

**I. Introduction:** The Gentlemen of the Road (GOTR) Festival is a 2-day music event located in Salida, CO. The festival grounds will cover approximately 200 acres of land on several parcels on both the east and west sides of US 50 at the south-eastern limits of Salida with additional acreage at off-site locations for stacking and day parking. On-site music will be held on Friday and Saturday August 21<sup>st</sup> and 22<sup>nd</sup>. However, the event campgrounds will open on Wednesday, August 19<sup>th</sup> at 9am and be cleared by Sunday, August 22 at 2pm.

## **II. General Information**

The tentative date for the start of ticket sales is March 2. A significant amount of tickets will likely be sold in the first few weeks. Information collected during ticket sales (most importantly number of tickets sold and addresses of the purchasers) will be used to refine the assumptions used in this Preliminary Transportation Plan. Until then, information from previous events has been used to estimate ticket sales and traffic patterns of event traffic.

**A. Attendance:** 32,000 people are expected to camp on the festival grounds. An additional 3,000 to 4,000 people are expected to purchase day tickets for the Friday and Saturday performances. These day ticket patrons are expected to be a combination of residents from the surrounding communities and patrons staying in local hotels, public lands, and private campgrounds.

**B. Event Schedule:** The advertised opening for patron vehicle parking and camping is 9:00AM on Wednesday. Early arrivals will be directed to Stacking Areas off of US 50 until the 9:00AM toll booth opening. The on-site music performances are scheduled on Friday from 5pm to 10pm and Saturday from 1pm to 10pm. Campers will be informed that they must vacate the camping area by 2pm Sunday afternoon.

**C. Site Plan:** The current site plan is shown in Appendix A. Agreements with property owners are a work in progress, but much of the necessary land has been secured. Parking is segregated by several categories including stacking areas, day parking, car camping, primitive camping, and RV.

### **D. Digital/Social Media**

- Direct e-mail will notify ticket holders of traffic routes and discourage early arrivals.
- Online messages will notify ticket holders that early arrivals will be required to wait in a stacking lot.
- During the event, information will be available to travelers via Commercial Radio [?], Highway Advisory Radio [?], as well as social media outlets (Facebook and Twitter).

- PST will coordinate with CDOT Communication Manager **Nancy Shanks**, to help get event information to the public.

**E. Background traffic strategies –**

- i. General:** PST Event Engineering, LLC will coordinate with CDOT regarding advanced regional signage/VMS to notify non-event traffic of possible modified traffic patterns and congested areas.
- ii. Schools:** PST will coordinate with local schools to inform them of the possible congestion, discuss a possible closure on Friday, August 21<sup>st</sup>, and discuss any local sports events.

**F. Pro-Cycle Challenge:** The route for this year’s Pro-Cycle Challenge will bring the race through Buena Vista on Thursday August 20<sup>th</sup> between 1:10pm to 2:10pm. Therefore, Sections of US 24 and US 285 will be closed from approximately 12:10pm to 3:10pm. In an effort to deter GOTR patrons from conflicting with these closures and to spread out arrival traffic, Madison House has agreed to:

- i.** Open the campgrounds Wednesday morning,
- ii.** Fill the best campsites (closest to the main stage and the river) first come first served, to further incentivize patrons to come early,
- iii.** Provide entertainment on Wednesday evening,
- iv.** Have no entertainment on Thursday,
- v.** Utilize an aggressive social media program (Twitter, Facebook, etc) to inform patrons of the closure, and the benefits of coming on Wednesday,
- vi.** Provide road closure information to patrons when purchasing tickets and notification with ticket fulfillment.

**G. Towing:** A tow truck company (yet TBD) will be contracted to handle all on-site towing needs. Off-site towing will be handled through towing directed by law enforcement or event personnel.

**H. Command Center:**

**(reserved)**

**I. Emergency Services:** PST will coordinate with the following local agency officials during Transportation Plan preparation:

**(reserved)**

**J. Pedestrian/Bicycle Traffic**

**(reserved)**

**K. Shuttle System:**

An independent consultant has been hired to design/coordinate the shuttle system. **Additional details to follow with future submittals.**

**L. Attached Plans:**

- i. Site Plan – Appendix A
- ii. Wednesday Routing Plan – Appendix B
- iii. Thursday-Friday Routing Plan – Appendix C
- iv. Complete Event Traffic Hourly Breakdown – Appendix D
- v. 2015 Background Traffic Volumes – Appendix E
- vi. Peak Hour 2015 Background plus Event Traffic Splits – Appendix F
- vii. Synchro Reports for Poncha Springs Intersections – Appendix G
- viii. Synchro Reports for Salida Event Intersections – Appendix H
- ix. Traffic Control Points Plan – Appendix I **(reserved)**
- x. Work Zone Traffic Control Plan – Appendix J **(reserved)**
- xi. Public Information – Appendix K **(reserved)**

**III. Overall Event Traffic**

Current estimates for ticket sales and corresponding vehicle counts are as follows:

TABLE 1: ANTICIPATED EVENT TRAFFIC								
Patron Type	Total (people)	Occupancy (ppv)	Total (vehicles)	Expected Arrival				
				Wed 39%	Thursday 24%	Friday 36%	Saturday	
Car Camping	15,200	2.4	6,333	2,494	1,544	2,304		
Primitive Camping	16,800	2.4	7,000	2,756	1,706	2,546		
<b>Total Camping</b>	<b>32,000</b>	<b>2.4</b>	<b>13,333</b>	<b>5,250</b>	<b>3,250</b>	<b>4,850</b>		
Day Parking	6,500	2.4	2,708			1,200	1,600	
<b>Overall Totals Per Day</b>				<b>5,250</b>	<b>3,250</b>	<b>6,050</b>	<b>1,600</b>	

Notes:

- 1. People per vehicle numbers are based on observations during previous events.
- 2. Day parking total people is the sum of Friday and Saturday ticket sales.
- 3. Percentages under days do not include Day Parking.

**IV. Arrival Traffic**

**A. Hangtag Program** - A color coded hang tag program will be utilized to help guide patrons and assist event staff in getting traffic to the appropriate locations. Preliminary Hangtag categories and brief descriptions are as follows:

- i. **Car Camping Program.** These campers will drive their cars into the secured event site. Therefore, all car campers will be processed at a

tollbooth before proceeding to their camping space. Processing vehicles controls the flow of traffic. Therefore, stacking areas are provided to expedite vehicle egress from the highway during peak arrival times.

- ii. **Primitive Camping & Parking Program.** Vehicles parking in the interior of the site will be processed through toll booths similar to Car Camping vehicles. Vehicles parking in exterior primitive parking lots will not need to be processed through a tollbooth. They will park their cars in these lots, walk to a pedestrian entrance, and be processed and searched at a walk through toll booth. Therefore, no staking lots are necessary at these exterior lots as vehicles are parked in their final parking space much more quickly than with the car camping traffic.
- iii. **Day Parking Program.** This program will mainly be parking in remote lots on both the east and west sides of venue with no need to be searched and processed until entering venue.
- iv. **Local Pass Program.** This program will be developed for local residents living/working in the immediate vicinity of site to ensure they have the ability to access areas affected by the footprint of the site.
- v. **Production Pass Program.** This program will have multiple levels of access for employees, deliveries, production, etc. Access levels will be clearly defined with verbiage on the front of the hang tag.

**B. Load-In Plans** - Three Load-In Plans have been developed. The Wednesday Plan, the Thursday-Friday Plan, and the Saturday Day Parking Plan. Each of these plans contains contingency measures that can be implemented to minimize queuing on US 50. **At times/locations where event traffic is required make a left turn across through traffic, appropriate traffic control, flagging, and CSP support will be used. The specific details of this traffic control at each location will be provided with future drafts of the Transportation Plan.** See Appendices B & C for maps of the various plans.

**i. Wednesday Plan –**

1. **Eastbound Traffic:** Generally all of this traffic will flow through the Poncha Springs intersections and proceed on US 50 EB. Several hundred feet prior to the US 50/CR 107 intersection, traffic control signage and channelizing devices will be used to create a right lane for event traffic and a left lane for through traffic. From this point to Event Entrance 1A EB, this pattern will be maintained via traffic control signage and channelizing devices.
  - a) **Car Camping** traffic will continue past Entrances 1B–1D EB at which point through traffic will be directed into the center median and two lanes of traffic will be created for EB event traffic (via signage and channelizing devices). This will expedite vehicle egress from the highway by creating two lanes of EB event traffic into the event site via a gravel exit

ramp at Entrance 1A EB. Once traffic leaves the highway, they will be directed to Stacking Area 1.

- b) **Primitive Camping** will follow the same path as Car Camping to Entrance 1A EB until Primitive Parking Lot A is full. They will then be directed to Entrances 1C-1D EB as shown in Appendix B. EB Primitive Camping Traffic can also be directed to Entrances 1C-1D EB periodically if it becomes necessary to reduce queuing on US 50.
- c) **Day Parking** – There will be no day parking on Wednesday as no on-site event music is planned at this time.
- d) **Contingency Plan** – **To Be Determined**

2. **Westbound Traffic:** Generally most of this traffic will pick up US 50 WB from Interstate 25.

- a) **Primitive and Car Camping** will be directed to make a left across US 50 EB through traffic just north of Loggie Gulch Road (Entrance 1 WB). This intersection will be flagger/CSP controlled. Once traffic leaves the highway, they will be directed to Stacking Area 1.
- b) **Day Parking** – There will be no day parking on Wednesday as no on-site event music is planned at this time.
- c) **Contingency Plan** – The promotor has secured fields off the northern side of US 50. These fields are accessed via CR 102. In the event of a vehicle back-up on US 50 WB, event traffic would be directed into this field and temporarily stored here until the queue is reduced to an acceptable level. The field can hold up to 1,700 vehicles, though we should never reach anywhere close to those numbers.

ii. **Thursday-Friday Plan –**

1. **Eastbound Traffic:**

- a) **Primitive Camping** will follow the same route as described in the Wednesday plan until Primitive Lots A-1, A-2, B-1, & B-2 fill up. EB Primitive Camping traffic will then be directed to make a left onto Vandaveer Road (Entrance 2A), where they will merge with WB traffic, and make a left into Primitive Lot C. Once Primitive Lot C fills up, this traffic will be directed to make a left onto CR 102 (Entrance 3).
- b) **Car Camping** will follow the same route as described in the Wednesday plan until Car Camping Lot A fills up. EB Car Camping traffic will then be directed to make a left onto CR 102 (Entrance 3).

- c) **Day Parking** – There will be no day parking on Thursday as no on-site event music is planned at this time. Friday Day Parking event traffic will be directed to make a left onto CR 102. From here, day parking patrons will be shuttled to the event site.
- d) **Contingency Plan** – will be the same as described in the Wednesday plan.

2. **Westbound Traffic:**

- a) **Primitive Camping** will be directed to make a right turn off of US 50 at Vandaveer Road (Entrance 2A), then a left turn off of Vandaveer into Primitive Parking Lot C. Once Primitive Lot C fills up, this traffic will be directed to make a right onto CR 102 (Entrance 3).
- b) **Car Camping** will be directed to make a right turn off of US 50 onto CR 102 (Entrance 3).
- c) **Day Parking** – There will be no day parking on Thursday as no on-site event music is planned at this time. Friday event traffic will be directed to park in the Eastern Day Parking Lot (located off of CR 102). From here, day parking patrons will be shuttled to the event site.
- d) **Contingency Plan** – will be the same as described in the Wednesday plan.

- iii. **Saturday Day Parking Plan** – Saturday Day Parking event traffic will be directed to park in the Day Parking Lots as described in the Thursday-Friday Plan.

**C. Regional Charter Bus Plan**

(reserved)

**D. Event/Vendor Traffic**

(reserved)

**V. Event Traffic Arrival Rates and Distribution**

**A. Hourly Arrival Rates**

In order to analyze traffic impacts, arrival numbers must be broken down into hourly rates. A breakdown of vehicles expected each day was provided in Table 1 above. As both campers and day ticket holders will be arriving simultaneously, Friday is expected to be the busiest day. Therefore, Friday hourly arrival numbers are shown in Table 2 below, with the full hourly arrival data included in Appendix D. Anticipated hourly arrival rates were based on previous events.

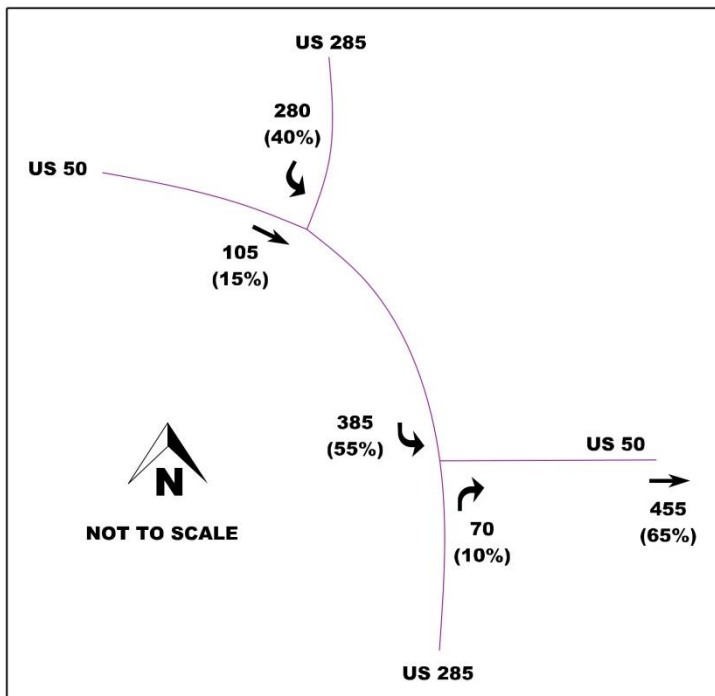
Time		Camping			Day Tickets		Overall Total (veh/hr)	
		% of total arriving	Car Camping (veh/hr)	Primitive Camping (veh/hr)	Camping Total (veh/hr)	% of total arriving		Day Parking (veh/hr)
8-9	AM							
9-10	AM	14%	323	356	679		679	
10-11	AM	13%	299	331	631	5%	60	691
11-12	AM	12%	276	306	582	5%	60	642
12-1	PM	11%	253	280	534	5%	60	594
1-2	PM	10%	230	255	485	10%	120	605
2-3	PM	9%	207	229	437	10%	120	557
3-4	PM	8%	184	204	388	10%	120	508
4-5	PM	7%	161	178	340	15%	180	520
5-6	PM	7%	161	178	340	15%	180	520
6-7	PM	6%	138	153	291	10%	120	411
7-8	PM	2%	46	51	97	10%	120	217
8-9	PM	1%	23	25	49	5%	60	109
9-10	PM							
Total		100%	2304	2546	4850	100%	1200	6050

The peak hour of event traffic has been highlighted and is estimated to be 691 vph between 10-11am on Friday, there is a similar peak of 650 vph from 9-10am Wednesday. Therefore, a value of 700vph will be used to determine event traffic at all critical intersections.

### **B. Event Traffic Distribution**

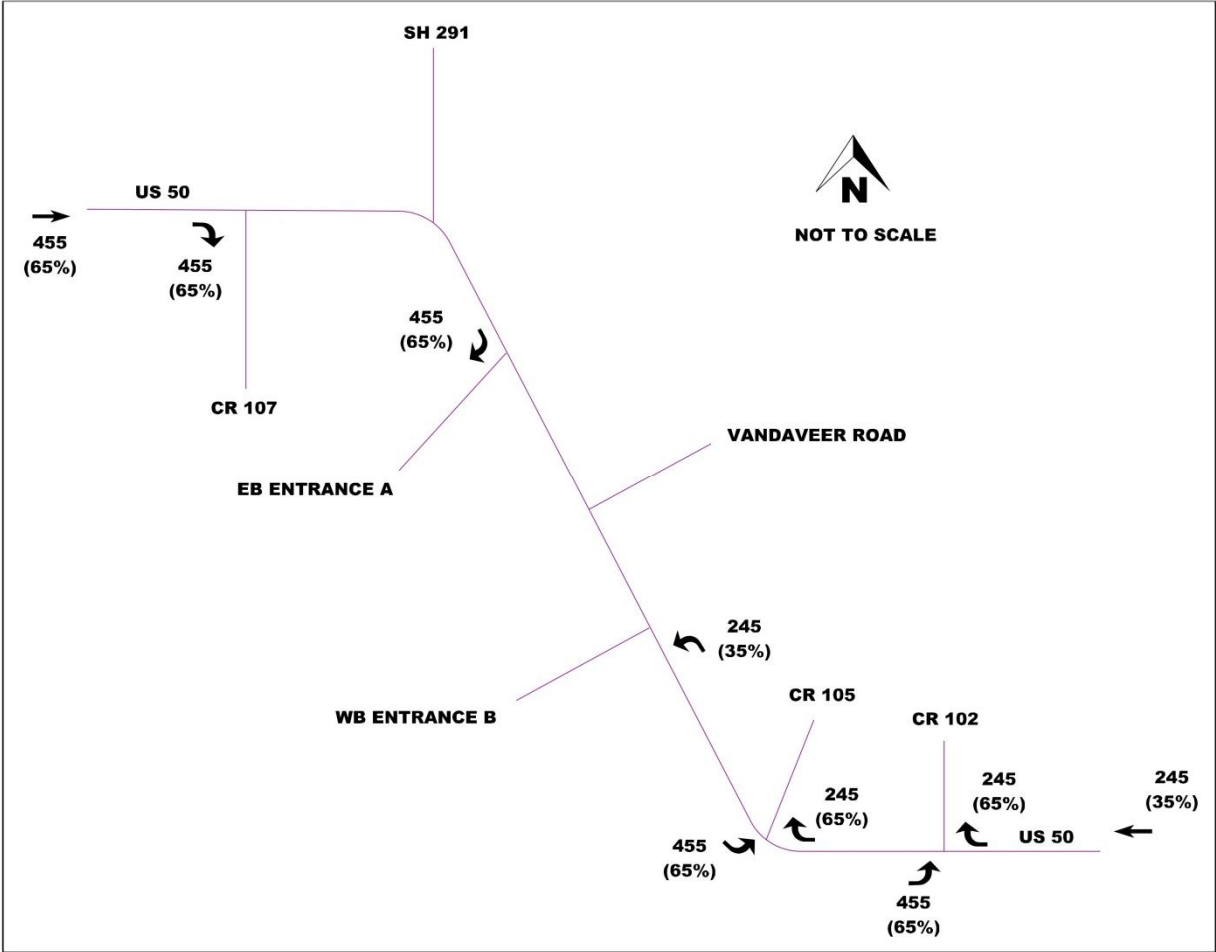
The proximity of population centers and likely routes of travel were analyzed to develop an estimate of how event traffic will be geographically distributed. Current estimates are that 65% of traffic will approach Salida on US 50 EB and 35% of traffic will approach Salida on US 50 WB. Once ticket sales information has been collected, these percentages will be refined and any adjustments will be made as necessary. Therefore, the peak hour event traffic from Table 2 is broken down by intersection location as shown below:

**Figure 1: Poncha Springs Intersections Peak Hour Event Traffic**





**Figure 2: Salida Intersections Peak Hour Event Traffic**



**VI. Highway Intersection Analyses**

In order to approximate the conditions at the intersection, background traffic was estimated and several assumptions were made as follows:

**i. Background Traffic**

The 2013 traffic volumes shown in Appendix E were obtained from the CDOT OTIS website for US 50 and US 285 in this area. The Design Hour Volume values for the appropriate sections of highway were used in combination with turning movement splits generated from traffic counts conducted by PST from 5:10 – 5:40pm on January 20, 2015 to estimate peak hour 2015 background traffic splits. These DHV values were then adjusted to 2015 values using the growth factors provided on the CDOT website.

## ii. Project Traffic

The peak hour of event traffic was taken from Figure 2 for each intersection. For the purposes of the Synchro model, it was assumed that the peak hour of background traffic coincides with the peak hour of event traffic. See Appendix F for Peak Hour 2015 Background plus Event Traffic Splits.

**A. Poncha Spring Intersections** of concern include both US 50/285 intersections. The north-western intersection is a 3-leg intersection with a stop sign on the US 285 SB approach and multiple auxiliary lanes. The south-eastern intersection is signalized with multiple auxiliary lanes. Therefore, a Synchro Model was developed to approximate the levels of service of these intersections during the peak hour with background traffic and with background plus event traffic. This analysis assumes that downstream processing and stacking operations do not impede the flow of traffic on US 50. It will be essential that sufficient toll booths and parking staff be available to ensure this assumption is accurate. The results are as follows with full Synchro Reports provided in Appendix G:

**Table 3A: North-West US 285/US 50 HCM 2000 Peak Hour Level of Service and Delays**

Scenario	US 50 EB		US 50/285 WB			US 285 SB			Overall
	LT	Thru		Thru	RT	LT		RT	Intersection
Background 2015	A	A		A	A	C		A	A
(one-way stop)	7.5	0		0	0	18.8		9.3	6.6
Background plus Event 2015	A	A		A	A	F		A	F
(one-way stop)	7.5	0		0	0	162.1		9.3	67.7
Background plus Event 2015	B	C		C	B	B		A	B
(signalized/csp controlled)	13	24.6		22	11.3	16.7		3	17.4
95th Percentile Queue Length	22	176		70	68	344		24	

As shown in Table 3A, the intersection will not function with the addition of event traffic with the current one-way stop configuration. However, if CSP controlled (approximately modeled as a traffic signal with a 60 second cycle length), all movements function at a level of service C or higher.

**Table 3B: South-East US 285/US 50 HCM 2000 Peak Hour Level of Service and Delays**

Scenario	Poncha Ave EB		US 50 WB			US 285 NB			US 50/285 SB		Overall
	LT	Thru/Rt	LT	Thru	RT	LT	Thru	RT	LT	Thru/Rt	Intersection
Background 2015 (signalized)	C	C	C	B	A	-	B	A	A	A	B
	23.9	25.3	27.8	16.1	0.2	-	16.6	0.1	8.2	5.9	11.0
Background plus Event 2015 (singalized/csp controlled)	C	C	C	B	A	-	C	A	C	A	B
	23.9	25.3	27.8	16.1	5.1	-	30.1	8.1	20.7	5.7	17.6
95th Percentile Queue Length	14	28	101	31	39		99	47	389	23	

Both background 2015 and Background plus event results are based on a 60 second cycle length. As shown in Table 3B, the intersection will function with the addition of event traffic with the existing traffic signal. However, this could also approximate the intersection performance if it were controlled by the CSP. Additional discussions will be necessary to determine if it will be easier to coordinate between the two intersections if they are both CSP controlled or if the signal should remain in operation during peak arrival times.

In order to provide additional information and account for possible variability in the arrival assumptions, the peak event arrival traffic was increased by 25% from 700 to 875 vph (additionally this does not reflect the Peak Hour Factor (PHF) of 0.92 used in the analysis). The corresponding increased values at each intersection were analyzed in Synchro. The levels of service continue to be Level of Service C or above for all movements with a 60-sec cycle length. The longest 95 percentile queue length reported by Synchro was 456' for the southbound left turn movement at the Southeast intersection. SimTraffic was also used as an alternate analysis method to compare results. The maximum queue reported by SimTraffic was 313' for this SB left. The current left turn deceleration lane is approximately 300'. However, there is an existing striped median to the north of the left turn lane that could be used to extend this deceleration lane up to almost 1,000' with the use of channelizing devices and traffic control signage if it is deemed necessary.

**B. Salida Event Intersections** of concern include areas where event traffic will be required to make a left turn across through traffic. Where event exits require right turns from the highway, level of service should not be a concern. For Eastbound event traffic, this includes Vandaveer Road and CR 102. However, since background traffic is approximately the same at these 2 locations, only one analysis will be presented for EB event traffic crossing WB through traffic. For WB event traffic, this includes a new access just north of Loggie Gulch Road. Therefore, a Synchro Model was developed to approximate the levels of service of these intersections during the peak hour

with background plus event traffic. This analysis assumes that downstream processing and stacking operations do not impede the flow of traffic on US 50. It will be essential that sufficient toll booths and parking staff be available to ensure this assumption is accurate. The results are as follows with full Synchro Reports provided in Appendix H:

**Table 4A: US 50/CR 102 or Vandaveer Road HCM 2000 Peak Hour Level of Service and Delays**

Scenario	US 50 EB		US 50 WB			CR 102 or CR 105	Overall
	LT	Thru		Thru	RT	LT/RT	Intersection
Background plus Event 2015 (singalized/csp controlled)	C	A		C	A	C	B
95th Percentile Queue Length	26	2.3		26.3	3.9	30.1	16.2
	285	49		266	43	25	

As shown in Table 4A, if these intersections are controlled by CSP (approximately modeled as a traffic signal with a 60 second cycle length), all movements function at a level of service C of higher. Based on the queuing lengths and existing deceleration lanes, CR 102 and Vandaveer Road have sufficient decel lengths to allow for the free-flow of EB thru traffic.

**Table 4B: US 50/Loggie Gulch HCM 2000 Peak Hour Level of Service and Delays**

Scenario	US 50 EB		US 50 WB		Loggie Gulch	Overall
		Thru	LT	Thru	LT/RT	Intersection
Background plus Event 2015 (singalized/csp controlled)		B	C	A	C	B
95th Percentile Queue Length		16.4	22.8	2.5	21	12.6
		203	145	51	22	

As shown in Table 4B, if this intersection is controlled by CSP (approximately modeled as a traffic signal with a 60 second cycle length), all movements function at a level of service C of higher. Based on the queuing lengths, a left turn deceleration lane at least 150' in length would need to be provided. Including the shoulders, there appears to be approximately 40' of pavement at this location. Therefore assuming the shoulders can be used, there appears to be enough existing pavement width to provide this decel lane using channelizing devices and traffic control signage.

In order to provide additional information and account for possible variability in the arrival assumptions, the peak event arrival traffic was increased by 25% from 700 to 875 vph (additionally this does reflect the Peak Hour Factor

(PHF) of 0.92 used in the analysis). The corresponding increased values at each intersection were analyzed in Synchro. The levels of service continue to be Level of Service C or above for all movements with a 60-sec cycle length. The longest 95 percentile queue length reported by Synchro was 187' for the WB left movement and 409' for the EB left movement. These values are 193' for WB left and 512' for the EB left based on SimTraffic results. At all of these locations, it appears there is enough existing pavement that all of these deceleration lengths can be provided with appropriate traffic control signage and channelizing devices.

## **VI. Car Camping Toll Booth Processing Analysis**

For this event, vehicle searches will be minimal. Therefore, toll booth processing times will be relatively short, averaging about 1.7 minutes per vehicle per lane (measured from previous events). The maximum expected volume of vehicles is approximately 700 vph taken from Table 2 above. Therefore, during peak arrival times the promoter will need to have a minimum of approximately 20 toll booths operating to avoid excessive queuing.

**Note:** This assumes all primitive car camper vehicles will be processed at a toll booth, which is not accurate. These numbers will be refined once the ticket sales information and site plan details are finalized.

## **VII. Traffic Control Points:**

(reserved)

## **VIII. Traffic Control Plan:**

(reserved)

**IX. Exit Plan:** The exit plan is currently being developed. While egress volumes will be higher, they can essentially be metered at the egress locations. A preliminary estimate of egress rates is shown below:

# Gentlemen of the Road Music Festival, 2015 Transportation Plan

**Table 5A : Estimated Departure Rates**

Time		Camping				Day Tickets		Overall Total (veh/hr)
		% of total departing	Car Camping (veh/hr)	Primitive Camping (veh/hr)	Camping Total (veh/hr)	% of total departing	Day Parking (veh/hr)	
<b>SATURDAY</b>								
10-11	AM	0	0	0	0	25%	400	400
11-12	AM	5%	317	350	668	25%	400	1068
<b>SUNDAY</b>								
12-1	AM	5%	317	350	668	30%	480	1148
1-2	AM	5%	317	350	668	15%	240	908
2-3	AM	5%	317	350	668	5%	80	748
6-7	AM	5%	317	350	668			668
7-8	AM	8%	507	561	1068			1068
8-9	AM	10%	634	701	1335			1335
9-10	AM	10%	634	701	1335			1335
10-11	AM	10%	634	701	1335			1335
11-12	AM	10%	634	701	1335			1335
12-1	PM	10%	634	701	1335			1335
1-2	PM	7%	444	491	935			935
2-3	PM	4%	254	280	534			534
3-4	PM	4%	254	280	534			534
4-5	PM	2%	127	140	267			267
5-6	PM		0	0	0			0
6-7	PM		0	0	0			0
7-8	PM		0	0	0			0
<b>Total</b>		<b>100%</b>	<b>6341</b>	<b>7009</b>	<b>13350</b>	<b>50%</b>	<b>800</b>	<b>14550</b>

Egress intersection capacity analyses and traffic control measures will be provided with a future draft of the Transportation Plan once egress locations and traffic control configurations are identified.

# APPENDIX

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**Wednesday Routing Plan – Appendix B**

**Thursday-Friday Routing Plan – Appendix C**

**Complete Event Traffic Hourly Breakdown – Appendix D**

**2015 Background Traffic Volumes – Appendix E**

**Peak Hour 2015 Background plus Event Traffic Splits – Appendix F**

**Synchro Reports for Poncha Springs Intersections – Appendix G**

**Synchro Reports for Salida Event Intersections – Appendix H**

**Traffic Control Points Plan – Appendix I (reserved)**

**Work Zone Traffic Control Plan – Appendix J (reserved)**

**Public Information – Appendix K (reserved)**