COUNTY OF ALPINE
Community Development
50 Diamond Valley Rd
Markleeville, CA 96120
530-694-2140 530-694-2149
Website: Alpinecountyca.gov

Encroachment Permit Application

In Compliance With Alpine County Code 12.08 and California Streets & Highways Code The Undersigned Hereby Applies For Permission To Construct The Following Improvement Or Otherwise Encroach Upon A County Road Reservation Or Right Of Way, As Follows:
Complete all items below. If item is not applicable enter "N/A".
Application is not complete until all required attachments are included.

Situs Address: _____ APN: _____

Applicant Name: _____ Applicant Phone #:_____

Applicant Address: _____

Applicant Email: _____

Excavation:

Max Depth:_____ Average Depth:_____ Average Width_____

Length:_____ Road Surface Type:_____

Pipes:

Type:_____ Diameter:_____

Voltage or PSIG:_____

On What Side of the County Road will the work be Performed:

North South East West

FULLY DESCRIBE WORK TO BE PERFORMED WITHIN COUNTY RIGHT OF WAY. (Who, What, Where, When, Why, How)
Attach complete drawings (__ sets) folded to 8.5"by 11" showing specifications, calculations, maps etc. Attach additional pages if necessary. Incomplete or illegible applications will be returned for correction. ***Applicants for driveway encroachments must mark the intended driveway location by a stake with orange paint or flag bearing the applicants last name, the address, and the Assessor's parcel number.***

Signature: _____

Date: _____

For County Use Only:
Date Received: _____ Application #:_____
Received By: _____ Surety Amount: _____
Receipt #: _____ Total Amount Received:_____

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The Undersigned Agrees that the work will be done in accordance with County Standards and Regulations and is subject to inspection and approval. In consideration of the granting of this application, the applicant hereby agrees to:

1. Indemnify, defend and save the County, its authorized agents, officers, representatives and employees, harmless from and against any and all penalties, liabilities or loss resulting from claims or court action and arising out of any accident, loss or damage to persons or property happening or occurring as a proximate result of any work undertaken under the permit granted pursuant to this application.
2. Remove or relocate an encroachment installed or maintained under this permit, upon written notice from the Community Development Department.
3. Notify the Community Development Department in writing at least 48 hours in advance of the time when work will be started, and upon completion of the work, immediately notify the Community Development Department in writing of such completion.
4. The permit applicant shall accept full responsibility for complying with Federal, State and County environmental laws receiving any necessary environmental clearances and/or permits, prior to commencing any work as authorized by this permit.

Applicant	*Address*	*Telephone*	*Signature*
Contractor	*Address*	*Telephone*	*License No.*
Property Owner Print Name	*Address*	*Telephone*	
Authorized Signature of Property Owner (Agent signing must include power of attorney)		*Date Signed*	

Standard Encroachment Permit Conditions
General Instructions:

1. WORK MUST BE INSPECTED - work done without inspection may have to be removed and reconstructed.
2. PROTECTION – Provide enough barricades, lights, signs, cones, flaggers and other safety measures to protect the public, in accordance with the current California Manual on Uniform Traffic Control Devices.
3. TRAFFIC – A County road may not be closed to public traffic without the approval of the Board of Supervisors. Unless noted otherwise in the Permit Conditions, the permittee must keep a minimum 10 foot-wide travel lane open to traffic while working and at all other times the road shall be completely open for traffic.
4. STANDARDS – Work shall be in accordance with the latest Caltrans Standard Specifications and Plans as well as the County Standards Specifications and Plans.
5. UTILITIES – Utility relocations are the responsibility of the permittee.
6. UNDERGROUND SERVICE ALERT (USA) – Must be contacted in advance of any excavation in the road

7. SURVEY MONUMENTS SHALL BE PROTECTED – Any survey monuments removed or disturbed shall be replaced using surveying practices acceptable to the County Surveyor.
8. Field Changes – Any modifications due to field conditions must be approved by the inspector.
9. STAFF CHARGES – Permittee is responsible for all staff charges associated with the permit. Any exceptions must be resolved before the permit is issued.
10. IF WORK IS PERFORMED WITHOUT PERMIT – All work is subject to removal and/or reinstallation. The Fee for working without a permit shall **DOUBLE** the amount on the fee schedule.

Special Requirements – Driveways (Driveways shall be constructed from edge of pavement to property line)

1. Minimum Driveway construction shall be 2 inches of Asphalt Pavement on 6 inches of Class 2 Aggregate Base. Concrete Driveways shall be a minimum of 6 inches Class 3 concrete over 3 inches of Class 2 Aggregate Base. The Driveway is to be sloped to prevent Stormwater runoff to flow on to the County road and shall not interfere with roadside drainage or cause erosion or deposition of silt.
2. Driveway location shall comply with County standards and shall not interfere with a legal encroachment or cause a hazard or nuisance.
3. Where Driveways connect to County roads without curbs, shape a valley gutter across the Driveway such that the flow line matches the flow line of the roadside ditch or install a culvert (minimum diameter 18 inches) across the entire driveway matching the flow line of the culvert with the flow line of the roadside ditch.

Special Requirements – Road Cuts

1. TRENCH EXCAVATION – Trench excavation and backfill requirements shall be in accordance with County Standard____unless specifically approved by the Community Services Director or the inspector.
2. TEMPORARY PAVING (1.5 inches Type A Asphalt Concrete) or PLATING must be placed at the end of each work day.
3. NO JETTING is ALLOWED under any paved County road or within 4 feet from the existing edge of pavement. Trench compaction is to be achieved by impact, vibration or combination.

TABLE 9-1

	RESIDENTIAL – DRIVEWAY AND LANE STANDARDS			
PARAMETER	**DRIVEWAY (RDW)**	**TWO PARCEL LANE (RL2)**	**THREE TO FIVE PARCEL LANE (RL5)**	**NOTES**
General Parameters (Typical Section and Horizontal Criteria)				
Alignment	90 degrees preferred. 80-100 degrees acceptable.	90 degrees preferred. 80-100 degrees acceptable.	90 degrees preferred. 80-100 degrees acceptable.	See R-5 and R-6
Access easement width, min.	Greater of 22' or 4 feet beyond the top of cut or toe of fills for required minimum driveway roadway surface and shoulder	Greater of 30' or 4 feet beyond the top of cuts or toe of fills for required minimum roadway surface and shoulder	Greater of 30' or 4 feet beyond the top of cuts or toe of fills for required minimum roadway surface structure and shoulder	
Number of encroachments per parcel, max.	Two if more than 120' frontage and parcel more than 1/2 acre. Minimum 50' separation between driveway centerlines	See Note 5	See Note 5	See Note 5
Access location for parcel with access to more than one street		Access will generally be limited to the lowest volume street		
Vehicular access facility clearance from obstructions, min.	3'	3'	3'	The nearest edge of driveway cut shall be at least 3 feet from the centerline of a fire hydrant, utility pole, traffic signal, light standard or other
Vehicular access facility separation from property line of parcel not using facility, min.	6'	6'	25'	
Vertical Clearance, min.	15'	15'	15'	
Structural Section- min.		2"HMA w/4"CL2 AB 8"CL2 AB	2"HMA w/6"CL2 AB 8"CL2 AB	See R-6 and Note 7
Traveled Way Width, *Unpaved Surface* where straight or inside horizontal radius is greater than 200' min.	12'	20' See Note 11	22'	See R-5

Traveled Way Width, *Paved Surface* where straight or inside horizontal radius is greater than. 200' min.	10'	20' See Note 11	20'	See R-5 Kirkwood: Driveways providing access to garages or parking areas set back more than 20 feet from the property line shall have a minimum width of

PARAMETER	DRIVEWAY (RDW)	TWO PARCEL LANE (RL2)	THREE TO FIVE PARCEL LANE (RL5)	NOTES
General Parameters (Typical Section and Horizontal Criteria) (Continued)				
Traveled Way width, where inside horizontal radius is greater than 100' and less than 200', min.	12'	20'	20' paved, 22' unpaved	See R-5
Traveled Way width, where inside horizontal radius is greater than 50' and less than 100', min.	14'	22'	22'	See R-5
Traveled Way width, One Way Vehicular Access Facility min.	Same as widths for Residential Driveway parameter	Same as widths for Residential Driveway parameter	Same as widths for Residential Driveway parameter	
Roadway Width within Right of Way max.	28'	36'	36'	Does not include flares; additional 5' shoulder is acceptable.
Shoulder width, each side min.	1' unless stabilized edge of driveway, 2 sack mix or equal	1' unless stabilized edge of roadway, 2 sack mix or equal	1' unless stabilized edge of roadway, 2 sack mix or equal	See R-10
Gate Location	30' from serving roadway to allow for vehicle staging	30' from serving roadway to allow for vehicle staging	30' from serving roadway to allow for vehicle staging	Gate may not interfere with staging area and must be accessible to the satisfaction
Gate width, garage entry width for multi-family or commercial parking structures, min.	Minimum driveway width + 1' on each side	Minimum lane width + 1' on each side	Minimum lane width + 1' on each side	

PARAMETER	DRIVEWAY (RDW)	TWO PARCEL LANE (RL2)	THREE TO FIVE PARCEL LANE (RL5)	NOTES
Grades and Vertical Curves (Vertical Criteria)				
Traveled Way Curve Inside Radius, minimum	50'	50'	50'	See width parameters for widening required for
Traveled Way Flare Radius, encroaching onto minor road or smaller	8' See R-5	See R-6	See R-6	
Centerline Profile Grade - Unpaved, max.	10%	10%	10%	See Note 8 and R-7
Centerline Profile Grade - Paved, max.	13%	13%	13%	See Note 8 and R-7
Centerline Profile Grade within Right of Way Encroachment	Minus 2-5% from EOP for: 8' Min for encroachment onto minor road or smaller; 10' Min for encroachment onto collector road; Then +/- 5% max. to P/L	Minus 2-5% from EOP for: 8' Min for encroachment onto minor road or smaller; 10' min. for encroachment onto collector road; Then +/- 5% max. to P/L	Minus 2-5% from EOP for: 8' Min for encroachment onto minor road or smaller; 10' min. for encroachment onto collector road; Then +/- 5% max. to P/L	See Note 8 and R-7
Vertical curve transition, 4-8% change in grade minimum	1/2' transition length per % change in grade	1/2' transition length per % change in grade	1/2' transition length per % change in grade for crest, 1' per % change in grade sag	Minimum criteria, designers should anticipate actual vehicle use and adjust
Vertical curve transition, 8-12% change in grade	1' transition length per % change in grade	1' transition length per % change in grade	Professional design required	Minimum criteria, designers should anticipate actual vehicle use and adjust
Vertical curve transition, 13+% change in grade	2' Transition length per % change	2' Transition length per % change	Professional design required	Minimum criteria, designers should anticipate actual vehicle use and adjust
Roadway Cross Slope, min.	1%	1%	1%	See R-5
Roadway Cross Slope, recommended	2%	2%	2%	See R-5
Roadway Cross Slope, max.	5%	5%	4%	See R-5

PARAMETER	DRIVEWAY (RDW)	TWO PARCEL LANE (RL2)	THREE TO FIVE PARCEL LANE (RL5)	NOTES
Shoulders, Drainage and Crossings				
Shoulder Cross Slope	5%	5%	5%	See R-5
Drainage Ditch Flow line from Shoulder Edge, min.	4'	4'	4'	See R-7
Drainage Ditch Side Slope, max.	1.5:1 stabilized; 2:1 unstabilized	1.5:1 stabilized; 2:1 unstabilized	1.5:1 stabilized; 2:1 unstabilized	See R-7
Drainage Depth at flow line, below fog line (or elevation at outside edge of traffic lane width for serving road width) min.	2.5'	2.5'	2.5'	See R-7
Culvert cover, min.	12	12"	12"	See R-5 and R-7 See Note 9 and Section 7.06
Culvert Size for Ditch Crossing, minimum	18" CMP or 15" HDPE	18" CMP or 15" HDPE	18" CMP or 15" HDPE	See R-5 and R-7 See
Bridges				Reviewed and permitted on a case by case basis. See Note 10
Intersection Parameters				
Sight Distance, min.	See R-5	See R-6	See R-6	See R-5 and R-6 See
Flare Setback, min.	N/A	See R-6	See R-6	See R-6
Flare Taper length, min.	N/A	See R-6	See R-6	See R-6

PARAMETER	DRIVEWAY (RDW)	TWO PARCEL LANE (RL2)	THREE TO FIVE PARCEL LANE (RL5)	NOTES
Turnarounds – Cul-De-Sac and Hammerhead				
No parking, fire lane pavement marking or signage	As required by fire chief, fire official, or CalFire	As required by fire chief, fire official, or CalFire	As required by fire chief, fire official, or CalFire	
Traveled Way Radius Cul-de-sac turnaround, min	50'	50'	50'	See R-13
Traveled Way Radius – Cul-de-sac turnaround center island, max.	35'	35'	35'	
Traveled Way Inside Radius - hammerhead turnaround, min.	30'	26'	25'	See R-14
Leg length from centerline-hammerhead turnaround, min.	40', two terminal leg lengths must total 100'	40', two terminal leg lengths must total 100'	40', two terminal leg lengths must total 100'	See R-14
Leg width- hammerhead turnaround, min.	14'	18'	20'	See R-14
Clearing of obstructions beyond roadway surface, all turnarounds, min.	4'	4'	4'	See R-13 and R-14
Turnaround, when required	When driveway length is greater than 300'	Required for dead end lanes	Required for dead end lanes	See Note 4
Turnouts				
Turnout Frequency - Driveways greater than 800', min.	Intervisible and no more than 400' between turnouts	N/A	N/A	
Turnout Frequency - Driveways length greater than 150' and less than 800', min.	Intervisible and no more than 400' between turnouts	N/A	N/A	
Turnout Frequency - 1-way, 1-traffic lane, min.	Intervisible and no more than 400' between turnouts	Intervisible and no more than 400' between turnouts	Intervisible and no more than 400' between turnouts	
Turnout - Width, min.	10'	10'	10'	Only required for single lane facility where permitted
Turnout - Length, min.	30'	30'	30'	Only required for single lane facility where permitted
Turnout - Taper Length, min.	25'	25'	25'	Only required for single lane facility where permitted

NOTES (Appended to Tables 9-1, 9-2 and 9-3)

Note 1 – The maximum length of a dead-end road including all dead-end roads accessed from the dead-end road, shall not exceed the following cumulative lengths:

Serving parcels zoned for less than 1 acre ----------800 feet

Serving parcels zoned for 1 acre to 4.99 acres----------1320 feet

Serving parcels zoned for 5 acres to 19.99 acres---------2640 feet

Serving parcels zoned for 20 acres or larger----------5280 feet

All lengths shall be measured from the edge of the roadway surface at the intersection that begins the road to the end of the road surface at it farthest point. Where a dead-end road crosses areas of differing zoned parcel sizes, requiring different length limits, the shortest allowable length shall apply.

Note 2 – Documentation of grade taking into account subsequent surfacing to be installed shall be provided by an appropriately licensed professional prior to application of base material when the road is over 7% and unpaved, and when over 12% when paved. The County Engineer may require grade documentation in other cases, regardless of intended slope.

Note 3 – All one-way roads shall connect to a two-lane road at both ends and may provide access to an area in which the General Plan would allow no more than 10 dwelling units. Maximum length of one-way roads is 2640 feet.

Note 4 – Turnarounds are required at the terminus of all dead end roads or lanes and shall be provided at a maximum of 1320 foot intervals, not including the intersection. A turnaround shall be provided at all building sites on driveways over 300 feet in length and shall be within 50 feet of the building. Where a one way single lane traffic lane provides access to a gated entrance, a turnaround is required before the gate.

Note 5 - A lane may have two entrances when served by a private road not offered for dedication or accepted for maintenance by the County.

Note 6 - Designs that vary from the typical drawings shown on R-13 and R-14 may be approved provided they can be shown to allow the maximum size fire equipment that serves the area to turnaround with no more than 3 maneuvers.

Note 7 - Must meet SRA Fire Safe Regulations. Design by a qualified professional may be required by the Director of Public Works or the Chief Building Official.

Note 8 -

(a) Driveway grade for atypical encroachments for 30 feet beyond EOP shall be the same as driveway grade within the ROW. Recommendation is -2% from EOP within ROW for downhill driveway staging, and -4% for 8 feet from EOP for uphill driveways to allow for proper drainage routing to the roadside ditch and vehicle staging.

(b) Documentation of grade taking into account subsequent surfacing to be installed shall be provided by an appropriately licensed professional prior to application of base rock when over 7% and unpaved, and when over 12% and paved. The Director of Public Works and/ or the Building Official may require grade documentation in other cases, regardless of intended slope. Kirkwood specific plan requires that vehicular access centerline slope for a distance of 20' from the Right of Way line may not exceed 10% when serving 4 or fewer dwellings, or 8% when serving 5 or more dwellings.

Note 9 - Alternative designs for ditch crossings (Standard Drawing R-7) will be considered on a case by case basis, including use of arch pipes, if pipe sizes proposed are determined to be of capacity equivalent to those shown; alternative bedding or cover techniques; and when crossings are over atypical ditches.

Note 10 –

(a) All driveway, road, street, and private lane roadway structures (including bridges) shall be constructed to carry at least the maximum load and provide the minimum vertical clearance as required by Vehicle Code Sections 35550, 35750 and 35250, or these standards, whichever are more stringent.

(b) Appropriate signing, including but not limited to weight or vertical clearance limitations, one- way road or single lane conditions, shall reflect the capability of each bridge.

(c) A bridge with only one traffic lane may be authorized; however, it shall provide for unobstructed visibility from one end to the other and turnouts at both ends.

(d) Development permit applications that include a bridge shall include appropriate engineering calculations, and documentation of permits or approvals from all other appropriate agencies.

Note 11 - An 18' travel way width may be permitted where deed restrictions limit the construction on two parcels served to 1 Group R, Div. 3 Occupancy/ parcel. This arrangement is typical of a duplex.

Note 12 –

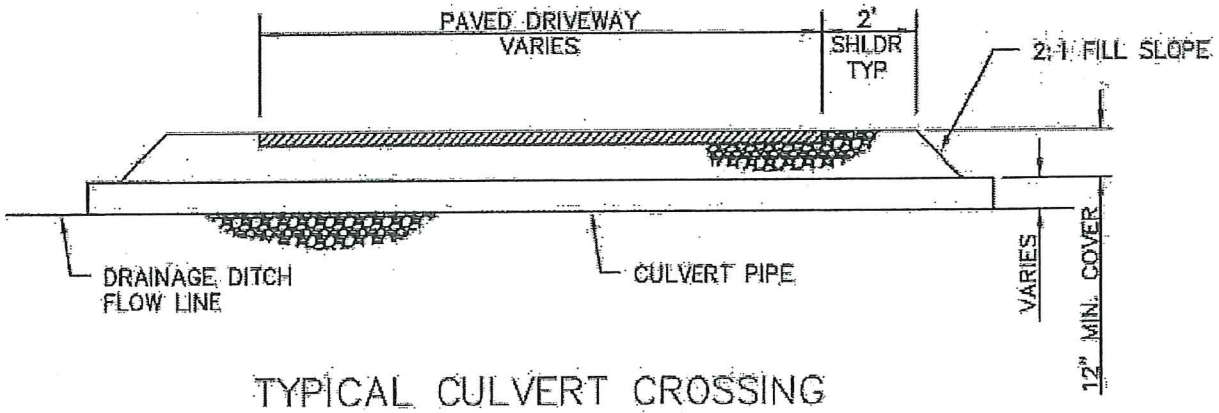
(a) Kirkwood specific plan requires that driveways providing access to garages or parking areas that are set back more than 20 feet from the property line shall have a maximum width of 14 feet at the property line; driveways providing access to garages and parking areas that are set back 20 feet or less from the street right of way shall not exceed the width of the garage door opening plus 2 feet at the property line.

(b) Kirkwood Specific Plan allows a maximum grade of 8% for not less than 20 feet from the right- of-way of a street.

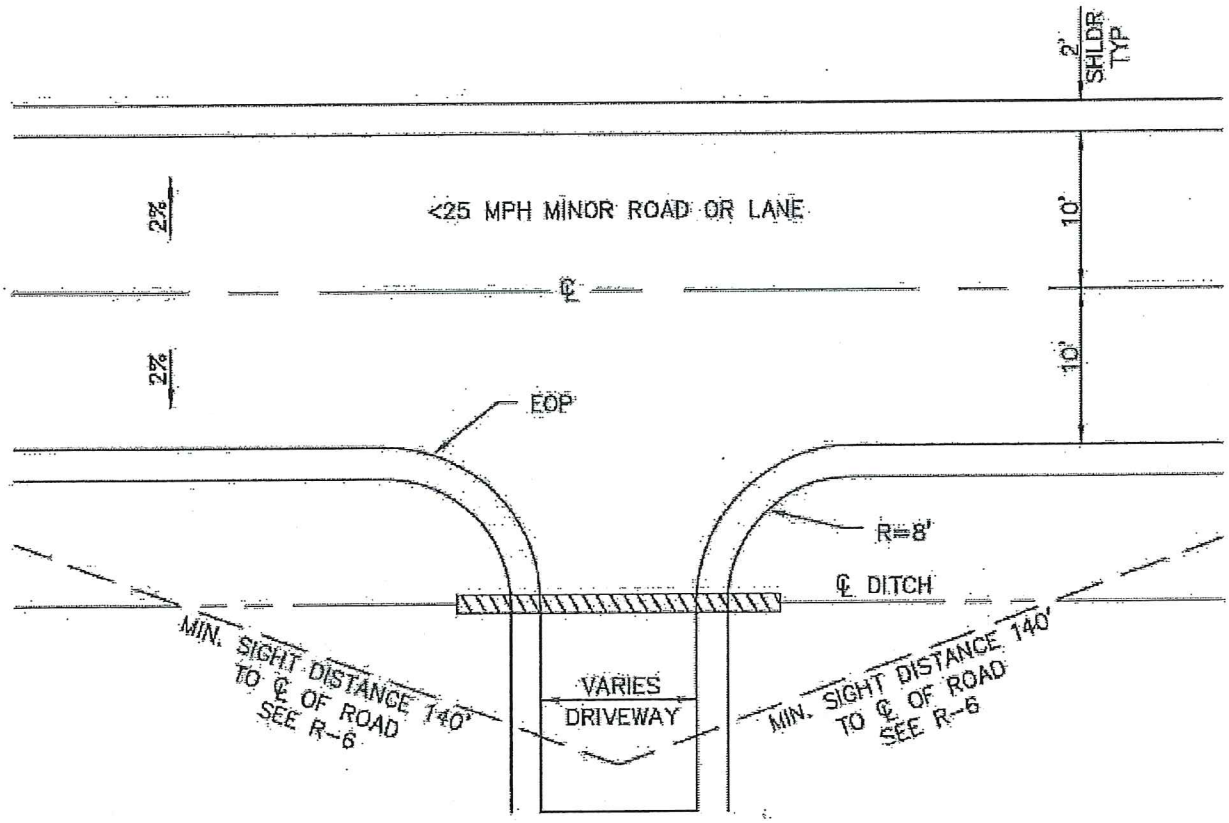
(c) Kirkwood Specific Plan sets a minimum width of 24 feet for two way facilities and a maximum width of 30 feet.

Note 13 - When driveway encroaches on paved road, the driveway shall be paved from the edge of road pavement to edge of Right of Way.

Note 14 - Where two or more driveways serve the same parcel, the centerlines of the driveways shall be separated a minimum of 50 feet.



TYPICAL CULVERT CROSSING

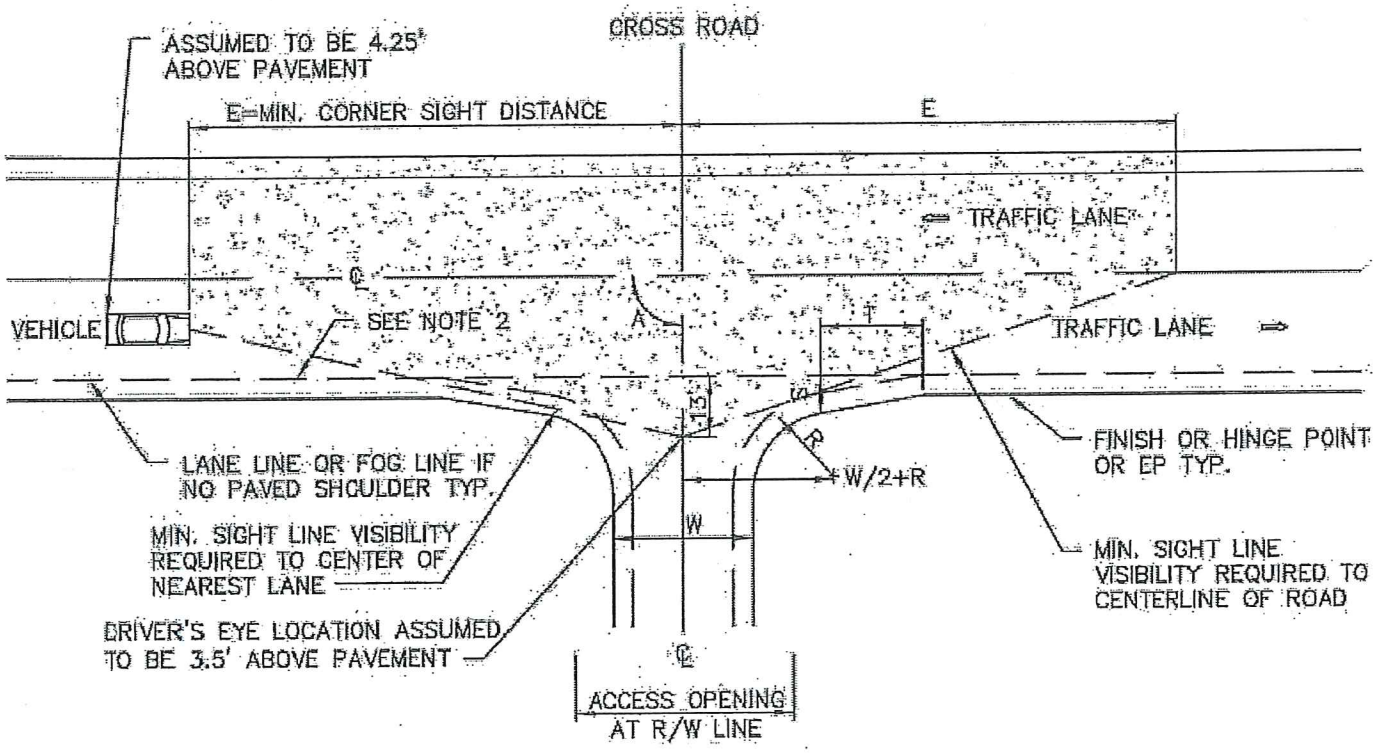


TYPICAL DRIVEWAY INTERSECTION

ALPINE COUNTY CALIFORNIA	APPROVED BY: Marlene T Dewey COUNTY ENGINEER			STANDARD DRAWING TITLE	SHEET NUMBER
				TYPICAL RESIDENTIAL DRIVEWAY INTERSECTION & CULVERT CROSSING	R-5
	REVISION	BY	APPROVED	DATE	SCALE: NTS / DATE: MARCH 2014
					ALPINE COUNTY - DEVELOPMENT STANDARDS

NOTES:

1. INTERSECTING R/W LINES AT ROADWAY CONNECTIONS SHALL BE JOINED BY A 25' OR GREATER RADIUS CURVE TO ALLOW FOR ROADWAY IMPROVEMENTS.
2. SETBACK = 13' MIN. FROM EDGE OF TRAVELED WAY. THIS SETBACK MAY BE REQUIRED TO BE INCREASED UP TO 30' DUE TO INTERSECTION LAYOUT.
3. IN BOTH DIRECTIONS TO TRAVEL ALONG THE CROSSROAD, SIGHT DISTANCE (E) IS TO BE MEASURED ALONG THE CROSSROAD CL FOR TWO LANE CROSSROADS, AND ALONG THE CL OF THE NEAREST LANE TO THE ROAD FOR MULTI-LANE ROADS.
4. WHERE RESTRICTIVE CONDITIONS DO NOT ALLOW COMPLIANCE WITH THE SPECIFIED SIGH DISTANCE REQUIREMENTS, THE ENGINEER MAY APPROVE A REDUCTION OF THE CORNER SIGHT DISTANCE TO NO LESS THAN THE MIN. STOPPING SIGHT DISTANCE AS OUTLINED IN THE CALTRANS HIGHWAY DESIGN MANUAL.
5. LINE OF SIGHT CLEARANCE SHALL TAKE INTO ACCOUNT EXISTING/FUTURE LANDSCAPING.
6. WHERE ADT<400 FOR BOTH ROADS/LAKES, REDUCE E BY 50%.



ROAD OR LANE

LANES

	DESIGN SPEED (MPH)							
	25	30	35	40	45	50	55	60
A	60' TO 120'							
E	275'	330'	385'	440'	495'	550'	605'	660'
S	3'	3'	3'	3'	4'	4'	5'	5'
R	15'	15'	20'	20'	25'	25'	25'	25'
T	VARIABLE – 25' MIN.							
W	AS APPROVED							

ROADS

	DESIGN SPEED (MPH)							
	25	30	35	40	45	50	55	60
A	80' TO 100'							
E	275'	330'	385'	440'	495'	550'	605'	660'
S	8'	8'	12'	12'	12'	12'	12'	12'
R	25'	30'	35'	40'	45'	50'	50'	50'
T	50'	75'	100'	150'	200'	250'	250'	250'
W	CONFORM TO ROAD SECTION							

ALPINE COUNTY CALIFORNIA

APPROVED BY:
COUNTY ENGINEER

REVISION	BY	APPROVED	DATE

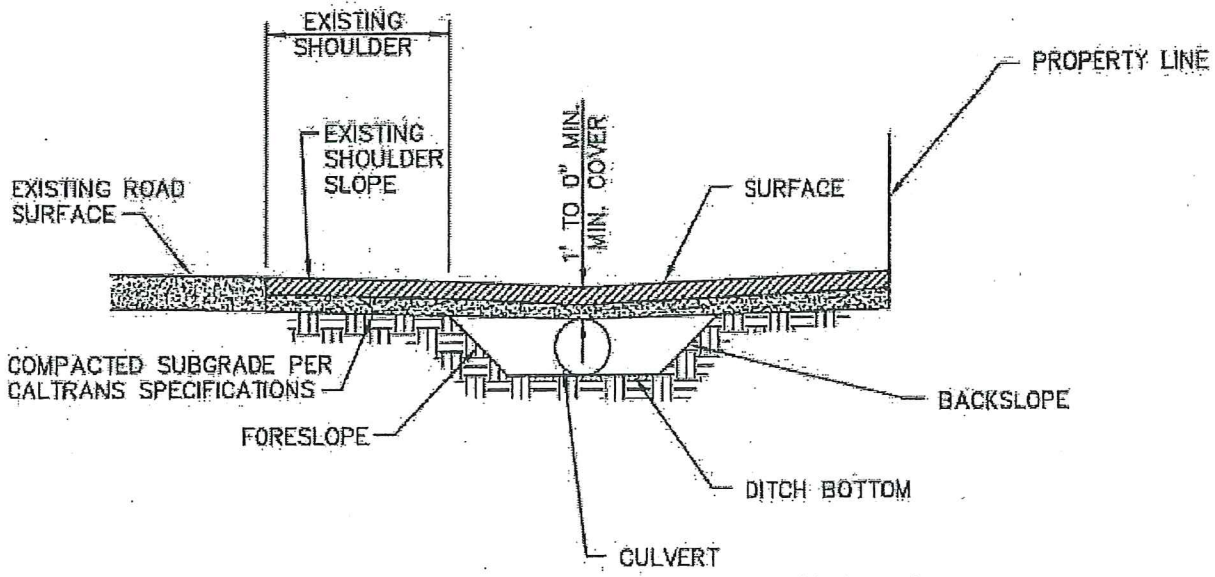
STANDARD DRAWING TITLE: ROADWAY CONNECTIONS

SHEET NUMBER: R-6

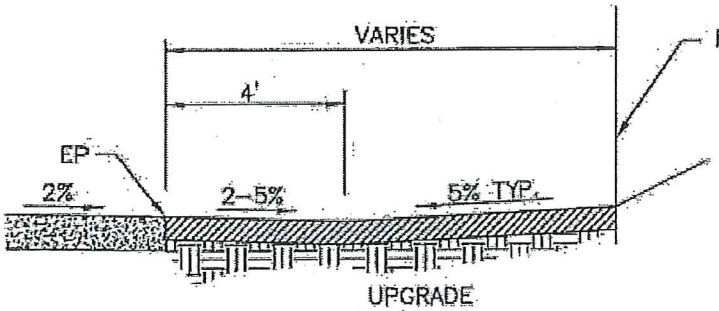
SCALE: NTS

DATE: MARCH 2014

ALPINE COUNTY - DEVELOPMENT STANDARDS

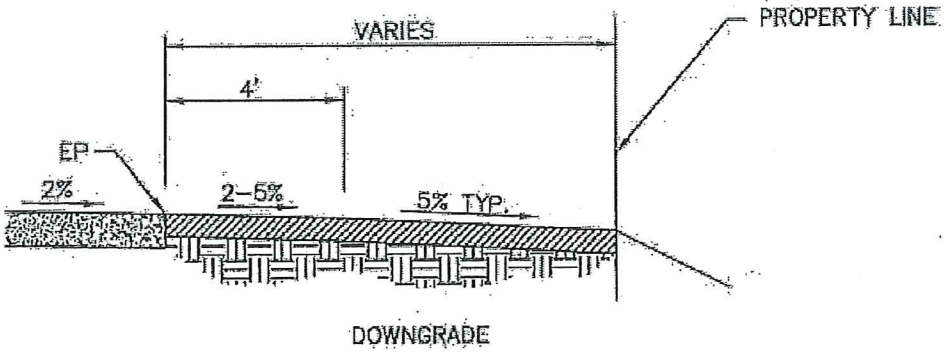


TYPICAL DRIVEWAY AND LANE PROFILE



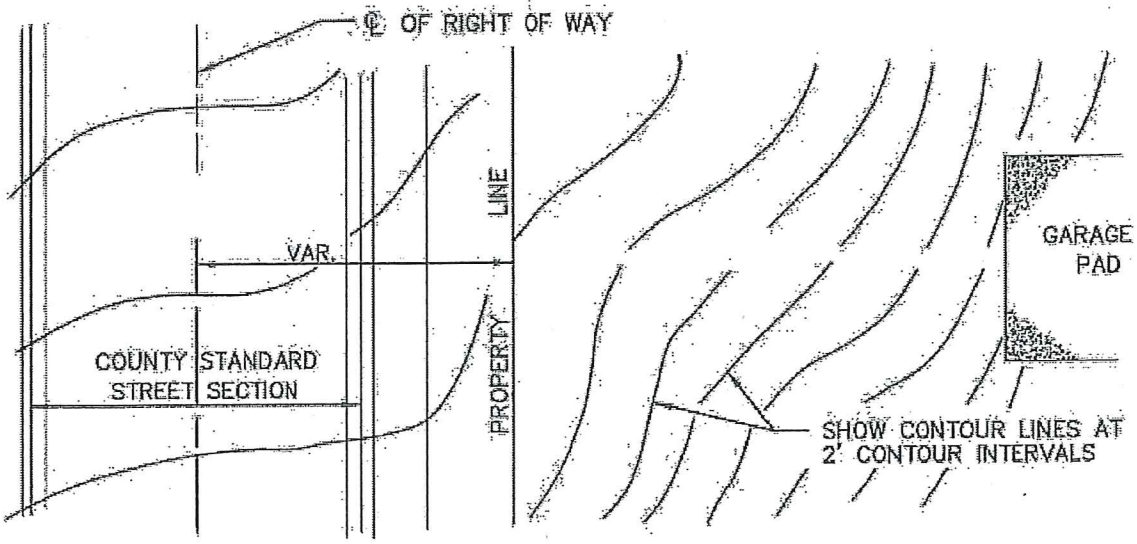
NOTES:

1. REFER TO TABLES 9-1, 9-2 AND 9-3 FOR MORE SPECIFIC DRIVEWAY AND LANE DESIGN CRITERIA.

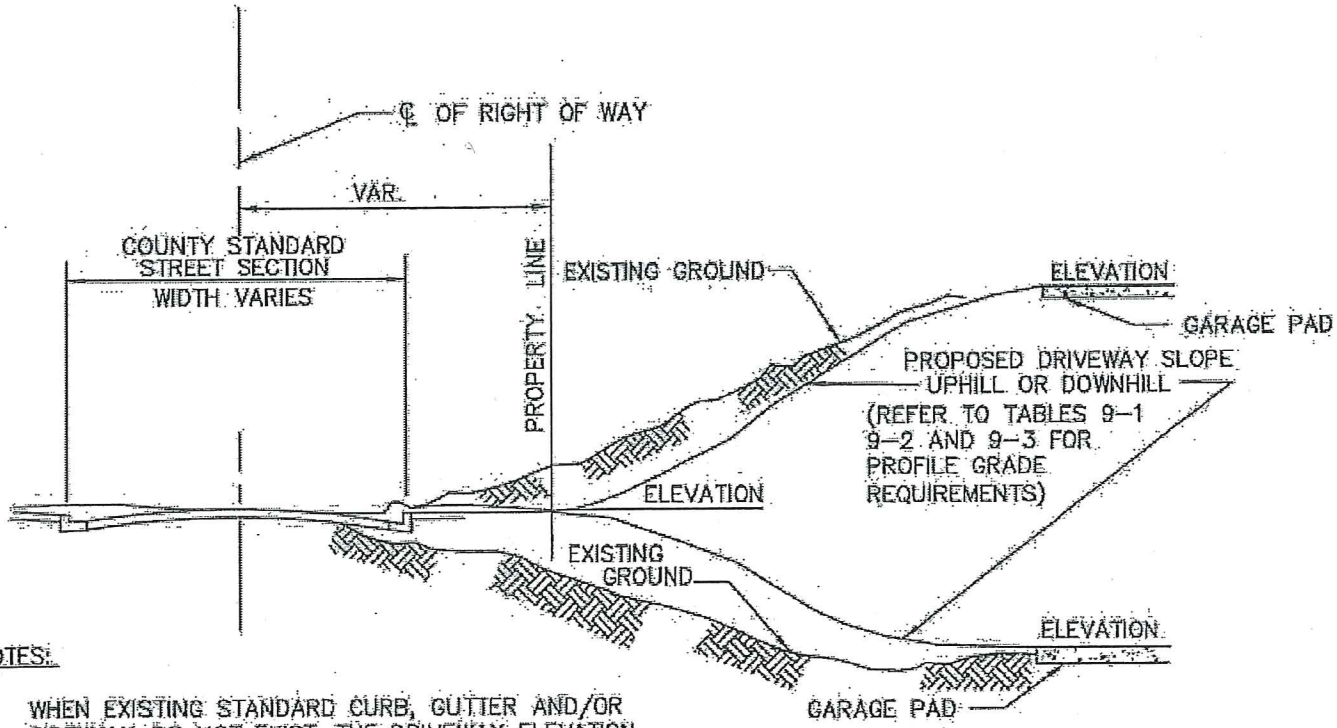


DRIVEWAY AND LANE GRADES

APPROVED BY: COUNTY ENGINEER				STANDARD DRAWING TITLE	SHEET NUMBER	
REVISION	BY	APPROVED	DATE	DRIVEWAY AND LANE PROFILE AND GRADES	R-7	
					SCALE	DATE
				ALPINE COUNTY - DEVELOPMENT STANDARDS	NTS	MARCH 2014



DRIVEWAY PLAN VIEW

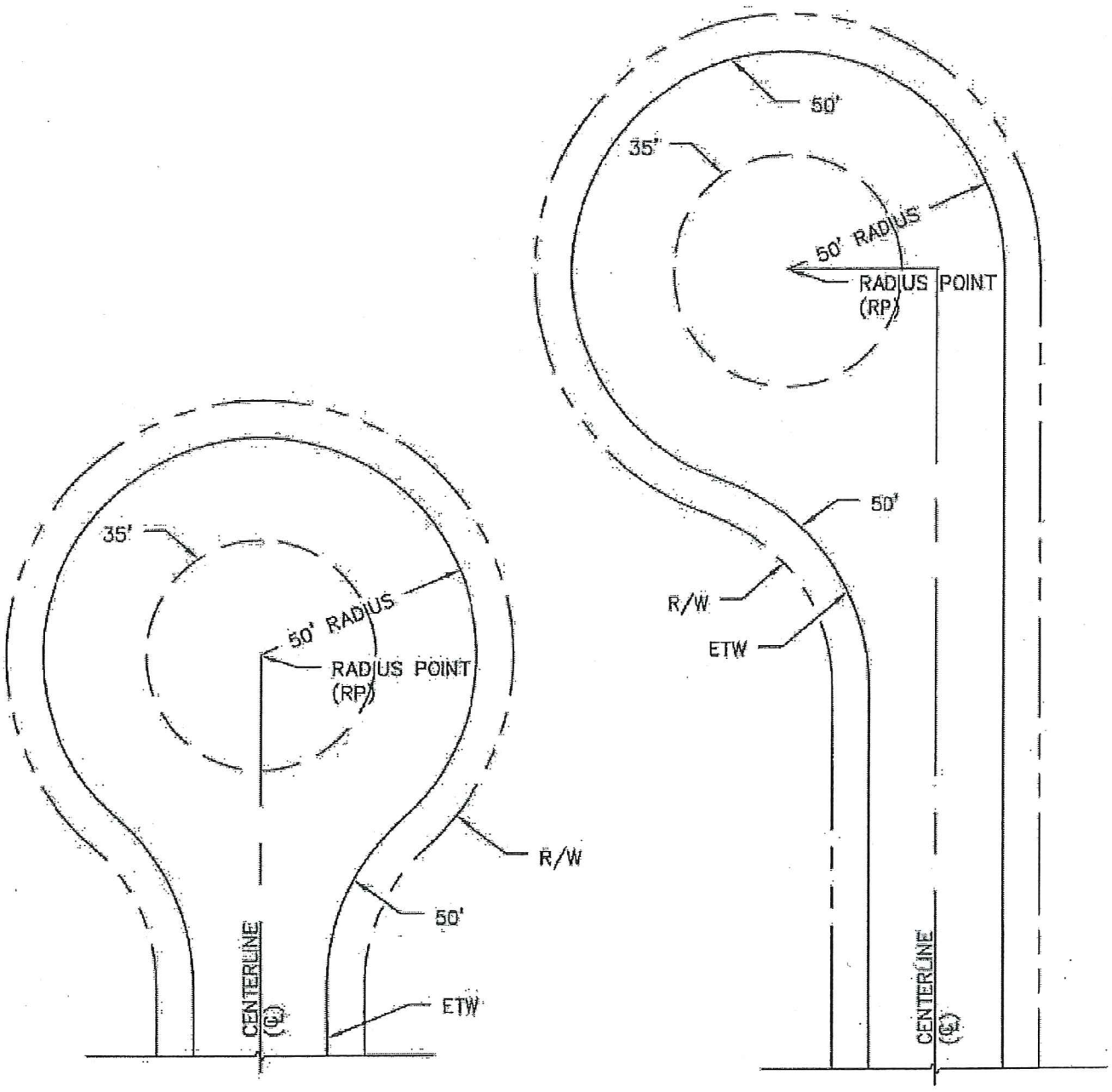


NOTES:

1. WHEN EXISTING STANDARD CURB, GUTTER AND/OR SIDEWALK DO NOT EXIST, THE DRIVEWAY ELEVATION AT THE FUTURE PROPERTY LINE SHALL BE EQUAL TO THE EXISTING CENTERLINE ELEVATION UNLESS FUTURE STREET GRADES HAVE BEEN ESTABLISHED BY THE COUNTY.

DRIVEWAY PROFILE VIEW

APPROVED BY: COUNTY ENGINEER	STANDARD DRAWING TITLE	SHEET NUMBER
REVISION / BY / APPROVED / DATE	DRIVEWAY PLAN & PROFILE	R-8
		SCALE: NTS / DATE: MARCH 2014
	ALPINE COUNTY - DEVELOPMENT STANDARDS	



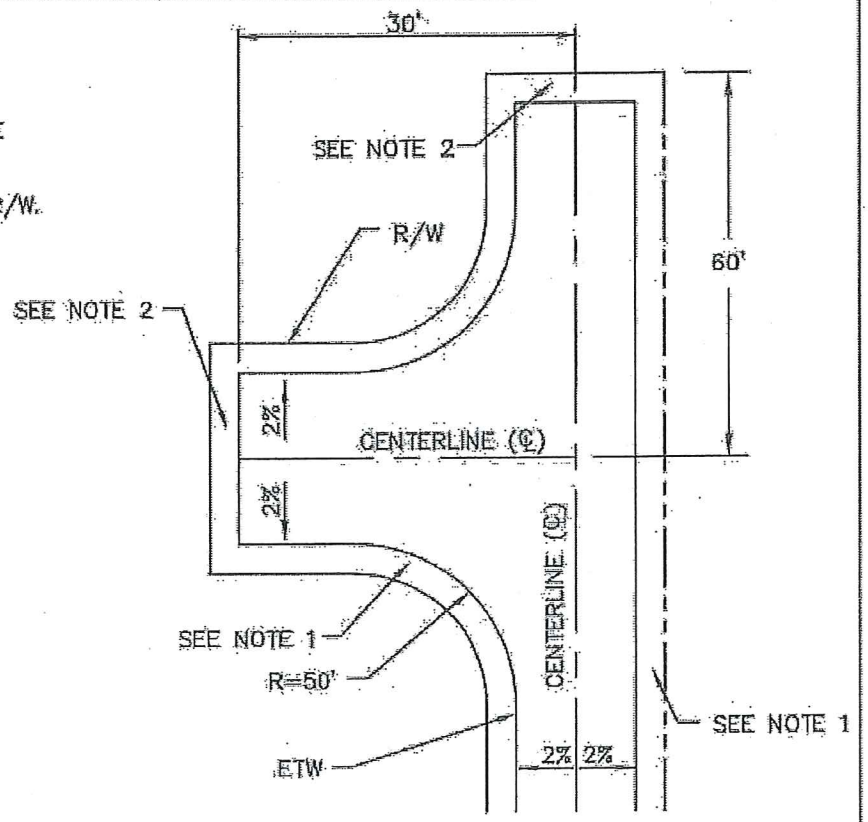
NOTES:

1. PROVIDE MINIMUM PAVEMENT SLOPES OF 1%.
2. THE ETW TO R/W DISTANCE IS CONSTANT THROUGH THE BULB, UNLESS THE DISTANCE IS INCREASED DUE TO HILLSIDE GRADING.

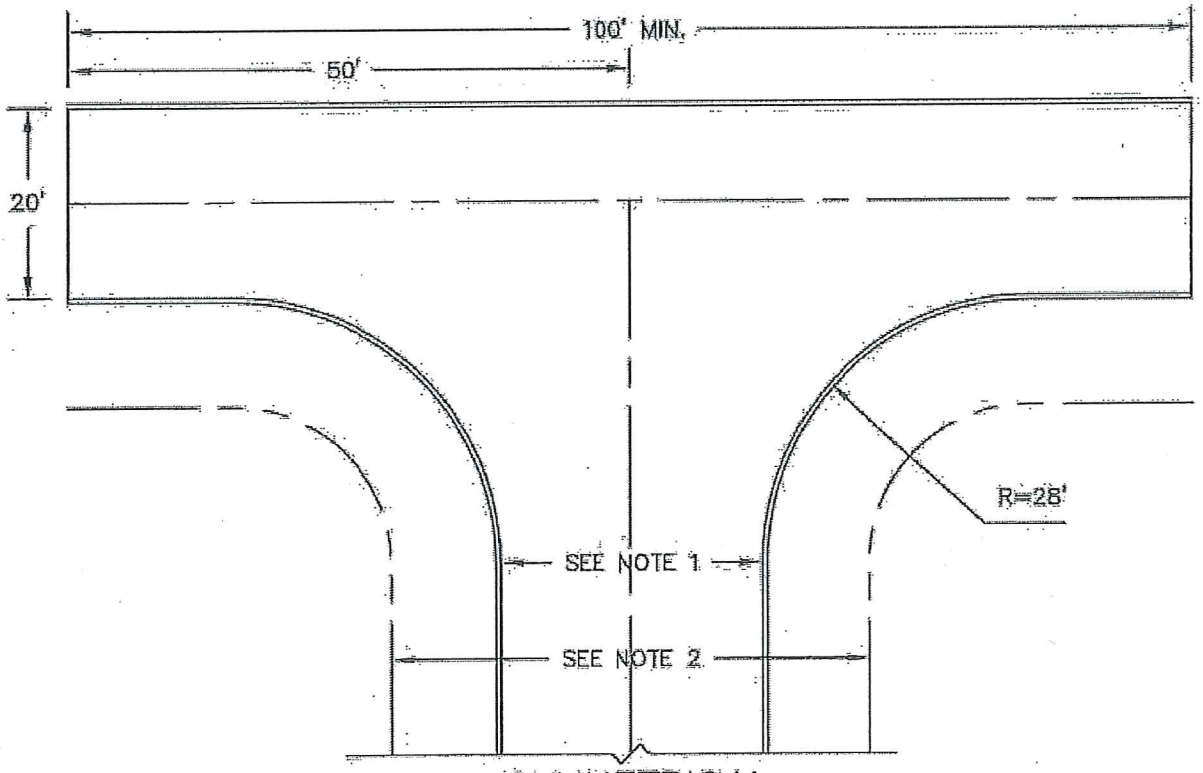
ALPINE COUNTY CALIFORNIA	APPROVED BY: COUNTY ENGINEER			STANDARD DRAWING TITLE	SHEET NUMBER
				CUL-DE-SAC TURNAROUND	R-13
	REVISION	BY	APPROVED / DATE		SCALE / DATE
				ALPINE COUNTY - DEVELOPMENT STANDARDS	NTS / MARCH 2014

NOTES:

1. THE ETW TO R/W DISTANCE IS CONSTANT THROUGH THE HAMMER HEAD UNLESS THE DISTANCE IS INCREASED DUE TO HILLSIDE GRADING.
2. PROVIDE 2' MINIMUM BETWEEN ETW AND R/W.



OFFSET



SYMMETRICAL

APPROVED BY: COUNTY ENGINEER				STANDARD DRAWING TITLE	SHEET NUMBER
REVISION	BY	APPROVED	DATE	HAMMERHEAD TURN AROUND	R-14
					SCALE: NTS / DATE: MARCH 2014
				ALPINE COUNTY - DEVELOPMENT STANDARDS	