

Can I Stay for the Whole Game?

Observations of the Controlled Zone Parking System at Dodger Stadium

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Fans usually arrive late and leave early to and from home games at Dodger Stadium in order to avoid the brunt of its notorious gridlock. Since Angelenos are accustomed to the same gridlocked conditions in their daily commutes, they have become resigned to this phenomenon.

Prior to the 2007 season, Dodger Stadium management implemented **Controlled Zone Parking (CZP)**, a new on-site traffic operations plan prepared by another traffic engineering firm based in Southern California. Fans are directed to use the same gate for entry and exit. CZP is the major tool for Dodger Stadium management to optimize the arrival, on-site parking, and departure experiences for its customers.

Parking “Statistics”

The Institute of Transportation Engineers (ITE) suggests that baseball stadium lots are to be designed with a parking space rate of 15 on-site spaces per 100 seats.¹ When this rate is applied, it is concluded that 8,400 spaces are required for Dodger Stadium parking demand. Therefore, the 16,000 parking spaces that surround the 56,000-seat Dodger Stadium are sufficient for the calculated demand, and it can be concluded that parking supply is not a major concern.²

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During the 2006 season, the Los Angeles Dodgers had a total attendance of 3,758,421 over 81 dates for an average attendance of 46,400.³ The franchise generates 2.4 million car trips over the course of the season.⁴ It is assumed that the average car occupancy rate is 3.2 persons per vehicle based on these data.

Unlike other cities that have either encouraged the building of new downtown stadiums near mass transit or built mass transit near existing stadiums, Dodger Stadium is unique in that it is primarily automobile-accessed.⁵ An ITE study performed in 1975 identified the modal split as 85% automobile, 3% bus (public), and 12% charter bus.⁶ The Metropolitan Transportation Authority (MTA) and its predecessor agencies offered bus service to the games from the stadium's opening in 1962 until 1994, when it was halted for budget reasons.⁷ In 2004, the Dodgers ran a Friday night shuttle service from Union Station to Dodger Stadium that was stopped after one season because of a low average ridership of 400 fans per game.⁸

Controlled Zone Parking

At the onset of the 2007 season, the Dodgers devoted a page on their website (www.dodgers.com/parking) to inform the public about the CZP program. The stated goals of Dodger Stadium parking staff were to provide convenient entry and exit to and from the stadium premises as well as safe, convenient parking areas and pedestrian walkways for all fans attending a Dodger game.⁹

To that end, the Dodgers implemented CZP in all General Admission lots and re-numbered the parking lots. Fans are directed to park in a lot based on their entry gate and are asked to change the route they take to enter and leave the ballpark if they prefer to park in a different lot based on

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their seat location. All freeways can be accessed from any one of the parking gate exits. Lists of routes based on gate entrances are included on the website. Preferred Parking Passholders (Season Ticket / VIP) are directed to specially designated Preferred Parking Pass Lanes for their convenience. The Dodger Stadium disabled parking policies and procedures are exactly the same as previous seasons, and there are an ample amount of disabled parking spaces located in parking lots B, G, N, & P. Parking cashiers and attendants will direct those with a valid state-issued disabled parking permit and/or license plate to these areas.¹⁰

Evaluation of CZP

CZP has elements that are consistent with the six categories of operational measures suggested by ITE 6A-50. These are summarized in the following table.

ITE Operational Measure¹¹	CZP Characteristics
<i>Increase capacity on all streets</i>	<ul style="list-style-type: none">• Closure of outermost loop road reduces vehicular conflicts and increases queue capacity at each gate for ingress and egress.• Access to innermost loop roads from a particular lot is not permitted once it is full.• Loop road access limited to those going to bus parking or inner specialty lots.
<i>Police Controls</i>	<ul style="list-style-type: none">• Off-site intersection control near the four gates provided by officers.
<i>Signing</i>	<ul style="list-style-type: none">• Parking lots re-numbered and re-lettered so that they are numerically sequential.• Advance signing on sign bridges and portable signing provided to aid uniformed personnel.
<i>Crowd Controls</i>	<ul style="list-style-type: none">• On-site Dodger personnel wearing green vests use red flags to direct incoming cars to spaces and to usher vehicles out of lots toward their assigned gate.• Crossing guards installed at stadium crosswalks.
<i>Transit Use Incentives</i>	<ul style="list-style-type: none">• No shuttles or buses provided.
<i>Special Parking Zones</i>	<ul style="list-style-type: none">• Provision of ticket incentives for carpool lots and reduced price satellite parking for overflow days.• Provision of Preferred Parking, Bus, Oversize, and Disabled Zones on site.

Observations of Dodger Stadium CZP

This paper evaluates the CZP experience during two games attended on Friday, May 11, 2007 and Saturday, May 12, 2007. The average attendance for the two games was 50,682. Arrival times for both games were routine; however, departure times for Friday's game were affected by a post-game fireworks show. Saturday's departure times were affected by a lopsided score.

Arrivals

Three traditionally significant influences on congestion due to arrival traffic are the number and location of access routes, clarity and consistency of instructions, and treatment of parking fee charges. Fans can alter their arrival times based on their expectations of the congestion in the area – for example, fans can leave earlier if they expect a sellout.¹²

Unlike at other stadiums, the parking gates at Dodger Stadium open only two hours prior to gametime. However, arrivals are still spread over a long period of time, often continuing until the fourth inning of the game. Typically, there are no pre-game festivities (tailgating, street fairs, etc.) at Dodger Stadium, which leaves fans no reason to arrive earlier than necessary.

Arrival volumes appeared to be evenly spread between each of the four gates. Some queuing occurred at the parking pay booths, but a minimal amount of traffic spilled over onto the adjacent surface streets and freeways. Upon entrance to Dodger Stadium, traffic was separated according to which type of parking they were accessing (General versus Preferred). Vehicles were guided to their respective parking lots, and fans continued to the stadium on foot.

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Departures

The degree of congestion and the fans' perception of the smoothness of traffic operations are influenced by several key factors. The primary influence on exiting traffic is whether or not crowds exit at same time or over a relatively long period of time. Other factors include accommodation of pedestrian flows to minimize conflicts with vehicles and the clarity of instructions for exiting vehicles.¹³

As previously mentioned, the new CZP plan forces fans to depart from the same gate through which they entered. The stadium's outer loop road remains a one-way street, with flows from the lots to their assigned gates. Parking attendants actively control pedestrian crossings and exit routes.

RECOMMENDED MITIGATION MEASURES

Although the aggressive CZP plan seems to be working well at the moment, there is always room for improvement. Some mitigation measures to consider include:

- Intelligent Transportation Systems usage – Lot occupancy percentage update signs, PDA real-time updates, radio updates
- Tailgate parties and special post-game events on estimated sellout days
- Elevated crosswalks to further reduce pedestrian conflicts on the loop roads
- Congestion Pricing to control parking demand on-site
- Reinstatement of the MTA shuttle from the Chinatown station

CONCLUSION

The success of a well-conceived traffic plan is highly dependent on the education of the driver.¹⁴

The Dodgers have disseminated information about CZP in a highly efficient manner through the Internet, radio, and TV. As drivers become more familiar with CZP, word-of-mouth between fans will also increase effectiveness.

Impressions of CZP have been varied after 24 games of the 2007 Dodger Stadium home schedule. Press accounts of the system's performance on Opening Day have been negative; but Opening Day traffic operations have historically been inconvenient. This is magnified by the average fan's unfamiliarity with the CZP plan – it had only been introduced one week prior during an exhibition game.

Early observations suggest that the new program is working well for crowds of 50,000 people or less. Dodger management has incorporated a variety of effective mitigation measures while avoiding the implementation of expensive new infrastructure (i.e., parking garages, off-site intersection improvements).

Further observations of system performance should be done for capacity crowds. Anecdotal evidence in the newspapers suggests that the CZP system still yields 1-2 hour entry and exit times for fans attending sellout games.¹⁵ Approximately 25% of the Dodger home games in 2006 had an attendance greater than 50,000. This implies that the design condition should be tailored to a crowd somewhere between 52,000 and 56,000 in size.

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The observations of this paper were made without the benefit of supporting traffic data. Further traditional traffic analyses should collect traffic volume, modal split, automobile occupancy, and delay data in order to evaluate measures of effectiveness such as LOS at adjacent intersections and roads, and entry / exit conditions.

REFERENCES

1. Institute of Transportation Engineers. Traffic Operations Planning for Stadia and Arenas. Washington, DC, USA: Institute of Transportation Engineers, 1994.
2. Becerra, Hector. “Let Me Out of the Ballgame, Let Me Be Free of Crowds”, LA Times 11 April 2007.
3. *ESPN.com – Major League Baseball - Attendance*. ESPN. 25 May 2007.
<http://sports.espn.go.com/mlb/attendance?sort=home_avg&year=2006&seasonType=2>
4. *Paul Dorn: Baseball, Apple Pie, and Bicycling?*. Runmuki. 25 May 2007.
<<http://www.runmuki.com/paul/writing/bikesbaseball.html>>
5. Hyman, Steve. “L.A. Leads the League in Stadium Transit Errors”, LA Times 23 April 2007.
6. Institute of Transportation Engineers Technical Council Committee 6A5. “Traffic Considerations for Special Events.” *Traffic Engineering* (June 1975): 42-45.
7. Hyman, Steve. “L.A. Leads the League in Stadium Transit Errors”, LA Times 23 April 2007.
8. Hyman, Steve. “L.A. Leads the League in Stadium Transit Errors”, LA Times 23 April 2007.

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9. *Dodger Stadium 2007 Parking Information*. Los Angeles Dodgers. 25 May 2007.
< http://losangeles.dodgers.mlb.com/la/ballpark/parking_faq.jsp>
10. *Dodger Stadium 2007 Parking Information*. Los Angeles Dodgers. 25 May 2007.
< http://losangeles.dodgers.mlb.com/la/ballpark/parking_faq.jsp>
11. Institute of Transportation Engineers. Traffic Operations Planning for Stadia and Arenas. Washington, DC, USA: Institute of Transportation Engineers, 1994.
12. Institute of Transportation Engineers. Traffic Operations Planning for Stadia and Arenas. Washington, DC, USA: Institute of Transportation Engineers, 1994.
13. Institute of Transportation Engineers. Traffic Operations Planning for Stadia and Arenas. Washington, DC, USA: Institute of Transportation Engineers, 1994.
14. Institute of Transportation Engineers. Traffic Operations Planning for Stadia and Arenas. Washington, DC, USA: Institute of Transportation Engineers, 1994.
15. Simers, TJ. “No One’s Making A Move in Dodgers’ Parking Fiasco”, LA Times 11 April 2007.