

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

<input type="checkbox"/> Horizontal Control	Format*	PLAN SHEETS
<input type="checkbox"/> Vertical Control	PLAN SHEETS	
<input type="checkbox"/> Roadway Alignment	PLAN SHEETS	
<input type="checkbox"/> Original Terrain Data		
<input type="checkbox"/> Other:		

* Specify the information format, ie., 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: _____

SURVEY WORK TO BE PERFORMED BY OTHERS: _____

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 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 (Section 201)
- Removal Limits (Section 202)
- Reset Items (Section 210)
- Excavation and Embankment (Section 203)

- Excavation
- Unclassified
 - Stripping
 - Muck
 - Rock
 - Borrow
 - Other: _____

- Embankment
- Site Grading
 - Erosion Control (Perm)
 - Other: _____
 - As Staked Earthwork Quantities (See General Notes)

- Landscaping
- Top Soil (Section 207)
 - Seeding (Section 212)
 - Mulching (Section 213)
 - Planting (Section 214)
 - Herbicide (Section 217)
 - Other: _____

- Erosion Control (Section 208)
- Seeding (As Constructed)
 - Silt Fences
 - Straw Bales
 - Temporary Berm
 - Riprap (Temp)
 - Other (Temp Diversion, Temp Slope Drain, Brush Barrier, Check Dam, Other): _____

- Roadway Elements
- Curb and Gutter (Section 609)
 - Drop inlets - alignment and grades (Section 604)
 - Retaining Walls
 - Guard Rail (Section 606)
 - Sidewalk (Section 608)
 - Other: _____

	SLOPE STAKING (Y/N)	GRID (Y/N)	GRADE STAKES	SPECIAL INTERVAL
Excavation	YES	-	YES	50
	-	-	-	-
	YES	-	YES	50
	-	-	-	-
Embankment	YES	-	YES	50
	-	-	-	-
	-	-	-	-

- Roadway Bases
- Untreated Subgrade
 - Treated Subgrade
 - Aggregate Base Course (Section 304)
 - Reconditioning
 - PMBB - Plant Mix Bituminous Base
 - Other: _____

- Pavements
- HBP - Hot Mix Asphalt (Section 403)
 - Concrete (Section 412)
 - Overlay
 - Heating & Scarifying Treatment
 - Prime Coat, Tack Coat & Rejuvenating Agent (Section 407)
 - Seal Coat or Chip Seal (Section 409)
 - Other: _____

- Riprap (Perm) (Section 506)
- Slope and Ditch Paving (Section 507)

- Minor Structures
- Structure Excavation limits (Section 206)
 - Culverts (Section 603)
 - Culverts with Headwalls and Wingwalls (Section 601)
 - Concrete Box Culverts with Headwalls and Wingwalls
 - Pipes (Section 603)
 - Sanitary Sewer
 - Storm Sewer
 - Water
 - Irrigation
 - Miscellaneous
 - Manholes (Section 604)
 - Inlets (Section 604)
 - Other: _____

- Major Structures - Overhead Signs (Section 614), Concrete Box Culverts, Bridges - and all other structures assigned a structure number
- Structure Excavation limits (Section 206)
 - Concrete Box Culverts (Section 603) with Headwalls and Wingwalls (Section 601)
 - Piling locations and cut off elevations (Section 502)
 - Caisson locations and elevations (Section 503)
 - 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 (Section 507)
 - Other: _____

- Fencing (Section 607)
- Temporary
 - Permanent
 - Sound Barriers
 - Other: _____

- Delineators (Section 612)
- Temporary
 - Permanent
- Lighting (Section 613) and Traffic Control Devices (Permanent) (Section 614)
- Signal pole locations and elevations
 - Light pole locations and elevations
 - Signs
 - Field verify sign post locations, elevations, and lengths before fabrication.
 - Other: _____

Roadway Bases	GRID (Y/N)	SPECIAL INTERVAL	SPECIAL OFFSET
-	-	-	-
-	-	50	50
-	-	-	-
-	-	-	-

Pavements	YES	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

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

- Pavement Marking (Section 627)
- Striping (Temp)
 - Striping (Perm)
 - Symbols
 - Other: _____
- Temporary Lighting and Construction Traffic Control Devices (Section 630)
- 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 SECTION 629:

- Monumentation (Section 629)
- Control
 - Right of Way
 - Land corners, Aliquot corners
 - Easement (Perm)
 - Reference the specified existing monuments: ** _____
 - Relocate the specified existing monuments: ** _____
 - Locate monuments. It is estimated ___ hours are required.

** A Tabulation of Survey Monuments may be provided on the plans.
Note: All 629 items shall include adequate research, calculations, and evaluations of evidence for all monuments to be set.

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 10 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.
- As part of the slope staking process, the Contractor shall field verify the original ground cross sections at each 50 foot station from slope stake left of centerline to slope stake right and provide this information to the Engineer on disks in an ASCII file. This ASCII file format shall consist of a columnar structure of Station, Northing, Easting, and Elevation; or columnar structure of Station, Offset, and Elevation.

After slope staking, the "As Staked" data shall be processed by the Contractor using a CDOT accepted roadway volumetric calculation method or computer program for verification of the earthwork quantities and then be submitted to the Engineer before twenty percent (20%) of the earthwork in any given phase of construction is completed. A printed copy of the "As Staked" earthwork data and a computer disk shall be submitted to the Engineer in the aforementioned ASCII file format.
- 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): Existing Topography Verification _____

File Path: I:\PROJECTS\22241827_T05_Final_Design\6.0_Project_Deliverables\17772_Design\Drawings\17772SURV_Tab.dgn

Print Date: 10/28/2013	0000
File Name: 17772SURV_Tab.dgn	
Horiz. Scale: 1:1 Vert. Scale:	
Unit Information Unit Leader Initials	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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Montrose, CO 81401
Phone: 972-249-5285 FAX: 970-249-6018

Region 3 **RA**

As Constructed	SURVEY TABULATION SHEET		Project No./Code
No Revisions:			STA 092A-024
Revised:	Designer: P. WELLS	Structure Numbers	17772
Void:	Detailer: B. TENNANT	Sheet Subset: SUR TAB	Sheet Number 132
		Subset Sheets: 01 of 01	





Sheet Revisions		
Date mm/yy	Description	Initials
	XXXXXXXX	XXX

STATE HIGHWAY 92
 SECTION 6, T.15S., R.94W., 6th P.M., SECTION 31, T. 14S., R.93W. 6th P.M.
 SECTIONS 26, 27, 28, 31, 32, 33, 35, 36, T.14S., R.94W., 6th P.M.
 COUNTY; DELTA

Project Control Diagram				
Title Sheet				
Project Number: STA 092A-018				
Project Location: Austin to Hotchkiss Corridor				
Project Location: S.H. 92, M.P. 6.9-15.3				
Project Code	Last Mod. Date	Subset Sheets	Sheet No.	Total No. of Sheets
14934	10-03-06	1 of 4	3	55
		3.01 - 3.03	3.01	

GENERAL NOTES

Construction Surveying and Monumentation Requirements

- This Project Control Diagram represents the horizontal and vertical control for the project established by the Division. It is possible that some of the survey control monuments listed have been disturbed or obliterated. It is the Contractor's responsibility to verify the existence and stability of the control monuments before submitting a bid price.
- All Type 1 and Type 2 monuments shall be set flush with the ground. Witness posts shall be installed 1 foot from and facing all Type 1 and Type 2 monuments, or as directed by the Project Engineer.
- Installation of Type 3 and Type 3-A monuments shall be completed in the same day that installation is commenced. Under no circumstances shall holes in the roadway be left open overnight.
- When installing Type 3-A monuments, the aluminum monument box shall be positively secured in the roadway surface. The monument box shall be caulked with asphalt caulking between the monument box and the edges of the roadway surface to provide a positive moisture barrier around the monument box.
- Control survey procedures, statistical analysis, and accuracy obtained for horizontal and vertical control shall be documented in the field book.
- Legible copies of the field books shall be submitted to the Project Engineer for review on a monthly basis.
- It is ultimately the prime Contractor's responsibility to insure that these requirements, as well as any contained in the CDOT specifications, project special provisions, and CDOT Survey Manual are fulfilled under this contract.
- The minimum staking intervals for each item are described on the plans or in the CDOT Survey Manual. If the contractor wishes to reduce the minimum intervals, a Contract Modification Order must be negotiated and the cost of the item reduced accordingly.
- Whenever the contract includes the setting of CDOT Type 2 monuments, a Project Control Diagram, signed and sealed by the P.L.S. in responsible charge, shall be submitted to the Project Engineer. An AutoCad drawing on CD shall accompany the hard copy.

BASIS OF BEARINGS: All bearings are based on a line connecting CDOT Control Points 690 and 1530 as bearing N 80° 30' 50" E 40731.148sft. This control survey is based on a GPS Survey which used points K178, U429, W429 and Dead. Information may be obtained from Internet address <http://www.ngs.noaa.gov>

BASIS OF ELEVATIONS: Elevations were established by differential leveling from an existing USC&GS Vertical Control Bench Mark G178. Bench Mark NAVD 88 elevation is 1588.245 m (5210.77 feet). Complete data sheets and information may be obtained from Internet address <http://www.ngs.noaa.gov>

NOTE: This control survey is for the use of the Colorado Department of Transportation personnel. The survey is not a complete Boundary Survey. Title Policy, Title Commitment, and Title Research were not part of this control survey, therefore, easements, rights, and rights to easements, rights of way, property boundaries, and restriction, as described in the instruments of record, were not included in this control survey.

NOTE: 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 statement shown.

NOTE: No guarantee as to the accuracy of the information contained on the attached drawing is either stated or implied unless this copy bears an original signature of the professional land surveyor hereon named.

SURVEYOR STATEMENT (PROJECT CONTROL DIAGRAM)

I, Jackson E Messenger, 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.

 Jackson E. Messenger PLS No. 27272 Date
 222 South 6th Street, RM 317
 Grand Junction, Colorado 81501



Sheet Revisions

Date mm/yy	Description XXXXXXXX	Initials XXX

STATE HIGHWAY 92
 SECTION 6, T.15S., R.94W., 6th P.M., SECTION 31, T. 14S., R.93W. 6th P.M.
 SECTIONS 26, 27, 28, 31, 32, 33, 35, 36, T.14S., R.94W., 6th P.M.
 COUNTY; DELTA

Project Control Diagram

Plan Sheet

Project Number: STA 092A-018				
Project Location: Austin to Hotchkiss Corridor				
Project Location: S.H. 92, M.P. 6.9-15.3				
Project Code:	Last Mod. Date:	Subset Sheets:	Sheet No.:	Total No. of Sheets:
14934	10-03-06	4 of 4	3C	55
		3.01-3.03	3.03	

