

Sheet Revisions			Sheet Revisions		
Date	Description	Initials	Date	Description	Initials

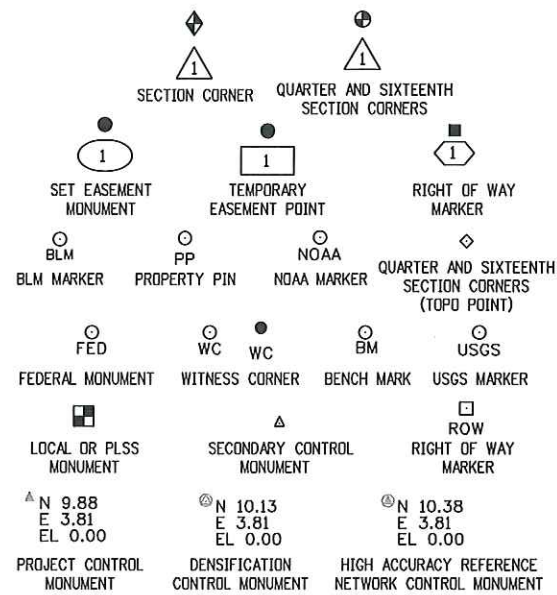
Project/Land Survey Control Diagram			
Title Sheet			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
H-13-N - ST HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	10-22-2020	3.01 of 3.04	3.01

# DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

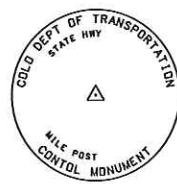
## PROJECT / LAND SURVEY CONTROL DIAGRAM

SHEET NO.	INDEX OF SHEETS
3.01-3.01	(1) Title Sheet
3.02-3.02	(1) Coordinate Tables
3.03-3.04	(2) Plan Sheet
(4) Total Sheets	

State Highway 24  
 Sections 3, 4 & 9  
 Township 12 South, Range 75 West  
 of the 6th Principal Meridian  
 Park County, Colorado



Note: For a complete listing of symbolology used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication. Existing features are shown as screened weight (gray scale). Proposed or new features are shown as full weight without screening.



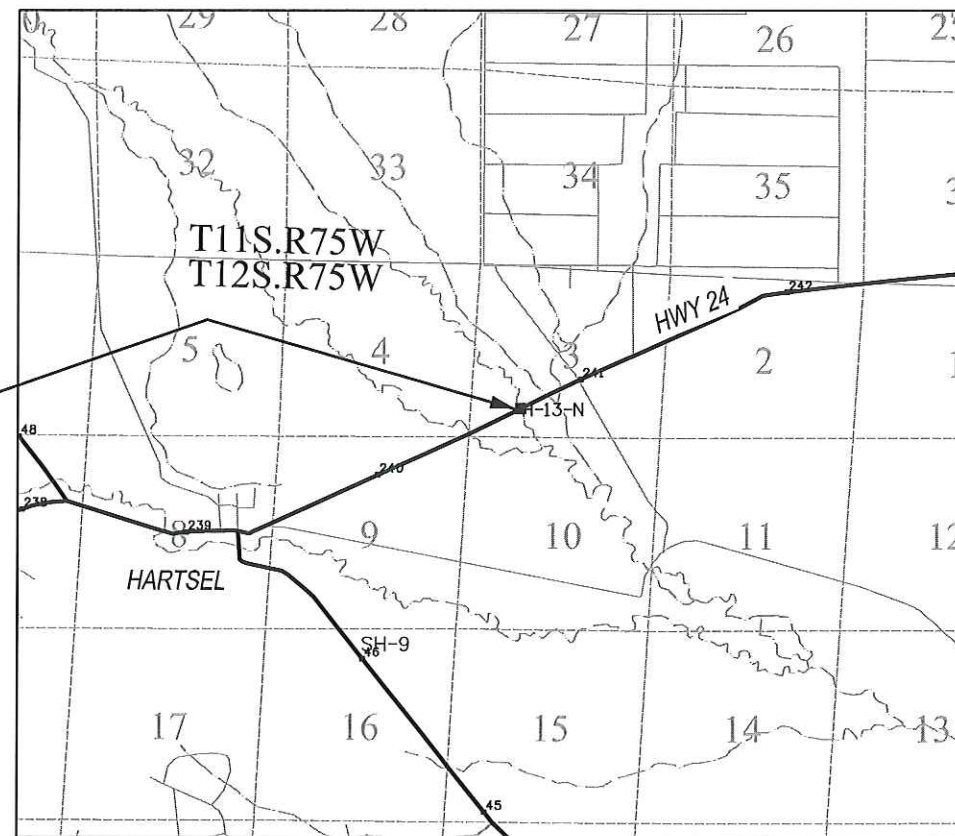
Typical Control Monument Cap  
Not to Scale

H-13-N  
ST HWY 24 - MP 240.686

▲ CM-MP - Control Point Monuments set by CDOT. They are CDOT Type 2 monuments, a 3/4" dia. aluminum control monument cap (as shown) on a 3' x 3/4" dia. aluminum security rod on a 3' x 3/4" dia. smooth aluminum rod.

**General Notes:**

- This Project Control Diagram is not a boundary survey of the adjoining property and is prepared for the Colorado Department of Transportation purposes only.
- This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with CDOT that this set is the most current. The information contained on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.
- Refer to the M-629-1 Survey Monuments of the Standard Plans found in The Colorado Department of Transportation, M & S Standards for typical survey monument descriptions.



PROJECT LOCATION MAP



The control for this project is part of a larger control network established for CDOT for Project NH 0242-048. The control was checked for accuracy.

Basis of Bearings: Bearings used in the calculations of coordinates are based on a grid bearing of N71°10'11"E from CM-MP 2405 to CM-MP 2408. Both monuments are CDOT Type II, marked appropriately for their milepost location and control position. The survey data was obtained from a Global Positioning System (GPS) survey based on the Colorado High Accuracy Reference Network (CHARN), 2nd CDOT Project 0242-035.

Basis of Elevations: Project elevations are based on Bench Mark 70 G, PID: KK0935, a standard bench mark disk set on top of a concrete monument, with a NAVD 88 elevation of 8868.52ft. 70 G is a second order class 0 benchmark.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.000485004. The CHARN is based on the NAD '83(92) datum.  
 Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing(m) \* 1.000485004) \* (3937ft/1200m).  
 Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting(m) \* 1.000485004) \* (3937ft/1200m).

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, Lorelei A. Ward, 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.

PLS No. 34982



10/29/2020 10:02:05 AM 5:03:15 PM U:\2020\0200567.00 - CDOT Bridge Bundles\33558\RAW\_Survey\H13N - US 24 MP 240.686\Drawings\33558\SURV\_H-13-N\_PCD-TitleSheet.dgn



Sheet Revisions		
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Project/Land Survey Control Diagram			
Coordinate Tables			
Project Number: FBR R200-2666			
Project Location: BRIDGE REPLACEMENT			
H-13-N			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	10-23-2020	3.02 of 3.04	3.02



Point No.	Geodetic Coordinates NAD-83(92) (CHARN)		Elip Height (NAVD88)(m)	Ortho Height (m)	Mapping Angle	Grid Scale Factor	NAD 83(92) Zone 0502		Description
	Latitude(N)	Longitude(W)					SP Northing(m)	SP Easting(m)	
	2389	39°01'15.70125"N					105°48'04.28806"W	2,693.82	
2390	39°01'15.64684"N	105°47'59.95900"W	2,692.01	2,705.80	-0°11'21"	0.999936880	436,684.32	888,424.27	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2391	39°01'16.61129"N	105°47'51.43524"W	2,689.01	2,702.69	-0°11'16"	0.999936874	436,713.39	888,629.40	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2392	39°01'16.12490"N	105°47'43.26867"W	2,688.93	2,702.66	-0°11'11"	0.999936877	436,697.75	888,825.79	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2393	39°01'19.13977"N	105°47'35.22811"W	2,688.03	2,701.76	-0°11'06"	0.999936857	436,790.09	889,019.50	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2403	39°01'40.28501"N	105°46'32.62930"W	2,678.96	2,692.75	-0°10'26"	0.999936721	437,437.40	890,527.22	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2404	39°01'40.94115"N	105°46'32.97706"W	2,678.98	2,692.78	-0°10'26"	0.999936717	437,457.66	890,518.91	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2405	39°01'45.94631"N	105°46'19.01864"W	2,676.40	2,690.19	-0°10'17"	0.999936687	437,610.98	890,855.10	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2406	39°01'45.51553"N	105°46'18.79196"W	2,677.67	2,691.47	-0°10'17"	0.999936689	437,597.68	890,860.51	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2410	39°01'52.91997"N	105°45'57.51998"W	2,678.67	2,692.47	-0°10'04"	0.999936645	437,824.49	891,372.80	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2408	39°01'48.29111"N	105°46'10.28832"W	2,675.51	2,689.25	-0°10'12"	0.999936673	437,682.66	891,065.29	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
200	39°01'19.24384"N	105°47'35.26388"W	2,688.05	2,701.84	-0°11'06"	0.999936856	436,793.30	889,018.65	#5 REBAR W/RCP "FARNSWORTH CONTROL"
70G	39°01'18.51076"N	105°47'44.96539"W	2,689.34	2,703.13	-0°11'12"	0.999936861	436,771.45	888,785.22	USGS BRASS DISC IN CONCRETE
P302	39°13'57.62520"N	105°59'09.52753"W	3,008.15	3,021.26	-0°18'23"	0.999938541	460,250.29	872,444.15	USC&GS BRASS DISC IN CONCRETE
V176	39°01'50.35114"N	105°29'26.88512"W	2,755.12	2,768.87	0°00'21"	0.999936661	437,711.61	915,198.27	USC&GS BRASS DISC IN CONCRETE
V288	38°51'11.19790"N	105°39'08.58540"W	2,803.97	2,817.89	-0°05'46"	0.999945221	418,014.06	901,174.76	USC&GS BRASS DISC IN ROCK



Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
2389	1,433,389.97	2,915,843.85	8,883.21	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2390	1,433,383.34	2,916,185.63	8,877.27	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2391	1,433,478.74	2,916,858.95	8,867.08	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2392	1,433,427.40	2,917,503.59	8,866.99	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2393	1,433,730.50	2,918,139.42	8,864.03	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2403	1,435,855.26	2,923,088.40	8,834.25	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2404	1,435,921.75	2,923,061.14	8,834.33	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2405	1,436,425.03	2,924,164.65	8,825.86	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2406	1,436,381.38	2,924,182.41	8,830.04	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2410	1,437,125.85	2,925,863.96	8,833.43	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2408	1,436,660.31	2,924,854.58	8,822.99	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
200	1,433,741.04	2,918,136.63	8,864.08	#5 REBAR W/RCP "FARNSWORTH CONTROL"
70G	1,433,669.33	2,917,370.41	8,868.52	USGS BRASS DISC IN CONCRETE



Point No.	Northing(ft)	Easting(ft)	Description
5100	1,437,484.89	2,926,412.45	FND CDOH BRASS CAP IN CONC. STA1466+40.9
5101	1,437,492.13	2,926,188.87	FND CDOH BRASS CAP IN CONC. STA1464+40.7
5102	1,437,658.64	2,926,789.63	FND CDOH BRASS CAP IN CONC. STA1470+56.3
5103	1,437,316.74	2,926,405.89	FND CDOH BRASS CAP IN CONC. STA1465+65
5104	1,437,037.89	2,925,920.65	FND CDOH BRASS CAP IN CONC. STA1760+06.6
5105	1,437,039.40	2,925,685.56	FND CDOH BRASS CAP IN CONC. STA1757+93.4
5106	1,437,085.58	2,925,784.90	1" YPC BURNETT PLS 11944
5107	1,437,770.67	2,927,343.29	FND CDOH BRASS CAP IN CONC. STA1476+06.5
5108	1,437,662.96	2,927,157.09	FND CDOH BRASS CAP IN CONC. STA1473+92
5109	1,437,644.67	2,927,117.90	FND CDOH BRASS CAP IN CONC. STA1473+48.7
5110	1,437,507.45	2,926,819.82	1" ALUM CAP +0.3 ABOVE GRADE
5111	1,435,900.49	2,922,975.56	1" ALUM CAP +0.3 ABOVE GRADE
5112	1,437,310.26	2,925,795.02	FND CDOH BRASS CAP IN CONC. STA 1760+06.6



5615 Wills Boulevard  
Pueblo, CO 81008  
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Region 2

DRP

Sheet Revisions		
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**Farnsworth**  
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Project/Land Survey Control Diagram			
Plan Sheet			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
H-13-N - US HIGHWAY 24			
Project Code:	Last Mod. Date:	Subset	Sheet No.
23558	11-05-2020	3.03 of 3.04	3.03

SE QUARTER SECTION 4

SW QUARTER SECTION 3

NE QUARTER SECTION 9

SW QUARTER SECTION 10

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5111  
1" ALUM CAP  
+0.3 ABOVE GRADE  
PP

1430+00  
2404  
3.25" ALUM CDDT  
TYPE 2 MONUMENT  
N 1435921.75  
E 2923061.14  
EL 8834.33

2403  
3.25" ALUM CDDT  
TYPE 2 MONUMENT  
N 1435855.26  
E 2923088.40  
EL 8834.25

H-13-M BRIDGE

1435+00

1440+00  
2405  
3.25" ALUM CDDT  
TYPE 2 MONUMENT  
N 1436425.03  
E 2924164.65  
EL 8825.86

2406  
3.25" ALUM CDDT  
TYPE 2 MONUMENT  
N 1436381.38  
E 2924182.41  
EL 8830.04

1445+00

1450+00

1455+00

ST HWY 24

N 65°15'07" W

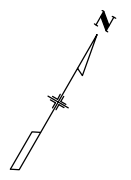
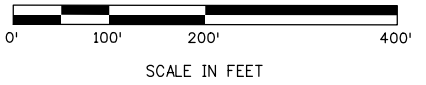
H-13-N BRIDGE

2408  
3.25" ALUM CDDT  
TYPE 2 MONUMENT  
N 1436660.31  
E 2924854.58  
EL 8822.99

MIDDLE FORK OF THE SOUTH PLATTE RIVER

MATCH LINE

MATCH LINE





5615 Wills Boulevard  
Pueblo, CO 81008  
Phone: 719-546-5746 FAX: 719-546-5414

Region 2

DRP

Sheet Revisions

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Project/Land Survey Control Diagram

Plan Sheet

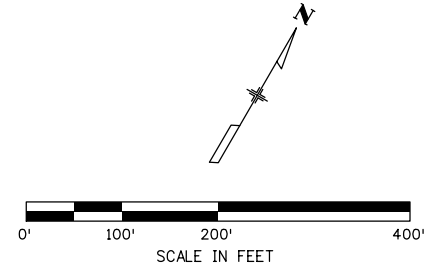
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
H-13-N - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11-05-2020	3.04 of 3.04	3.04

T-12-S R-75-W  
6TH PM

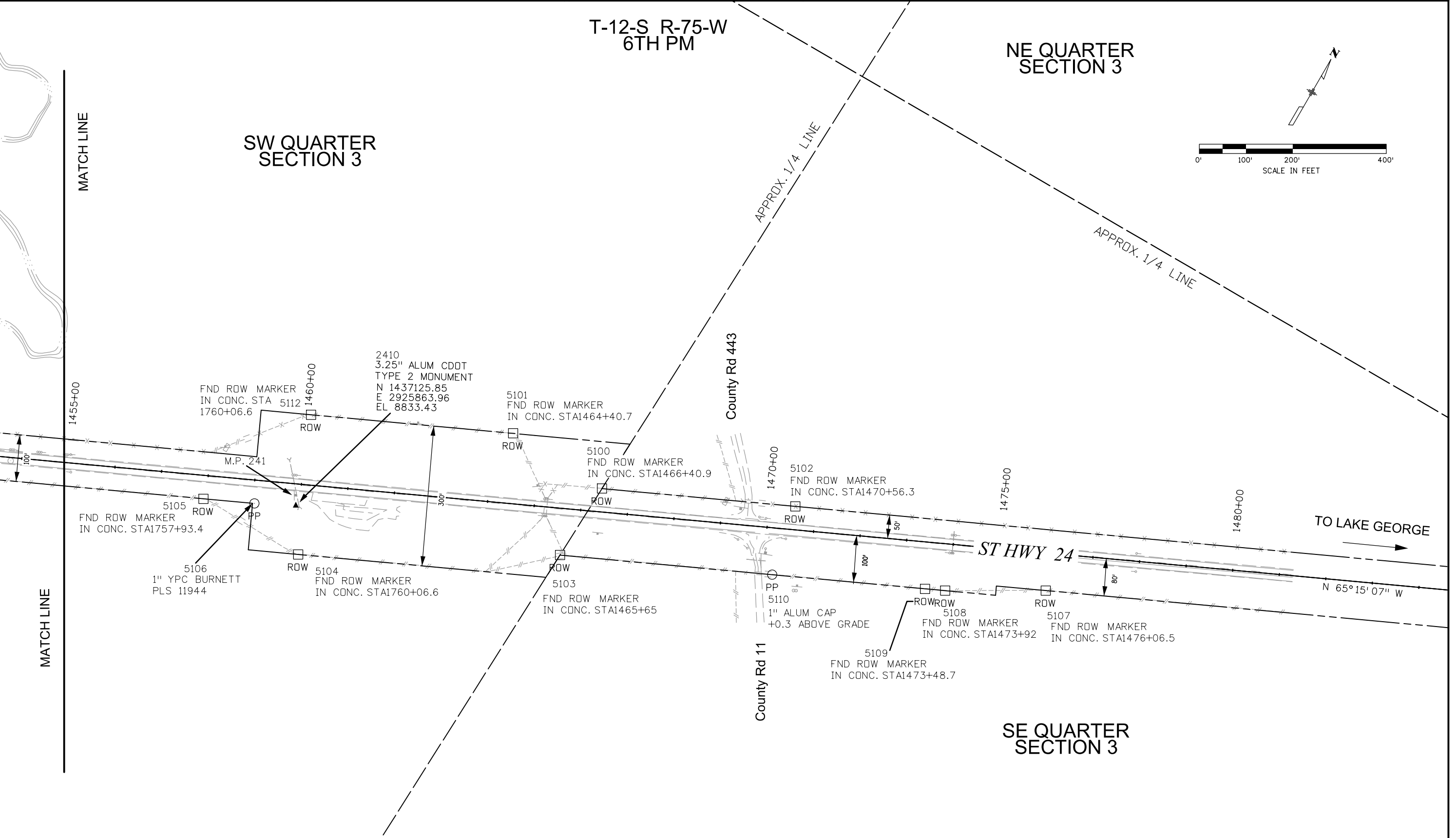
NE QUARTER  
SECTION 3

SW QUARTER  
SECTION 3

SE QUARTER  
SECTION 3



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MATCH LINE

MATCH LINE