traffic Analysis

Intersection		2003 Existing		2035 P1 (No Action)		2035 CAP (Preferred Alt)		Conformity
	Peak Hour	LOS	Volume	LOS	Volume	LOS	Volume	Phase
Federal/74th	PM	C	4525	F	6530	F	8145	
Federal/74th	AM	B	3515	D	6140	F	6750	
Federal/74th (mitigated)	PM					E	8145	
Federal/74th (mitigated)	AM					E	6750	
Federal/80th	PM	B	4200	F	7345	F	7375	
Federal/80th	AM	B	3370	F	6850	F	5975	
Federal/80th (mitigated)	PM					F	7375	CAP/*Non-Phase I
Federal/80th (mitigated)	AM					F	5975	CAP/*Non-Phase I
Wadsworth/Midway	PM	C	4450	E	5685	F	7230	
Wadsworth/Midway	AM	C	4040	F	5315	F	6620	
Wadsworth/Midway (mitigated)	PM					C	7230	
Wadsworth/Midway (mitigated)	AM					E	6620	
Dillon/McCaslin	PM	B	2890	F	7055	F	7555	*Non-Phase I
Dillon/McCaslin	AM	A	3380	F	8150	F	6735	*Non-Phase I
Church Ranch/Westminster Blvd	PM	C	4575	F	7215	F	7425	
Church Ranch/Westminster Blvd	AM	C	3280	F	6620	F	6520	
Sheridan/92nd	PM	D	6950	F	8265	E	8615	CAP/Phase I
Sheridan/92nd	AM	C	4080	E	7580	E	8495	CAP/Phase I
Sheridan/88th	AM	C	5560	D	5750	D	7300	
Sheridan/88th	PM	B	4040	D	5415	D	7220	
Pecos/72nd	PM	B	1810	F	4970	E	5355	
Pecos/72nd	AM	B	2970	E	5265	E	5540	
Pecos/76th	PM	A	2535	C	4485	D	4480	
Pecos/76th	AM	B	2330	F	3855	E	4425	
Church Ranch/EB Ramps	PM	B	3930	E	5100	D	5060	
Church Ranch/EB Ramps	AM	B	3045	B	3920	B	4180	

*Non-Phase I – intersections outside of the defined Phase I improvements

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October 26, 2009

Paul Tourangeau
Director
Air Pollution Control Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, CO 80222

RE: US 36 FEIS Phase I - Air Quality Conformity Demonstration for Record of Decision

Dear Mr. Tourangeau,

The Colorado Department of Transportation (CDOT) is preparing the Record of Decision (ROD) for the first fiscally constrained phase (Phase I) of the US 36 Environmental Impact Statement. The Preferred Alternative has been identified in the FEIS as the Combined Alternative Package (CAP). CDOT has previously received a September 29, 2009 concurrence memo from APCD concerning regional air quality conformity for the CAP and the evaluation methodology for Phase I project-level conformity. Due to the fact that regional conformity has been demonstrated, CDOT is now seeking final concurrence from APCD on project level conformity for Phase I of the CAP.

PHASE I DESCRIPTION

Phase 1 of this project focuses on the managed lane to be built starting from Federal Boulevard at the end of the existing express lanes and working westward to just east of the Foothills Parkway/Table Mesa Drive interchange. These managed lanes would be built in Phase 1 with certain pinch points affecting shoulder width and buffer width caused by existing bridge limitations that would be brought up to full width in future phases. Then, working east to west, the improvements to the Sheridan Boulevard and Wadsworth Parkway interchanges; replacement of four bridges; pavement rehabilitation; shoulder widening; and BRT station enhancements would occur.

Construction of the bikeway would occur from west to east or as local funding is identified for different segments of the bikeway. Other improvements would occur throughout the corridor earlier in the phased implementation and would include intelligent transportation system elements related to the managed lane and BRT operations. Bridge, retaining wall, and sound wall elements built as a part of Phase 1 would generally be built to their ultimate Combined Alternative Package (Preferred Alternative) size and location.

PROJECT LEVEL CONFORMITY

To determine the localized air quality impacts for Phase I of the CAP, CDOT analyzed the two most affected intersections in the project area that would operate at Level of Service D, E, or F (after mitigation) in future years, along with the highest traffic volumes and the greatest idle time delays per vehicle. Once the worst two intersections were screened, an evaluation of a worst case emissions scenario was modeled via a CAL3QHC carbon monoxide (CO) hotspot analysis using 2035 traffic volumes and 2005 emissions factors provided by APCD. This modeling methodology is used for Phase I of the CAP to determine any potential exceedances of carbon monoxide versus the National Ambient Air Quality Standards and ensure that no interim build years emissions levels could be worse than what was modeled.

The highest modeled eight-hour average carbon monoxide concentration within the Phase I improvement area was 8.6 ppm for 2035. Additionally, CDOT evaluated the worst intersection for carbon monoxide emissions impacts outside of the Phase I improvements in order to show that under no circumstances would air quality outside of the improvement area be out of compliance with the NAAQS. The highest carbon monoxide concentration outside the improvement area was 7.8 ppm.

Therefore, this project will not cause or contribute to an exceedance of the federal eight-hour average carbon monoxide standard of 9.0 ppm within the Phase I improvements or outside the surrounding areas that will not be improved until the later phases become funded.

If you concur with the results of the project level air quality analysis and the conclusions regarding local conformity for Phase I, please sign below and return this letter by November 6, 2009.

Thank you.
Very truly yours,

Bradley J. Beckham
Manager
Environmental Programs Branch

I Concur: _____ 11/17/09
Paul Tourangeau — Date

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Colorado Department of Public Health and Environment

October 27, 2009

Mr. James Paulmeno
Planning & Environmental Manager
Colorado Department of Transportation, Region 6
4201 E. Arkansas Ave. Schumate Building
Denver, CO 80222

IN RE: No significant air quality impacts anticipated from US 36 Preferred Alternative

Dear Mr. Paulmeno:

This letter is to verify that Year 2035 emissions from the non-fiscally constrained US 36 Preferred Alternative scenario as modeled by the Air Pollution Control Division are well below those projected for those in 2010, the attainment year for the (8-Hour) Ozone Ozone Action Plan adopted by the Air Quality Control commission in December of 2008. Thus we can project that the 2035 US36 Preferred Network project will be in conformance with the SIP.

Please see the VMT and emissions tables below (next page) for detail.

	2035 US36Preferred				2035	Cycle1-09	
	POL	DRCOGtons	DRCOGtvmt		POL	DRCOGtons	DRCOGtvmt
VOC	1	58.1736331	121,172,089		1	58.1293001	120,909,520
CO	2	772.377706	121,172,089		2	770.7158841	120,909,520
Nox	3	31.471241	121,172,089		3	31.40038632	120,909,520

2035				2010	
Pollutant	DRCOGtons			Pollutant	DRCOGtons
VOC	57.40		Cycle1-08	VOC	90.68
NOx	30.95			NOx	99.38
VOC	57.3535052		Cycle2-08	VOC	90.84
NOx	31.1901165			NOx	100.21
VOC	58.1293001		Cycle1-09	VOC	90.72
NOx	31.4003863			NOx	99.89
VOC	56.58		Cycle2-09	VOC	83.62
NOx	30.18			NOx	91.47

Sincerely,

Lisa Silva
Planning & Policy
Air Pollution Control Division

Cc:
Jill Schlaefer, CDOT
Dale Wells, APCD