



Mooretown Rancheria Transportation Planning Study

Prepared by:

Local Government Commission;
Michael Sweeney, AICP; and
KD Anderson and Associates

January 2009



A Report for the Mooretown Rancheria of Concow-Maidu

ACKNOWLEDGEMENTS

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Mooretown Rancheria Tribal Council
Mooretown Rancheria Tribal Staff
Mooretown Rancheria Enforcement
Mooretown Rancheria Youth Program
Feather Falls Casino
Feather Falls Hotel
Feather Falls Mini-Mart
Caltrans
Butte County Public Works Department
Butte County Association of Governments
City of Oroville Public Works Department

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EXECUTIVE SUMMARY

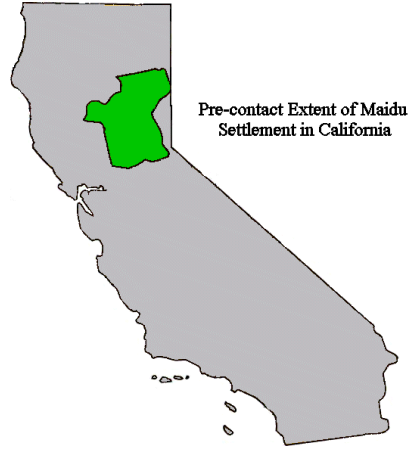
In 2006, The Mooretown Rancheria was awarded an Environmental Justice Transportation Planning Grant by the California Department of Transportation (Caltrans). The purpose of the grant was to address the development of a long range transportation plan with needs assessments.

In July 2007, the Mooretown Rancheria contracted with the Local Government Commission (LGC), Michael Sweeney, AICP; and KD Anderson and Associates to conduct a Transportation Planning Study. The consulting team employed a process that involved a local agency advisory group, tribal council and Rancheria staff, and community members in developing a conceptual plan.

The study area encompassed the entire 312.89 acres of the Rancheria. Additionally, a traffic impact assessment identified on- and off-site impacts of the conceptual plan on traffic along area roadways and intersections.

Community Design Issues

Most of the community design issues center on conflicts between the commercial development and residential areas. In general, the commercial area is located at the eastern end of the Rancheria and includes the casino, casino parking lot, lodge, and RV Park. This area is accessed by Feather Falls Boulevard. The mini-mart and gas station are located at the western end of the Rancheria and are accessible via Lower Wyandotte Road. Given the public orientation of these facilities, they are described conceptually as the “public realm.”



Original territory of the Concow-Maidu

Public Realm	
<u>Existing Land Use</u>	<u>Future Land Use</u>
Casino	+ 100 Slots
Lodge	+ 80-90 Units New Parking Garage New Events
Center	
RV Park	+ 40 Spaces
Mini-Mart/Gas Station	New Neighborhood Commercial Area

Community Realm

<u>Existing Land Use</u>	<u>Future Land Use</u>
Administrative Offices	
Head Start	
58 Housing Units	42 Housing Units
Gymnasium	New Sports Fields
	Cultural Heritage Park
	Sculpture and/or Fountain
	Family Park/Natural Area
	Community Trail System
	Sacred Oak Groves

The public realm provides revenue to support Tribal operations as well as job training and employment opportunities to community members.

The residential and tribal services area is located along the northern portion of the Rancheria, sandwiched between the mini-mart at the west end, and the casino at the east end. This area includes residential neighborhoods and tribal support services such as administrative offices, Head Start, and a gymnasium. Most residents of the Rancheria access this area using Alverda Drive. Facilities housing fire protection equipment and the log house special events center, though located in the public realm, primarily serve the local community. Given the community orientation of these areas and facilities, they are described conceptually as the “community realm .”

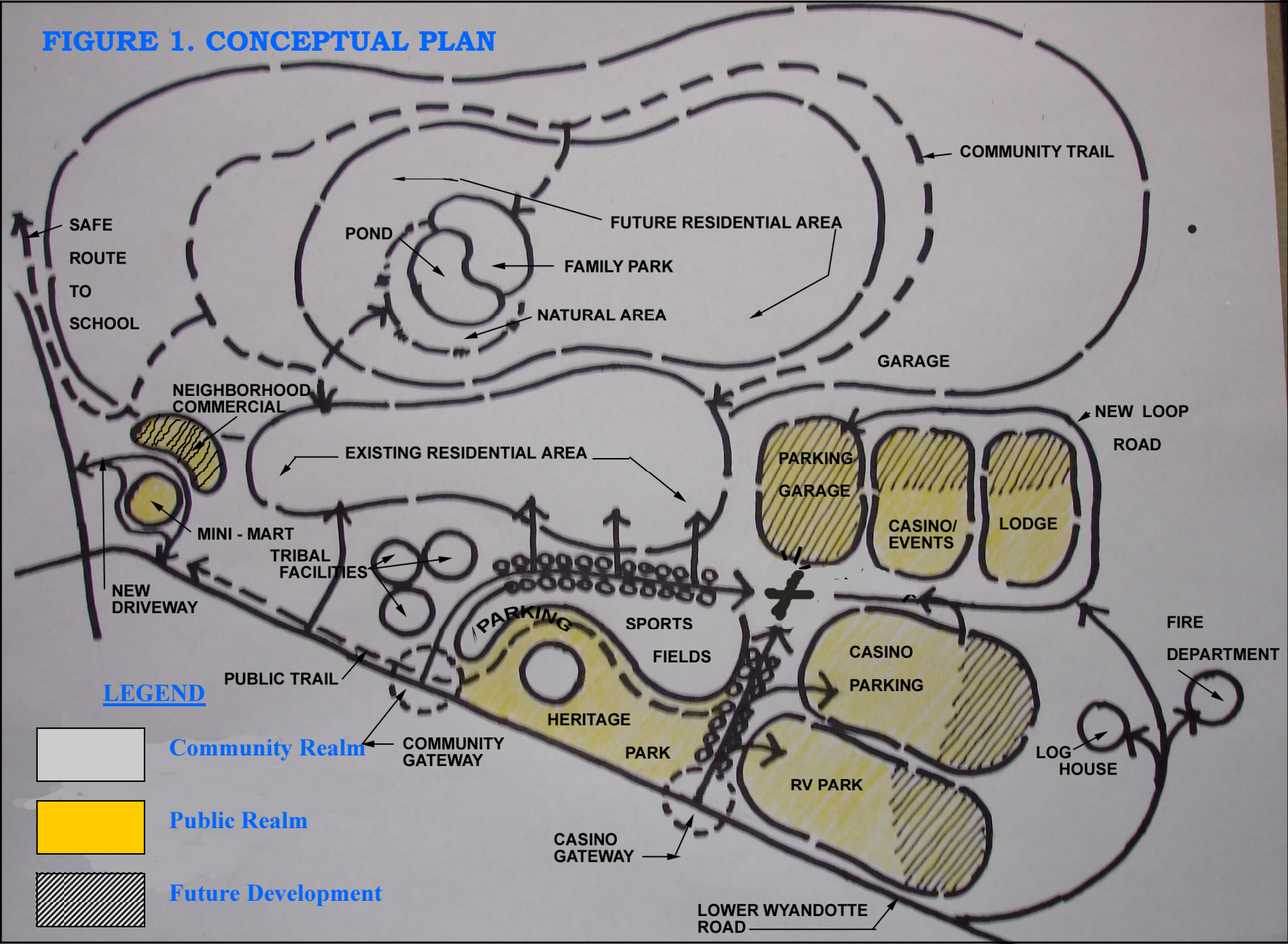
In essence, the community realm is where people live, work, and play and engage in the daily activities of the Rancheria.

Conceptual Plan

The Conceptual Plan for Mooretown Rancheria defines the boundaries of community and public realms and corresponding land use and transportation elements that serve and support the activities in each realm (See Figure 1).

The conceptual plan illustrates future land uses and makes recommendations to calm traffic, improve vehicle traffic flow, provide safe pedestrian and bicycle pathways, and enhance the overall aesthetics of the Mooretown Rancheria environment.

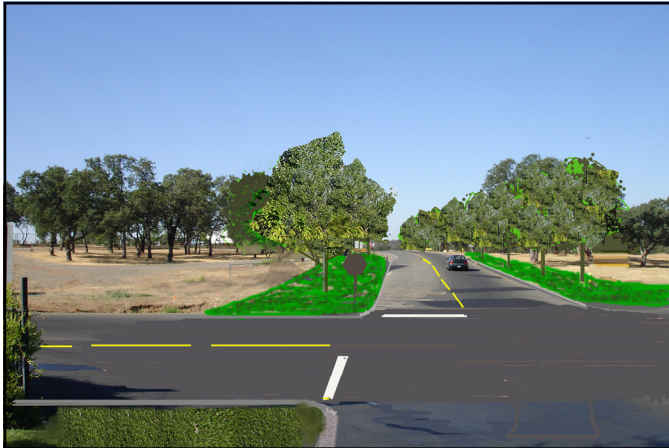
FIGURE 1. CONCEPTUAL PLAN



Mooretown Rancheria Transportation Planning Study

Summary of Recommendations for Public Realm

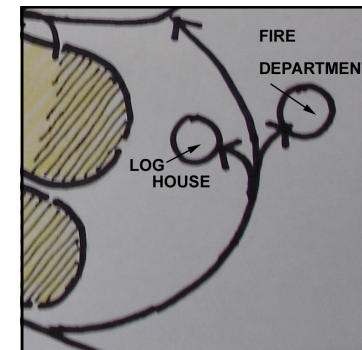
- ◆ Enhance Feather Falls Boulevard to reflect its role as the primary access to existing and future public realm facilities.
- ◆ Re-align intersection of Feather Falls Boulevard and Alverda Drive to approach the intersection at a 90-degree angle.
- ◆ New entry/exit drive to mini-mart/gas station from the north leg of Lower Wyandotte Road that would allow traffic to enter or exit from the east leg of Lower Wyandotte Road or the new north leg.
- ◆ Move the entrance to the existing parking lot from Alverda Drive to a location on Feather Falls Boulevard south of Alverda Drive.
- ◆ Improve intersection of Lower Wyandotte Road and Feather Falls Boulevard.
- ◆ New South Access from Lower Wyandotte Road.
- ◆ New Loop Road extension of Lorene Court.



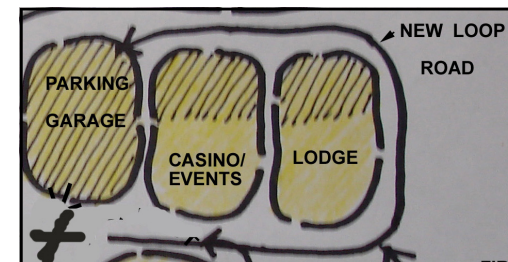
Street trees can define and enhance Feather Falls Boulevard as the “gateway” to the public realm. Re-align intersection.



New entry/exit drive to mini-mart & gas station



New south access from Lower Wyandotte Road



New Loop Road extension of Lorene Court

Summary of Recommendations for Community Realm

- ◆ Dedicated, striped (and, in some cases, raised) crosswalks should be constructed at each roadway intersection (*Concow Maidu Drive, Sumi Court, Sawwali Court and Majhi Lane*) with Alverda Drive and from the administration building and gymnasium to the future parking, sports field and heritage park.
- ◆ Enhance Alverda Drive to reflect its role as a collector road providing access to the residential neighborhoods and make it more pedestrian friendly.
- ◆ The new gateway to the Rancheria Community should reflect the use of Alverda Drive as residential access only.
- ◆ Plant trees in bulb outs along residential streets to provide shade and aesthetic enhancement to the streetscape as well as traffic calming.
- ◆ New Community Trails and Safe Routes to School.



Traffic calming and pedestrian enhancements along Alverda Drive include street trees and striped crosswalks.



A typical gateway feature creating a sense of arrival.



A safe route to school path along Lower Wyandotte Road.

Mooretown Rancheria Transportation Planning Study

The Tribal Council largely approved the recommended Conceptual Plan with a change requested in intersection treatment at the confluence of Feather Falls Boulevard and Alverda Drive. The Tribal Council preferred a traditional intersection to a roundabout.

Traffic Impact Analysis

The increase in trips generated by existing and new land uses could result in a decline in level of service (LOS) on Lower Wyandotte Road from Upper Palermo Road to Feather Falls Boulevard. This portion of Lower Wyandotte Road could operate at LOS D. This would exceed the minimum LOS C standard in the current Butte County General Plan. (*Setting the standard at LOS C is very conservative. Most communities accept a level of LOS D or E.*) The effects of project traffic on selected intersections show that each intersection will deliver LOS C or better conditions.

Alverda Drive. The daily traffic volume on Alverda Drive is likely to drop initially with implementation of the proposed improvements recommended in the conceptual plan as background traffic is diverted to Feather Falls Boulevard. However, with the full development of permitted gaming, the future volume could be slightly higher than the volumes that exit today.

Lower Wyandotte Road/Feather Falls Boulevard. Implementation of the concept plan will increase the volume of traffic through the Lower Wyandotte Road/Feather Falls Boulevard intersection and improvements will likely be needed.

Casino/Casino Parking Access. The conceptual plan attempts to reduce automobile/pedestrian conflicts near the casino and its existing surface parking lot in two ways. First a new entrance to the existing parking lot is recommended south of Alverda Drive



Street trees further calm traffic while providing shade and aesthetic enhancement in the residential areas.

(after the RV Park entrance). This new entrance will reduce the amount of automobile traffic entering on Alverda Drive at the point of high pedestrian activity.

Because the existing intersection is skewed, it will be desirable to reconstruct the intersection in a manner that is more conventional. This would require realigning Alverda Drive to intersect with Feather Falls Boulevard at a new location further west, realigning the southern leg of Feather Falls Boulevard to approach the intersection at 90-degrees.

Mini-Mart/Gas Station Access. The conceptual plan suggests that new access be created on Lower Wyandotte Road north of the traffic signal. This connection is actually being installed currently as a “right-turn exit only” driveway. In the long term, full access could be needed to support the planned neighborhood commercial uses. A full access needs to be far enough way from the signalized Ophir Road intersection to avoid interference with the operation of the signal but far enough from the drainage culvert on Lower Wyandotte Road to facilitate creating a left turn lane to serve traffic that wants to enter the site.

New South Access to Lower Wyandotte Road. The vertical alignment of Lower Wyandotte Road in the area of this access and the presence of the culvert are constraints. Sight distance looking north is somewhat limited, although it appears that minimum sight distance standards can be met. If this access is to be available to large trucks and regular use, it will be necessary to widen Lower Wyandotte Road to provide a left turn lane.

Cumulative Impacts

Background traffic volumes for the Year 2025 for Lower Wyandotte

Mooretown Rancheria Transportation Planning Study

Road is projected to deliver LOS D by the Butte County Association of Governments (BCAG) traffic model. These conditions will exceed the current LOC C standard with and without future uses that may occur at Mooretown Rancheria. A 4-lane section would be needed to deliver LOS C.

Because the BCAG regional traffic model assumes modest growth by 2025, the LOS at study intersections remain relatively good with or without implementation of the planned land uses and circulation system improvements called for in the Rancheria's conceptual plan.

The Lower Wyandotte Road/Ophir Road intersection would need to be widened to accommodate forecasted traffic volumes.

The access to the mini-mart/gas station and future neighborhood commercial development on Lower Wyandotte Road is likely to operate with a poor Level of Service. While widening Lower Wyandotte Road to 4-lanes would help, because the driveway is so close to the signalized intersection, measures to reduce delays and achieve LOS C are limited.

The Lower Wyandotte Road/Alverda Drive intersection would operate with poor Levels of Service that could be corrected by widening the road to 4-lanes.

The Lower Wyandotte Road/Feather Falls Boulevard intersection would experience considerable delays. If background traffic increases as suggested, Lower Wyandotte Road would need to be widened to 4-lanes to deliver adequate LOS. The tribe will need to consider whether to signalize the intersection to provide suitable access during peak periods and after major events.



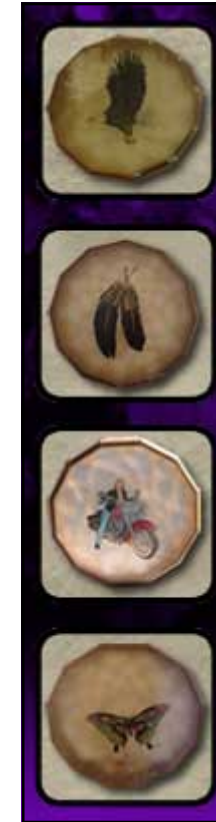
CHAPTER 1. INTRODUCTION

Environmental Justice Transportation Planning Grant

In 2006 The Mooretown Rancheria was awarded an Environmental Justice Transportation Planning Grant from Caltrans to assist in the completion of a long-range transportation plan with needs assessment. The Mooretown Rancheria was also interested in determining whether pedestrian walkways were adequately designed to facilitate pedestrian movement along existing roadway systems. Additionally, there was interest in determining whether changes in overall roadway designs and pedestrian routes could provide additional access in support of local economic development. Lastly, but equally important was to determine how Native American cultural ideals could be incorporated into the transportation planning study.

Transportation Planning Process

In July 2007, the Mooretown Rancheria contracted with the Local Government Commission (LGC), Michael Sweeney, AICP; and KD Anderson and Associates to conduct a Transportation Planning Study. Initial tasks included a review of the Tribe's 2003 Transportation Plan, 2000 Land Use Plan, a field review that included interviews with local transportation planning officials from Caltrans and Butte County, the tribal council, Rancheria staff, and community members. A review of a traffic study completed in October 2007 by another consultant for the new casino was also studied. This review was completed and the results presented in Interim Report No. 1 submitted in October of 2007.



An important goal was to determine how Native American cultural ideals could be incorporated into the transportation planning study.

Mooretown Rancheria Transportation Planning Study



Children provide their ideas for improvements.



Tribal Council members share insights with the design team.



Design team discusses transportation issues with other government agencies.

The scope of work also called for the preparation of a conceptual plan that would incorporate existing and proposed changes in the Land Use Plan and to recommend corresponding changes in the Rancheria's Transportation Plan in support of the changes in land use.

In March 2008, the conceptual plan phase incorporated another field review which included a walking audit, meeting with the Tribal Council, a public meeting where three conceptual alternatives were presented and discussed, and an exercise involving residents in a Community Image Survey. The conceptual planning process was presented in Interim Report No. 2 submitted in April 2008.

The conceptual plan illustrates future land uses and makes recommendations to calm traffic, improve vehicle traffic flow, provide safe pedestrian and bicycle pathways, and enhance the overall aesthetics of the Mooretown Rancheria environment. An interim traffic impact assessment identified impacts associated with implementation of the conceptual plan and made recommendations. Subsequently, the consultants received comments on Interim Report No. 2 in November 2008.

This Final Report includes a final conceptual plan which incorporates changes requested in the Tribal Councils' review and makes recommendations to be used as a basis for updating the Tribe's Transportation Plan. A Final Traffic Impact Analysis evaluates potential impacts of implementing the conceptual plan both on the Rancheria and off-site.



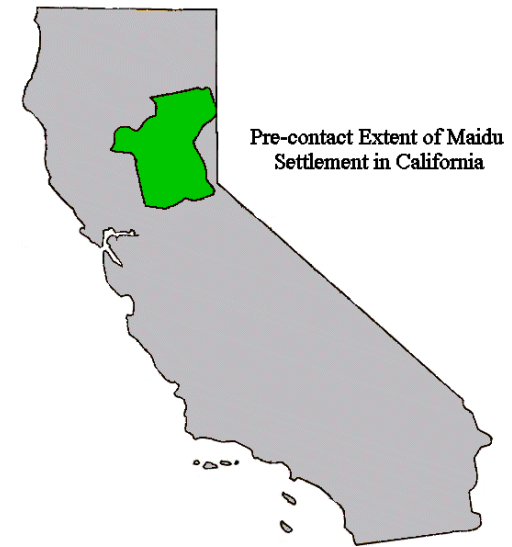
CHAPTER 2. BACKGROUND

Cultural History

The Concow-Maidu of Mooretown Rancheria are descendants of ancient Northwestern Maidu who migrated to the foothills 25 miles east of Oroville in Butte County, California. The oldest verifiable occupation was found through scholarly and scientific research to date back to about 1200 B.C. These people settled on the Mooretown Ridge, between the Middle Fork and South Fork of the Feather River, around 1500 B.C., when the Maidu language developed.

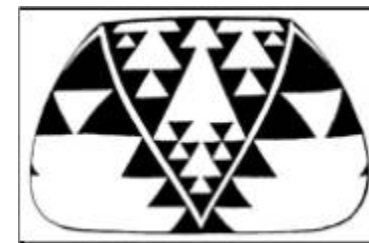
The Concow-Maidu were primarily a hunting and gathering people with a comprehensive knowledge of the uses of the local plants and animals for food, medicine, tools and clothing. They planted seeds and bulbs in their nearby gathering grounds which we would call gardens. They carried on an active trade with tribes from the coastal areas, the Nisenan territory, Northeastern California and Nevada. They had a highly developed social order of etiquette and religion that promoted a peaceful lifestyle.

The traditional Maidu boundaries were roughly from Mount Lassen and Honey Lake on the north, to the Cosumnes River on the south, and from the Sacramento River on the west to the crest of the Sierra Nevada Mountains on the east. Early ethnographers divided this vast territory into three major areas based on certain language differences. These areas are the Northern or Mountain Maidu, mostly of Plumas County; the Northwestern or Concow-Maidu of Butte County and parts of Yuba and Sutter Counties; and the Southern Maidu or Nisenan, generally south of the Yuba River and extending to the Miwok lands.

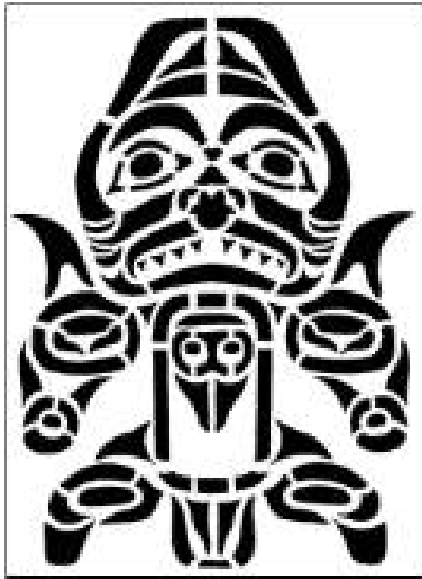


Pre-contact Extent of Maidu Settlement in California

Original territory of the Concow-Maidu



Maidu basket symbol



Traditional Maidu symbol



Traditional Maidu drums

Earliest contact with Europeans would have occurred during the twenty years California was part of the Spanish holding and fur trappers constantly explored the Northstate's waterways. There is a persistent story of a Spanish document, dated 1542 or 1559, being found in the hollow of an oak tree on the Middle Fork. However, the earliest recorded Concow contact was with Gabriel Moraga in 1800. Trapping greatly increased in the 1820's and 1830's. Many Anglo-European diseases were introduced and along with the many killings and massacres of Indian villages, the California Indians declined from 310,000 to 20,000 during the years 1700 to 1900.

When gold was discovered in 1848, many foreigners swarmed into Concow territory, and the Indians were forced out of the way. As gold fever wore off, these intruders began appropriating more lands for timber, agricultural and commercial ventures, particularly railroading. The U.S government negotiated treaties with tribes, promising many benefits in exchange for the homelands, but none were ever honored, and the Native Americans were left landless and homeless. Reservations were established and the Concows were forcibly moved out of their ancestral homes. Many died or were killed along the way to these distant, hostile places. For example, one group of 461 Concows left Chico on September 4, 1863, but only 277 survived the two-week trip to Round Valley.

Original Properties

Public outcry over the U.S. mistreatment of Native Americans led to the Rancheria Act of 1884. In June 1894, James T. Grubbs relinquished 80 acres of his holdings for the use and benefit of the Indians and their families – from seven to twelve families. Their settlement of four small cabins sat in the center of about eight usable acres, the remainder of the 80 acres being very rough and

poor. They lived there over 50 years and planted fruit trees and cultivated gardens.

In 1915 the BIA purchased another 80-acre parcel to the east for 53 members of the Frank Taylor band of Indians, all named on a census list.

In 1924, Native Americans were granted citizenship and allowed to vote. In 1928, the Jurisdiction Act gave them the right to sue the U.S. From then until the present time, Indians have been trying to obtain redress for the wrongs done to them and the loss of their lands. In 1951, a land claim was filed for three California Indian groups against their wishes, and payment was distributed in December 1972, based on the 1853 land price of a paltry 47¢ per acre! The Mooretown Rancheria was terminated in 1958, effective August 1961.

Tille Hardwick & Reorganization

In October 1979, a Pomo woman, Tillie Hardwick, and six named plaintiffs filed a class action suit on behalf of 34 illegally terminated rancherias, including Mooretown. On December 22, 1983, Mooretown and 16 others were reinstated and restored to Federal status.

In 1987, the U.S. government again was attempting to solve its budgetary problems by reducing services to Indians. Certain types of services would be given only to members of a federally-recognized tribe. In August, a general meeting of Mooretown descendants was held and the decision to reorganize was unanimous. A new Tribal Roll was started and a Tribal Council election was scheduled for October. A Tribal Constitution was adopted in November. Grants were sought and with the awards the Tribal office opened in June 1988.



The Mooretown Rancheria occupies land near the original settlement between the Middle Fork and South Fork of the Feather River in Butte County.



Years Of Progress

Many beneficial programs were instituted in the ensuing years, but critical needs existed to establish a new land base for housing and to qualify for better programs. An exhaustive search for suitable land finally ended in late 1989. On February 6, 1990, the Tribe signed a contract to purchase 203 acres of land in the Mesilla Valley, adjacent to the historic Pence Ranch an area notorious as the gathering point for the "Maidu Trail of Tears" of 1853. HUD approved the building of 50 houses, and funds were allocated for the first 20 in 1991.

However, the land posed several environmental problems that would have taken too much time and money to correct. The land search was renewed and a suitable parcel of almost 35 acres just south of Oroville was purchased in January 1992.

It was hoped that this milestone would give Tribal members a renewed sense of community and, with time, an appreciation for their cultural identity. Fifty houses have been built along with a spacious Community Center, which houses Tribal offices, a library, day care center and an after school classroom, plus a large multi-purpose room and a commercial quality kitchen.

Starting off with 35 acres in 1987, the Mooretown Rancheria has expanded to approximately 312.89 acres as of 2007.

(The above has been adapted from material produced by the Cultural Programs Office of Mooretown Rancheria.)

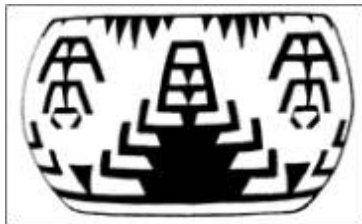


CHAPTER 3. EXISTING CONDITIONS

Existing Transportation & Circulation Conditions

A transportation plan for the Rancheria is largely a reflection of the land uses within the Rancheria as well as surrounding area. Different land uses generate different trip generation rates that are used to calculate traffic volumes. A major change in land use will likely result in a change in traffic, usually expressed in peak hour volumes and Levels of Service (LOS). The capacity and condition of the area's road network is an indication of the ability of the existing network to accommodate any increases in traffic. If the changes in land use result in traffic that exceeds the capacity of area roadways or decreases the LOS, then corresponding improvements in the road network are necessary. These changes would be incorporated into the Rancheria's Transportation Plan as a means of supporting the changes in land use.

Interim Report No. 1 described existing transportation and circulation conditions at the Mooretown Rancheria. The purpose of the report was to identify transportation related issues, especially in the context of improving pedestrian flow and roadway design, to support existing and future economic and community development at the Rancheria.



An aerial view illustrates the roadway system within the Rancheria. Some changes have already occurred since this photo was taken.



The casino draws high numbers of people especially during special events.



Speed humps are used to slow traffic in residential areas.

Review of 2003 Transportation Plan

Many of the projects identified in the 2003 Transportation Plan have been completed. Projects identified but not completed in the 2003 Transportation Plan are listed below:

- ◆ Flashing yellow light in front of casino;
- ◆ Installation of “speed humps” as a traffic calming mechanism in residential areas;
- ◆ Grading, draining and paving the south side of Lorene Court;
- ◆ Amending selected segments of Rancheria roadways for inclusion and exclusion on the BIA road system.

The 2003 Transportation Plan identified the issue of whether or not a fountain and walkway encroaches upon a non-exclusive easement for 60 feet of road over Lorene Court and Alverda Drive granted to Dennis Robinson. This issue has yet to be resolved.

The 2003 Transportation Plan called for elimination of the bottleneck which occurs at the fixed entrance and exit point into the mini-mart parking lot from Lower Wyandotte Road. This issue remains unresolved

Recommendation: These projects and others that may be identified in this study should be considered for inclusion in the Transportation Improvement Plan list for the 2007 Transportation Plan update, pending the recommendations of this Transportation Planning Study.



A bottleneck occurs at the fixed entrance and exit to the mini-mart/gas station.

Traffic Accidents

According to the 2003 Transportation Plan, most traffic accidents occur on Alverda Drive are minor collisions and failure-to-yield in origin. The intersection of Lower Wyandotte Road and Feather Falls Boulevard also experiences traffic accidents. Most of these are a result of poor sight distance and speeding. Accidents also occur in the mini-mart parking lot.

Recommendation: Improvements necessary to address these issues should be considered for inclusion on the improvement plan list for the 2007 Transportation Plan update or modified as a result of this study.

Existing Land Use

Interim Report No. 1 also involved a review of the Rancheria's 2000 Land Use Plan.

According to the Land Use Plan, the population for Tribal enrollment in 2010 is 1,656, a projected increase of 452 persons. The 20% increase in need for housing results in a total of 331 additional housing units. To date, a total of 50 housing units have been developed. Land is available for an additional 42 housing units. Roads and utilities have been installed to serve these residential lots.

Since 2000, a gymnasium (including facilities for early childhood development), and facilities for public safety, health and social services, and education and training classrooms have been constructed. Similarly, the existing casino has been expanded and the hotel and RV Park, mini-mart and gas station have been constructed.



Alverda Drive experiences minor collisions due to failure to yield and speeding.



Roads and utilities have been installed to serve 42 additional housing units.

Mooretown Rancheria Transportation Planning Study



The KOA RV Park has been completed. Expansion is expected in the near future.

Projects called for in the 2000 Land Use Plan but not completed to date include baseball fields, neighborhood parks, and natural open space along with a visitor's center and/or a cultural museum facility as well as a large gathering area for tribal activities.

The Land Use Plan also called for development of facilities for a laundromat and smoke shop, office space for tribal businesses and retail development and an events center. A parking garage and an events center have also been slated for development adjacent to the casino.

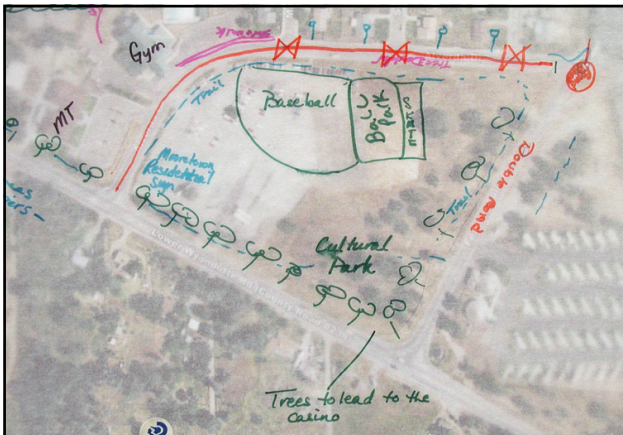
Recommendation: These and other future development projects that may be identified in this study should be reflected in the 2007 Transportation Plan update as a basis for evaluating future transportation and circulation needs.

Traffic Study

A traffic study prepared under this contract described current traffic volume levels and accompanying traffic operations on the roadways and intersections within the study area (See Attachment 1 - Traffic Impact Analysis for Mooretown Rancheria Transportation Plan, KD Anderson & Associates, Inc., January 2009).

Traffic count information yielded the following conclusions:

- ◆ The volume on Lower Wyandotte Road is higher on weekdays than on weekends, even with the traffic being generated by Feather Falls Casino.
- ◆ The weekday volumes on the Rancheria's roads that link the site with Lower Wyandotte Road are also similar to, but slightly higher than, the observed weekend volumes.



Residents strongly support ball fields, neighborhood parks and open space.

Review of turning movement counts yields the following conclusions.

- ◆ During these peak hours, close to 90% of the traffic arriving at the Rancheria is from the west on Lower Wyandotte Road.
- ◆ Entering traffic during these peak hours typically uses the Feather Falls access (80%) rather than Alverda Drive (20%) even though they drive past the Alverda Drive entrance.
- ◆ More than half of the traffic exiting the Rancheria uses Alverda Drive to reach Lower Wyandotte Road.

Pedestrian counts revealed very little pedestrian activity at any location except for the main Casino access intersection on Alverda Drive. At this intersection, 422 and 455 pedestrians were observed crossing Alverda Drive during the highest volume hour before and after the show, respectively. 90% of the pedestrians crossing Alverda Drive used a well-marked crosswalk across Alverda Drive at the Casino entrance. Nearly all of the pedestrians parking in the western half of the main parking lot “jay-walk” across the throat of the driveway approaching the intersection. Pedestrian use of unmarked crossings creates conflicts with both entering and exiting vehicles, particularly with arriving vehicles that are making right turns into the parking lot. However, because this right turning traffic proceeds slowly, drivers generally had time to stop for pedestrians.

"Levels of Service" were determined at study area intersections and on individual roadway segments. All of the study intersections deliver Levels of Service that are LOS B or better.



A parking garage and events center are proposed next to the casino.



Traffic volumes on Lower Wyandotte Road are higher on weekdays than on weekends.

Mooretown Rancheria Transportation Planning Study



Few people were observed riding bicycles within the Rancheria community.

None of the intersections carry traffic volumes that would warrant the installation of traffic signals. The desirable Level of Service is LOS “C”.

Level of Service on the portion of Lower Wyandotte Road west of Alverda Drive reaches LOS D during the peak hours, but other segments and other streets operate at LOS C or better. While the LOS D for the segment of Lower Wyandotte Road between Pano Lane and Alverda Drive raises concern at a “planning” level, realistically it may or may not affect traffic flow. One possible explanation for the LOS D during peak hour is traffic exiting the casino/hotel facility via Alverda Drive rather than Feather Falls Boulevard.

Recommendation: Current traffic volume levels, pedestrian counts, and levels of service should be used as a baseline for evaluating impacts on roadways and circulation of proposed economic and community development projects.

Community Design Issues

Most of the community design issues center on conflicts between the commercial development and residential areas. In general, the commercial area is located at the eastern end of the Rancheria with the exception of the mini-mart and gas station, located at the western end of the Rancheria.

The residential area is located along the northern portion of the Rancheria, sandwiched between the mini-mart at the west end, and the casino (and future parking structure) at the east end. Most residents of the Rancheria access the residential areas using Alverda Drive.



Ninety percent of pedestrians use the crosswalk at the casino entrance.

Community design issues along Feather Falls Boulevard are largely a result of conflicts between RV Park, casino and hotel uses, specifically a mix of pedestrian and vehicular traffic that can become chaotic during peak casino use. There are no sidewalks along either side of this road. A bottleneck occurs at the intersection of Feather Falls Boulevard and Alverda Drive as vehicles encounter traffic entering and leaving the area from either roadway.

The lack of sidewalks along either side of Lorene Court Road forces pedestrians to walk in the roadway. Access and egress to and from this road will encounter the same bottleneck at the intersection of Feather Falls Boulevard and Alverda Drive.

Community design issues along Alverda Drive are largely a result of spill-over traffic from the casino. These issues are most prominent on the weekends during peak casino use (Friday and Saturday nights). While vandalism of resident's property does not appear to be an issue, litter and late night noise along that stretch of roadway is.

Though posted at a speed limit of 25 mph, many vehicles speed (40 mph) along Alverda Drive, especially through the straight section and especially egressing as the roadway goes downhill. Issues along other residential streets include speeding and trespassing by casino patrons. Community members and Rancheria staff have expressed concern about casino and hotel patrons "wandering" and trespassing through the residential community seeking exercise and fresh air.

In general, there is no gateway or "sense of arrival" at the Mooretown Rancheria. Community design issues may center on where a "gateway" would be located. Should there be a more defined gateway on Alverda Drive as the access to Tribal facilities



The public realm is anchored by the Feather Falls casino and....



...Feather Falls Lodge.

Mooretown Rancheria Transportation Planning Study



Where there are no sidewalks, people are forced to walk in the roadway.



Where sidewalks do exist, some lead to nowhere.

and the residential area? Should this gateway be separate and distinct from the gateway for the casino, hotel and RV Park?

A 5.2 acre overflow parking lot is located in the geographic center of the Rancheria. Largely vacant during week-days, the lot is primarily used for bus parking, big rigs, boat trailers and casino crowds on Friday and Saturday nights, and activities at the gymnasium at the western end of the lot. The lot is used privately by Rancheria residents and Tribal Members as well as publicly by Casino patrons.

In the absence of sidewalks or other pedestrian pathways separate from roadways and vehicle hazards, pedestrian safety is a concern. The need for more dedicated pedestrian paths to facilitate “walkability” and “fitness” were identified by many as desirable. Most people felt that pedestrian trails should be designated for casino patrons separate from a trail that serves residents. There are no bicycle lanes or paths within the Rancheria. A field survey observed limited bicycle use by residents.

Lighting and landscaping along sidewalks and other pedestrian paths are relatively absent and were identified as desirable for safety and comfort by local residents.

Currently there are no designated parks or open space areas open to residents adjacent to the residential portion of the Rancheria. Vast areas of undeveloped land provide opportunities to set aside designated park or open space areas.



CHAPTER 4. CONCEPTUAL PLAN

The purpose of the conceptual plan is to incorporate existing and proposed changes in the Land Use Plan and to recommend corresponding changes in the Rancheria's Transportation Plan.

The conceptual plan for Mooretown Rancheria defines the boundaries of community and public realms and corresponding land use and transportation elements that serve and support the activities in each realm (See Figure 1).

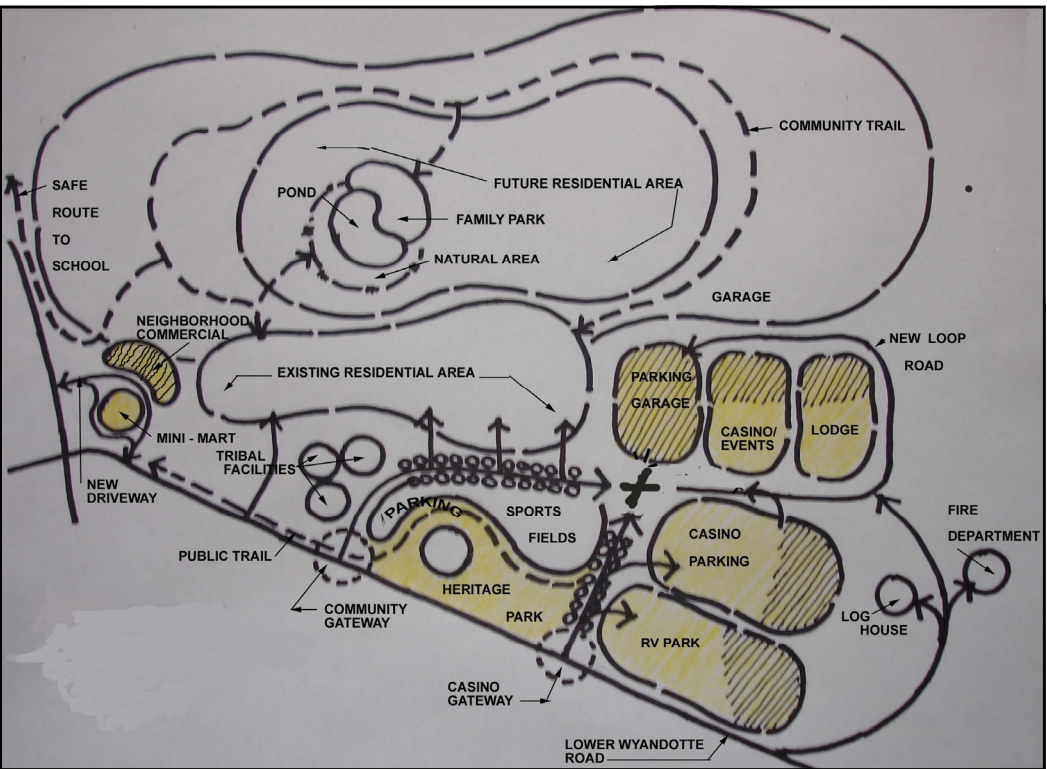


Figure 1. Conceptual Plan

What is a Conceptual Plan?

- ◆ A general notion or thought—an idea
- ◆ A drawing or diagram showing the arrangement of objects
- ◆ A scheme for making or doing something
- ◆ A blueprint for implementing ideas or concepts

LEGEND

- Community Realm
- Public Realm
- Future Development

The community realm is where people live, work, and play.

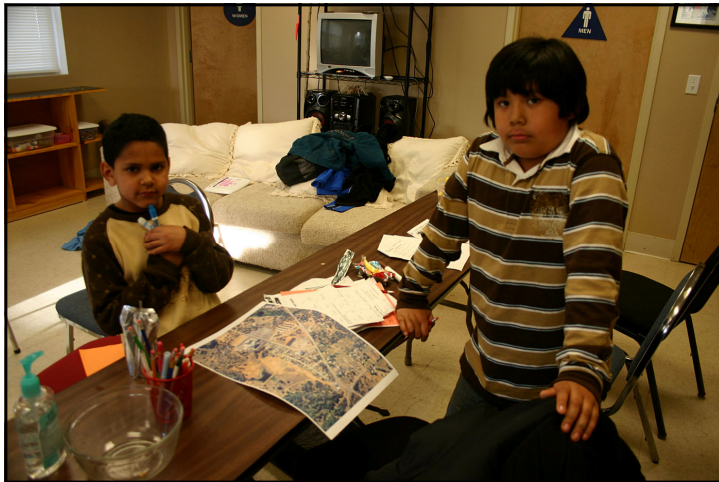


Figure 2. Cultural Heritage Park
Concept showing what it could look like.

Community Realm

The community realm is composed of residential neighborhoods and tribal support services such as administrative offices, Head Start, gymnasium, fire protection, and the log house special events center. The community realm is where people live, work, and play and engage in the daily activities of the Rancheria.

Land Use Elements

Currently, there are 58 housing units developed. Roads and utilities are in place and ready for lot development of an additional 42 housing units for a total of 100 housing units. This would ultimately accommodate approximately 600 people. Currently, the population is 300-350 people.

Focus group discussions, a walking audit, and design table sessions identified desirable additional land uses for areas within the community realm including the following:

- ◆ **Sports fields** (baseball and soccer) to be located in the overflow parking area fronting on Alverda Drive once the parking garage has been constructed and the majority of the overflow parking is no longer needed. This area would include **parking for sports field events and gymnasium activities and possibly big-rigs and buses.**
- ◆ **A cultural heritage park** to be located in the overflow parking area fronting on Lower Wyandotte Road. This park will serve as the centerpiece for the Rancheria and provide basic information on the heritage of the Concow-Maidu culture (See Figure 2).

- ◆ **Sculpture and/or fountain features** could celebrate the salmon/acorn economy around which many of the Tribe's icons and ceremonies are dedicated.
- ◆ **A family park and natural area** would be located around the storm water detention pond in the rear portion of the Rancheria in the vicinity of the new housing. A formal park could provide facilities for picnicking and relaxing. The natural area could provide views of wildlife and native water plants.
- ◆ **A community trail system** would connect existing and proposed residential areas to the park and natural area as well as providing pedestrian access to the mini-mart and a "safe route to school" along the north leg of Lower Wyandotte Road to the elementary school.



Cultural art forms can celebrate the Tribe's history.



A family park could look something like this.



More pedestrian trails can encourage walking.



Preserving the remaining native Oak groves can provide a connection with ancestral food and culture.



The straight alignment and overly wide road on Alverda Drive supports speeds in excess of the 25 mph posted limit.

- ◆ **Oak trees**, especially their acorns, were a critical component of the salmon/acorn economy of the Concow-Maidu ancestors. Many oak groves have been removed to accommodate housing, parking, etc. Focus group and design table discussions emphasized protection of remaining oak groves and planting of new oak trees in appropriate areas. Some of these oak groves may take on sacred notions as part of cultural heritage and ceremony. One idea is to give them names (elders, mythology) much like redwood groves are named in the national and state redwood parks.

Transportation Elements

During focus group discussions, the walking audit, and design table sessions, most of the community design issues centered on transportation-related conflicts between the community realm and the public realm.

- ◆ **Alverda Drive**. Vehicular traffic destined to the public realm frequently enters or exits on Alverda Drive and increases traffic and traffic hazards in the community realm. The major issue on Alverda Drive is speeding. The straight alignment paralleling the residential area supports speeds in excess of the 25 mph posted speed limit. One key element to designing streets that keep cars from speeding is to keep streets physically and visually narrow. Narrow lanes and trees create a sense of enclosure and narrow the driver's field of vision. Most motorists will travel tree-lined streets at slower speeds.

Recommendation:

Alverda Drive should be enhanced to reflect its role as a collector road providing access to the residential neighborhoods and as a primary pedestrian corridor. There is adequate room to provide a 5-foot planting strip and a 5-foot bicycle lane on each side of Alverda Drive reducing the travel lane to approximately 10-feet (Figure 3). Sidewalks parallel this road on the north side only from the casino exit drive to Majhi Lane. On the north side, the sidewalk should be completed from Majhi Lane to Lower Wyandotte Road east. Sidewalks should also be constructed on the southern side from Sawali Court to Lower Wyandotte Road east.



Figure 3. Traffic Calming on Alverda Drive
Photo montage shows what Alverda Drive would look like with sidewalks, trees, narrower lanes and marked crosswalks.

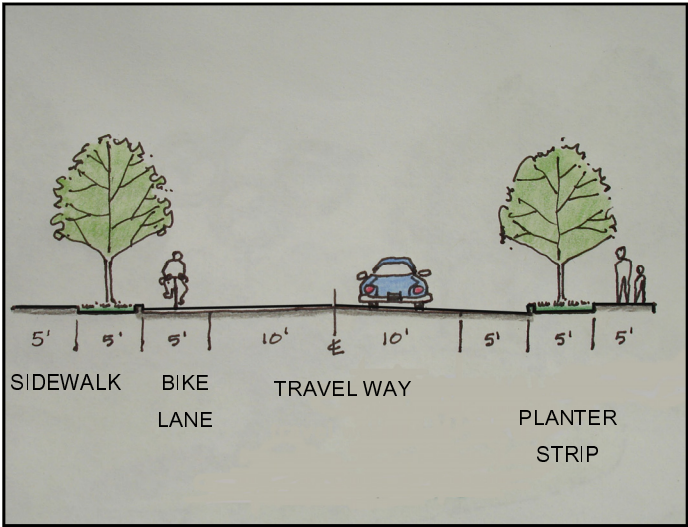


Figure 4. Alverda Drive Cross Section
Typical section through Alverda Drive with landscaping and bicycle lanes.



Landscaping can calm traffic and enhance the community.

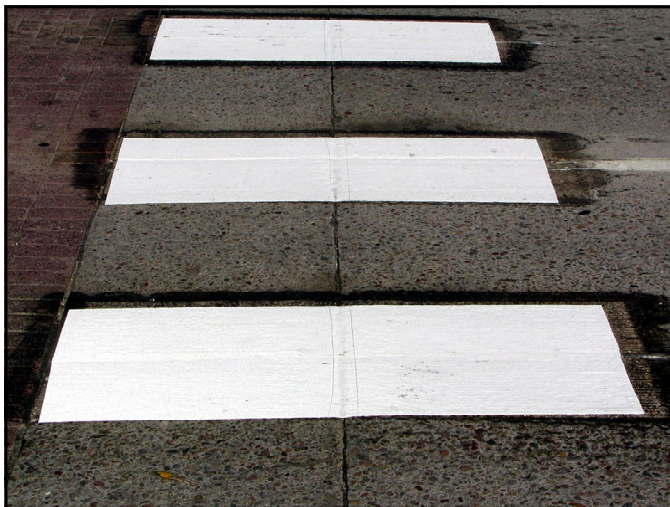


This crosswalk is located on a blind curve and is faded and difficult to see.

Crosswalks. Few dedicated crosswalks exist, especially on heavily traveled Alverda Drive. The existing crosswalk from the tribal administration building and gymnasium to the current overflow parking area is located on the curve where exiting traffic using Alverda Drive (often exceeding the speed limit) cannot see the crosswalk or pedestrians until they enter the curve. The crosswalk striping has faded and is difficult to see. No signage warns motorists of a crosswalk ahead.

Recommendation:

Dedicated striped (and raised) crosswalks should be constructed at each roadway intersection (*Concow Maidu Drive, Sumi Court, Sawwali Court and Majhi Lane*) with Alverda Drive and from the administration building and gymnasium to the future parking, sports field and heritage park to provide safer pedestrian crossing points as well as providing additional traffic calming. To make the crosswalks more visible to motorists, they should be high-visibility markings — specifically wide lines parallel to the direction of travel — as shown in the photo at left. Raised crosswalks would not only be more prominent but would also help reduce speeding on this street.



This crosswalk is visible to motorists.

Community Gateway. Currently, about half of the traffic exiting the casino and lodge facilities use Alverda Drive though 80% use Feather Falls Boulevard to enter. Motorists unfamiliar with the layout often see Alverda Drive as the most direct route to exit in large part because it is easier to go straight than negotiating the offset left-hand turn to the Feather Falls Boulevard exit.

Recommendation:

Improvements proposed for Alverda Drive are intended to reinforce the function of the road as a residential collector. Correspondingly, the gateway to the Rancheria Community should reflect the use of this road as residential access only. This could be accomplished by a residential scale “gateway” feature that could include signage limiting access to residential areas only and/or directing casino traffic to Feather Falls Boulevard.



Different examples of gateway features.



On-street parking can narrow the travel way and slow down vehicle traffic.

Residential Streets. Speeding along residential streets was also reported as a major concern among area residents who acknowledged that this was a problem associated with local people rather than patrons of the public realm.

Currently, speed humps and on-street parking contribute to traffic calming but appear inadequate to control speeds.

Recommendation:

Design table sessions proposed tree planting in bulb outs along residential streets to provide shade and aesthetic enhancement to the streetscape as well as to promote additional traffic calming by narrowing the driver's field of vision. Maintaining on-street parking would further narrow the travel way and slow down motor vehicle traffic. Speed bumps should be striped to make them more visible.



Street trees further calm traffic while providing shade and aesthetic enhancement.



Access to Log Cabin and Fire Protection Equipment. Though located in the Public Realm, the log cabin is used for special community events such as weddings, birthday parties, etc. and fire protection equipment has been recently relocated from an area adjacent to the gymnasium to an area east of the casino parking lot. Currently, much of the vehicle traffic to these areas uses Alverda Drive. There is no dedicated pedestrian access (via sidewalks) beyond the intersection of Alverda Drive and Feather Falls Boulevard.

Recommendation:

The unimproved road east of Feather Falls Boulevard could provide direct access from Lower Wyandotte Road east to both the log cabin and fire protection equipment independent of public access to the casino and lodge facilities. This road should be improved and dedicated for community access to these facilities. It could also be used for service access to casino and lodge facilities further removing traffic and traffic conflicts from Feather Falls Boulevard and Alverda Drive east.



Though primarily used to serve the community, the Log House is located in the Public Realm.





Narrow shoulders and lack of sidewalks makes walking to school difficult and unsafe.



A “safe route to school “ might include a bridge across the drainage channel.

Community Trails and Safe Routes to School. Within the residential area, pedestrian trails other than sidewalks are informal and unimproved. Many of these trails lead to the mini-mart area allowing pedestrians to avoid walking along roadways, especially the north and east legs of Lower Wyandotte Road that do not currently have sidewalks. Currently there are no “safe routes to school” along the north or east leg of Lower Wyandotte Road. Students either must walk along narrow shoulders or are driven to school by parents who do not want children walking along a high-traffic, high-speed roadway.

Recommendation:

Dedicated and improved (paved) trails could support walking and bicycling activities within the residential areas while providing pedestrian access to Tribal Operations Center facilities and the mini-mart. Developing a safe route to school with a dedicated sidewalk/bike lane along north Lower Wyandotte Road could connect with the community trail system.

A trail bridge may be required to address the lack of shoulder on the existing bridge. A “safe route to school” plan will require coordination with Butte County as both legs of Lower Wyandotte Road are in their jurisdiction.

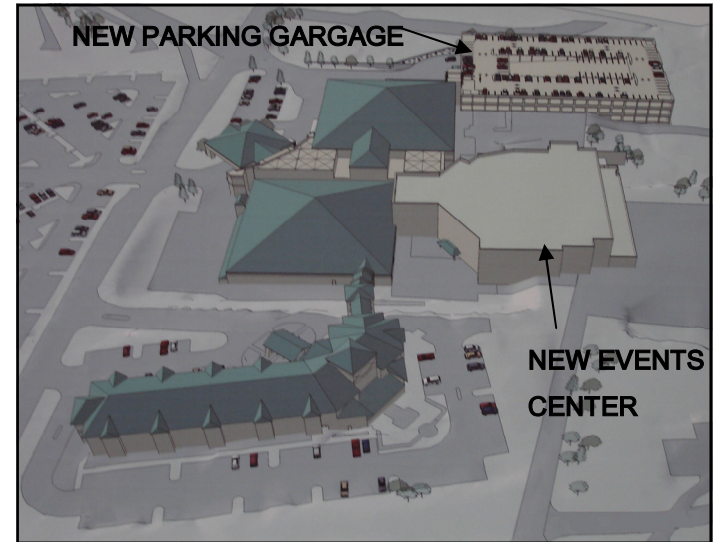
Public Realm

The public realm is composed of the casino, lodge, parking lot, RV park, and the mini-mart/gas station. The public realm provides revenue to support Tribal operations as well as job training and employment opportunities to community members.

Land Use Elements

Focus group discussions with tribal council members, staff, and managers of the casino, lodge, and RV Park identified future developments expected over the next 3 to 10 years include the following:

- ◆ 855 space parking garage (with future expansion of 400). The garage will be five levels, two below ground, one at grade, and two above ground (Spring/Summer 2008).
- ◆ New 1600 seat events center to be built behind the casino. Currently, their event seating capacity is around 850 (3 years).
- ◆ One hundred additional slot machines are proposed. Currently, the casino has 1,100 slot machines. The casino is permitted a maximum of 2,000 slot machines.
- ◆ Adding 80-90 rooms onto the existing Lodge to be built behind the existing building (5 years).
- ◆ Currently, there are 43 RV spaces (each space allows for a motor home/coach and vehicle). This is expected to double to around 80 spaces (2-5 years).



A new parking garage and events center combined with expansion of the casino and lodge are among future projects that will expand the public realm.

The public realm provides revenue to support Tribal operations as well as job training and employment opportunities.

Mooretown Rancheria Transportation Planning Study



The RV Park will be expanded to 80 spaces.

- ◆ Currently, the parking lot has about 400 parking spaces. An additional 200 parking spaces are proposed. The existing parking lot would be expanded to the west and east (5 years).
- ◆ Additional neighborhood commercial development to provide for off-Rancheria patrons as well as locals has been discussed by the Tribal Council. The best location for neighborhood commercial facilities would be adjacent to the exiting mini-mart/gas station (10 years plus).
- ◆ A trail system through the cultural heritage park would provide patrons of the casino, lodge, and RV Park with an opportunity to “stretch their legs” and enjoy the park setting rather than wander through residential communities. The cultural park could provide interpretive material about the heritage of the Concow-Maidu people. The public trail would also connect with a sidewalk providing access to the mini-mart and gas station.



Transportation Elements

Access roads to the public realm must be redesigned to better direct and accommodate employees and patrons of the casino, lodge, events center, and RV Park as distinct from access and roadways within the community realm.

Feather Falls Boulevard. Feather Falls Boulevard is intended as the primary access to the public realm facilities. A Feather Falls casino sign, with flashing lights, is intended to attract attention of arriving motorists and signal that this is the entrance to the casino and lodge. Currently, traffic counts suggest that approximately 80% of the casino patrons use Feather Falls Boulevard for access with about 50% using Alverda Drive for egress.

Implementation of the concept plan will increase the volume of traffic through the Lower Wyandotte Road / Feather Falls access intersection and improvements will likely be needed. Ultimately, the combination of through traffic growth and Rancheria development will result in the need to signalize the intersection.

Recommendation:

Feather Falls Boulevard should be enhanced to reflect its role as the primary (only) access to public realm facilities. In addition to the existing lighted sign, an enhanced gateway entrance to Feather Falls Boulevard might include flags or banners (lighting) or distinctive trees that reinforce the sense of “gateway” or “sense of arrival” to the public realm. Placement of trees along both sides of Feather Falls Boulevard could provide a distinctive entrance to the public realm.



Feather Falls Boulevard is the primary access for the casino and lodge.



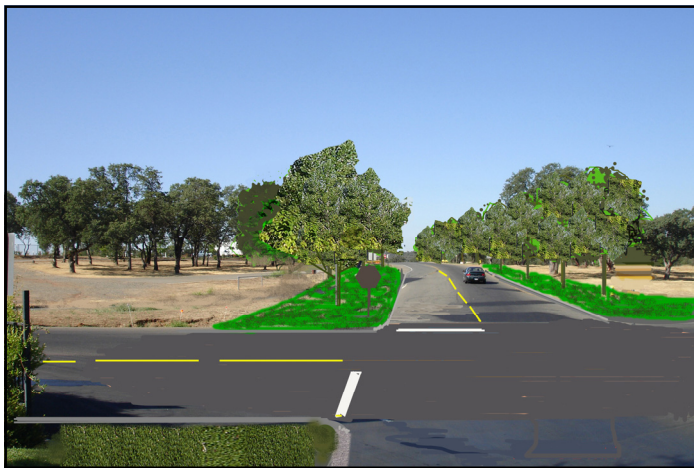
Placement of trees along both sides of Feather Falls Boulevard would complete the “gateway.”



Currently, Feather Falls Boulevard does not include trees that could enhance the entrance to the casino and lodge

Feather Falls Boulevard and Alverda Drive Intersection. A bottleneck occurs at the intersection of Feather Falls Boulevard and Alverda Drive as motorists encounter a mix of employee, patron, bus, and service traffic entering and leaving the area from either roadway. Sidewalks in front of the casino within the bus loading zone end abruptly without providing for adequate or safe pedestrian routes through the intersection. Traffic can become chaotic during peak casino use. The Feather Falls Boulevard leg of the intersection does not line up with the exit lane from the casino (and future exit of the parking garage). Patrons and employees of the casino and/or lodge frequently use Alverda Drive as an exit route in large part because it is easier to go straight than negotiating the offset left-hand turn to the Feather Falls Boulevard exit. The construction of the garage can be expected to exacerbate the problem since more vehicles will be emerging from the driveway that feeds into Feather Falls Boulevard.

Recommendation:



The Feather Falls Boulevard/Alverda Drive intersection needs to be realigned to 90 degree angles.

The design team initially recommended installing a roundabout at this intersection as there is adequate space for a roundabout. Also, a roundabout would provide a safer and more efficient hub for traffic to flow around it as motor vehicles enter or leave the parking garage, or buses enter and leave the drop-off point in front of the casino, in addition to other benefits.

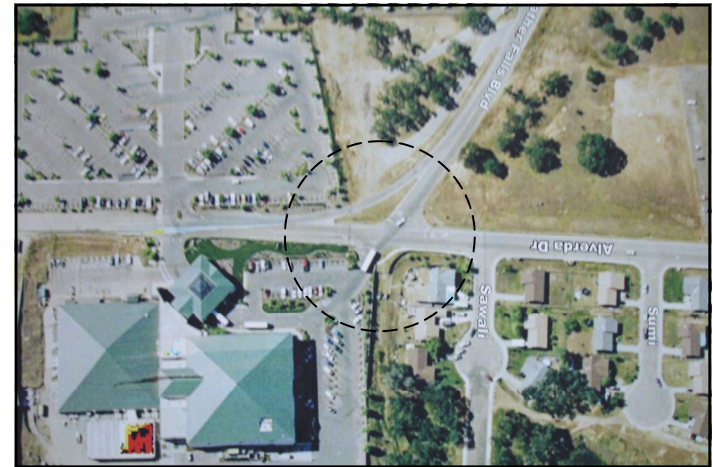
However, after consideration, the Tribal Council requested that a more traditional intersection be implemented at this location. In order to accomplish this, the south leg of Feather Falls Boulevard would need to be re-aligned to approach the intersection at a 90 degree angle for the

intersection to be operated with an all-way stop or traffic signal. This will involve moving the existing road leading to the Casino.

Casino/Parking Access. Developing the new parking structure will add traffic to what would be the north leg of the Alverda Drive/Feather Falls Boulevard intersection. With the development of this new traffic demand, it will be important to control traffic in a manner that expeditiously handles Casino traffic while helping to limit intrusion onto Alverda Drive to the west. Because the existing intersection is skewed, it will be desirable to reconstruct the intersection in a manner that is more “conventional”. This would either require realigning Alverda Drive to intersect Feather Falls Boulevard at a new location further west or reconstructing the intersection in the form of a “roundabout”.

The configuration of a roundabout is governed by the angle of approach on each street and by the need to orient entering traffic as “right turns” as they enter the roundabout. Roundabouts as small as 90 feet in diameter are possible, and these small roundabouts have a comfortable travel speed of about 15 mph. Larger diameter roundabouts are used to accommodate higher speeds, to accommodate closely spaced approaches and to reduce the need for large vehicles to mount the inside apron when passing through the roundabout. In this case, a roundabout that was intended to accommodate the skewed intersection without encroaching significantly into neighboring land uses would likely need to be 110 feet in diameter.

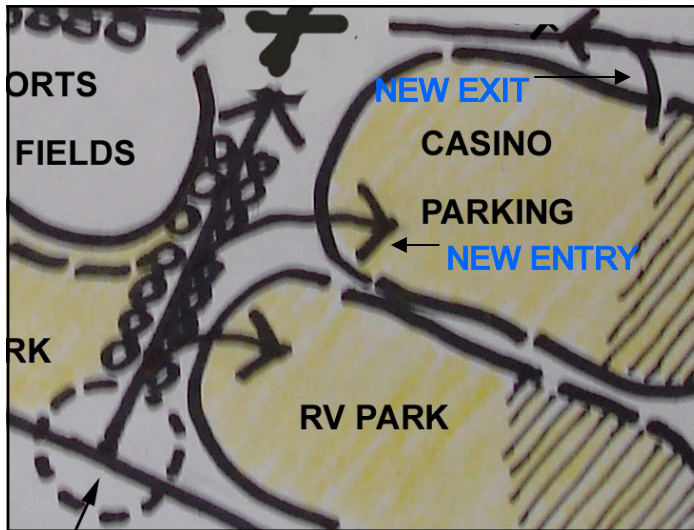
A second key design element for the intersection is the interaction between the traffic using the new parking garage and the bus and automobile traffic exiting the Casino drop off area. The



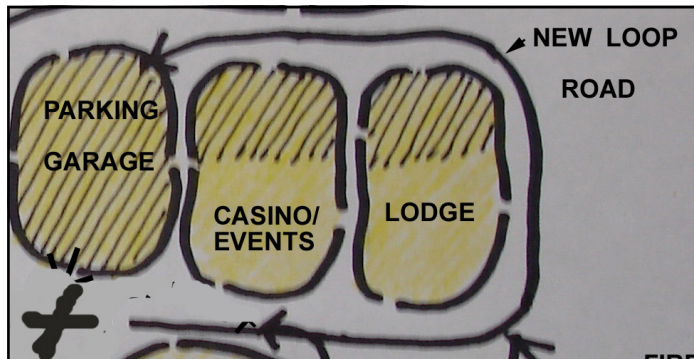
The existing intersection of Alverda Drive and Feather Falls Boulevard is skewed and needs to be reconstructed.



Due to the skew of the intersection at Alverda Drive and Feather Falls Boulevard, larger vehicles need to travel in the opposite lane at this entrance to the Casino.



A new one-way entry to the parking lot with a one-way exit would reduce the traffic through Alverda Drive and automobile/pedestrian conflicts near the casino.



Proposed new loop road.

connection would need to be far enough from the intersection to accommodate a little slip ramp from westbound Alverda back to the parking structure. This may mean that we need to close off the first parking aisle.

Recommendation:

The conceptual plan attempts to reduce automobile/pedestrian conflicts near the casino and its parking supply in two ways. First is to re-align the Feather Falls Boulevard/Alverda Drive intersection. Secondly, the entrance/exit for the existing parking lot is to be moved from Alverda Drive to a location on Feather Falls Boulevard south of Alverda Drive. This would reduce the amount of automobile traffic through Alverda Drive.

New Loop Road. A new loop road would be developed as part of the expansion of the Lodge, new events center and parking garage that would provide access for employee parking behind the casino, service vehicles, and possibly another means of emptying the garage after special events. This loop road would continue east on the existing portion of Alverda Drive to the Lodge, turn north on existing Lorene Court, go behind the existing (and expanded) lodge and new events center to the backside of the new parking garage, through the parking garage, and out the main entrance to the intersection with Alverda Drive and Feather Falls Boulevard (Spring/Summer 2008).

New South Access to Lower Wyandotte Road. The conceptual plan suggests that the unimproved south access to Lower Wyandotte Road could be improved and used to promote access to the Log Cabin and fire protection equipment as well as service

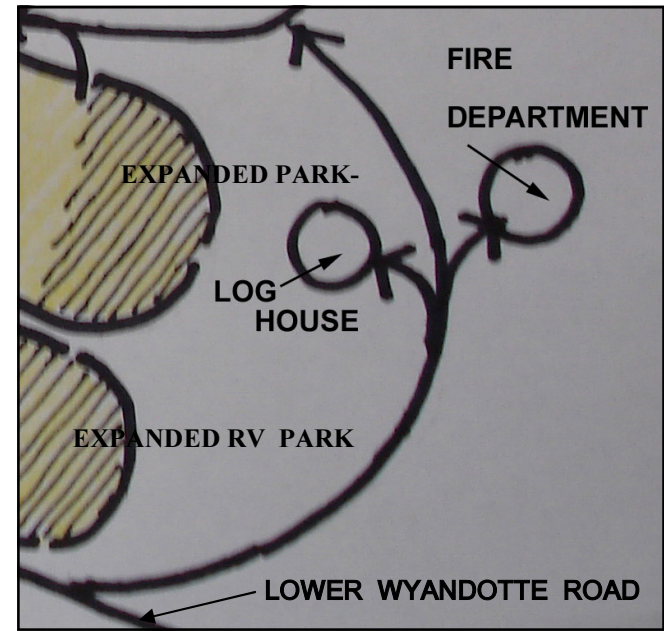
access to the Casino and Lodge. This access is approximately 500 feet from the Feather Falls Blvd access and is immediately north of a large culvert.

The vertical alignment of Lower Wyandotte Road in the area of this access and the presence of the culvert are constraints. Sight distance looking north is somewhat limited, although it appears that minimum sight distance standards can be met. However, if appreciable inbound traffic is to use this connection, it will be necessary to widen Lower Wyandotte Road to provide a left turn lane.

The Tribal Council largely approved the recommended Conceptual Plan with a change requested in intersection treatment at the confluence of Feather Falls Boulevard and Alverda Drive.

Mini-mart/Gas Station (future neighborhood commercial).

Though located in the community realm, the mini-mart and gas station serve the community surrounding Mooretown as well as casino, lodge, and RV park patrons, and local community residents. This area is also considered as the best location for future neighborhood commercial development given its location at the intersection of major intra-county roadways. The major issue identified in site surveys and focus groups is associated with the entrance and exit drive which requires entering vehicles to drive behind the mini-mart in a counter clockwise direction and exiting traffic to exit using the same driveway. A problem occurs when entering traffic intuitively wants to go in a clockwise direction creating a serious conflict point with exiting traffic. Currently, bright yellow dividers discourage entering vehicles from accessing in a clockwise direction.



A new south access from Lower Wyandotte Road can be used to promote access to the Log House and Fire Department as well as service access to the casino and lodge.



Reconfigured entrance and exit drives would allow vehicles to enter and exit on either leg of Lower Wyandotte Road.

Recommendation:

The ideal solution to this problem would be another entry/exit drive from the north leg of Lower Wyandotte Road that would allow traffic to enter or exit from the east leg of Lower Wyandotte Road or the new north leg. This would be especially important if neighborhood commercial facilities are developed in the future, generating additional traffic and entry and exit conflict points. This will require coordination with Butte County as both legs of Lower Wyandotte Road are in their jurisdiction.



CHAPTER 5. TRAFFIC IMPACT ANALYSIS

A traffic report was prepared by KD Anderson & Associates, Inc. that summarizes analysis of the potential short-term and long-term traffic impacts associated with development proposed in the conceptual plan for the Mooretown Rancheria. (See Attachment 1- *Traffic Impact Analysis, Mooretown Rancheria Transportation Study, Final Report*, KD Anderson & Associates, Inc., January 6, 2009).

The traffic impact analysis addressed the potential project impacts and cumulative traffic impacts associated with development at the Rancheria and to suggest feasible measures for mitigating identified impacts. The first phase of the study evaluated existing circulation conditions in the area. The second phase identified the characteristics of development alternatives, including estimated trip generation, distribution, and assignment of project traffic. The effects of new traffic on on-site circulation were also identified. The third phase considered the impacts of the project both on-site and off-site within the context of the current traffic conditions and long-term future traffic volume forecasts developed using the Butte County Association of Governments (BCAG) county-wide travel demand forecasts for year 2030 conditions.

Current Levels of Service

The traffic study calculated existing levels of service for selected intersections and roadways. All of the study intersections currently operate at a LOS B or better. None of the intersections carry traffic volumes that would warrant the installation of traffic signals (Table 5. - Attachment 1. *Traffic Impact Analysis*).

<u>LEVELS OF SERVICE DEFINITIONS</u>			
<u>LOS</u>	<u>Signalized Intersection</u>	<u>Non-signalized Intersection</u>	<u>Roadway</u>
A	- 10 sec. delay	- 10 sec. delay	complete free flow
B	10 - 20 sec delay	10 - 15 sec delay	free flow
C	20 - 30 sec delay	15 - 25 sec delay	maneuvering and operating speed affected.
D	35 - 55 sec delay	25 - 35 sec delay	Unstable flow. Speeds and maneuverability restricted.
E	55 - 80 sec delay	35 - 50 sec delay	At or near capacity. Unstable flow.
F	80 sec delay	50 sec delay	Forced flow. breakdown

SOURCE: 2000 Highway Capacity Manual

Intersection Levels of Service

Lower Wyandotte Road/Ophir Road/Palermo Road
Lower Wyandotte Road/mini-mart/gas station access
Lower Wyandotte Road/ Alverda Drive
Lower Wyandotte Road /Feather Falls Boulevard
Alverda Drive /Feather Falls Boulevard
Alverda Drive/casino/casino parking lot

The study looked at traffic volumes for Friday peak hour and Saturday night – before and after show.

Roadway Level of Service

Daily and peak hour traffic volumes were counted on study area roads. The LOS on the portion of Lower Wyandotte Road west of Alverda Drive reaches LOS D during peak hours but other segments and other streets operated at LOS C or better (Table 6 - Attachment 1. *Traffic Impact Analysis*).

Similarly, LOS calculations were performed for the following roadways:

Lower Wyandotte Road from:

Upper Palermo Road to Pano Lane
Pano Lane to Alverda Drive
Alverda Drive to Feather Falls Boulevard

Pano Lane from:

Lower Wyandotte Road to Concow-Maidu Drive

Alverda Drive from:

Lower Wyandotte Road to Concow-Maidu Drive
Feather Falls Boulevard to casino parking lot
Parking lot to Lorene Court

Feather Falls Boulevard from:

Lower Wyandotte Road to RV Park
RV Park to Alverda Drive.

[Trip Generation/Distribution](#)

Trip Generation. The amount of additional traffic travel to and from new land uses at Mooretown Rancheria were estimated by applying trip generation rates developed by observation of similar uses (Table 7 - Attachment 1. *Traffic Impact Analysis*).

Regular trip generation rates do not apply to the parking garage and events center. In the case of the parking garage, the vehicles using the garage are attracted by the casino itself. In the case of the event center, the amount of traffic is dependent on the nature of each event.

Trip Generation Forecasts. Trip generation rates were identified for lands uses proposed in the conceptual plan. The forecast is sensitive to the change in the number of gaming devices. If the device count increases by 100, then the total estimated site trip generation increase would be in the range of 1,500 vehicles per day, with 120 to 140 vehicles during peak traffic hours. However, if the casino grows to encompass its entire permitted gaming devices supply (2,100) then site trips would increase by 4,500 to 5,200 vehicle trips per day, with 320 to 360 trips generated during peak hours (Table 8. - Attachment 1. *Traffic Impact Analysis*).

Distribution. The direction that new trips generated at Mooretown Rancheria may take and the routes they may use has been estimated based on current travel patterns. As noted with existing conditions, most of the traffic traveling to and from the Rancheria is oriented to the northwest on Lower Wyandotte Road. This pattern is expected to remain (Table 9 - Attachment 1. *Traffic Impact Analysis*).

Existing Conditions Plus Project Traffic Impacts

The increase in trips generated by existing and new land uses could result in a decline in LOS that would exceed the LOS C threshold (of more than 680 vehicles per hour) on Lower Wyandotte Road from Upper Palermo Road to Feather Falls Boulevard. This portion of Lower Wyandotte Road could operate at LOS D. This would exceed the minimum LOS C standard in the current Butte County General Plan. (*Setting the standard at LOS C is very conservative. Most communities accept a level of LOS D or E.*) The effects of project traffic on selected intersections show that each intersection will deliver an LOS C or better conditions.

Assessment of Traffic Issues

Alverda Drive. The daily traffic volume on Alverda Drive is likely to drop initially with implementation of the proposed improvements recommended in the master plan as background traffic is diverted to Feather Falls Boulevard. However, with the full development of permitted gaming, the future volume could be slightly higher than the volumes that exist today.

Lower Wyandotte Road/Feather Falls Boulevard. Implementation of the concept plan will increase the volume of traffic through the

Lower Wyandotte Road/Feather Falls Boulevard intersection and improvements will likely be needed.

Separate left-turn lanes and right-turn lanes should be developed on the exit, and, as noted in the discussion of cumulative long-term traffic impacts, the combination of through-traffic growth and Rancheria development may result in the need to signalize the intersection in the future.

Casino/Casino Parking Access. The conceptual plan attempts to reduce automobile/pedestrian conflicts near the casino and its existing surface parking lot in two ways. First a new entrance to the existing parking lot is recommended south of Alverda Drive (after RV Park entrance). This new entrance will reduce the amount of automobile traffic entering on Alverda Drive at the point of high pedestrian activity.

The development of the new parking structure will add traffic to what will be the north leg of the Alverda Drive/Feather Falls Boulevard intersection. With the development of this new traffic demand, it will be important to control traffic in a manner that expeditiously handles casino traffic while helping to limit intrusion onto Alverda Drive to the west. Because the existing intersection is skewed, it will be desirable to reconstruct the intersection in a manner that is more conventional. This would require realigning Alverda Drive to intersect with Feather Falls Boulevard at a new location further west, realigning the southern leg of Feather Falls Boulevard to approach the intersection at 90 degrees.

Mini-Mart/Gas Station Access. The conceptual plan suggests that new access be created on Lower Wyandotte Road north of the traffic signal. This connection is actually being installed currently

as a “right-turn exit only” driveway. In the long term, full access could be needed to support the planned neighborhood commercial uses. A full access driveway needs to be far enough away from the signalized Ophir Road intersection to avoid interference with the operation of the signal and far enough from the drainage culvert on Lower Wyandotte Road to facilitate creating a left turn lane to serve traffic that wants to enter the site. Providing this new connection may reduce the volume of traffic at the existing Lower Wyandotte Road driveway. This volume reduction could eliminate the need for the channelization that exists there today, but this issue would need to be resolved when the access is actually operating.

New South Access to Lower Wyandotte Road. The concept plan suggests that the existing road serving the log cabin and fire protection equipment be paved to link the casino area with the south access to Lower Wyandotte Road. This access is approximately 500 feet from the Feather Falls Boulevard access and is immediately north of a large culvert.

The vertical alignment of Lower Wyandotte Road in the area of this access and the presence of the culvert are constraints. Sight distance looking north is somewhat limited, although it appears that minimum sight distance standards can be met. If this access is to be available to large trucks and regular use, it will be necessary to widen Lower Wyandotte Road to provide a left turn lane.

Cumulative Impacts

The impacts of implementing the conceptual plan has also been considered within the context of long-term future conditions. While additional changes to the Rancheria land use are not anticipated, the combination of new development and regional traffic growth may drastically change the character of traffic on Butte County roads in the vicinity of Mooretown Rancheria.

Traffic Volume Forecasts

The traffic study utilized traffic volume forecasts provided by the Butte County Association of Governments (BCAG). The current BCAG model forecasts that the volume of traffic on Lower Wyandotte Road in the area of Mooretown Rancheria will increase by a factor of 1.79 from now until the year 2030. This factor is equivalent to an annual average growth rate of roughly 2.7%.

The Butte County General Plan is currently being updated and the new plan calls for more intense land use in the areas south of Oroville. The travel demand forecasting model created for the General Plan Update Environmental Impact Report (EIR) suggests much greater traffic volume growth rates than the BCAG model. The most appreciable difference is on Lower Wyandotte Road north of Ophir Road where projected traffic volumes are more than five times the current volume. In the Mooretown Rancheria, the future traffic volume is expected to reach 24,400 vehicles per day. The equivalent annual growth rate on this piece of roadway is 4.7% annually.

Conditions Based on BCAG Traffic Forecasts. Assuming the background traffic volumes suggested by the BCAG traffic model, Lower Wyandotte Road is projected to deliver LOS D. These conditions will exceed the current LOC C standard with and without future uses that may occur at Mooretown Rancheria. A 4-lane section would be needed to deliver LOS C. The addition of new trips from future uses at Mooretown Rancheria would result in LOS E conditions in the immediate area of the Rancheria, and a 4-lane section on Lower Wyandotte Road would still be needed to achieve LOS C.

Conditions Based on Year 2035 Butte County General Plan Update. LOS on Lower Wyandotte Road would be worse under the forecasts developed for the Year 2035. The existing 2-lane road would deliver LOS F north of Feather Falls Boulevard and LOS D south of the casino access. These conditions are expected with and without the new development included in the conceptual plan for Mooretown Rancheria.

Lower Wyandotte Road would have to be widened to 4-lanes to improve the operating LOS whether the future land uses in Mooretown Rancheria are developed or not. The limit of LOS C on a four-lane highway is 2,530 vehicles per hour, while LOS D occurs with volumes ranging from 2,531 to 3,280 vehicles per hour. The background volume on Lower Wyandotte Road would create LOS D conditions even if the road is widened to 4-lanes, and LOS D would continue with the addition of Mooretown Rancheria traffic.

Intersections Levels of Service. The BCAG traffic model projects cumulative conditions for the Year 2025. Because the BCAG regional traffic model assumes modest growth by 2025, the LOS at study intersections remain relatively good with or without implementation of the planned land uses and circulation system improvements called for in the Rancheria's conceptual plan. With one exception, LOS C or better conditions are projected at each intersection. The exception is the existing exit onto Lower Wyandotte Road from Feather Falls Boulevard. With the addition of traffic accompanying planned uses, motorists waiting to leave the site will experience delays that are indicative of LOS D. Technically, the volume of traffic at this location could reach the level of warranting a traffic signal, but because nearly all traffic turns right, a traffic signal may not be the best option. The exit could be widened to provide separate left-turn and right-turn lanes. With these improvements the intersection would operate at LOS C. Further improvement could be achieved by lengthening the left-turn lane in this area to provide a refuge for outbound traffic turning onto southbound Lower Wyandotte Road. This refuge area would reduce delays for outbound motorists. This improvement would be created with the left-turn lane that will likely be required at the new southern access.

Year 2035 Conditions under Butte County General Plan. While development of intersection specific traffic volume forecasts and Levels of Service have not been conducted as part of this analysis, it is possible to suggest the relative impacts of additional background traffic growth.

It is likely that the left-turn access at the new northern access on Lower Wyandotte Road will be very difficult if background traffic increases as suggested in the General Plan Update. Limiting access to right-turns only is likely to be needed.

The Lower Wyandotte Road/Ophir Road intersection would need to be widened to accommodate forecasted traffic volumes. While the current intersection footprint can accommodate two through lanes in each direction without relocating existing hardware, it is likely that additional widening could be needed to handle year 2035 traffic volumes.

The access to the mini-mart/gas station and future neighborhood commercial development on Lower Wyandotte Road is likely to operate with a poor Level of Service. While widening Lower Wyandotte Road to 4-lanes would help, because the driveway is so close to the signalized intersection, measures to reduce delays and achieve LOS C are limited.

The Lower Wyandotte Road/Alverda Drive intersection would operate with poor Levels of Service that could be corrected by widening Lower Wyandotte Road to 4-lanes.

The Lower Wyandotte Road/Feather Falls Boulevard intersection would experience considerable delays. If background traffic increases as suggested, Lower Wyandotte Road would need to be widened to 4-lanes to deliver adequate LOS. The tribe will need to consider whether to signalize the intersection to provide suitable access during peak periods and after major events.

CHAPTER 6. COMMUNITY IMAGE SURVEY

The Mooretown Rancheria Community Image Survey (CIS) was presented on March 1, 2008 at a Community Workshop for the Mooretown Rancheria Transportation Planning Study.

The CIS consists of 40 slides from Mooretown and other communities. Taken as a whole, the slides present contrasting images of a small rural community — streets, sidewalks, housing, gateways, open space and civic features. The survey was used during the Community Workshop to involve residents of the community in the planning process and to gauge what they would like to see in Mooretown.

A copy of the Community Image Survey is included with this report along with instructions for how to administer it. (Attachment 2.)

The residents who took the survey were asked to rate each image on a scale of -5 to +5 based on the following criteria:

- ◆ Do I like or dislike the image?
- ◆ How much do I like or dislike it?
- ◆ Is it appropriate for Mooretown Rancheria?

A median score for each of the 40 images was calculated. Scores ranged from a low of -5 to a high of +5. (A printout of all 40 images listing median scores is presented in Attachment 2.)

During the discussion of the survey results, participants were shown the median scores for all 60 images in the Survey and which images were paired as contrasting examples. Workshop





Traditional "roundhouse" architecture is reflected in the KOA Office building.

participants were asked to identify what they liked or disliked about the paired images. While the major focus of the Community Image Survey was to engage residents in a participatory exercise, the numerical median is useful in determining which elements of the built environment are viewed as positive and which are considered negative. These views can then help to shape planning policies and decisions.

Following is a list of elements participants during the Saturday workshop identified as reasons for liking an image:

- ◆ Well-maintained
- ◆ Shade
- ◆ Trees
- ◆ Landscaping
- ◆ Walkable
- ◆ Parking with lighting and shade
- ◆ Variety of design and materials
- ◆ Has a downtown look
- ◆ Good quality design
- ◆ Different parking options (diagonal)
- ◆ Small town feel
- ◆ Grocery on street
- ◆ Mixed use
- ◆ Storefront windows
- ◆ Lights
- ◆ Activity
- ◆ Seating
- ◆ Street median

From the responses we can also isolate the following comments regarding intangible elements that Rancheria residents would like to see in their community:

- ◆ Interesting to look at
- ◆ Small town feel
- ◆ Inviting
- ◆ Safe
- ◆ Eyes-on-the-street
- ◆ Good quality

In addition, participants identified the following elements as reasons for disliking an image:

- ◆ Open drainage ditches
- ◆ Above-ground utilities
- ◆ Chain-link fence
- ◆ Bad signage
- ◆ Parking without landscaping
- ◆ Billboard
- ◆ Blank wall
- ◆ No landscaping or not enough trees
- ◆ Poorly maintained

Similarly, we can identify the following negative comments that relate to intangible features and which apply more broadly to other parts of the Rancheria:

- ◆ Harsh
- ◆ Not Inviting
- ◆ Ugly



Residents responded favorably to familiar cultural resources and public buildings.

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Grinding stones recall the history and culture of the Concow-Maidu.

By reviewing this list of likes and dislikes we can identify more clearly some of the steps that residents of Mooretown believe can be taken to improve and create a more livable community.

In addition to some general views that can apply in any part of the community (especially in the case of intangible likes and dislikes), it is also possible to relate the views expressed to specific types of features of a community.

Community Identity

Participants reacted positively to familiar cultural resources and public buildings in the community such as the Tribal Offices (#1), a grinding stone (#21), the KOA building (#20) and the Lodge (#40).

Parking

Participants reacted negatively to an image of an unpaved parking lot (#17) while they reacted positively to a parking lot with trees (#37).

Public Art

Artwork such as salmon statues and a rustic-looking gateway sign were ranked positively with participants.

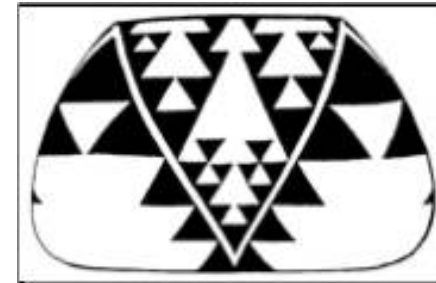
Public Spaces

When shown images of open space, participants preferred those with more trees and there was little difference whether it was natural or maintained (#6, #13 and #33). An image of a public

space with a meeting area (#18) received a much more positive reaction from participants than one with no meeting area (#38).

Sidewalks

Participants reacted negatively to a poorly maintained sidewalk that was adjacent to the street (#9) compared to the positive response to a well-maintained sidewalk with a buffer from the street (#29). However, participants didn't see much difference between the image of a sidewalk adjacent to the street (#15) and one where the sidewalk is separated from the street by a planting strip (#35) when both were well-maintained.



Single Family Housing

Residents scored an image of houses with the garage in the back (#27) and parking on the street positively while they didn't like the one with garages in the front (#7).

Streets

Participants gave negative scores to two images of existing street crossings (#3 and #23), even though one was more clearly marked and had a shorter crossing distance.

Of the two images of fairly narrow streets with on-street parking (#4 and #24), participants gave the one with more trees adjacent to the street a higher score. While the image of a tree-lined street with bike lanes, and sidewalks separated by planter strips received a positive score (#25), the image of a wider street with no trees and no buffer (#5) received a negative score. Residents preferred a narrow street with a clearly marked bike lane (#28) to that of a much wider street with no marked bike lane (#8).

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When comparing wide streets without a median (#11 and #16) and those with a median (#31 and #36), participants preferred the streets with a median to those without.

Participants reacted positively to an image of a well-maintained roundabout with clear signage and lighting (#32) while they reacted negatively to a wide intersection with no pedestrian crossings (#12).

Participants reacted negatively to the images of speed bumps (#14 and #34).

Trails

While the image of the trail alongside a road (#22) received a slightly positive score due to the trees, the image of the trail surrounded by trees and away from roads (#2) received a higher score.



CHAPTER 7. IMPLEMENTATION & FUNDING

The Conceptual Plan recommends a number of elements to improve the flow of vehicular traffic and reduce conflicts with pedestrians. These concept elements represent generalized ideas about what could be or what could happen. Politics, economics, and logistics will play a role in further shaping these ideas in terms of where and when they will be implemented. Several steps are involved in implementing the elements of the Conceptual Plan.

Project Study Report (PSR)

Once the concepts are agreed upon, a Project Study Report (PSR) must be prepared for each concept element to be implemented. The PSR is used as a basis for securing funding to implement the specified project. Once funding is secured, engineering design and construction documents are prepared for the project. Upon completion of design and construction documents, the project is put out to bid. Upon acceptance of a bid, a contractor is hired to construct the project. The general timeframe from concept to construction, depending on the complexity of the project, is at least two years. Large projects that involve land acquisition, or resolution of easement and right-of-way issues, can take much longer.

Project Funding

General Funding Information

There are several funding sources known to the Butte County Association of Governments (BCAG) from which the Mooretown Rancheria could benefit.



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Two of these funding sources are controlled directly by BCAG — the State Transportation Improvement Program (STIP) and Transportation Enhancement (TE) program — while the remaining programs are awarded and then administered by either state or federal government agencies, such as Caltrans.

Unfortunately, due to the current structure of many funding programs, the Rancheria cannot be direct recipients. A tribal project can however, under many programs, be eligible for funds when another agency — such as a city or county, acts as the project sponsor and administers the project on behalf of the Tribe. For the purposes of this project, only the programs BCAG controls or which the Tribe could directly apply for are listed.

Eligible Funding Programs

State Transportation Improvement Program (STIP)

The STIP provides funding on a formula basis to the Butte County region. The funds are then awarded by BCAG to eligible projects based on adopted formula and criteria. All funding from the STIP must be used for capital improvement projects.

Categories for potential projects include:

- ◆ Highways/Streets/Roads
- ◆ Bicycle and Pedestrian
- ◆ Transit and Rail

Normally, BCAG receives an estimate of new STIP funding available for the region every two years. With BCAG as a project sponsor, Mooretown could be eligible for some of these resources.

Transportation Enhancements (TE)

The TE Program is a Federal funding source. The Program develops projects that creatively and sensitively integrate surface transportation enhancements into the surrounding community. Projects must be over and above required mitigation of normal transportation projects. Projects must fall within one of twelve categories including:

- ◆ bicycle and pedestrian facilities
- ◆ landscaping and beautification
- ◆ historic rehabilitation

When regional TE funds are available, BCAG conducts a competitive application process in order to select projects for funding. With BCAG as a project sponsor, Mooretown could be eligible for some of these resources.

For more information, visit: www.bcag.org

[Bridges on Indian Reservation Roads](#)

Highway Bridge Replacement and Rehabilitation (HBRR)

The purpose of the Highway Bridge Replacement and Rehabilitation (HBRR) Program is to replace or rehabilitate bridges on public roads when the state and the Federal Highway Administration determine that a bridge is important and is unsafe because of structural deficiencies, physical deterioration, or functional obsolescence. Candidate projects are submitted directly to Caltrans for review on an annual basis.

Bridges on Indian Reservation Roads are authorized under the HBRR Program. Funding is provided for rehabilitation or replace-

ment of bridges or culverts on public roads meeting the definition of an Indian Reservation Road. Each BIA Regional Office works with Tribal, state, and local governments to develop a priority list of bridge projects and to identify match fund sources.

[BIA Indian Reservation Roads \(IRR\) Program](#)

The purpose of the IRR Program is to provide safe and adequate transportation and public road access to and within Indian reservations, Indian lands, communities for Native Americans, visitors, recreationists, resource users and others while contributing to economic development, self-determination, and employment of Native Americans. IRR Program funds are authorized as part of the surface transportation authorization acts (currently TEA-21) as part of the Federal Lands Highway Program (FLHP). The program is administered by the BIA Department of Transportation and the Federal Land Highway Office of the FHWA.

[Indian Reservation Roads Maintenance Program](#)

These funds are intended for maintenance activities on roads serving the tribes. Unfortunately, the funding levels of the program are exceedingly inadequate for the work needed. Nationally, BIA receives about \$26 million per year, with only \$700,000 of that earmarked for the entire State of California.

Additional/Secondary Funding Programs

Hazard Elimination Safety (HES)

The purpose of this program is to provide funds for safety improvements on any public road, any public surface transportation facility, any publicly-owned bicycle or pedestrian pathway or trail, and for any traffic calming measure. These funds serve to eliminate or reduce the number and severity of traffic accidents at locations selected for improvement. Mooretown could be eligible for these funds if another agency, such as a city, county or state agency, acts as the project sponsor and administers the project on behalf of the Tribe. Exceptions to this requirement will be reviewed on a case-by-case basis. Applicants that do not have representation from a city or county must provide written justification for the exception and attach it to the application.

Safe Routes to School (SR2S)

The purpose of this competitive program is to make grants available to local governmental agencies for safer routes to school. Proposals are rated based on all of the following factors:

1. Demonstrated needs of the applicant
2. Potential of the proposal for reducing child injuries and fatalities.
3. Potential of the proposal for encouraging increased walking and bicycling among students.
4. Identification of safety hazards.
5. Identification of current and potential walking and bicycling routes to school.

6. Consultation and support for projects by school-based associations, local traffic engineers, local elected officials, law enforcement agencies, and school officials.

The applicant must be an incorporated city or a county within the State of California. Exceptions to this requirement will be reviewed on a case-by-case basis. Applicants that do not represent a city or county must provide written justification for the exception and attach it to the application. The applicant should enlist the assistance of other participants in the development and submittal of a SR2S project. Other participants could include school boards, school districts, elected officials, community groups, students, and various city, county, and state agencies.

The success of a project proposal being approved for funding will depend upon the ability of the applicant and participants to develop a comprehensive and unified solution to improving the safety and encouraging the use of pedestrian and/or bicycle routes to and from schools within their jurisdiction.

Funding Matrix

A matrix is included that compares the concept elements by funding sources. It is possible in many instances to “pool” funding sources toward implementing a concept element. For example, sidewalks, parking strips, and bike lanes could be implemented using combined funding sources from the BIA Indian Reservation Roads Program (IRR), State Transportation Improvement Program (STIP), Transportation Enhancements (TE), Safe Routes to School (SR2S), and Hazard Elimination Safety (HES).

<u>Concept Element</u>	<u>Funding Sources</u>
Sidewalks, Parking Strips, Bike Lanes	IRR, STIP, TE, SR2S, HES
Pedestrian crosswalks	IRR, TE, SR2S, HES
Lighting improvements	IRR, TE, SR2S
Landscape Improvements	IRR, IRR Maintenance, TE
Underground Utilities	IRR
Reconfigure Intersection	IRR, STIP, TE, HES



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