

TO ESTABLISH GEOMETRIC CONTROL FOR THE CONSTRUCTION OF THIS PROJECT, THE CITY OF ARVADA HAS PROVIDED THE FOLLOWING INFORMATION:

- Format\*
- Horizontal Control
  - Vertical Control
  - Roadway Alignment
  - Original Terrain Data
  - Other: \_\_\_\_\_

\*Specify the information format, i.e., plan sheet, computer disk, computer printout, or other.  
The information marked is either contained on the plans or is available from the Engineer.

TYPE OF PROJECT

- Landscaping
- Signalization
- Safety Improvement
- Asphalt Overlay
- Concrete Overlay
- Minor Widening
- Major Reconstruction
- New Roadway Construction
- Bridge Replacement
- Bridge Widening
- New Bridge
- Other: Bike Trail / Walk

SURVEY WORK TO BE PERFORMED BY OTHERS: \_\_\_\_\_

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER ITEM 625:

- Establish and Maintain Project Centerline or Engineer Approved Offset Line(s)
- Verification and Maintenance of Horizontal and Vertical Control
- Verify or Determine existing grades and alignments
- Verify or Determine existing topography
- Clearing and Grubbing Limits
- Removal Limits
- Reset Items

- Excavation and Embankment
  - Excavation
    - Unclassified
    - Stripping
    - Muck
    - Rock
    - Borrow
    - Other: \_\_\_\_\_
  - Embankment
  - Site Grading
  - Erosion Control (Perm)
  - Other: \_\_\_\_\_

- As Staked Earthwork Quantities (See General Notes)
- Landscaping
  - Top Soil
  - Seeding
  - Mulching
  - Planting
  - Herbicide \_\_\_\_\_
  - Other: \_\_\_\_\_

- Erosion Control
  - Seeding (Temp)
  - Silt Fences
  - Straw Bales
  - Temporary Berm
  - Riprap (Temp)
  - Other (Temp Diversion, Temp Slope Drain, Brush Barrier, Check Dam, Other: \_\_\_\_\_)

	SLOPE STAKING (Y/N)	GRID (Y/N)	GRADE STAKES	SPECIAL INTERVAL
Excavation	-	-	-	-
Embankment	-	-	-	-

- Roadway Bases
  - Untreated Subgrade
  - Treated Subgrade
  - Aggregate Base Course
  - Reconditioning
  - PMBB - Plant Mix Bituminous Base
  - Other: \_\_\_\_\_

Roadway Bases	GRID (Y/N)	SPECIAL INTERVAL	SPECIAL OFFSET
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

- Pavements
  - HBP - Hot Bituminous Pavement
  - Concrete
  - Overlay
  - Heating & Scarifying Treatment
  - Prime Coat, Tack Coat & Rejuvenating Agent
  - Seal Coat or Chip Seal
  - Other: \_\_\_\_\_

Pavements	GRID (Y/N)	SPECIAL INTERVAL	SPECIAL OFFSET
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

- Roadway Elements
  - Curb and Gutter
  - Drop inlets - alignment and grades
  - Retaining Walls
  - Guard Rail
  - Sidewalk
  - Other: \_\_\_\_\_

Curb & Gutter	Tangent Interval	Curve Interval	Special Offset
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

- Riprap (Perm)
- Slope and Ditch Paving

- Minor Structures
  - Structure Excavation limits
  - Culverts
  - Culverts w/ Headwalls and Wingwalls
  - Concrete Box Culverts w/ Headwalls and Wingwalls
  - Pipes
    - Sanitary Sewer
    - Storm Sewer
    - Water
    - Irrigation
    - Miscellaneous

- Major Structures - Overhead Signs, Concrete Box Culverts, Bridges - and all other structures assigned a structure number
  - Structure Excavation limits
  - Concrete Box Culverts w/ Headwalls and Wingwalls
  - Piling locations and cut off elevations
  - Caisson locations and elevations
  - Footing locations, alignment, and elevations
  - Abutment/Pier locations, alignment, and elevations
  - Wingwall skew angles/offsets
  - Structural concrete form locations
  - Substructure As-constructed survey (Required by Subsection 601.12 for Bridges and S-614-50 for Overhead signs)

- Bridge expansion joint(s) alignment and grade (longitudinal and transverse)
- Deck grades at Girder 10th or "n" th point locations and elevations
- Slope and Ditch Paving
- Other: \_\_\_\_\_

- Fencing
  - Temporary
  - Permanent
  - Sound Barriers
  - Other: \_\_\_\_\_

- Delineators
  - Temporary
  - Permanent

- Lighting and Traffic Control Devices (Perm)
  - Signal pole locations and elevations
  - Light pole locations and elevations
  - Signs
  - Field verify sign post locations, elevations, and lengths before fabrication.
  - Other: \_\_\_\_\_

- Pavement Marking
  - Striping (Temp)
  - Striping (Perm)
  - Symbols
  - Other: \_\_\_\_\_

- Temporary Lighting and Construction Traffic Control Devices
  - Signal pole locations and elevations (Temp)
  - Light pole locations and elevations (Temp)
  - Signs (Temp)
  - Other: \_\_\_\_\_

- Easement (Temp)(Staking)(P.L.S. Only)
- Right of Way (Temp) (Staking)(P.L.S. Only)

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER ITEM 629:

- Monumentation
  - Control
  - Right of Way
  - Land corners, Aliquot corners
  - Easement (Perm)
  - Reference the specified existing monuments: \*\* S 1/4 CORNER \_\_\_\_\_
  - Relocate the specified existing monuments: \*\* S 1/4 CORNER \_\_\_\_\_
  - Locate monuments. It is estimated \_\_\_\_\_ hours are required.

\*\* A Tabulation of Survey Monuments may be provided on the plans.

GENERAL NOTES:

Unless indicated otherwise on this Survey Tabulation Sheet, all survey work and staking intervals shall be done in accordance with the latest edition of the entire CDOT Survey Manual.

Adequate information for establishing lines, grades, and locations for all work items have been specified on the plans. Any additional information required to stake the item or element shall be generated by the Contractor's surveyor.

The Contractor's surveyor shall provide an estimate of the man-hours necessary to complete the work items indicated on this sheet. A copy of this sheet, with the estimated man-hours written on the blank line to the left of the specified items, shall be submitted with the Survey Schedule to the Engineer 3 days prior to Presurvey Conference - Construction Survey.

Stakes and Monuments which are damaged or destroyed by the progress of construction shall be replaced by the Contractor at no additional cost to the Department.

The Contractor shall furnish an As Staked earthwork quantity to the Engineer prior to completion of twenty percent (20%) of the planned earthwork in any phase as per the CDOT Survey Manual. A printed copy of the As Staked earthwork data and a computer disk in the specified format shall be submitted to the Engineer. The Contractor shall field verify original ground cross sections at a maximum 500 feet intervals.

Prior to beginning work on any subsequent operation, such as placing base course or paving, the Contractor shall certify in writing to the Engineer that the final grade is within specified tolerance.

The Contractor's surveyor shall perform all field surveying and calculations necessary to tie plan grades into field grades.

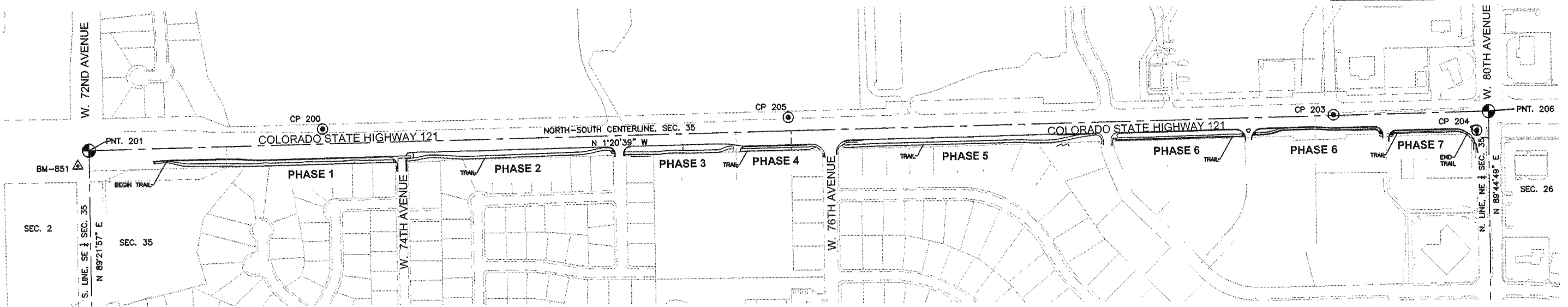
The Contractor shall coordinate construction staking on the project with any utility work.

The Contractor's surveyor shall submit the following fieldbooks to the Engineer:

- Horizontal Control (Primary & Secondary)
- Vertical Control (i.e. Benchmarks)
- Property Pin Ties
- Horizontal Alignment
- Grading
- Slope Staking
- Minor Structures
- Major Structures
- One fieldbook for each work category shown on this sheet
- Other Fieldbook(s): \_\_\_\_\_

Computer File Information		Index of Revisions		City of Arvada Engineering Division	Colorado Department of Transportation	As Constructed	Wadsworth Blvd. Trail Survey Tabulation		Project No./Code
Creation Date: 11/09/09	Initials: RN	(R-)					8101 Ralston Road P.O. Box 8101 Arvada, CO 80001-8101 Phone: 720-898-7640 FAX: 720-898-7603	2000 S. Holly Street Denver, Co 80222 Phone: 303-757-9673 FAX: 303-512-4350	
Last Modification Date: 12/21/09	Initials: RN	(R-)		Region 6	Revised:	Designer: MF			Structure Numbers
Full Path: H:\Projects\Trail\CDOT-Wadsworth Trail\ . . .		(R-)				Acad Ver. 2009	Scale: Noted	Units: English	Detailer: RN
Drawing File Name: CDOT-Title.dwg		(R-)							

**TOWNSHIP 2 SOUTH, RANGE 69 WEST OF THE 6TH P.M.  
CITY OF ARVADA, COUNTY OF JEFFERSON, STATE OF COLORADO**



**Notes:**

1. This control survey is not a complete boundary survey of all adjoining owners and is prepared for City of Arvada purposes only.
2. All coordinates listed are project coordinates only.
3. Field survey control precision meets or exceeds CDOT Type A Survey requirements.
4. Basis of Bearings: Assumes the North-South centerline of the of Section 35, Township 2 South, Range 69 West, 6th P.M. bears N. 01° 20' 39" W., a distance of 5315.36 feet. A 3/4" alum. cap, LS 15270, was found in range box at the N 1/4 of said Section 35 and a 3/4" alloy cap, PLS 12083, was found in range box at the S 1/4 corner of said Section 35.
5. Vertical Control is based on City of Arvada vertical datum. Benchmark: #851, brass cap, located at the top back of curb north nose of southeast island, southeast corner W. 72nd Ave. and Wadsworth Blvd., stamped: City of Arvada BM-851. Elevation = 5577.87 (Conversion from City of Arvada to NAVD88 datum at BM 851 = +2.41 feet.)
6. All Books, Pages and Reception Numbers refer to Jefferson County records

**Notice:**

According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event, may any action based upon any defect in this survey, be commenced more than ten years from the date of the certification shown hereon.

**SURVEYOR STATEMENT (PROJECT CONTROL DIAGRAM)**

*I, John Mark Floyd, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation this Project Control Diagram was prepared and the field survey it represents was performed under my responsible charge and, based upon my knowledge, information and belief is in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. this statement is not a guaranty or warranty, either expressed or implied.*

PE / PLS NO. 15270

**BENCHMARK INFORMATION**

PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
851	1726428.49	3117604.90	5577.87	2" brass cap, top back of curb, north nose of southwest turn island, southeast corner W. 72nd Ave. and Wadsworth Blvd..

**TABULATION OF CONTROL MONUMENTS SET**

PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION OF MONUMENT
CP 200	1727358.08	3117468.14	5427.10	#5 rebar w/ 2 1/2" alum. cap stamped: "City of Arvada, cntl 200, GOLF"
CP 203	1731190.01	3117432.86	5417.77	Magnetic nail, south center median
CP 204	1731737.31	3117494.03	5421.32	Magnetic nail w/ 1 1/2" washer stamped: " City of Arvada control point"
CP 205	1729113.08	3117432.24	5462.70	#5 rebar w/ 2 1/2" alum. cap stamped: "City of Arvada, cntl 205, POND"

**TABULATION OF ALIQUOT CORNERS FOUND**

PNT	NORTHING	EASTING	DESCRIPTION OF MONUMENT
201	1726471.40	3117546.43	S 1/4 cor. Sec. 35 3/4" alloy cap stamped: " Colo Dept. of Transportation, T2S, R69W, T3S, R69W, 1993, PLS 12083 "
206	1731785.30	3117421.74	N 1/4 cor. Sec. 35 3/4" alum. cap stamped: "T2S, R69W,26, 35, 2009, PLS 15270"

<b>Computer File Information</b>		<b>Index of Revisions</b>		<b>City of Arvada Engineering Division</b> 8101 Ralston Road P.O. Box 8101 Arvada, CO 80001-8101 Phone: 720-898-7640 FAX: 720-898-7603	<b>Colorado Department of Transportation</b> 2000 S. Holly Street Denver, Co 80222 Phone: 303-757-9673 FAX: 303-512-4350 Region 6	<b>As Constructed</b>		<b>Wadsworth Blvd. Trail Project Control Diagram</b>		<b>Project No./Code</b>			
Creation Date: 11/09/09	Initials: RN	(R-)				No Revisions:			STE M040-014		16464		
Last Modification Date: 12/21/09	Initials: RN	(R-)				Revised:	Designer: MF	Structure Numbers:	16464				
Full Path: H:\Projects\Trail\CDOT-Wadsworth Trail\ . . .		(R-)				Void:	Detailer: RN	Subset Sheets:	Sheet Number 10				
Drawing File Name: CDOT-Title.dwg		(R-)				Acad Ver. 2009	Scale: Noted	Units: English	(R-)				