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**Evaluation and Recommendations  
for  
Chip Seal Road Assessment  
Ground Squirrel Hollow  
Community Services District**

Prepared at the request of  
Ground Squirrel Hollow CSD

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### **Background:**

Ground Squirrel Hollow Community Services District (GSHCSD) is a small service district formed in June of 2004 responsible for the maintenance and improvement of approximately 10.5 miles of roads that consist of asphalt patched / chip sealed roads, chip sealed roads and base roads. The roads serve 525 parcels in the rural community of Ground Squirrel Hollow which is located in the northeastern portion of San Luis Obispo County approximately 8 miles east of Paso Robles and 2 miles south of Hwy 46 East bracketed by Union Road to the north and Geneseo Road to the southeast. The total area of the CSD is approximately 1,066 acres. Some 484 parcels have access from the existing roads as described above and about 41 parcels are currently "land locked" and have no improved road access to their properties. These "land locked" parcels will have to develop roads to meet County of San Luis Obispo Standards at the time of development. At that time they will then be dedicated to the CSD for maintenance. All of the 525 parcels within the CSD currently pay a special tax for maintenance of the existing roads. The year 2015/16 tax is \$297.34 per parcel with a 2% per year increase to a maximum tax of \$175,000 per year for the entire CSD area.

### **Current Road Conditions:**

GSHCSD currently maintains approximately 10.5 miles of road of which approximately 4.3 miles are what are considered AC/Chip Seal Roads. These roads include Ground Squirrel Hollow, Gunsmoke, Blossom Lane, Play Doe Lane, Impala, Maverick, a portion of Prancing Deer and smaller portions of Forked Horn and a very small portion of Lone Pine and White Tail Place. Approximately 1.7 miles are Chip Sealed Roads. These roads include Rein Deer, Gazelle, Stag Hill, a large portion of White Tail Place and smaller portions of Pepper Tree and Silverado. The remaining 4.5 miles of roads are Based Roads including Morning Star, Black Tail, Buck Way, Winchester and a large portion of Forked Horn, Prancing Deer, Silverado, Pepper Tree, and Lone Pine and a very small portion of White Tail Place. See attached Exhibit A - Road Status Map.

The current road maintenance special tax is used to maintain the roads at their current standards (AC/Chip, Chip Sealed and Based) repair erosion and shoulder damage, install drainage culverts and devices, install rip rap shoulders and, when funds allow, perform improvements such as chip sealing new roads. With the funds collected the GSHCSD has been able to, in addition to normal maintenance, pave and chip seal some troubled areas within the road system such as portions of Pepper Tree and Silverado.

In the last several seasons a great deal of the Road Maintenance Fund (RMF) has been utilized in an effort to simply maintain the status quo. A significant amount of this money is spent on maintaining the Base Roads which make up 42% of the roads in the District. In FY 2014 total income to the CSD RMF was \$158,792. Expenses on based roads was \$106,437. Overall the base roads have absorbed approximately 47% of the RMF's or \$367,657 since February of 2005.

### **Proposed Chip Seal Road Project:**

The existing based roads are generally graded with crowns and cross falls and consist primarily of decomposed granite and Class II Base. The base roads are not protected from the elements or the effects of everyday vehicle traffic and trash trucks. Ruts form because of storm runoff. Wash-boarding, potholes and ruts are caused from normal traffic and use. To maintain these roads in their current condition takes a great deal of the Districts RMF's. Due to the continuous high cost of maintenance and complaints from the parcel owners the Board is considering a large scale chip seal project of all existing based roads with the establishment of a new special assessment to include parcels that front on and/or receive benefit of the roads. See the attached Exhibit B - Chip Seal Assessment Map.

The road work proposed by the Board will include re-grade of the roads to maintain their current drainage patterns and installation of new culverts at key locations for drainage under the roads. Drainage culvert locations and sizing will need to be reviewed during the design process. Most roads will include the addition of 4" to 6" of Class II Base material to increase the crown of the roads to a standard cross fall of 4% in preparation for the application of a double chip seal.

The double chip seal will be accomplished by the application of an asphalt emulsion such as SC-800 or equal on which ½" chip rock would be placed and then rolled. An additional layer of asphalt emulsion such as PMCRS-2h or equal followed by a smaller 3/8" chip rock would be placed then be rolled. After acceptable curing time the second chip layer would be swept and a fog seal applied to lock the chip seal in place. This application would create a road surface with a useful life of 15-20 years given the traffic loads on the GSH road system.

Based on cost and longevity the double chip seal, is in my opinion, the best alternative paving system for the roads within GSHCSD. Paving the roads with a standard section of 2 inches of Type B asphalt would be on the order of 3 times the cost of the double chip seal and would have an expected life of 25 years. The maintenance of the paved roads would consist of periodically seal coating,

patching and repaving or chip sealing. To maintain the chip seal road would also require periodically applying seal coats and then applying another layer of asphalt emulsion and chip material to increase longevity. Over time with the application of additional chip layers, the road will, for all intent and purposes, be "paved" without the higher initial cost.

### **Engineers Estimate of Probably Construction Cost:**

In order to provide an Engineers Estimate of Probable Construction Cost (EEPCC) the intended scope of work was reviewed with the Board. A preliminary field assessment of the base roads was conducted by representatives of the Board, public and the Engineer. Based on field observations estimates of the quantities of the various materials necessary for the construction was made. These estimates were then translated into construction cost using a prevailing wage, equipment time and cost of materials. Quotes were obtained for these expenses.

The project is a public works project being performed by a public agency under Section 16001 therefore the manpower portion of the cost must be based on "Prevailing Wages "and is subject to Prevailing Wage Law Labor Code Sections 1720, 1720.2, 1720.3, 1720.4, and 1771 and in accordance with the General Prevailing Wage Determination made by the Director of Industrial Relations pursuant to California Labor Code Part 7, Chapter 1, Article 2, Sections 1770, 1773 and 1773.1.

Equipment cost are based on the Caltrans Labor Surcharge and Equipment Rental Rates effective April 1, 2014 through March 31, 2015. Materials costs are based on the estimate of materials to be delivered to the site and quotes obtained by the estimator.

For the purpose of this estimate all costs are inflated to the midpoint of the anticipated construction start date of September 2016. The EEPCC also includes a line item for engineering design, construction management & inspection and contingency.

The EEPCC is an estimate of probable construction cost based on the Engineer's ability to estimate the amount of labor, equipment and materials to accomplish the goals of the project without the benefit of topographic mapping of existing conditions and a design for the project. Therefore, the field estimates described above, based on the best available information, will be used as the basis for the Special Assessment. The actual cost of the Chip Seal Project will not be known until bids are obtained. The Estimate of Probable Construction Cost is attached to this report in Exhibit C.

The costs for the project as per the estimate are as follow:

1. Total Construction Cost:	\$921,534.85
2. Contingency 20%:	\$184,306.97
3. Design Cost 8%:	\$73,722.79
4. Construction Management / Inspection 6%:	\$55,292.09
5. Inflation to mid-point of Construction Sep. 2016:	<u>\$34,558.56</u>
<b>6. Total Project Cost:</b>	<b>\$1,269,414.26</b>

The District intends to fund ½ of the Total Construction Cost and the Design and Construction Management / Inspection services through its existing special tax to all properties. The other half of the construction cost will be funded through a special assessment by the properties directly benefiting from the project. The total project construction cost will be funded by a USDA loan therefore the actual loan amount will be **\$1,140,400**.

### **Property Assessment:**

The current GSHCSD Road Maintenance Fund (RMF) was originally created by vote of the property owners in June of 2004 and was "to provide road maintenance and drainage improvement services". With the available funds it cannot pay for the entire Chip Seal Road Improvements. The estimated cost to chip seal 4.5 miles of based roads is approximately \$1,140,400.

If the GSHCSD wants to proceed to chip seal all of the base roads it will be necessary to hold a Proposition 218 Vote to create a Special Assessment Area and pass a special assessment for the chip seal project. This Special Assessment would be used exclusively to satisfy one half of the loan cost of approximately \$1,140,400 for the Chip Seal Project. The special assessment will be used to fund one half of the annual loan debt payment and the existing special tax should provide adequate funding to maintain the roads within the District. In the event it was determined that the special tax was not adequate to provide funding to maintain the roads then another assessment would need to be evaluated and voted upon.

The special assessment is a charge to property owners based on a special benefit to their property. Only property owners benefiting from the project can be assessed. The process for the Prop. 218 Vote is as follows:

1. Mail ballots to the owners of benefit-parcels on based or partially based roads that are to be chip sealed as a part of the Chip Seal Project or would benefit from the Chip Seal Project.
2. The ballot will include:

- a. The total amount of the proposed assessment chargeable to the entire Special Assessment Area,
- b. The amount chargeable to each record owner's parcel,
- c. The duration of the payments,
- d. The reason for the assessment per the Engineers Assessment Report (this document),
- e. The date, time and location of a public hearing on the proposed Special Assessment.

The Prop 218 vote requires a 50.1% majority approval of the returned ballots for the assessment to pass. If all parcels are charged the same assessment amount then each parcel gets 1 vote.

Parcels are included in the Special Assessment Area if they are directly adjacent to an improved road or if they have a direct benefit from an improved road. Parcels that have frontage along a road that is already chip sealed or paved may be deemed to have a direct benefit because they currently must travel on a based road to access a paved or chip sealed road. See Exhibit B for a map with Assessor's Parcel Numbers that are in the Special Assessment Area.

GSHCSD is currently considering obtaining a USDA Rural Development Program Loan for public agencies to accomplish the Chip Seal Road Project. The loan is provided by the USDA to small rural communities for infrastructure projects such as water/sewer projects, fire stations and road projects such as this project. This loan program would be provided through the Santa Maria USDA Office. The current loan program the CSD is considering would have an interest rate of 4% per year for 20 years. There are no application fees or early payoff penalties. It will require engineered plans, specifications and cost estimates to substantiate the loan amount, and be reviewed and approved by the USDA Architect / Engineer.

According to the information provided by the District as shown on Exhibit Map B the total number of Special Assessment Parcels is 274. The Total Cost of the Chip Seal Project loan of \$1,140,400 including interest at 4% per year for 20 years provides a semiannual payments of \$41,688 therefore the projected Special Assessment for each parcel should be \$155.00 rounded up.

### **Recommendations:**

Based on the above analysis the District should set the Special Assessment at \$155 per year per parcel. This will allow the District to obtain the USDA Loan for the Chip Seal Project and service that loan to its expected pay off in 20 years.

The existing Special Tax in place since the Districts inception, will remain in effect and should be adequate to provide maintenance of the roads into the future.

The costs provided in this report and the Engineers Estimate of Probable Construction Cost are based in Year 2015 dollars (ENR Construction Cost Index of 9961.75) and reflects expected inflation to the expected midpoint of construction date of September of 2016. At the time the Special Tax Assessment is finalized the escalation value should be checked to insure that the most accurate cost is utilized.