

CUT/FILL SUMMARY

Cut/Fill Summary						
Surface	Cut Factor	Fill Factor	2D Area (sf)	Cut (CY)	Fill (CY)	Net (CY)
West Shoulder (Sta 5+48.82 thru 15+58.52)	1	1	14929.23	994.07	23.05	971.02 (Cut)
Access Road (Sta 0+00 thru Sta 5+48.82)	1	1	5373.71	219.44	173.67	45.77 (Cut)
East Shoulder (Sta 5+48.82 thru 15+58.52)	1	1	4248.00	2.04	200.14	-198.1 (Fill)
Totals			24550.94	1215.55	396.86	818.69 (Cut)

REVIEWED
For Code Compliance
Sep 07 2021
J Severson
BOULDER COUNTY
BUILDING SAFETY

APPROVED

MAPPING PROJECTION:

GEODETIC COORDINATES ARE BASED ON NAD 83 (2011), ORTHOMETRIC HEIGHTS ARE BASED ON NAVD 88 (GEOID 12B), COORDINATES ARE BASED ON COLORADO STATE PLANE, NORTH ZONE (501), UNITS ARE IN US SURVEY FEET (SFT).

PROJECT COORDINATES WERE MODIFIED TO GROUND (SITE) AT A CENTROID BETWEEN NGS CONTROL POINTS DESIGNATED: ALLEN, OLOUGHLIN, & ZIEBARTH.

CENTROID
NAD 83 GEOGRAPHIC COORDINATES:
LATITUDE = 40° 15' 25.40910" (N)
LONGITUDE = 105° 21' 27.96636" (W)

PROJECT HEIGHT USED FOR MODIFICATION = 6950.0 SFT

PROJECT (GROUND) COORDINATES ARE MODIFIED AS FOLLOWS:

1. STATE PLANE COORDINATES ARE MULTIPLIED BY THE RECIPROCAL OF THE COMBINED SCALE FACTOR
COMBINED SCALE FACTOR RECIPROCAL = 1.000374975
COMBINED SCALE FACTOR = 0.999625165

BASIS OF BEARING:

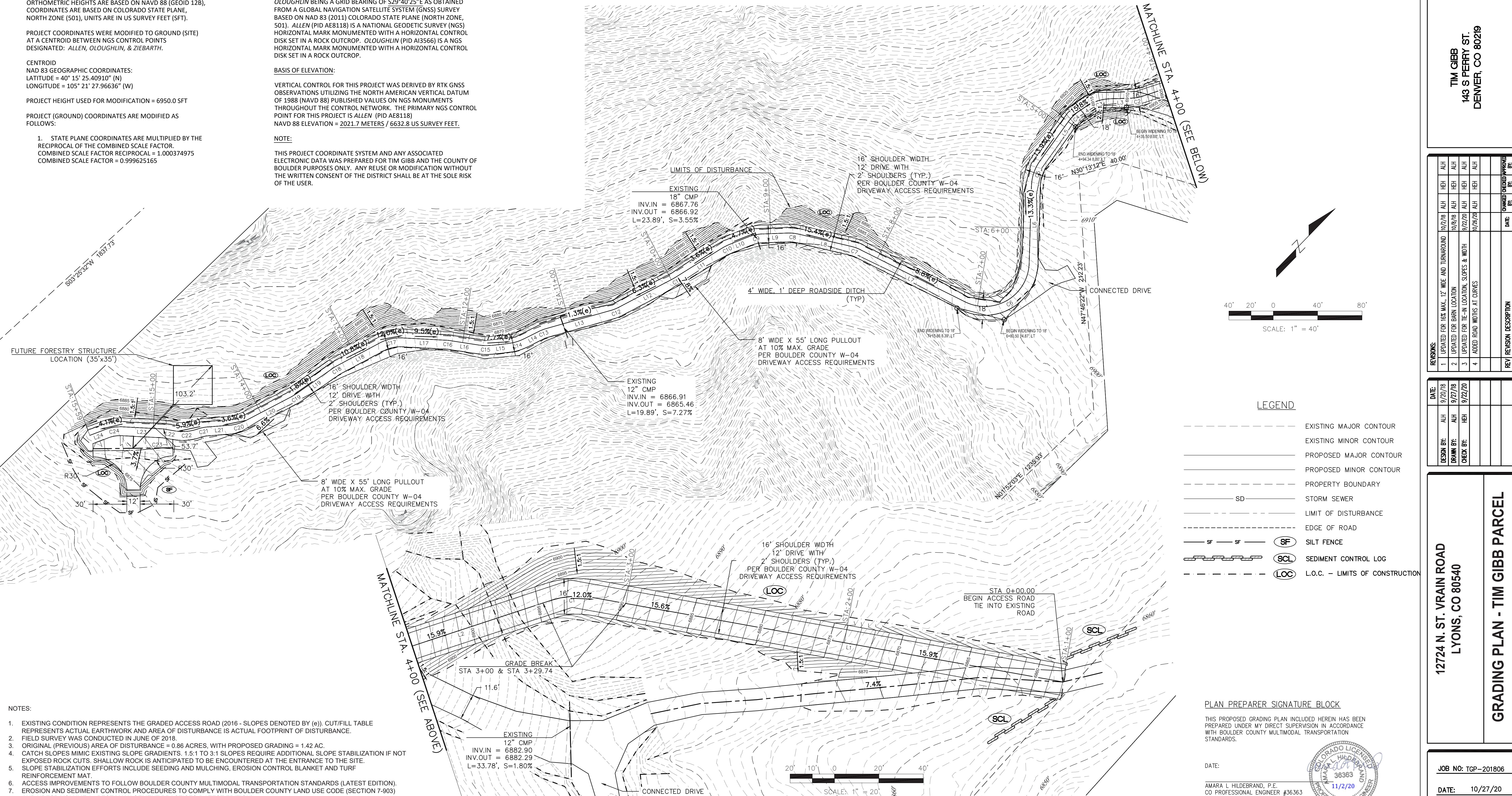
ALL BEARINGS ARE BASED ON A LINE CONNECTING ALLEN TO OLOUGHLIN BEING A GRID BEARING OF S29°40'25"E AS OBTAINED FROM A GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) SURVEY BASED ON NAD 83 (2011) COLORADO STATE PLANE (NORTH ZONE, 501). ALLEN (PID AE8118) IS A NATIONAL GEODETIC SURVEY (NGS) HORIZONTAL MARK MONUMENTED WITH A HORIZONTAL CONTROL DISK SET IN A ROCK OUTCROP. OLOUGHLIN (PID AI3566) IS A NGS HORIZONTAL MARK MONUMENTED WITH A HORIZONTAL CONTROL DISK SET IN A ROCK OUTCROP.

BASIS OF ELEVATION:

VERTICAL CONTROL FOR THIS PROJECT WAS DERIVED BY RTK GNSS OBSERVATIONS UTILIZING THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) PUBLISHED VALUES ON NGS MONUMENTS THROUGHOUT THE CONTROL NETWORK. THE PRIMARY NGS CONTROL POINT FOR THIS PROJECT IS ALLEN (PID AE8118)
NAVD 88 ELEVATION = 2021.7 METERS / 6632.8 US SURVEY FEET.

NOTE:

THIS PROJECT COORDINATE SYSTEM AND ANY ASSOCIATED ELECTRONIC DATA WAS PREPARED FOR TIM GIBB AND THE COUNTY OF BOULDER PURPOSES ONLY. ANY REUSE OR MODIFICATION WITHOUT THE WRITTEN CONSENT OF THE DISTRICT SHALL BE AT THE SOLE RISK OF THE USER.



NOTES:

1. EXISTING CONDITION REPRESENTS THE GRADED ACCESS ROAD (2016 - SLOPES DENOTED BY (e)). CUT/FILL TABLE REPRESENTS ACTUAL EARTHWORK AND AREA OF DISTURBANCE IS ACTUAL FOOTPRINT OF DISTURBANCE.
2. FIELD SURVEY WAS CONDUCTED IN JUNE OF 2018.
3. ORIGINAL (PREVIOUS) AREA OF DISTURBANCE = 0.86 ACRES, WITH PROPOSED GRADING = 1.42 AC.
4. CATCH SLOPES MIMIC EXISTING SLOPE GRADIENTS. 1.5:1 TO 3:1 SLOPES REQUIRE ADDITIONAL SLOPE STABILIZATION IF NOT EXPOSED ROCK CUTS. SHALLOW ROCK IS ANTICIPATED TO BE ENCOUNTERED AT THE ENTRANCE TO THE SITE.
5. SLOPE STABILIZATION EFFORTS INCLUDE SEEDING AND MULCHING, EROSION CONTROL BLANKET AND TURF REINFORCEMENT MAT.
6. ACCESS IMPROVEMENTS TO FOLLOW BOULDER COUNTY MULTIMODAL TRANSPORTATION STANDARDS (LATEST EDITION).
7. EROSION AND SEDIMENT CONTROL PROCEDURES TO COMPLY WITH BOULDER COUNTY LAND USE CODE (SECTION 7-903) AND UDFCD VOLUME 3 - BEST MANAGEMENT PRACTICES (LATEST EDITION).
8. ACCESS SURFACE SHALL BE 4" ABC (CLASS 6) OR APPROVED EQUAL.

Eugene Lynne
EUGENE LYNNE, LLC
PO BOX 27691
LAKEWOOD, CO 80227
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TIM GIBB
143 S PERRY ST.
DENVER, CO 80219

REV	DESCRIPTION	DATE	FORWARD DESIGNED BY	DATE
1	UPDATED FOR 15% MAX. 12' WIDE AND TURNAROUND	10/27/18	ALH	HEH
2	UPDATED FOR BARR LOCATION	10/27/18	ALH	HEH
3	UPDATED FOR TIE-IN LOCATION, SLOPES & WIDTH	02/22/20	ALH	HEH
4	ADDED ROAD WIDTHS AT CURVES	10/26/20	ALH	HEH

DATE	REVISION
9/20/18	ALH
9/27/18	ALH
9/22/20	ALH

12724 N. ST. VRAIN ROAD
LYONS, CO 80540
GRADING PLAN - TIM GIBB PARCEL

JOB NO: TGP-201806
DATE: 10/27/20
SHEET 1 of 3

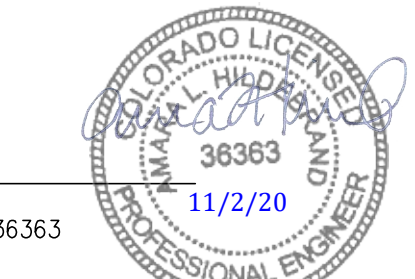
LEGEND

---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	PROPERTY BOUNDARY
SD	STORM SEWER
---	LIMIT OF DISTURBANCE
---	EDGE OF ROAD
SF	SILT FENCE
SCL	SEDIMENT CONTROL LOG
LOC	L.O.C. - LIMITS OF CONSTRUCTION

PLAN PREPARER SIGNATURE BLOCK

THIS PROPOSED GRADING PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH BOULDER COUNTY MULTIMODAL TRANSPORTATION STANDARDS.

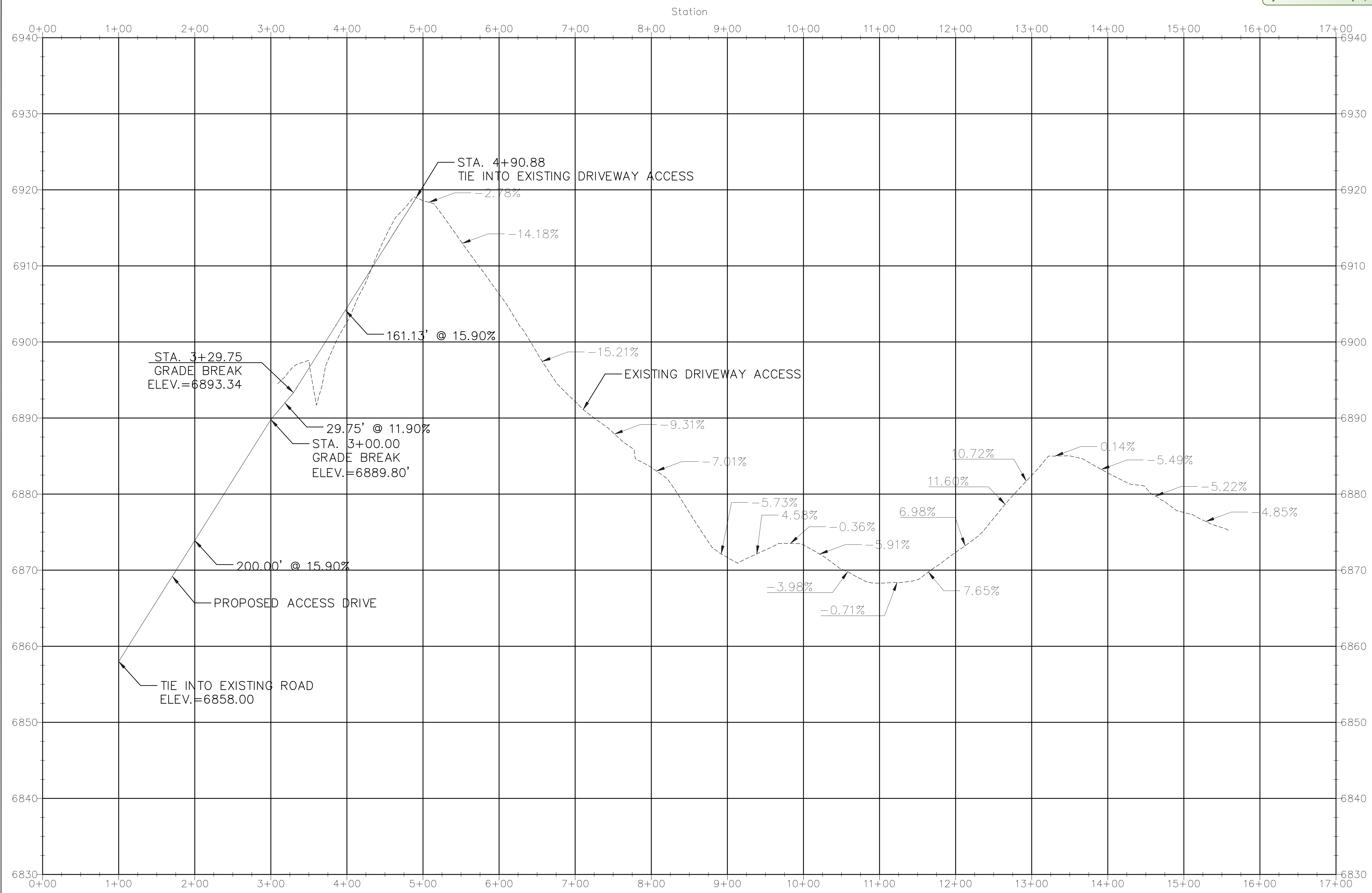
DATE:
AMARA L. HILDEBRAND, P.E.
CO PROFESSIONAL ENGINEER #36363



ACCESS ROAD DETAIL 1"=20'

Proposed Access Centerline Complete PROFILE

APPROVED
By J Severson at 1:14 pm, Sep 07, 2021



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EUGENE LYNNE, LLC
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TIM GIBB
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DENVER, CO 80219

REV	REVISION DESCRIPTION	DATE	FORWARDED BY	DATE
1	UPDATED FOR 15% MAX. 12' WIDE AND TURNAROUND	10/27/20	ALH	ALH
2	UPDATED FOR BANK LOCATION	10/27/20	ALH	ALH
3	UPDATED FOR TIE-IN LOCATION, SLOPES & WIDTH	10/27/20	ALH	ALH
4	DRIVEWAY ACCESS PROFILE	10/27/20	ALH	ALH

DESIGN BY	DATE
ALH	9/20/18
ALH	10/13/20
ALH	10/13/20

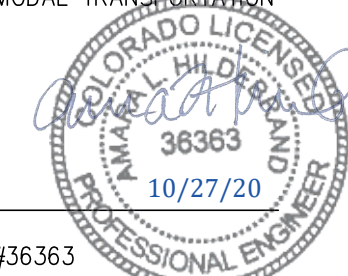
12724 N. ST. VRAIN ROAD
LYONS, CO 80540
DRIVEWAY ACCESS PROFILE

JOB NO: TGP-201806
DATE: 10/27/20
SHEET 2 of 3

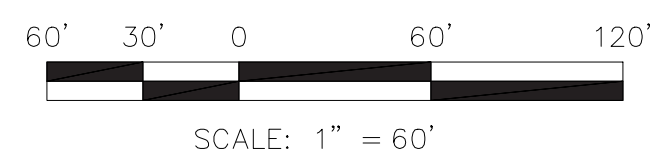
PLAN PREPARER SIGNATURE BLOCK

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DATE:



AMARA L. HILDEBRAND, P.E.
CO PROFESSIONAL ENGINEER #38365



ACCESS ROAD PROFILE H: 1"=60', V: 1"=6'

LINE	BEARING	LENGTH	START POINT	END POINT
L1	S55° 59' 54"W	214.88	N=1337725.68 E=3040469.41	N=13377605.51 E=3040291.27
L2	S27° 36' 35"W	85.39	N=1337590.89 E=3040278.19	N=1337515.23 E=3040238.62
L3	S44° 25' 23"W	18.15	N=1337505.77 E=3040231.74	N=1337492.81 E=3040219.04
L4	S13° 04' 06"W	7.47	N=1337473.85 E=3040208.65	N=1337466.58 E=3040206.96
L5	S08° 25' 35"E	43.79	N=1337451.67 E=3040206.35	N=1337408.35 E=3040212.77
L6	S42° 28' 46"E	69.89	N=1337387.20 E=3040222.84	N=1337335.66 E=3040270.04
L7	S72° 17' 18"W	105.06	N=1337270.54 E=3040252.70	N=1337238.58 E=3040152.63
L8	S58° 56' 53"W	48.18	N=1337234.74 E=3040144.16	N=1337209.89 E=3040102.89
L9	S43° 44' 44"W	21.89	N=1337203.28 E=3040094.62	N=1337187.46 E=3040079.48
L10	S24° 07' 18"W	18.27	N=1337176.15 E=3040071.87	N=1337159.47 E=3040064.40
L11	S13° 46' 23"W	49.12	N=1337152.65 E=3040062.06	N=1337104.94 E=3040050.37
L12	S18° 05' 40"W	54.86	N=1337102.04 E=3040049.54	N=1337049.89 E=3040032.50
L13	S30° 08' 59"W	59.95	N=1337042.23 E=3040029.07	N=1336990.39 E=3039998.96
L14	S19° 09' 18"W	14.81	N=1336983.42 E=3039995.76	N=1336969.44 E=3039990.90
L15	S39° 25' 30"W	15.65	N=1336957.16 E=3039984.01	N=1336945.07 E=3039974.07
L16	S54° 26' 27"W	26.87	N=1336937.93 E=3039966.44	N=1336922.30 E=3039944.58
L17	S48° 51' 11"W	39.15	N=1336919.88 E=3039941.52	N=1336894.12 E=3039912.04
L18	S17° 44' 20"W	43.27	N=1336876.19 E=3039900.26	N=1336834.98 E=3039887.35
L19	S10° 52' 46"W	39.58	N=1336830.34 E=3039885.90	N=1336791.47 E=3039878.42
L20	S18° 16' 24"W	46.20	N=1336786.48 E=3039877.13	N=1336742.60 E=3039862.64
L21	S41° 24' 25"W	18.85	N=1336728.69 E=3039854.66	N=1336714.55 E=3039842.19
L22	S55° 24' 55"W	8.36	N=1336691.35 E=3039823.55	N=1336686.60 E=3039816.67
L23	S48° 49' 47"W	34.54	N=1336663.78 E=3039813.04	N=1336661.05 E=3039787.04
L24	S25° 10' 17"W	14.51	N=1336647.95 E=3039777.17	N=1336634.81 E=3039771.80

CURVE #	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD DISTANCE	P.I. STATION	P.I. N-E
C1	28° 23' 19"	40.00	19.82	S41° 48' 14.35"W	19.62	3+25.00	N=1337599.86 E=3040282.88
C2	16° 48' 48"	40.00	11.74	S36° 00' 58.69"W	11.70	4+26.00	N=1337509.99 E=3040235.88
C3	31° 21' 17"	40.00	21.89	S28° 44' 44.11"W	21.62	4+61.20	N=1337484.79 E=3040211.18
C4	21° 29' 40"	40.00	15.01	S02° 19' 15.34"W	14.92	4+86.92	N=1337459.18 E=3040205.24
C5	34° 03' 11"	40.00	23.77	S25° 27' 10.23"E	23.43	5+50.38	N=1337396.24 E=3040214.56
C6	114° 46' 04"	40.00	80.12	S14° 54' 16.40"W	67.38	6+94.30	N=1337289.56 E=3040270.25
C7	13° 20' 26"	40.00	9.31	S65° 37' 05.53"W	9.29	8+21.65	N=1337237.16 E=3040148.17
C8	15° 12' 08"	40.00	10.61	S51° 20' 48.45"W	10.58	8+79.80	N=1337207.14 E=3040098.31
C9	19° 37' 26"	40.00	13.70	S33° 56' 01.37"W	13.63	9+13.89	N=1337182.47 E=3040074.70
C10	10° 20' 55"	40.00	7.22	S18° 56' 50.96"W	7.21	9+42.57	N=1337156.17 E=3040062.92
C11	4° 19' 17"	40.00	3.02	S15° 56' 01.91"W	3.02	9+96.80	N=1337103.48 E=3040050.01
C12	12° 03' 18"	40.00	8.42	S24° 07' 19.45"W	8.40	10+57.40	N=1337045.88 E=3040031.19
C13	10° 59' 41"	40.00	7.68	S24° 39' 08.12"W	7.66	11+25.39	N=1336987.06 E=3039997.02
C14	20° 16' 12"	40.00	14.15	S29° 17' 23.82"W	14.08	11+51.17	N=1336962.68 E=3039988.56
C15	15° 00' 58"	40.00	10.48	S46° 55' 58.70"W	10.45	11+79.10	N=1336940.99 E=3039970.73
C16	5° 35' 16"	40.00	3.90	S51° 38' 49.30"W	3.90	12+13.13	N=1336921.17 E=3039942.99
C17	31° 06' 51"	40.00	21.72	S33° 17' 45.56"W	21.46	12+65.36	N=1336886.79 E=3039912.65
C18	6° 51' 34"	40.00	4.79	S14° 18' 32.75"W	4.79	13+21.61	N=1336832.70 E=3039887.35
C19	7° 23' 39"	40.00	5.16	S14° 34' 34.87"W	5.16	13+66.17	N=1336788.93 E=3039877.94
C20	23° 08' 01"	40.00	16.15	S29° 50' 24.84"W	16.04	14+23.14	N=1336734.83 E=3039860.07
C21	14° 31' 07"	40.00	10.14	S34° 08' 51.98"W	10.11	14+55.05	N=1336710.73 E=3039838.82
C22	28° 31' 36"	40.00	19.92	S41° 09' 06.71"W	19.71	14+70.26	N=1336697.12 E=3039816.92
C23	6° 35' 08"	40.00	4.60	S52° 07' 20.73"W	4.60	14+90.66	N=1336685.30 E=3039814.77
C24	23° 39' 30"	40.00	16.52	S37° 00' 01.63"W	16.40	15+35.87	N=1336655.53 E=3039780.74

Boulder County Multimodal Transportation Standards

Table 5.5.1 Parcel Access Design Standards

	One-Lane Access		Two-Lane Access	
	Plains	Mountains	Plains	Mountains
# of units	1 - 5		6 - 15	
Travelway Width (8' turnsouts, 8x55' incl. tapers - required every 400')	10'	12'	18'	18'
Surface Course	Per geotechnical report ¹		Per geotechnical report	
ROW/Easement Width (min.)	20' w/turnouts		30'	
Centerline Radius (min.)	40'		40'	
Max. Grade (%)	12	12 or up to 14 for 200' max. ²	12	12 or up to 14 for 200' max.
Max. Grade through curve	6% ³		6%	
Clearance Vertical/Horizontal	13'-6" / 14'	13'-6" / 16'	13'-6" / 22'	
Roadside Ditches	Designed and constructed to Standard Drawings. See BCSDCM and USDCM for permanent erosion control practices.		Designed and constructed to Standard Drawings. See BCSDCM and USDCM for permanent erosion control practices.	
Slope Stability	Per geotechnical recommendations to design stability and facilitate revegetation ⁴		Per geotechnical recommendations to design stability and facilitate revegetation ⁴	
Signs and Traffic Control Devices	Required signs and traffic control devices must conform with the MUTCD, latest edition		Required signs and traffic control devices must conform with the MUTCD, latest edition	
Culverts	Min. 18" or equiv. capacity RCP or CMP in public ROW per Standard Drawing		Min. 18" or equiv. capacity RCP or CMP in public ROW per Standard Drawing	
Sight Distances	per AASHTO recommendations		per AASHTO recommendations	
Approach to Highway	90° to centerline of highway with max. 30° variation		90° to centerline of highway with max. 30° variation	
Standard Drawings	11, 12, 13, 14, 15, 16, 17, 18, 19		11, 12, 13, 14, 15, 16, 17, 18, 19	
Overall Design Principles	See Section 5.1		See Section 5.1	

¹ Accesses serving one dwelling unit shall use 4" ABC (Class 6) or other suitable material as approved by the Transportation Department.
² Accesses serving one dwelling unit may use 16% for 200' max.
³ Accesses serving one dwelling unit may use up to 8% w/ 2' additional width.
⁴ Accesses serving one dwelling unit may use 1 1/2 : 1 max. cut and fill slopes or per geotechnical recommendations to design stability and facilitate revegetation.

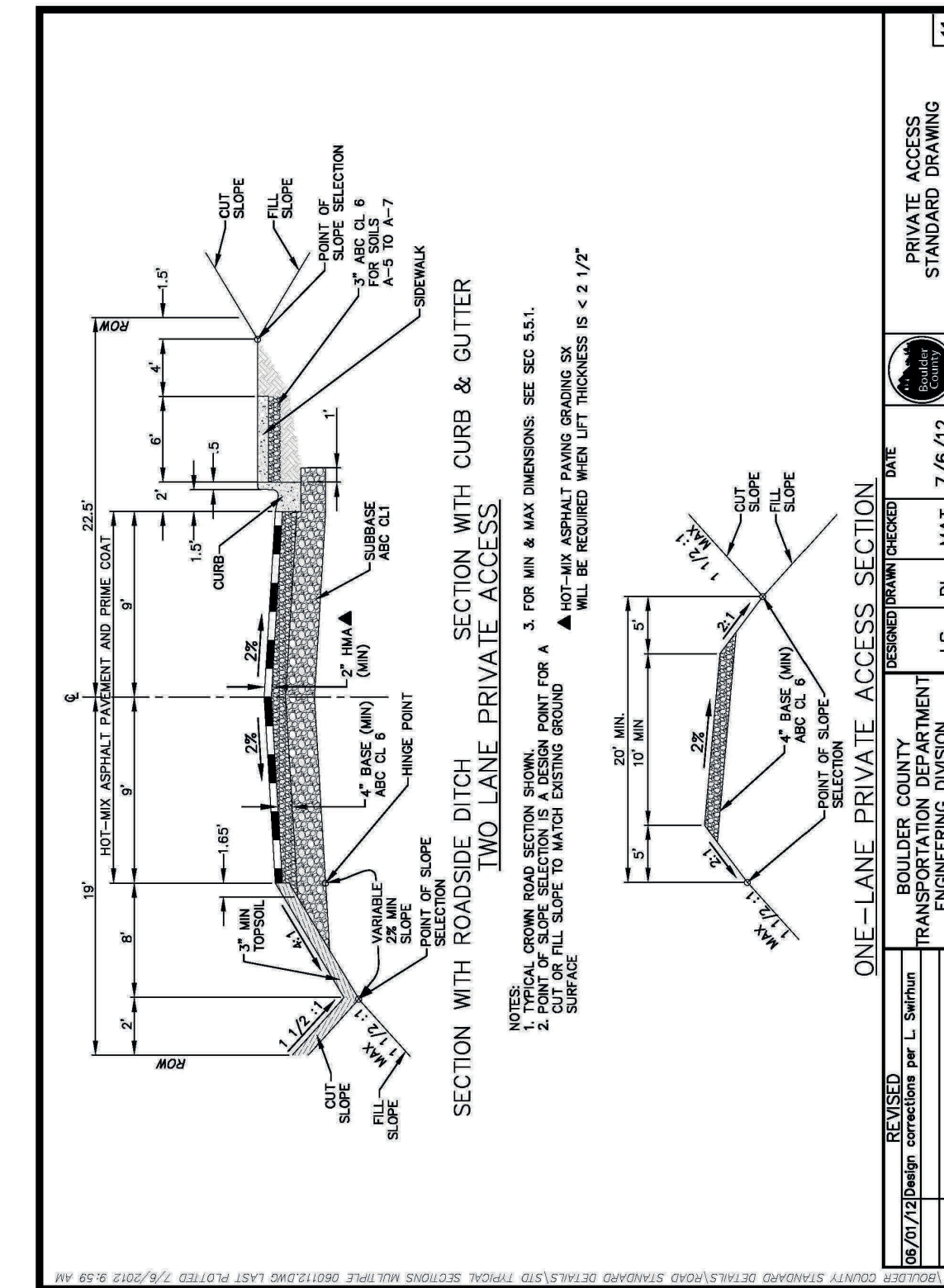
July 1, 2012

53

A-16

Boulder County Multimodal Transportation Standards

Standard Drawing 11



APPROVED
 By J Severson at 1:15 pm, Sep 07, 2021

DESIGNED	REVISION	DATE
CS	DL	MAT 7/6/12
Boulder County Transportation Department Engineering Division		
REVISION	DATE	DESCRIPTION
1	7/6/12	CS

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TIM GIBB
 143 S PERRY ST.
 DENVER, CO 80219

REV	DATE	DESCRIPTION
1	9/20/18	ALH
2	9/27/18	ALH
3	9/22/20	ALH
4	10/09/20	ALH

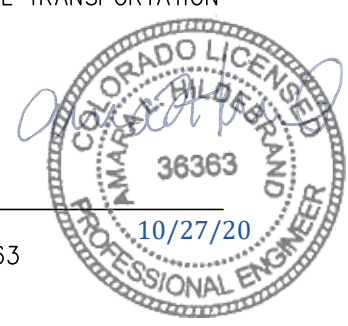
REVISIONS	DATE	DESCRIPTION
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4	10/09/20	ALH

12724 N. ST. VRAIN ROAD
 LYONS, CO 80540
 DETAILS - TIM GIBB PARCEL

PLAN PREPARER SIGNATURE BLOCK

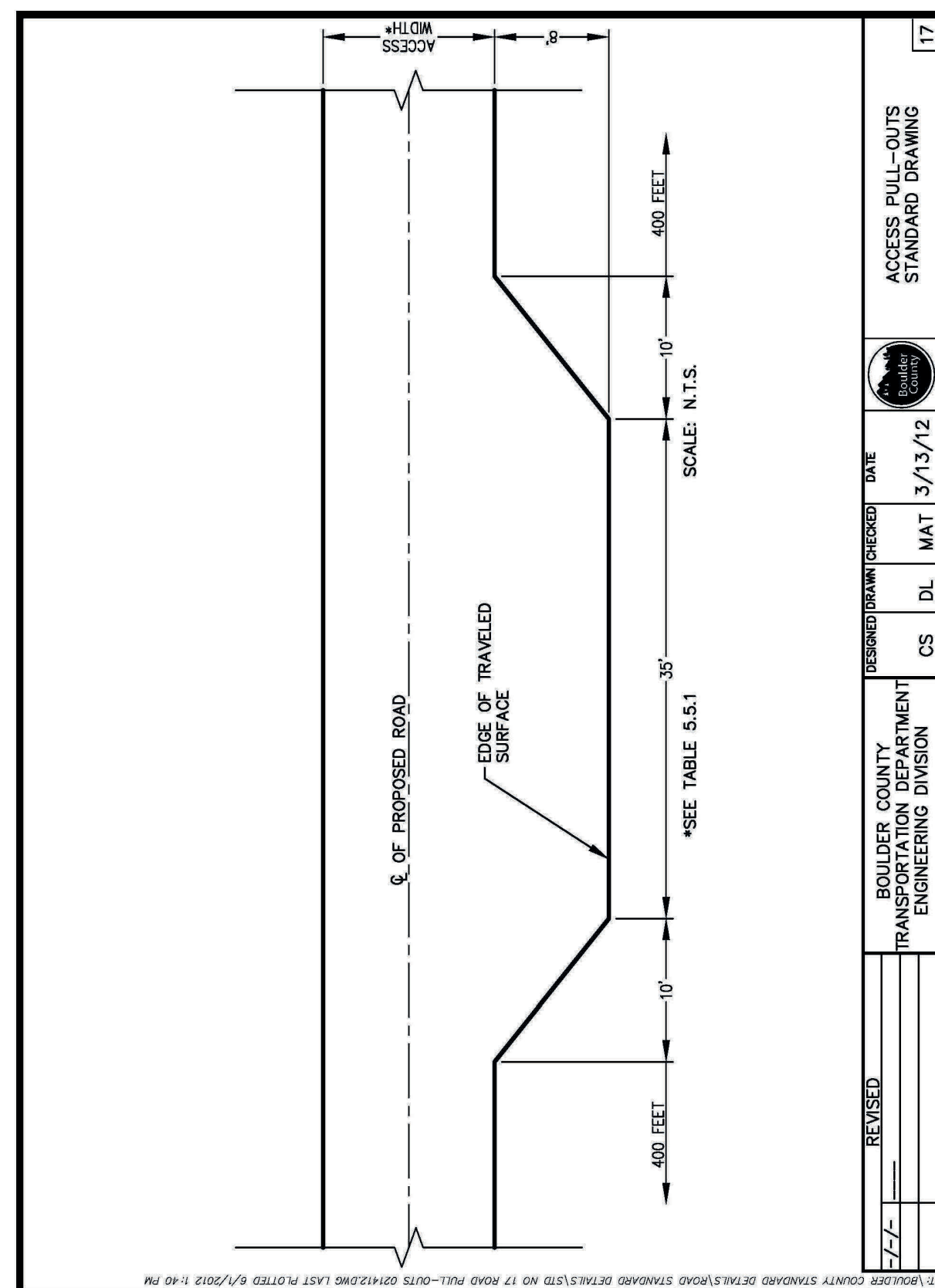
THIS PROPOSED GRADING PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH BOULDER COUNTY MULTIMODAL TRANSPORTATION STANDARDS.

DATE: 10/27/20
 AMARA L HILDEBRAND, P.E.
 CO PROFESSIONAL ENGINEER #36363



Boulder County Multimodal Transportation Standards

Standard Drawing 17

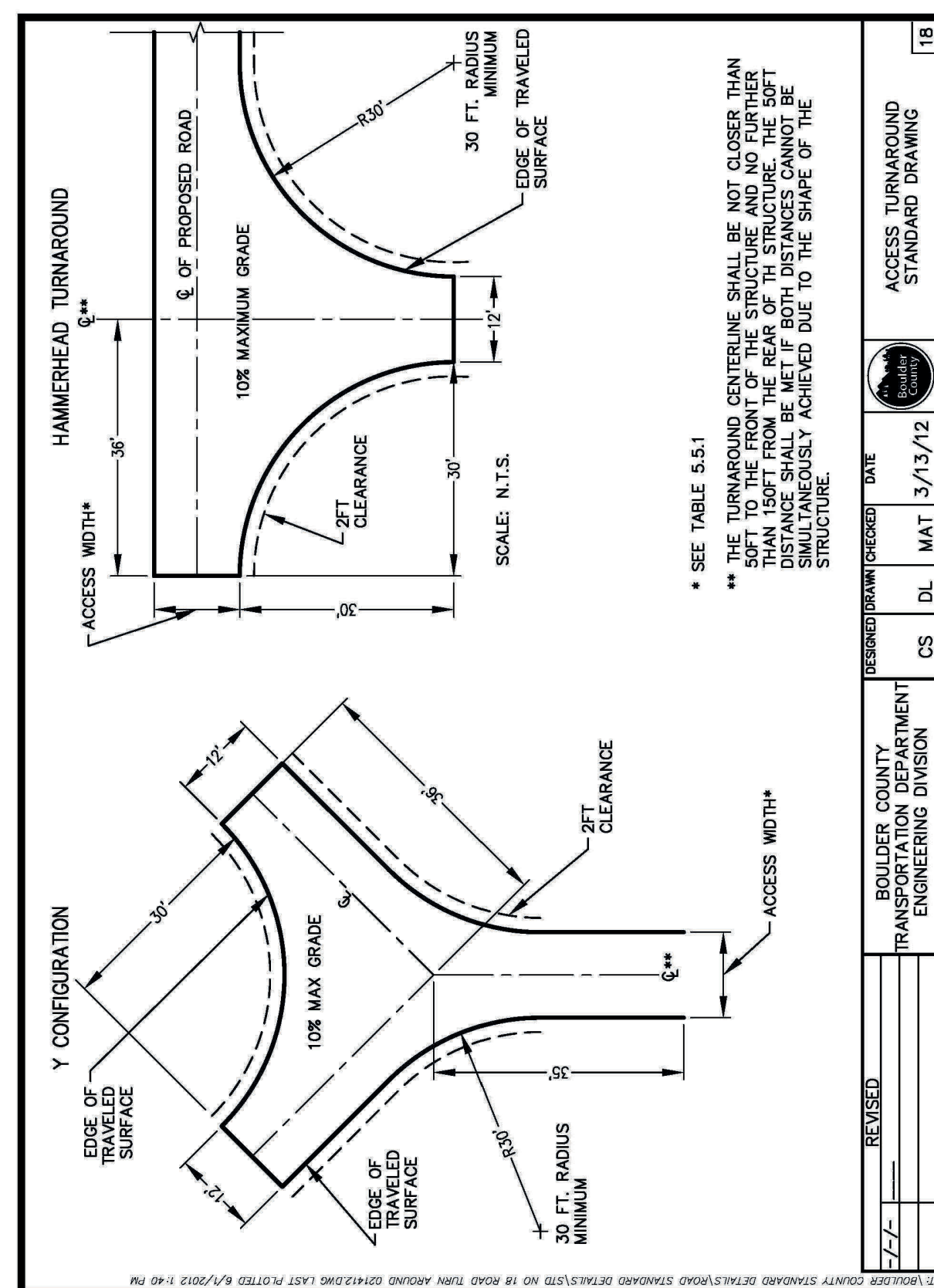


July 1, 2012

A-22

Boulder County Multimodal Transportation Standards

Standard Drawing 18

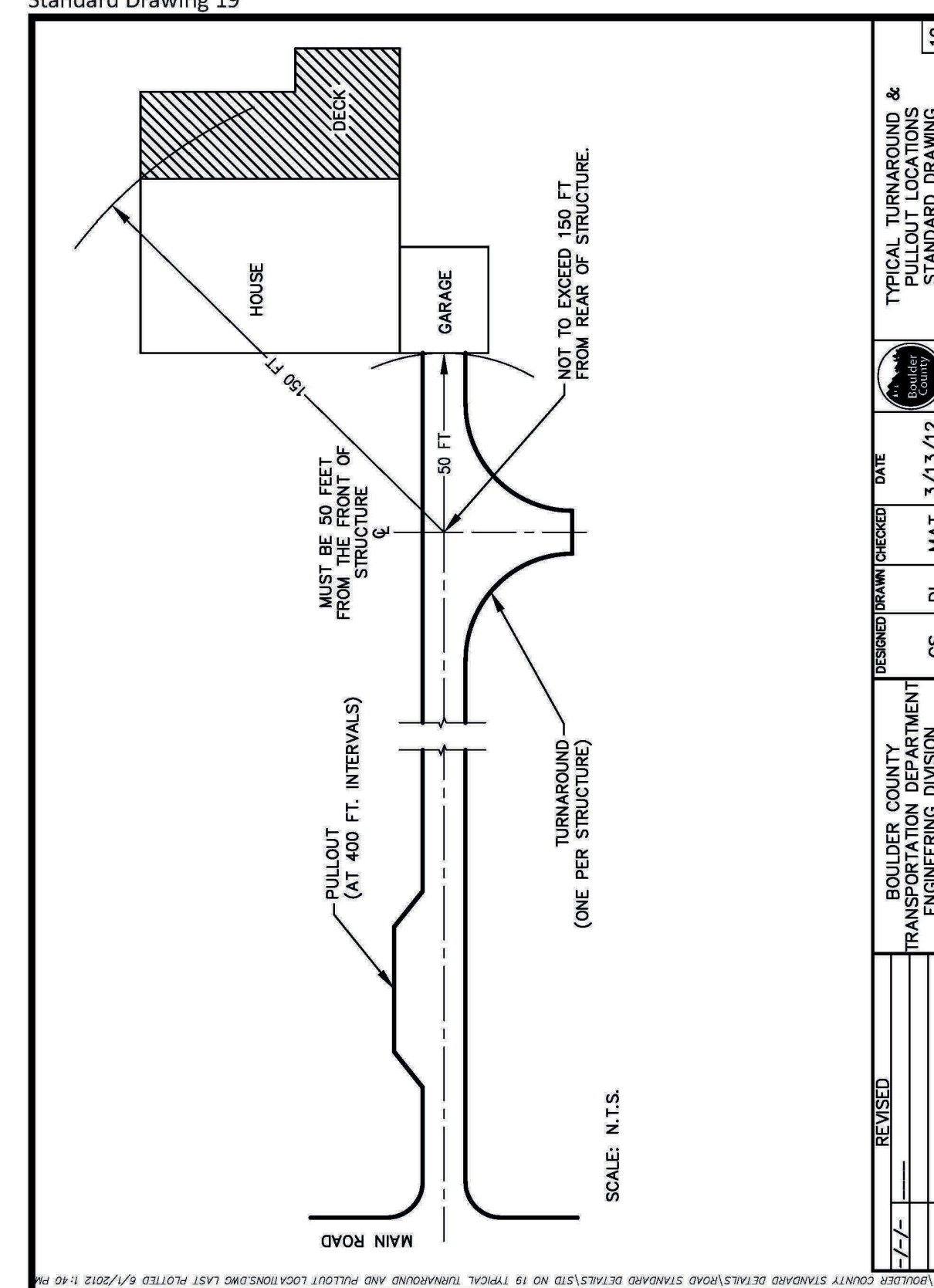


July 1, 2012

A-23

Boulder County Multimodal Transportation Standards

Standard Drawing 19



July 1, 2012

A-24