

Interim Report Number 2
Mooretown Rancheria Transportation Planning Study
Prepared by Local Government Commission; Michael Sweeney, AICP;
and KD Anderson and Associates
(April 2008)

Introduction

Interim Report No. 2 builds on Interim Report No. 1 which documented existing land use, traffic counts and circulation patterns, and engaged the community through focus groups in identifying major community design issues. Interim Report No. 2 presents a conceptual plan that 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 identifies impacts associated with implementation of the conceptual plan and recommendations.

What is a Conceptual Plan

What is a Conceptual Plan? A concept is an idea, especially a generalized idea of a class of objects; a general notion or thought. A plan is a drawing or diagram showing the arrangement of objects (buildings, roads, trees, signs, lights, etc.); a scheme for making, doing, or arranging something.

The conceptual plan presented in this report culminates events involving members of the Mooretown community and the design team in identifying problems and issues and proposing solutions.

The conceptual plan presented in this report reflects the outcome of focus group discussions with tribal enterprise managers, staff and council members, a walking audit with community members and staff, a community image survey, a presentation of alternative concepts, and a design workshop that engaged community members in expressing their ideas about the future 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).

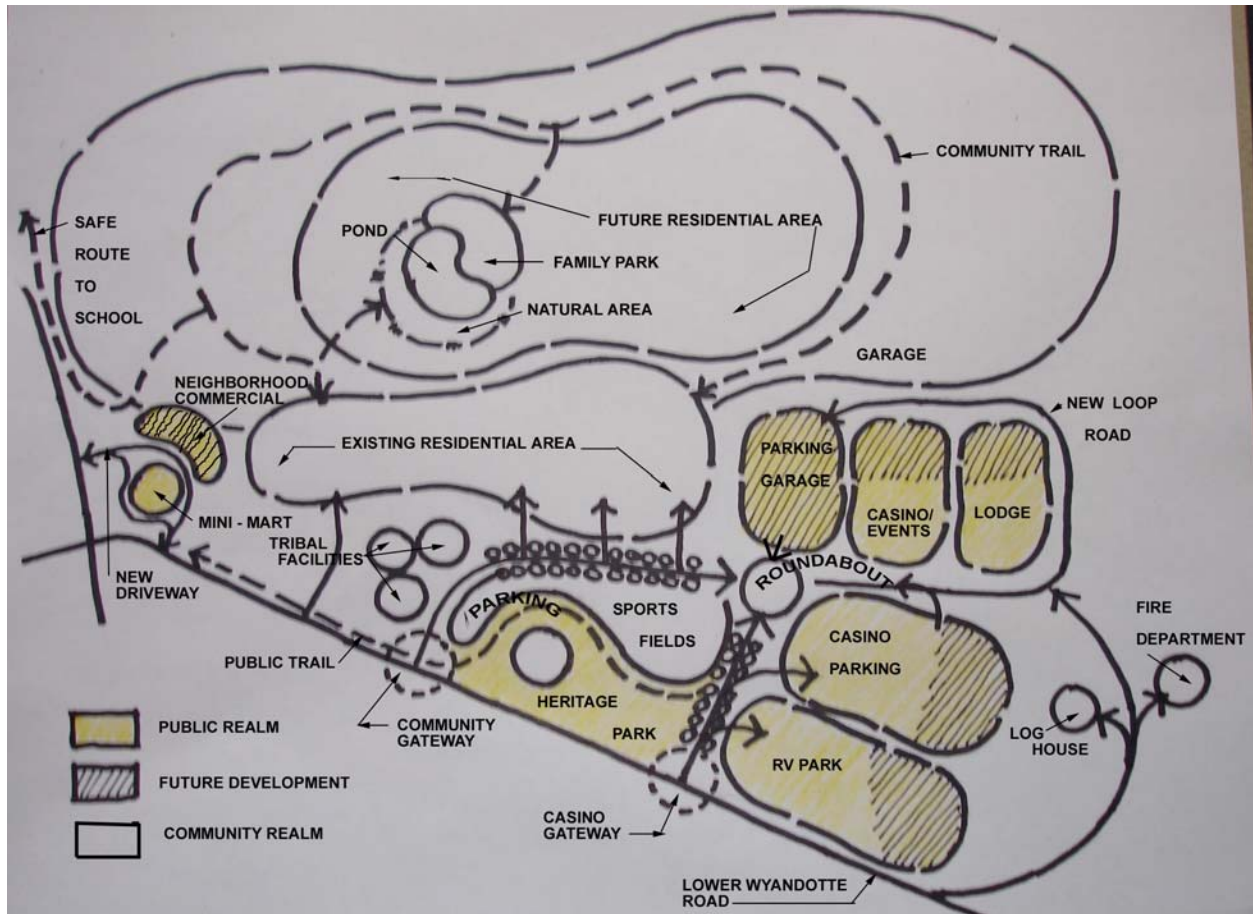


Figure 1. Conceptual Plan

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, 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. 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.
- 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.



Figure 2. Cultural Heritage Park

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 or 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 make it more pedestrian friendly. 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 (Figures 2 and 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 Sawwali Court to Lower Wyandotte Road east.



Figure 3. Typical Section through Alverda Drive

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 drawing below. Raised crosswalks would not only be more prominent but could also help reduce speeding on these streets.

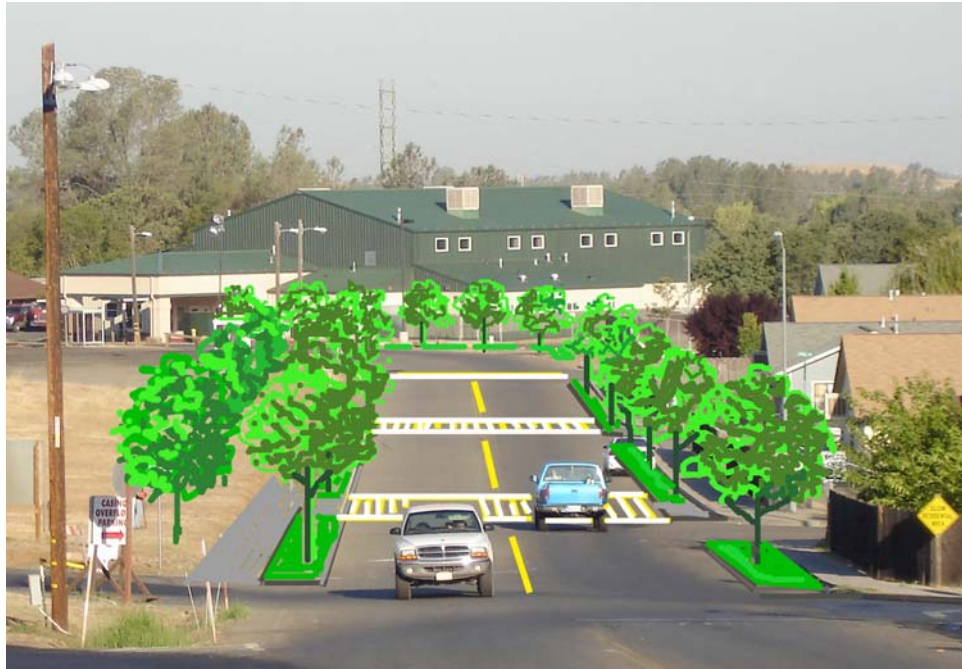


Figure 4. Traffic Calming on Alverda Drive

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.

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 further slow down motor vehicle traffic. Striping speed bumps would make them more visible.

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.

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 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 - 5 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).
- 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 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 for up to 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).
- 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.

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 and Alverda Drive Intersection — A bottle-neck 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:

Research indicates that the intersection has adequate space for a roundabout. 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. A roundabout can handle higher traffic volumes than a typical intersection at slower and safer speeds (Figure 4). If properly designed it can also accommodate bicyclists and pedestrians. An added benefit to the roundabout is that with proper landscaping and/or a fountain or monument it can also serve as a beautiful gateway to the casino. A reconfigured intersection to accommodate a roundabout would allow buses to go straight into the casino drop-off area (in a clockwise direction) and exit via the Alverda north leg and roundabout. To further minimize conflicts, and reduce traffic congestion and pedestrian conflicts, primary access to the existing parking lot should be placed just north of the RV park with egress remaining via the Alverda Drive east leg (See Figure 5).

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 the same driveway. A problem occurs when entering traffic intuitively want 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.

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



Figure 5. Roundabout

Traffic Impact Analysis

A Traffic Study presented in Interim Report No. 1 addressed the existing street system, traffic counts and levels of service for existing land uses. For Interim Report No. 2, the Traffic Study identified characteristics of the conceptual plan, estimated trip generation, directional distribution, and assignment of the project traffic (See Attachment 1. - Traffic Impact Analysis for Mooretown Rancheria Transportation Plan, Initial Traffic Impact Assessment Report, Butte, Ca, KD Anderson & Associates, Inc., April 2008).

The Traffic Study identified immediate impacts of project traffic on the operating conditions of streets and intersections by superimposing project trips onto existing traffic volumes (See Attachment 1.).

Trip Generation.

The amount of additional traffic traveling to and from the Rancheria as a result of implementing the conceptual plan is estimated by applying trip generation rates developed from observation of similar uses (See Table 1, Attachment 1).

Regular trip generation rates are not applicable to the parking structure and to the events center. In the case of the parking supply, the vehicles parking in lots and structure are attracted by the casino itself. In the case of the events center, the amount of traffic is dependent on the nature of each event, as some events will attract persons who do not remain on site to gamble and others attract persons who linger on the site for extended time periods.

Total trip generation forecasts have been made for the land uses presented in the conceptual plan. Note that the trip generation forecasts are sensitive to the change in the number of gaming devices. If the device count increases by 100 (as proposed in the conceptual plan), the total estimated site trip generation increase would be in the range of 1,500 vehicles per day, with 120 to 140 more vehicles during peak traffic hours (See Table 2, Attachment 1).

However, if the casino grows to encompass the entire permitted gaming device supply, (i.e., 900 devices) then site trips generation could increase by 4,500 to 5,200 vehicles trips per day, with 320 to 360 trips generated during peak hours (See Table 2, Attachment 1).

Assessment of Key Issues

A formal traffic impact analysis will accompany the final report. For Interim Report No. 2, the assessment is intended to address the fundamental issues raised regarding implementation of the conceptual plan.

Traffic Volume Forecasts. The volume of traffic that is likely on Rancheria roads has been estimated assuming development of planned land uses and circulation system elements (See Table 3, Attachment 1). Note that the volumes are sensitive to development at the Casino and to the effects of circulation system changes on Alverda Drive.

Implementation of the planned improvements may encourage current and future Alverda Drive users to move to the Feather Falls Boulevard access. For this analysis we have assumed that new trips to the non-residential elements of the Rancheria will be split 20% to Alverda Drive and 80% to the Feather Falls access. This represents a significant departure from the current travel

pattern. It is possible that some existing traffic on Alverda Drive will also be diverted to Feather Falls Boulevard, and we have assumed that only 20% of the current traffic will move to that street (See Table 3, Attachment 1).

Assessment of Traffic Issues

Alverda Drive. The volume of daily traffic on Alverda Drive could initially drop with implementation of the conceptual plan (i.e., 1,958 to 2,215 vehicles per day), and with limited background development the volume would likely rise back to a level that remains below the current condition (i.e., 2,153 to 2,432 vehicles per day). However, if the casino operation grew by 900 gaming devices, we would expect that the volume on Alverda Drive near Lower Wyandotte Road could rise to a level that exceeds the current count.

Alternatives for further reducing the traffic volume on Alverda Drive would require more drastic measures that may not be feasible. Totally disconnecting the road from the Casino access would force all commercial traffic to use the Feather Falls access, and the Alverda Drive volume would drop. However, the legal requirements of access to adjoining properties may preclude this option, and such a plan would eliminate residential access to the Casino. Installing a traffic diverter at Alverda Drive between Suni Court and Sawwalli Court would further discourage through traffic but would require traffic between residences and Casino to pass through the neighborhood.

Lower Wyandotte/Feather Falls Access. 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.

Casino/Parking Access. The conceptual plan attempts to reduce automobile/pedestrian conflicts near the casino and its parking supply in two ways. First the entrance to the existing parking lot is to be moved from Alverda Drive to a location on Feather Falls south of Alverda Drive (See Figure 5). This would reduce the amount of automobile traffic through Alverda Drive

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 lands uses would likely need to be 110 feet in diameter (See Figure 5).

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 connection would need to be far enough from the roundabout 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 (See Figure 5).

Gas Station / Convenience Market Access. The conceptual plan suggests that a new access will be created on Lower Wyandotte Road north of the traffic signal. This connection needs to be far enough away from the signalized intersection to avoid interfering with the operation of the signal but also far enough from the culvert on Lower Wyandotte to facilitate creating a left turn lane to serve traffic that wants to enter the site. This access will work okay with a stop sign on the exit. This connection is currently being pursued by the Tribe under an encroachment permit from Butte County.

Providing this new connection may reduce the volume of traffic at the existing driveway. This volume reduction would not eliminate the need for the channelization that exists there today.

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. Once the Tribal Council approves the recommended Conceptual Plan for future development, further traffic analysis will focus on impacts to on-Rancheria and

off-Rancheria roadways. Mitigation measures will be proposed to offset any significant traffic-related impacts and included in the final report.

ATTACHMENT 1

TRAFFIC IMPACT ANALYSIS

TRAFFIC IMPACT ANALYSIS

For

MOORETOWN RANCHERIA TRANSPORTATION PLAN
Butte, CA

INITIAL TRAFFIC IMPACT ASSESSMENT REPORT

Prepared For:

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April 4, 2008
4520-001

Mooretown Rancheria.rpt

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Transportation Engineers

TRAFFIC IMPACT ANALYSIS FOR
MOORETOWN RANCHERIA TRANSPORTATION PLAN

Butte County, CA

INITIAL IMPACT ASSESSMENT REPORT

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April 4, 2008

KDA

**TRAFFIC IMPACT ANALYSIS FOR
MOORETOWN RANCHERIA TRANSPORTATION PLAN**

Butte County, CA

INITIAL IMPACT ASSESSMENT REPORT

INTRODUCTION

This report summarizes the second phase of **KD Anderson & Associates, Inc.** analysis of the potential short term and long term traffic impacts associated with development within the **Mooretown Rancheria** in Butte County, California. The Rancheria is currently the home to Feather Falls Casino, as well as tribal residences and support facilities. The Mooretown Rancheria is located immediately east of Lower Wyandotte Road in rural Butte County approximately three miles east of State Route 70 and three miles outside of the City of Oroville. The overall development plan for the Rancheria addresses the possibility of residential / commercial growth and potential casino / lodging expansion, as well as the development of new access and alternative on-site circulation.

Study Scope. The purpose of the overall analysis is to present an assessment of potential project specific and cumulative traffic impacts associated with development at the Rancheria and to suggest feasible measures for mitigating identified impacts. The first phase of the analysis included evaluation of existing circulation conditions in the area. Under this second phase the characteristics of planned development will be determined, including estimated trip generation, directional distribution, and assignment of the project traffic. By superimposing project trips onto existing traffic volumes, the immediate impacts of project traffic on the operating conditions of streets and intersections in the area have been identified.

The subsequent analysis report will also consider the impacts of the project within the context of two cumulative traffic conditions based on 1) short term future conditions assuming development of other approved projects, and 2) future traffic volume forecasts developed using the BCAG countywide travel demand forecasting model for year 2030 conditions.

PROJECT CHARACTERISTICS

This report section describes the initial land use and circulation alternatives developed in consultation with the tribe. Resulting trip generation associated with new uses, resulting traffic volume levels and accompanying traffic operations on the roadways within the study area have been described.

Land Use

The Rancheria's land uses fall within the Community and Public Realms.

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.

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. In addition to 42 new residences, the conceptual plan envisions 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. This area would include parking for sports field events and gymnasium activities and possibly big-rigs and busses.

A cultural heritage park to be located in the overflow parking area fronting on Lower Wyandotte Road.

A family park and natural area would be located around the storm water detention pond in the rear portion of the Rancheria.

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.

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. The conceptual plan envisions the following additions

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, the 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 for up to 2,000 slot machines.

Propose 80-90 additional rooms onto the existing Lodge to be built behind the existing Lodge (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).

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). For analysis purposes approximately 12,000 sf of commercial / office space has been assumed.

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).

Transportation Elements

During focus group discussions, 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. Under the conceptual plan Alverda Drive would be modified to reflect its role as a collector road providing access to the residential neighborhoods and make it more pedestrian friendly. There is adequate room to provide a 6-foot planting strip and a 4-foot bicycle lane on each side of Alverda Drive reducing the travel lane to approximately 10-feet. 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 Sawwali Court to Lower Wyandotte Road east.

Crosswalks. Few dedicated crosswalks exist. Under the conceptual plan dedicated striped (and raised) cross walks would 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.

Community Gateway. 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.

Residential Streets. Speeding along residential streets was also reported as a major concern among area residents. The conceptual plan proposes tree planting in bulb outs along residential streets to provide shade and aesthetic enhancement to the streetscape as well as promoting additional traffic calming by narrowing the driver’s field of vision. Maintaining on-street parking would further narrow the travel way and further slow down motor vehicle traffic. Striping speed bumps would make them more visible. Raising them would further limit speeding.

Access to Log Cabin and Fire Protection Equipment. 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. Under the conceptual plan 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 would 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.

Community Trails and Safe Routes to School. Within the residential area, pedestrian trails other than sidewalks are informal and unimproved. 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. Under the conceptual plan dedicated and improved (paved) trails would 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 could connect with the community trail system. A “safe route to school” plan will require coordination with Butte County as both legs of Lower Wyandotte Road are in their jurisdiction.

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 that this is the entrance to the casino and lodge. Under the conceptual plan 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. Eventually a traffic signal will be justified at this location if background traffic increases as expected.

Roundabout. A bottle-neck occurs at the intersection of Feather Falls Boulevard and Alverda Drive near the parking lot access 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 (nor with the 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 conceptual plan proposes a roundabout intersection at this location. 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. A reconfigured parking area to accommodate a roundabout would allow busses to continue to go straight into the casino drop off area from the roundabout (in a counter clockwise direction) and exit Alverda north leg of the roundabout.

Parking lot access. The access to the existing parking lot opposite the casino entrance creates appreciable vehicular and pedestrian conflicts. Under the conceptual plan, new access into the parking lot could occur just north of the RV park with egress remaining via Alverda Drive east leg. This would reduce traffic congestion and pedestrian conflicts.

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 the same driveway. A problem occurs when entering traffic intuitively want to go in a clockwise direction creating a serious conflict point with exiting traffic. Currently, bright yellow barriers stop entering vehicles from accessing in a clockwise direction.

The conceptual plan creates another entry/exit from the north leg of Lower Wyandotte Road. This new access would be especially important if neighborhood commercial facilities are developed in the future. This access will require coordination with Butte County as both legs of Lower Wyandotte Road are in their jurisdiction

TRAFFIC IMPACT ASSESSMENT

The feasibility of implementing the conceptual plan has been investigated based on estimates of the amount of additional traffic accompanying planned uses and consideration of resulting traffic operations.

Trip Generation. The amount of additional traffic traveling to and from the Rancheria can be estimated by applying trip generation rates developed from observation of similar uses. In the case of casino operations, the forecasts were predicated on our observation of a similar casino. In the case of other uses, the ITE publications, *Trip Generation, 7th Edition* was consulted.

Table 1 identifies the trip generation rates we used. Regular trip generation rates are not applicable to the parking structure and to the events center. In the case of the parking supply, the vehicles parking in lots and structure are attracted by the casino itself. In the case of the events center, the amount of traffic is dependent on the nature of each event, as some events will attract persons who do not remain on site to gamble and others attract persons who linger on the site for extended time periods.

Table 2 identifies the trips generation forecast associated with regular site uses. Total forecasts have been made for the land use performma noted earlier. As shown, the forecasts are sensitive to the change in the number of gaming devises. 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 more vehicles during peak traffic hours. However, if the casino grows to encompass the entire permitted gaming devise supply, (i.e., 2,100 devices) then site trips generation could increase by 4,500 to 5,200 vehicles trips per day, with 320 to 360 trips generated during peak hours.

Table 1
Trip Generation Rates

Land Use	Unit	Trips per Unit							
		Weekday			Daily	Saturday			
		Daily	In	Out		in	out	total	
Casino	10 Gaming devices	37.91	1.01	1.23	2.24	46.79	1.48	1.48	2.96
Events center	Seat	-	-	-	-	-	-	-	-
Parking Garage	Parking space	-	-	-	-	-	-	-	-
Hotel	Rooms	8.17	0.31	0.28	0.59	8.19	0.40	0.32	0.72
Recreational Vehicle Park	Space		0.26	0.11	0.37		0.26	0.11	0.37
Neighborhood Commercial	1,000 sf	37.25	1.93	4.68	6.61	21.02	1.32	1.67	2.99
Residential Housing	Dwelling	9.57	0.65	0.35	1.01	10.10	0.51	0.43	0.94

Assumes 12,000 sf of mixed use (1/2 retail and 1/2 Office)

**Table 2
Trip Generation Forecast**

Land Use	Quantity	Trips							
		Weekday			Saturday				
		Daily	In	Out	total	Daily	in	out	total
Casino	100 gaming devises	379	10	12	22	468	15	15	30
Events center	900 gaming devices Seat	3,412	91	111	202	4,211	133	133	266
Parking Garage	Parking space	-	-	-	-	-	-	-	-
Hotel	90 Rooms	735	28	25	53	737	36	29	65
	<match casino>	2/3	2/3	2/3	2/3	2/3	2/3	2/3	2/3
	net	245	9	8	17	246	12	9	21
Recreational Vehicle Park	37 spaces	260	10	4	14	260	10	4	14
	<match casino>	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
		130	5	2	7	130	5	2	7
Neighborhood Commercial	12,000 sf	447	23	56	79	252	16	20	36
	<match residential>	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	net	298	15	37	52	168	11	13	24
Residential Housing	42 Dwellings	402	27	15	42	424	21	18	39
	Total Net with 100 devices	1,454	66	74	140	1,436	64	57	121
	Total Net with 900 devices	4,487	147	173	320	5,179	182	175	357

KDA

Assessment of Key Issues

While a formal traffic impact analysis will accompany the final report, this initial assessment is intended to address the fundamental issues raised regarding the conceptual plan.

Traffic Volume Forecasts. The volume of traffic that is likely on Rancheria roads has been estimated assuming development of planned land uses and circulation system elements. As noted in Table 3, the volumes are sensitive to development at the Casino and to the effects of circulation system changes on Alverda Drive.

Implementation of the planned improvements may encourage current and future Alverda Drive users to move to the Feather Falls access. For this analysis we have assumed that new trips to the non-residential elements of the Rancheria will be split 20% to Alverda Drive and 80% to the Feather Falls access. This represents a significant departure from the current travel pattern. It is possible that some existing traffic on Alverda Drive will also be diverted to Feather Falls Drive, and we have assumed that only 20% of the current traffic will move to that street. Resulting Volumes are presented in Table 3.

**TABLE 3
EFFECT OF GROWTH ON TRAFFIC VOLUME COUNTS
LAND USE INCLUDING 100 OR 900 GAMING DEVICES**

Road	From	To	Weekday (Monday thru Friday)			Weekend (Saturday thru Sunday)		
			Daily Volume	Highest Hour Volume	Time	Daily Volume	Highest Hour Volume	Highest Hour
Pano Lane Road	Lower Wyandotte	Concow Maidu Dr	366	39	2:30 pm	320	35	7:45 p.m. Saturday
	<i>Projected Growth (100 device scenario)</i>		400			425		
	Total		766			745		
	<i>Projected Growth (900 devices)</i>		400			425		
	Total at Build Out (900 devices)		766			745		
	Lower Wyandotte	Concow Maidu Dr Rd	2,772	247	6:00 pm	2,448	244	5:30 p.m. Sunday
	After Diversion of Existing Traffic		2,218			1,958		
<i>Projected Growth (100 device scenario)</i>		215			195			
Total		2,432			2,153			
<i>Projected Growth (900 devices)</i>		825			845			
Total at Build Out		3,258			2,996			
Feather Falls Access	Main Parking Lot	Main Parking Lot	3,116	363	8:15 pm	3,059	336	6:00 p.m. Sunday
Main Parking lot		Lorene Court	736	71	3:15 pm	693	58	2:00 p.m. Saturday
Lower Wyandotte Rd		Campground	4,001	436	4:45 pm	3,742	417	5:15 p.m. Sunday
After Diversion of Existing Traffic			4,555			4,232		
<i>Projected Growth (100 device scenario)</i>			860			780		
Total			5,415			5,012		
<i>Projected Growth</i>			2,900			3,370		
Total at Build Out (900 devices)			7,455			7,602		
Campground		Alverda Drive	3,977	436	4:45 pm	3,652	415	5:15 p.m. Sunday

KDA

Assessment of Traffic Issues: Alverda Drive. Resulting traffic volumes assuming implementation of the plan have been reviewed. As shown, the volume of daily traffic on Alverda Drive could initially drop with implementation of the plan (i.e., 1,958 to 2,215 vehicles per day), and with limited background development the volume would likely rise back to a level that remains below the current condition (i.e., 2,153 to 2,432 vehicles per day). However, if the casino operation grew by 900 gaming devices, we would expect that the volume on Alverda Drive near Lower Wyandotte Road could rise to a level that exceeds the current count.

Alternatives for further reducing the traffic volume on Alverda Drive would require more drastic measures that may not be feasible. Totally disconnecting the road from the Casino access would force all commercial traffic to use the Feather Falls access, and the Alverda Drive volume would drop. However, the legal requirements of access to adjoining properties may preclude this option, and such a plan would eliminate residential access to Casino. Installing a traffic diverter Alverda Drive between Suni Court and Sawwalli Court would further discourage through traffic but would require traffic between residences and Casino to pass through the neighborhood.

Assessment of Traffic Issues: Lower Waynadotte / Feather Falls Access. 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.

Assessment of Traffic Issues: Casino / Parking Access. The conceptual plan attempts to reduce automobile / pedestrian conflicts near the casino and its parking supply in two ways. First the entrance to the existing parking lot is to be moved from Alverda Drive to a location on Feather Falls south of Alverda Drive. This would reduce the amount of automobile traffic through the Alverda Drive

Developing the new parking structure will add traffic to what would be the north leg of the Alverda Drive / Feather Falls Drive 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. Roundabout’s 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 lands 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 connection would need to be far enough from the roundabout 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.

Assessment of Traffic Issues: Gas Station / Convenience Market Access. The conceptual plan suggests that a new access will be created on Lower Wyandotte Road north of the traffic signal. This connection needs to be far enough away from the signalized intersection to avoid interfering with the operation of the signal but also far enough from the culvert on Lower Wyandotte to facilitate creating a left turn lane to serve traffic that wants to enter the site. This access will work okay with a stop sign on the exit. This connection is currently being pursued by the Tribe under an encroachment permit from Butte County.

Providing this new connection may reduce the volume of traffic at the existing driveway. This volume reduction would not eliminate the need for the channelization that exists there today.

Assessment of Traffic Issues: 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 to provide alternative circulation to the Casino. 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.



ATTACHMENT 2
COMMUNITY IMAGE SURVEY

Local Government Commission

Mooretown Rancheria, CA Community Image Survey Results

March 2008

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. Rancheria staff, elected officials and volunteers may want to use the CIS to obtain input from a larger cross-section of residents. The CIS is a tool that facilitates the public's involvement in the planning process and is relatively easy to use. It can be administered at future meetings or workshops on the Rancheria.

Twelve residents of Mooretown took the survey during the March 1 workshop. They then participated in a group discussion of the results after the survey.

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

1. Do I like or dislike the image?
2. How much do I like or dislike it?
3. Is it appropriate for North Highlands?

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 attached.)

During the discussion of the survey results, 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
- Good quality design
- Activity
- Seating

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

- Bad signage
- Parking without landscaping
- No landscape or not enough trees
- Poorly maintained

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

Art work, including a salmon statue and a rustic-looking gateway sign were ranked positively by 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. An image of a house with a garage in front (#7) received a negative score.

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 a planter strip 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 clearly marked bike lane (#28) to that of a much wider street with no marked bike lane (#8). Participants preferred streets with a landscaped median (#31 and #36) to ones without a median (#11 and #16) .

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.



Mooretown Rancheria, CA Community Image Survey

March 2008

Prepared by the
Local Government Commission

Now Let's Review the Results



Score: 3

1



Score: 2.5

21



Score: 3

2



Score: 0.5

22



Score: -5

3



Score: -1

23



Score: 4

4



Score: 0

24



Score: -3.5

5



Score: 1.5

25



Score: 3

6



Score: -1

26



Score: -3

7



Score: 3

27



Score: -3

8



Score: 3

28



Score: -5

9



Score: 2

29



Score: 4

10



Score: 2

30



Score: -2

11



Score: 3.5

31



Score: -3.5

12



Score: 3.5

32



Score: 5

13



Score: 4

33



Score: -3.5

14



Score: -1

34

Score: 3



15

Score: 4



35



Score: -2

16



Score: 1.5

36



Score: -2

17



Score: 3.5

37



Score: 5

18



Score: 1.5

38



Score: 5

19



Score: 3

39



Score: 4

20



Score: 4

40