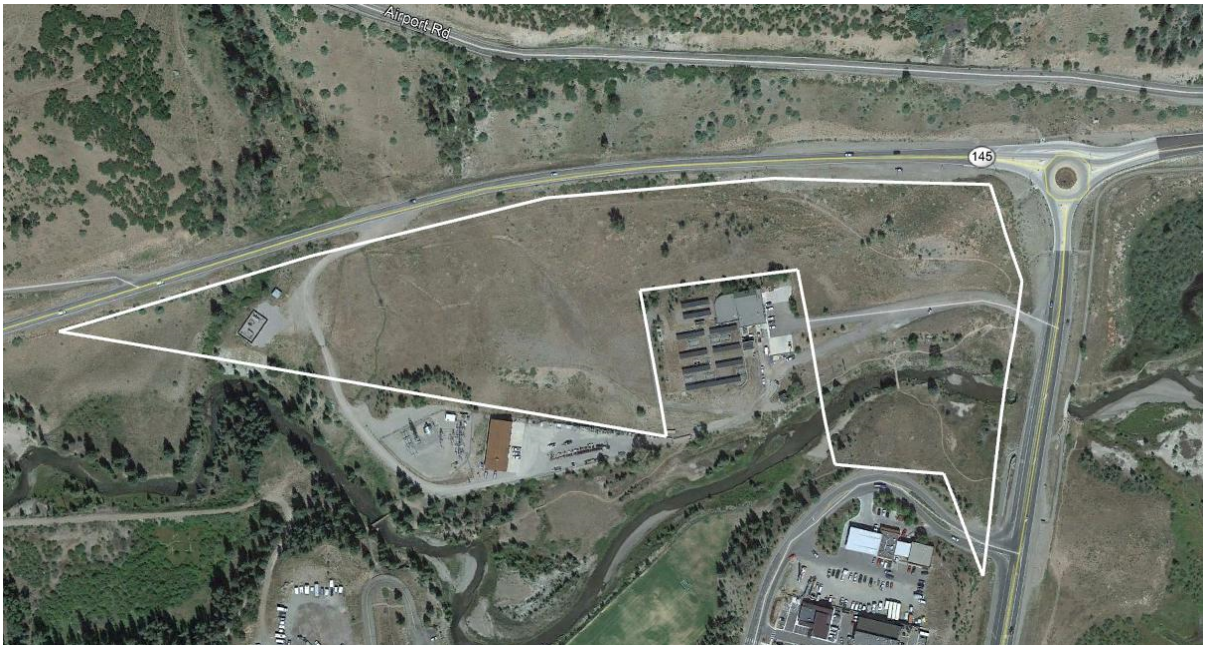


PARKING STUDY

SOCIETY TURN PARCEL



Prepared by



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LICENSE NO. 29799

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1.0 Introduction

This study provides an estimate for parking generation for the Society Turn Parcel (STP) development in San Miguel County, Colorado. The property owner, Genesee Properties, Inc., is submitting certain land use development applications with San Miguel County seeking approval to develop a certain mixed-use development on the property. In connection with the application, the owner is seeking an adjustment to the number of parking spaces that is required under the County Land Use Code (LUC). Such an adjustment is contemplated and allowed by the LUC. The purpose of this study is to determine the actual off-street parking requirement for the overall mixed-use development site, based upon pertinent factors and considerations, to support the request for a reduction in the number of required parking spaces.

The San Miguel County Land Use Article 5 defines the requirements for submittal and determination of off-street parking. Section 5-1404 C. Off-street Parking; reads as follows.

Off-street parking standards (see Section 5-702) may be increased or decreased based upon consideration of the following criteria:

- I. The estimated number of cars owned by future occupants of dwellings in a Planned Unit Development (PUD).
- II. The parking needs of any non-residential uses.
- III. The varying time periods of use, whenever joint use of common parking is proposed; and
- IV. Available or proposed transportation system.

Section 5-702 provides a definition of County standards for determination of necessary parking spaces by land use type and size. The Code also provide a description of location of available parking spaces; *In all cases, parking shall be provided within convenient walking distance of the principal use for which parking is required unless adequate ground transportation is provided.*

The planned mixed-use development is at a scale that affords easy walking distance between uses and potential parking areas. This will provide an opportunity to resourcefully implement the required parking while minimizing the need for a vast expanse of asphalt and/or structure for parking. The strategic parking layout will maintain accessibility while providing for the possibility of added open space, gathering space, and building space within the development.

The parking need determination is based upon the Time-of-Day Distribution for Parking Demand from the ITE Parking Generation Manual, 5th Edition, for the proposed land use mix.

The project is shown in the Vicinity Map in Figure 1.

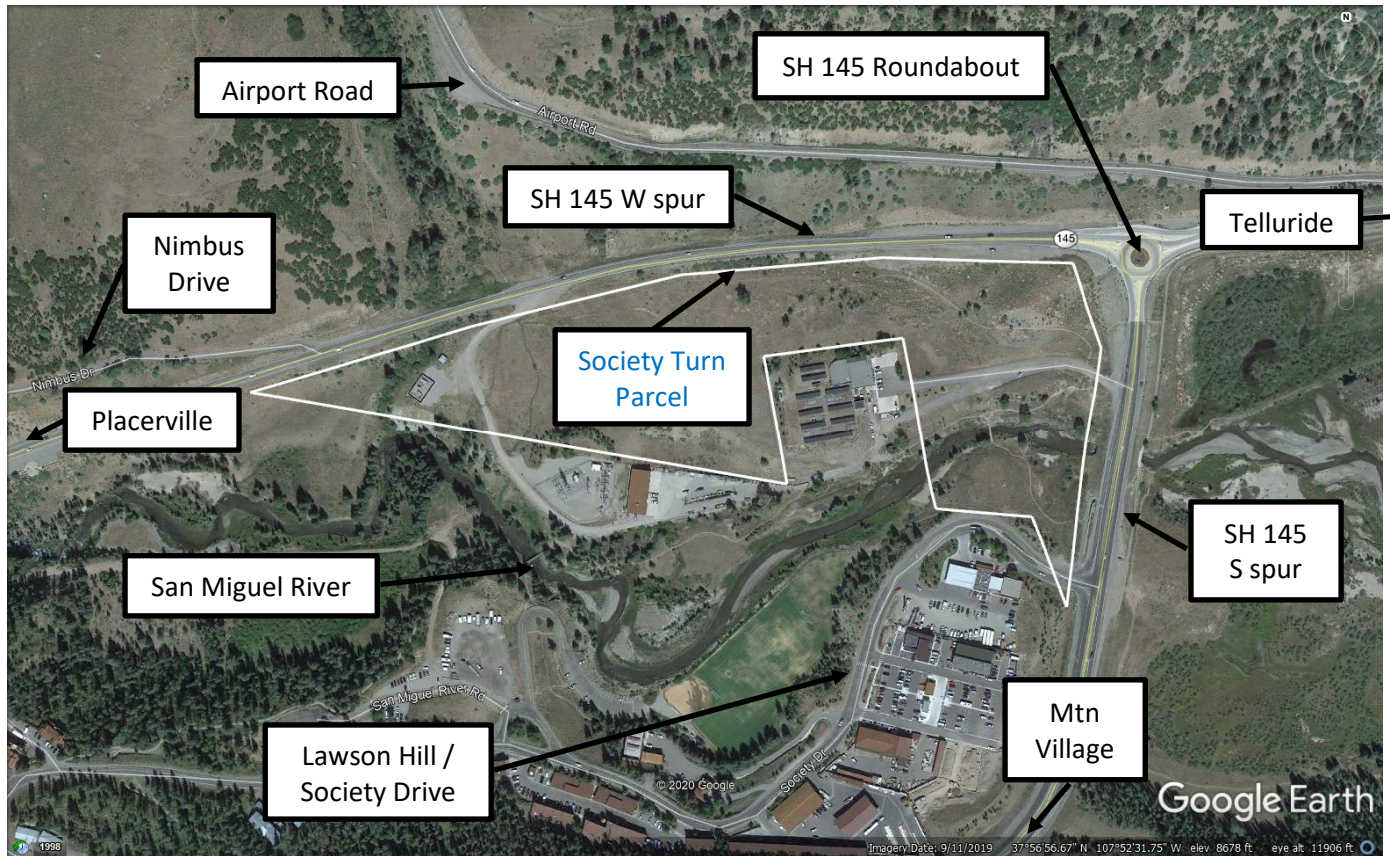


Figure 1 - Vicinity Map

1.1 Project Description

The proposed STP mixed-use development is shown in the Site Plan provided in Figure 2.

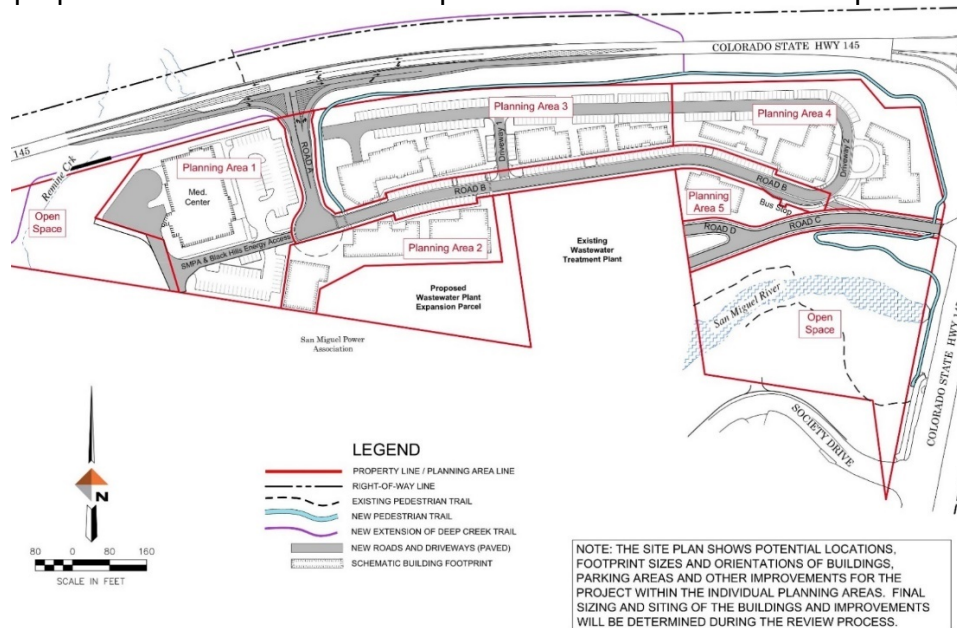


Figure 2 -Site Plan

Based on the Site Plan from Buckhorn and CCY Architects (July 2022), the proposed development of the Society Turn Parcel will consist of a Preliminary Plan land use mix comprised of the following and summarized in Table 1.

TABLE 1 - PROPOSED PRELIMINARY PLAN DEVELOPMENT LAND USE

Use	Amount	Units
Employee Housing	121	Units
Lodging	125	Rooms
Retail	8,025	sf
Food and Beverage	11,570	sf
Office (General)	43,385	sf
Office (Medical)	23,360	sf
Flex Space	55,355	sf
<i>Medical Center</i>	<i>40,000</i>	<i>sf</i>

The plan contemplates that there will be overall maximum uses and densities and that the particular classifications of uses and densities noted in Table 1 may be shifted between uses, provided that the overall density does not exceed the maximum cap approved by the County in the pending land use development plans. For example, the development could end up with less hotel rooms, with the associated density used for retail uses. This Parking Plan assumes certain levels of uses and densities for purposes of allowing calculations and discussions.

The land use mix used for the parking analysis is consistent with the uses and units shown in Table 1, although the application of the ITE Parking Generation Manual uses slightly different categorized nomenclature and uses are classified as shown below.

TABLE 2 -PRELIMINARY PLAN DEVELOPMENT LAND USE FOR ITE PARKING GENERATION

Use	Amount	Units
Multi-Family Housing	121	Units
Hotel (Lodging)	125	Rooms
Shopping Center (Retail)	8,025	sf
Restaurant (Food and Beverage)	11,570	sf
Office Park	122,100	sf
<i>Medical Center</i>	<i>40,000</i>	<i>sf</i>

The Office Park category comprises the General Office, Medical/Dental Office, and Flex Space uses into a single classification. The Office Park as described by ITE is shown below.

- Office Park
 - Defined by the ITE Parking Generation Manual, *an office park is usually a suburban subdivision or planned unit development containing general office buildings and support services, such as banks, restaurants, and service stations, arranged in a park- or campus-like atmosphere.* The ITE “Office Park” category description accurately depicts the potential uses as a mix of office space and support services. Office Park category is used because it most closely resembles the potential mix of land uses under consideration and allowed based upon the County approved Telluride Regional Area

Master Plan (TRAMP) Resolution for the parcel (Resolution provided in Appendix C).

- o The TRAMP discusses Public, Medical (Hospital), Housing (Multi-Family), Commercial (Retail), Flex Space and Hospitality (Hotel) uses. The potential identified uses shown in parentheses are represented as specific ITE land use categories in Table 2. Other parking generating uses that are anticipated in the development based on TRAMP include Government facilities, Visitor Center, Day Care, Community Space, Medical and Dental offices, Office, and Flex Space. These potential land uses will provide the make-up of the "Office Park" category. The Office Park space will be allocated to Flex Space, General Office, and Medical / Dental Office.

The Medical Center is not considered in the shared use parking analysis. Because of the timing for the provision of water and sewer service to project, as offered by the Town of Telluride, the project will develop in phases. Initially, the Medical Center is being developed alone, as the first phase of the development. Other phases on development would occur in the future, at least 7-10 years in the future based upon the water/sewer service schedule offered by the Town of Telluride. Therefore, there will not be opportunities for shared parking with other development occurring in the project for some time. Furthermore, the Medical Center is located on the west side of the development and location does not provide a prime prospect for shared parking consideration, although this option would be evaluated when development of immediately adjacent parcels is under consideration. The Medical Center will provide its own on-site parking.

1.2 Parking Requirement by LUC

The calculated parking required by the County LUC is provided below in Table 3

TABLE 3 - PARKING REQUIRED BY COUNTY LUC

<u>County LUC Description</u>	<u>Code Requirement</u>	<u>Area / Units</u>	<u>Employee</u>	<u>Parking Spaces</u>
Dwellings	2 Per Unit	121		242
Hotels & Motels	One space per Unit + 1 per 3 Employees	125	28	134
Retail Store, Office, Personal Service	One space per 400sf	123,535		309
Eating and Drinking	One Space per 4-seats + 1 per 3 Employees	17,600	8	114
		Total Parking Spaces		799

Per the LUC with the conceptual development program, the number of parking spaces required by the LUC would be 799 based upon a single use calculation that assume the uses that generate the higher number of parking spaces are maximized and other uses that generate the need for fewer parking spaces.

2.0 Methodology

This parking study has been prepared in accordance with The San Miguel County Land Use Code and ITE Parking Generation Manual, 5th Edition. The parking distribution is based on

the Time-of-Day Distribution for Parking Demand from the ITE Parking Generation Manual for Multi-Family housing, Hotel, Office Park, Shopping Center, and Restaurant.

Development Parking Generation Rates and Distribution

The analysis of the STP was completed using parking generation rates from the ITE Parking Generation Manual, 5th Edition. The land use type and units provided in Table 2 were input into the ITE web-based Parking Generation Manual resulting in the individual design hour parking generation rates for weekday and weekend shown in Table 4.

TABLE 4 - ITE PARKING SPACE CALCULATION AND GENERATION RATE BY LAND USE

<u>ITE Land Use Code / Description</u>	<u>Area / Units</u>	Parking Spaces		Parking Rate (per unit)
		Weekday	Weekend	Weekday
Code 220 Multi-Family (Low-rise)	121	134	153	1.11
Code 310 Hotel	125	97	117	0.78
Code 750 Office Park	122.100	286	34	2.34
Code 820 Shopping Center	8.025	112	62	13.99
Code 932 Restaurant	11.570	109	142	9.44
	Total Parking Spaces	738	508	

The values in Table 4 consist of the overall parking need without consideration of reductions based upon time of day or multi-modal factors. The table shows that the weekday will be the basis of design.

The Time-of-Day Distribution for Parking Demand by percentage for the corresponding land uses are shown in Table 5. Time distribution is shown for the peak parking need from 9 AM through 6 PM. Full day distributions are provided for each Land Use in Appendix C.

TABLE 5 - TIME OF DAY DISTRIBUTION FOR PARKING DEMAND BY LAND USE (%)

Weekday Parking Distribution	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
Code 220 Multi-Family (Low-rise)	45%	40%	37%	36%	36%	37%	43%	45%	55%	66%
Code 310 Hotel	100%	98%	89%	85%	75%	81%	70%	74%	65%	73%
Code 750 Office Park	88%	100%	100%	81%	93%	92%	91%	79%	59%	0%
Code 820 Shopping Center (Retail)	32%	54%	71%	99%	100%	90%	83%	81%	84%	86%
Code 932 High Turnover (Sit) Restaurant		26%	43%	95%	95%	49%	39%	37%	62%	99%

The Time-of-Day Distribution for Parking Demand by required number of shared parking spaces for the corresponding land uses are shown in Table 6. Time distribution is shown for the peak parking need from 9 AM through 4 PM. Full day distributions are provided for each and the combined Land Uses in Appendix B.

TABLE 6 - TIME OF DAY DISTRIBUTION FOR PARKING DEMAND BY LAND USE (SPACES)

ITE Land Use Code / Description	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM
Code 220 Multi-Family (Low-rise)	60	54	50	48	48	50	58	60
Code 310 Hotel	97	96	87	83	73	79	68	72
Code 750 Office Park	251	286	286	231	266	263	260	226
Code 820 Shopping Center (Retail)	36	61	80	111	112	101	93	91
Code 932 High Turnover (Sit) Restaurant	0	28	47	104	104	54	43	40
TOTAL	445	524	549	577	603	546	522	489

The peak period of need occurs during a weekday 1 PM hour, with a shared parking need of 603 spaces.

Multi-modal

Reference is made to the Transit Plan and Traffic Impact Study for the Society Turn Parcel and the Project dated August 2022 prepared by SGM which is being submitted by the Owner as part of its land use development applications, which carefully studies diverse opportunities for vehicular trip reductions coming to and from the site, based upon multi-modal alternatives, such as walking, biking, car-pooling and transit options. The development site near the roundabout separating the east-west and north-south legs of SH 145 provide a mid-valley location that is convenient for all transportation modes.

Given the central location of the development, the nature of the valley and existing use of public transportation and other modes, this study includes a conservatively selected multi-modal trip reduction rate of 5% for the STP development applied to all external trips. This is comparable to recent traffic studies in the area as well as rates used for similar projects in other mountain communities with similar transit systems (Aspen, Crested Butte, Steamboat). A reduction in trips will result in a direct reduction of parking spaces needed. Reference the Traffic Impact Study and Transit Plan for further justification of the multi-modal reduction.

Application of the 5% multi-modal trip reduction results in a need for 573 shared parking spaces, as shown in Table 7.

TABLE 7 - SHARED PARKING SPACE NEED AND RATE BY LAND USE WITH 5% REDUCTION

<u>ITE Land Use Code / Description</u>	<u>Area / Units</u>	Shared Parking Spaces	Shared Parking Rate (per unit)
		Weekday	Weekday
Code 220 Multi-Family (Low-rise)	121	46	0.38
Code 310 Hotel	125	69	0.56
Code 750 Office Park	122.100	252	2.07
Code 820 Shopping Center (Retail)	8.025	107	13.29
Code 932 High Turnover (Sit) Restaurant	11.570	99	8.52
	Total Parking Spaces	573	

Land Use Density, Parking Need and Parking Calculation

Per the LUC with the conceptual development program, the number of parking spaces required by the LUC would be 799 based upon a single use calculation that assume the uses that generate the higher number of parking spaces are maximized and other uses that generate the need for fewer parking spaces. Based upon the analysis performed in this Parking Study, we believe that the number of parking spaces that would be required is 573 spaces. The weekend need without space sharing and multi-modal reduction is calculated at 508 spaces. The proposed site plan for the development contemplates 602 spaces (382 surface and 220 sub-grade), so there is a surplus of 29 parking spaces beyond what this Parking Study supports. If the project develops in a manner that the actual uses are higher generators of parking spaces, which require more parking, the uses will have some ability to call upon the surplus parking spaces noted above as allocated by the developer to each lot/parcel. Should this not be sufficient, parking would need to be further accommodated within the individual building design itself and/or on-site within a structured parking program.

The nature of the development application and project contemplates that each of the uses and allocated densities in the project (except the Medical Center), could develop in whole or part as another use. The size and number of rooms in the hotel could decrease and that density could be reallocated to other uses. This Parking Study and the Transit Plan demonstrate that the uses contemplated in the project, given the factors discussed in these studies would support an anticipated lower number of parking spaces than would be required by the application of the parking standards contained in the LUC.

Given the potential variability of uses as described in the preceding paragraph, Table 7 provides a Shared Parking Rate which can be used to determine Shared Parking Need that applies the Time of Day and Multi-Modal reductions.

3.0 Conclusions

3.1 Summary of Conclusions

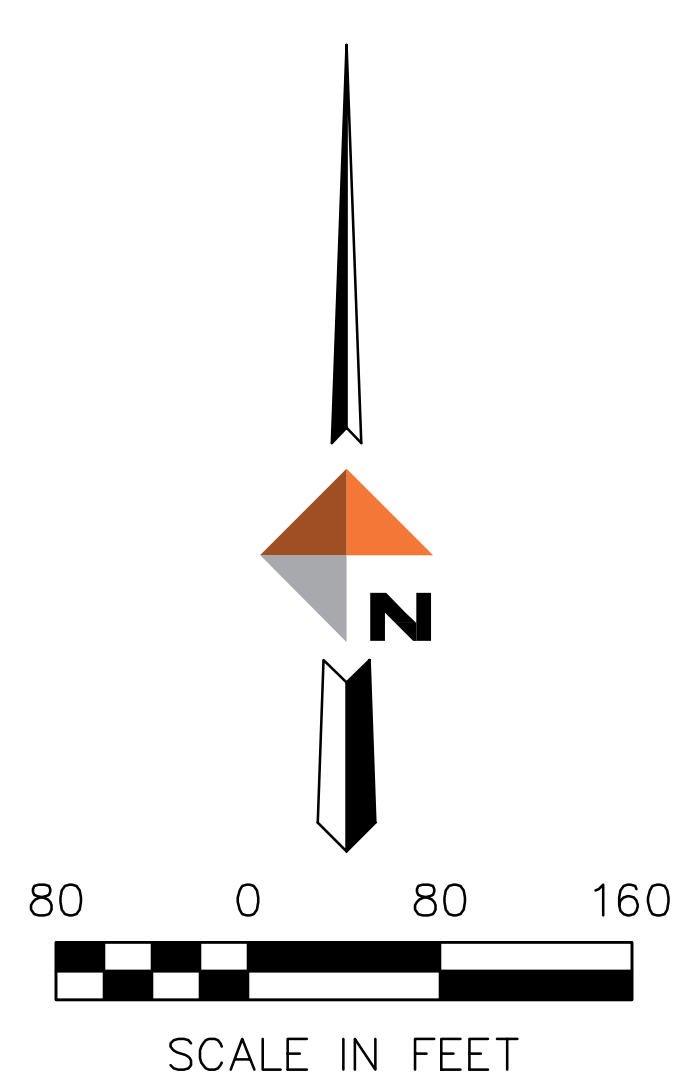
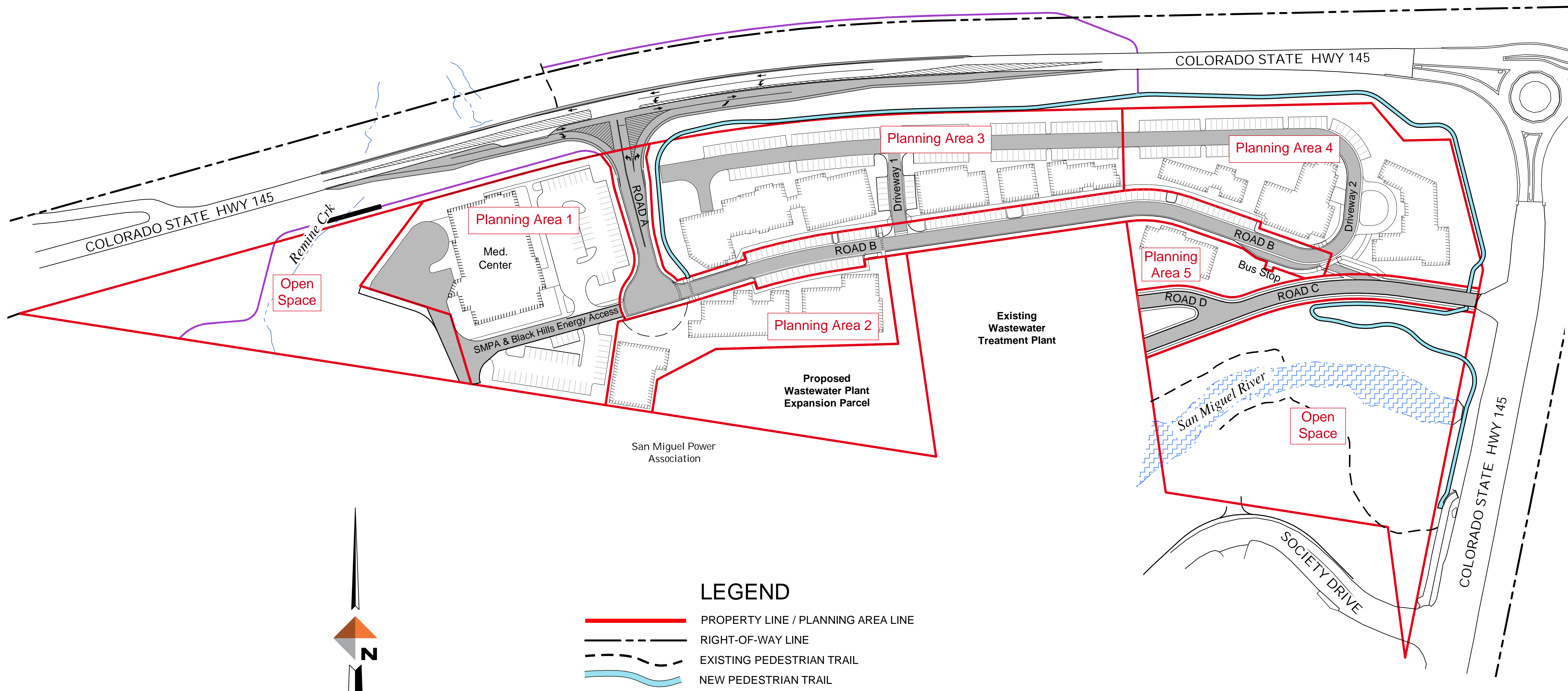
- The San Miguel County Land Use Code allows independent calculation of parking and consideration of shared use parking based on Time-of-Day calculation per Section 5-1404 C. Off-street Parking.
- Based upon the ITE Parking Generation Manual, 5th Edition, the weekday peak shared use parking space requirement is 603 spaces.
- The SMART fixed route transit system currently provides service to the SH 145 corridor and areas surrounding the STP development. A 5% reduction in traffic volume based on this transit service is justified in both the Traffic Impact Study and Transit Plan.
- **Application of the 5% multi-modal reduction results in a weekday peak shared use parking space requirement is 573 spaces.**

Appendix A

Conceptual Site Plan



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LEGEND

- PROPERTY LINE / PLANNING AREA LINE
- RIGHT-OF-WAY LINE
- EXISTING PEDESTRIAN TRAIL
- NEW PEDESTRIAN TRAIL
- NEW EXTENSION OF DEEP CREEK TRAIL
- NEW ROADS AND DRIVEWAYS (PAVED)
- SCHEMATIC BUILDING FOOTPRINT

NOTE: THE SITE PLAN SHOWS POTENTIAL LOCATIONS, FOOTPRINT SIZES AND ORIENTATIONS OF BUILDINGS, PARKING AREAS AND OTHER IMPROVEMENTS FOR THE PROJECT WITHIN THE INDIVIDUAL PLANNING AREAS. FINAL SIZING AND SITING OF THE BUILDINGS AND IMPROVEMENTS WILL BE DETERMINED DURING THE REVIEW PROCESS.

DATE: 06-23-2020

DOWL
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 222 South Park Avenue
 Montrose, Colorado 81401
 970-249-6828

GENESEE PROPERTIES, INC.
SOCIETY TURN PARCEL
CONCEPTUAL SITE PLAN

Appendix B

Parking Generation Spreadsheet

WEEKDAY PARKING DISTRIBUTION

<u>ITE Land Use Code / Description</u>	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
Code 220 Multi-Family (Low-rise)	134	134	134	134	134	130	120	103	75	60	54	50	48	48	50	58	60	74	88	98	103	115	123	130
Code 310 Hotel	94	94	94	94	94	94	89	87	88	97	96	87	83	73	79	68	72	63	71	76	91	94	93	93
Code 750 Office Park	0	0	0	0	0	0	0	71	197	231	262	262	212	244	241	239	207	155	0	0	0	0	0	0
Code 820 Shopping Center (Retail)	0	0	0	0	0	0	0	0	18	38	63	83	116	117	106	97	95	99	101	94	74	49	18	0
Code 931 Quality Restaurant	0	0	0	0	0	0	0	0	0	0	0	18	46	51	36	24	24	35	64	90	88	0	0	0
Code 932 High Turnover (Sit) Restaur	0	0	0	0	0	0	0	0	0	0	21	35	77	77	40	32	30	50	80	81	67	41	23	0
	227	227	227	227	227	223	209	261	377	426	496	535	583	610	551	518	489	476	405	439	422	299	256	222

Weekday Parking Distribution

	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
Code 220 MultiFamily (Low-rise)	100%	100%	100%	100%	100%	97%	90%	77%	56%	45%	40%	37%	36%	36%	37%	43%	45%	55%	66%	73%	77%	86%	92%	97%
Code 310 Hotel	96%	96%	96%	96%	96%	96%	91%	89%	90%	100%	98%	89%	85%	75%	81%	70%	74%	65%	73%	78%	93%	96%	95%	95%
Code 750 Office Park	0%	0%	0%	0%	0%	0%	0%	27%	75%	88%	100%	100%	81%	93%	92%	91%	79%	59%	0%					0%
Code 820 Shopping Center (Retail)	0%	0%	0%	0%	0%	0%	0%	0%	15%	32%	54%	71%	99%	100%	90%	83%	81%	84%	86%	80%	63%	42%	15%	0%
Code 931 Quality Restaurant												20%	51%	56%	40%	27%	27%	39%	71%	100%	97%			
Code 932 High Turnover (Sit) Restaurant											26%	43%	95%	95%	49%	39%	37%	62%	99%	100%	83%	51%	28%	

Appendix C

ITE Parking Generation Land Use Data

Land Use: 220 Multifamily Housing (Low-Rise)

Description

Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and with one or two levels (floors) of residence. Multifamily housing (mid-rise) (Land Use 221), multifamily housing (high-rise) (Land Use 222), and affordable housing (Land Use 223) are related land uses.

Time of Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand (1) on a weekday (10 study sites) and a Saturday (11 study sites) in a general urban/suburban setting and (2) on a weekday (three study sites) and a Saturday (three study sites) in a dense multi-use urban setting.

Hour Beginning	Percent of Peak Parking Demand			
	General Urban/Suburban		Dense Multi-Use Urban	
	Weekday	Saturday	Weekday	Saturday
12:00–4:00 a.m.	100	93	86	100
5:00 a.m.	97	100	100	94
6:00 a.m.	90	98	94	91
7:00 a.m.	77	96	81	85
8:00 a.m.	56	92	58	79
9:00 a.m.	45	80	56	76
10:00 a.m.	40	78	53	71
11:00 a.m.	37	71	58	74
12:00 p.m.	36	68	56	68
1:00 p.m.	36	66	53	68
2:00 p.m.	37	65	47	68
3:00 p.m.	43	68	56	56
4:00 p.m.	45	70	53	59
5:00 p.m.	55	73	61	53
6:00 p.m.	66	77	81	50
7:00 p.m.	73	81	67	56
8:00 p.m.	77	82	61	65
9:00 p.m.	86	86	64	74
10:00 p.m.	92	87	75	85
11:00 p.m.	97	92	86	91

Additional Data

In prior editions of *Parking Generation*, the low-rise multifamily housing sites were further divided into rental and condominium categories. An investigation of parking demand data found no clear differences in parking demand between the rental and condominium sites within the ITE database. As more data are compiled for future editions, this land use classification can be reinvestigated.

The average parking supply ratios for the study sites with parking supply information are shown in the table below.

Setting	Proximity to Rail Transit	Parking Supply Ratio	
		Per Dwelling Unit	Per Bedroom
Dense Multi-Use Urban	Within ½ mile of rail transit	0.6 (12 sites)	0.4 (10 sites)
	Not within ½ mile of rail transit	0.9 (18 sites)	0.6 (18 sites)
General Urban/ Suburban	Within ½ mile of rail transit	1.5 (10 sites)	0.9 (10 sites)
	Not within ½ mile of rail transit	1.7 (52 sites)	1.0 (52 sites)

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Colorado, District of Columbia, Maryland, Massachusetts, Oregon, Pennsylvania, Texas, Washington, and Wisconsin.

It is expected that the number of bedrooms and number of residents are likely correlated to the parking demand generated by a residential site. Parking studies of multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e. number of units by number of bedrooms at the site complex). Future parking studies should also indicate the number of levels contained in the residential building.

Source Numbers

72, 124, 152, 154, 209, 215, 216, 218, 219, 255, 257, 314, 414, 419, 432, 437, 505, 512, 533, 535, 536, 537, 544, 545, 577, 578, 579, 580, 584, 585, 587

Land Use: 310 Hotel

Description

A hotel is a place of lodging that provides sleeping accommodations and supporting facilities such as a full-service restaurant, cocktail lounge, meeting rooms, banquet room, and convention facilities. It typically provides a swimming pool or another recreational facility such as a fitness room. All suites hotel (Land Use 311), business hotel (Land Use 312), motel (Land Use 320), and resort hotel (Land Use 330) are related uses.

Time of Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand (1) on a weekday (four study sites) and a Saturday (five study sites) in a general urban/suburban setting and (2) on a weekday (one study site) and a Saturday (one study site) in a dense multi-use urban setting.

Hour Beginning	Percent of Peak Parking Demand			
	General Urban/Suburban		Dense Multi-Use Urban	
	Weekday	Saturday	Weekday	Saturday
12:00–4:00 a.m.	96	74	93	100
5:00 a.m.	–	–	–	–
6:00 a.m.	91	62	97	95
7:00 a.m.	89	62	100	95
8:00 a.m.	90	72	93	89
9:00 a.m.	100	74	72	85
10:00 a.m.	98	76	69	74
11:00 a.m.	89	77	65	61
12:00 p.m.	85	79	78	47
1:00 p.m.	75	78	78	42
2:00 p.m.	81	67	63	41
3:00 p.m.	70	64	59	43
4:00 p.m.	74	67	58	48
5:00 p.m.	65	73	52	53
6:00 p.m.	73	83	63	64
7:00 p.m.	78	92	74	67
8:00 p.m.	93	97	78	78
9:00 p.m.	96	100	72	81
10:00 p.m.	95	91	84	93
11:00 p.m.	95	83	92	98

Additional Data

Some properties contained in this land use provide guest transportation services such as airport shuttles, limousine service, or golf course shuttle service, which may have an impact on the overall parking generation rates.

The average parking supply ratios for both the 17 study sites located in a general urban/suburban setting and the two study sites in a dense multi-use urban setting are 1.1 spaces per room.

The sites were surveyed in the 1980s, the 1990s, and the 2000s in Arizona, California, Connecticut, Florida, Illinois, New York, Texas, and Washington.

For all lodging uses, it is important to collect data on occupied rooms as well as total rooms.

Parking demand at a hotel may be related to the presence of supporting facilities such as convention facilities, restaurants, meeting/banquet space, and other retail. Future data submissions should indicate the presence of these amenities and specify their size. Reporting the level of activity at the supporting facilities (such as full, empty, partially active, number of people attending a meeting/banquet) during observation may also be useful in further analysis of this land use.

Source Numbers

1, 117, 124, 152, 154, 157, 159, 201, 215, 217, 245, 315, 401, 438

Land Use: 750 Office Park

Description

An office park is usually a suburban subdivision or planned unit development containing general office buildings and support services, such as banks, restaurants, and service stations, arranged in a park- or campus-like atmosphere. General office building (Land Use 710), corporate headquarters building (Land Use 714), single tenant office building (Land Use 714), and research and development center (Land Use 760) are related land uses.

Time of Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand on a weekday at two study sites in a general urban/suburban setting.

Hour Beginning	Percent of Weekday Peak Parking Demand
12:00–4:00 a.m.	–
5:00 a.m.	–
6:00 a.m.	–
7:00 a.m.	27
8:00 a.m.	75
9:00 a.m.	88
10:00 a.m.	100
11:00 a.m.	100
12:00 p.m.	81
1:00 p.m.	93
2:00 p.m.	92
3:00 p.m.	91
4:00 p.m.	79
5:00 p.m.	59
6:00 p.m.	–
7:00 p.m.	–
8:00 p.m.	–
9:00 p.m.	–
10:00 p.m.	–
11:00 p.m.	–

Additional Data

The average parking supply ratios for the study sites with parking supply information are 4.4 spaces per 1,000 square feet GFA (five sites) and 1.5 spaces per employee (two sites).

The sites were surveyed in the 1980s and the 1990s in Arizona, California, Colorado, Florida, Illinois, New York, Pennsylvania, Texas, and Utah.

Source Numbers

36, 172, 202, 239, 243

Land Use: 820 Shopping Center

Description

A shopping center is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. A shopping center's composition is related to its market area in terms of size, location, and type of store. A shopping center also provides on-site parking facilities sufficient to serve its own parking demands.

Time of Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand **during the month of December** on a weekday (seven study sites), a Friday (eight study sites), and a Saturday (19 study sites).

Hour Beginning	Percent of Peak Parking Demand during December		
	Weekday	Friday	Saturday
12:00–4:00 a.m.	–	–	–
5:00 a.m.	–	–	–
6:00 a.m.	–	–	–
7:00 a.m.	–	–	–
8:00 a.m.	–	–	–
9:00 a.m.	–	–	–
10:00 a.m.	–	74	–
11:00 a.m.	–	87	85
12:00 p.m.	77	97	97
1:00 p.m.	100	100	98
2:00 p.m.	98	92	100
3:00 p.m.	90	85	97
4:00 p.m.	76	84	88
5:00 p.m.	82	78	77
6:00 p.m.	89	75	64
7:00 p.m.	90	63	–
8:00 p.m.	84	–	–
9:00 p.m.	–	–	–
10:00 p.m.	–	–	–
11:00 p.m.	–	–	–

The following table presents a time-of-day distribution of parking demand **during a non-December month** on a weekday (18 study sites), a Friday (seven study sites), and a Saturday (13 study sites).

Hour Beginning	Percent of Non-December Peak Parking Demand		
	Weekday	Friday	Saturday
12:00–4:00 a.m.	–	–	–
5:00 a.m.	–	–	–
6:00 a.m.	–	–	–
7:00 a.m.	–	–	–
8:00 a.m.	15	32	27
9:00 a.m.	32	50	46
10:00 a.m.	54	67	67
11:00 a.m.	71	80	85
12:00 p.m.	99	100	95
1:00 p.m.	100	98	100
2:00 p.m.	90	90	98
3:00 p.m.	83	78	92
4:00 p.m.	81	81	86
5:00 p.m.	84	86	79
6:00 p.m.	86	84	71
7:00 p.m.	80	79	69
8:00 p.m.	63	70	60
9:00 p.m.	42	–	51
10:00 p.m.	15	–	38
11:00 p.m.	–	–	–

Additional Data

The parking demand database includes data from strip, neighborhood, community, town center, and regional shopping centers. Some of the centers contain non-merchandising facilities, such as office buildings, movie theaters, restaurants, post offices, banks, health clubs, and recreational facilities.

Many shopping centers, in addition to the integrated unit of shops in one building or enclosed around a mall, include outparcels (peripheral buildings or pads located on the perimeter of the center adjacent to the streets and major access points). These buildings are typically drive-in banks, retail stores, restaurants, or small offices. Although the data herein do not indicate which of the centers studied included peripheral buildings, it can be assumed that some of the data show their effect.

The parking demand data plots and analysis are based on the total gross leasable area (GLA) of the center. In cases of smaller centers without an enclosed mall or peripheral buildings, the GLA could be the same as the gross floor area (GFA) of the center.

The average parking supply ratios for the study sites with parking supply information are the following:

- 5.1 spaces per 1,000 square feet GFA (137 sites) in a general urban/suburban setting
- 4.7 spaces per 1,000 square feet GFA (five sites) in a dense multi-use urban setting

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alabama, Alberta (CAN), Arizona, California, Colorado, Delaware, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, North Carolina, New Jersey, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Virginia, and Washington.

Future data submissions should attempt to provide information on the composition of each study site (types and number of stores, restaurants, or other tenants within the shopping center).

Source Numbers

3, 18, 21, 32, 39, 47, 87, 88, 89, 103, 142, 145, 152, 153, 154, 174, 175, 176, 179, 202, 203, 204, 205, 209, 215, 219, 224, 241, 265, 274, 313, 314, 315, 431, 432, 433, 436, 438, 441, 511, 525, 527, 531, 533, 542, 556, 558, 565

Land Use: 931 Quality Restaurant

Description

This land use consists of high quality, full-service eating establishments with a typical duration of stay of at least one hour. They are also commonly referred to as fine dining. Quality restaurants generally do not serve breakfast; some do not serve lunch; all serve dinner. This type of restaurant often requests and sometimes requires a reservation and is generally not part of a chain. A patron commonly waits to be seated, is served by wait staff, orders from a menu and pays after the meal. Some of the study sites have lounge or bar facilities (serving alcoholic beverages), but they are ancillary to the restaurant. Fast casual restaurant (Land Use 930) and high-turnover (sit-down) restaurant (Land Use 932) are related uses.

Time of Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand on a Monday-through-Thursday weekday (one study site) and a Friday (one study site) in a general urban/suburban setting.

Hour Beginning	Percent of Peak Parking Demand	
	Weekday	Friday
12:00–4:00 a.m.	–	–
5:00 a.m.	–	–
6:00 a.m.	–	–
7:00 a.m.	–	–
8:00 a.m.	–	–
9:00 a.m.	–	–
10:00 a.m.	–	–
11:00 a.m.	20	11
12:00 p.m.	51	37
1:00 p.m.	56	54
2:00 p.m.	40	29
3:00 p.m.	27	22
4:00 p.m.	27	14
5:00 p.m.	39	18
6:00 p.m.	71	42
7:00 p.m.	100	91
8:00 p.m.	97	100
9:00 p.m.	–	–
10:00 p.m.	–	–
11:00 p.m.	–	–

Additional Data

Any outdoor seating area is not included in the overall gross floor area. Therefore, the number of seats may be a more reliable independent variable on which to establish parking generation rates for facilities having significant outdoor seating.

The average parking supply ratios for the study sites with parking supply information are as follows:

- in a general urban/suburban setting, 23 spaces per 1,000 square feet GFA (nine sites) and 0.7 spaces per seat (seven sites)
- in a dense multi-use urban setting, 12 spaces per 1,000 square feet GFA (five sites) and 0.3 spaces per seat (five sites)

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Illinois, Indiana, New Jersey, New York, Oklahoma, Oregon, Pennsylvania, and Texas.

Source Numbers

21, 22, 47, 154, 168, 201, 274, 418, 431, 531

Land Use: 932 High-Turnover (Sit-Down) Restaurant

Description

This land use consists of sit-down, full-service eating establishments with a typical duration of stay of 60 minutes or less. They are commonly referred to as casual dining. This type of restaurant is usually moderately priced and frequently belongs to a restaurant chain. Generally, these restaurants serve lunch and dinner; they may also be open for breakfast and are sometimes open 24 hours a day. These restaurants typically do not accept reservations. A patron commonly waits to be seated, is served by wait staff, orders from a menu, and pays after the meal. Some facilities offer carry-out for a small proportion of its customers. Some facilities within this land use may also contain lounge or bar area for serving food and alcoholic drinks. Fast casual restaurant (Land Use 930), quality restaurant (Land Use 931), fast-food restaurant without drive-through window (Land Use 933), and fast-food restaurant with drive-through window (Land Use 934) are related uses.

The analysis of parking demand for this land use has identified different parking demand rates between high-turnover restaurants with and without lounges. The term “family restaurant” is used interchangeably as an abbreviated version of “high-turnover (sit-down) restaurant without lounge or bar facilities.”

Time of Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand **on a weekday** at family restaurants that serve breakfast, lunch, and dinner (12 study sites); family restaurants that serve lunch and dinner (38 sites), and restaurants with a lounge or bar (four sites).

Hour Beginning	Percent of Weekday Peak Parking Demand		
	Family (breakfast, lunch, and dinner)	Family (lunch and dinner)	Lounge or Bar
12:00–4:00 a.m.	–	–	–
5:00 a.m.	–	–	–
6:00 a.m.	10	–	–
7:00 a.m.	25	–	–
8:00 a.m.	68	–	–
9:00 a.m.	72	–	–
10:00 a.m.	77	26	9
11:00 a.m.	83	43	15
12:00 p.m.	100	95	100
1:00 p.m.	91	95	81
2:00 p.m.	56	49	54
3:00 p.m.	42	39	33
4:00 p.m.	42	37	26
5:00 p.m.	64	62	29
6:00 p.m.	87	99	58
7:00 p.m.	79	100	70
8:00 p.m.	65	83	77
9:00 p.m.	42	51	61
10:00 p.m.	21	28	41
11:00 p.m.	–	–	–

The following table presents a time-of-day distribution of parking demand **on a Saturday** at family restaurants that serve breakfast, lunch, and dinner (six study sites); family restaurants that serve lunch and dinner (10 sites), and restaurants with a lounge or bar (six sites).

Hour Beginning	Percent of Saturday Peak Parking Demand		
	Family (breakfast, lunch, and dinner)	Family (lunch and dinner)	Lounge or Bar
12:00–4:00 a.m.	–	–	–
5:00 a.m.	–	–	–
6:00 a.m.	15	–	–
7:00 a.m.	28	–	–
8:00 a.m.	52	–	–
9:00 a.m.	75	–	–
10:00 a.m.	91	87	15
11:00 a.m.	100	90	23
12:00 p.m.	90	100	37
1:00 p.m.	80	98	50
2:00 p.m.	67	85	44
3:00 p.m.	45	73	37
4:00 p.m.	39	58	48
5:00 p.m.	40	63	64
6:00 p.m.	40	76	90
7:00 p.m.	58	78	100
8:00 p.m.	40	76	89
9:00 p.m.	35	55	71
10:00 p.m.	33	46	56
11:00 p.m.	–	–	–

Additional Data

The outdoor seating area is not included in the overall gross floor area. Therefore, the number of seats may be a more reliable independent variable on which to establish parking generation rates for facilities having significant outdoor seating.

The average parking supply ratios for the study sites with parking supply information are as follows:

- in a general urban/suburban setting, 15 spaces per 1,000 square feet GFA (53 sites) and 0.5 spaces per seat (42 sites)
- in a dense multi-use urban setting, 7 spaces per 1,000 square feet GFA (six sites) and 0.4 spaces per seat (one site)

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Connecticut, Florida, Illinois, Indiana, Massachusetts, Minnesota, New Jersey, New York, Oklahoma, Oregon, Pennsylvania, Texas, and Washington.

Source Numbers

8, 9, 21, 22, 47, 168, 182, 201, 218, 274, 276, 299, 527, 531, 556, 557, 567, 568