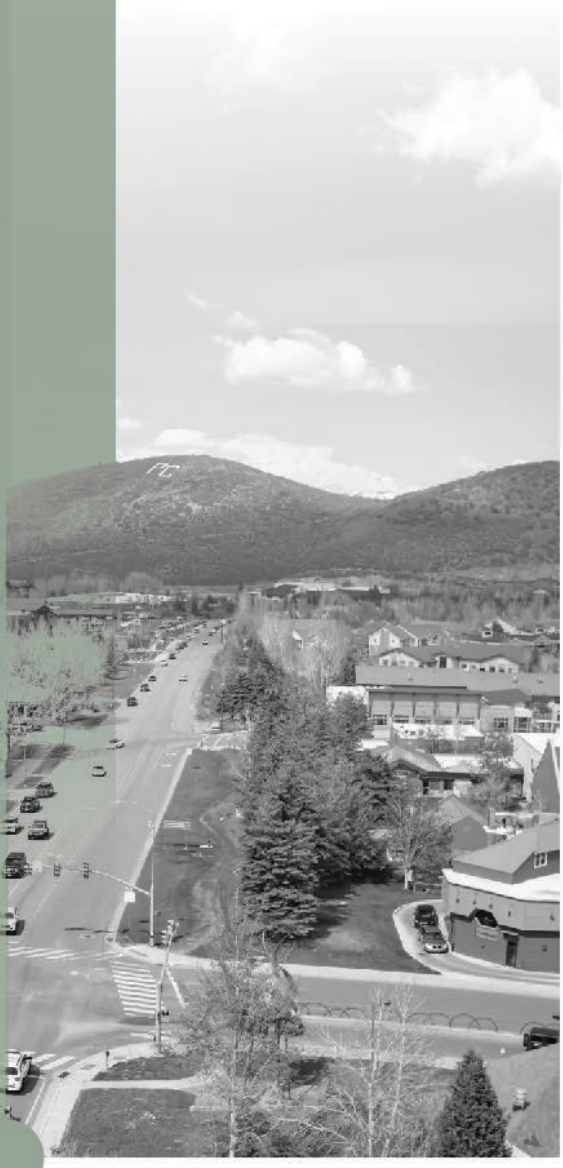
Re·create 248

PURPOSE AND NEED REPORT

November 2024



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Acronyms and Abbreviations

ACS	American Community Survey
BRT	Bus Rapid Transit
FEMA	Federal Emergency Management Agency
HVT	High Valley Transit
LOS	Level of Service
LPA	Locally Preferred Alternative
NEPA	National Environmental Policy Act
OTTC	Old Town Transit Center
PCMC	Park City Municipal Corporation
PCT	Park City Transit
SOV	Single Occupancy Vehicle
SR	State Road
TDI	Transit Dependency Index
UDOT	Utah Department of Transportation
WOTUS	Waters of the United States

1 PURPOSE AND NEED REPORT

1.1 OVERVIEW

Park City Municipal Corporation (PCMC), in collaboration with the Utah Department of Transportation (UDOT), also called the Study Partners, has initiated the Re-create 248 Transit Study (Re-create 248) in Summit County, Utah. The study is aimed at enhancing reliable high-capacity transit service along the State Route (SR) 248 corridor, Bonanza Drive, and Deer Valley Drive that can be advanced to the next phase of project development: a National Environmental Policy Act (NEPA)-level environmental study and preliminary engineering. This study will identify a locally preferred alternative (LPA) that will include a definition of areas to be served, transit mode/type of transit technology, and logical termini (project limits).

Additionally, community members in the study area are expressing concern about the negative impacts of congestion on quality of life and are interested in exploring opportunities to provide viable alternatives to driving and investing in a transit-forward solution that enhances mobility along the corridor.

Obtaining consensus from the Study Partners is critical for the success of any major transportation investment. This process seeks to be proactive in listening to the community, developing a strong understanding of future mobility needs and goals, and planning for the best solution for the problems presented on the corridor.

1.2 CONTEXT

The Wasatch Back (consisting of Summit and Wasatch Counties) has experienced rapid growth in the last few decades, which is projected to continue through 2050. Investments in recreation, tourism, housing, and other developments have brought employment and population growth to the area as well as continued growth in tourism and visitation. The resort base areas are increasing amenities and lodging and expanding year-round recreational opportunities, drawing visitors from around the world.

Topographic and other natural constraints, combined with PCMC's desire to develop transit and active transportation-forward solutions to manage mobility challenges, have driven multimodal solutions for transportation investments. Park City has only two main "gateway" corridors: SR-224 and SR-248. These roads are responsible for transporting tens of thousands of people each day, a situation that often worsens during peak events and the busy winter ski season. Currently, travel times into town in the winter peak season can be upwards of 33 minutes on SR-248, compared to the summer average travel time of just under 9 minutes for the same trip.

Goods and services, along with world-class destinations in Park City, attract travelers to the area via SR-248. As true for other areas along the Wasatch Back, expansion of transportation facilities to meet projected growth will face challenges including topography, environmental resources, and protected open space.

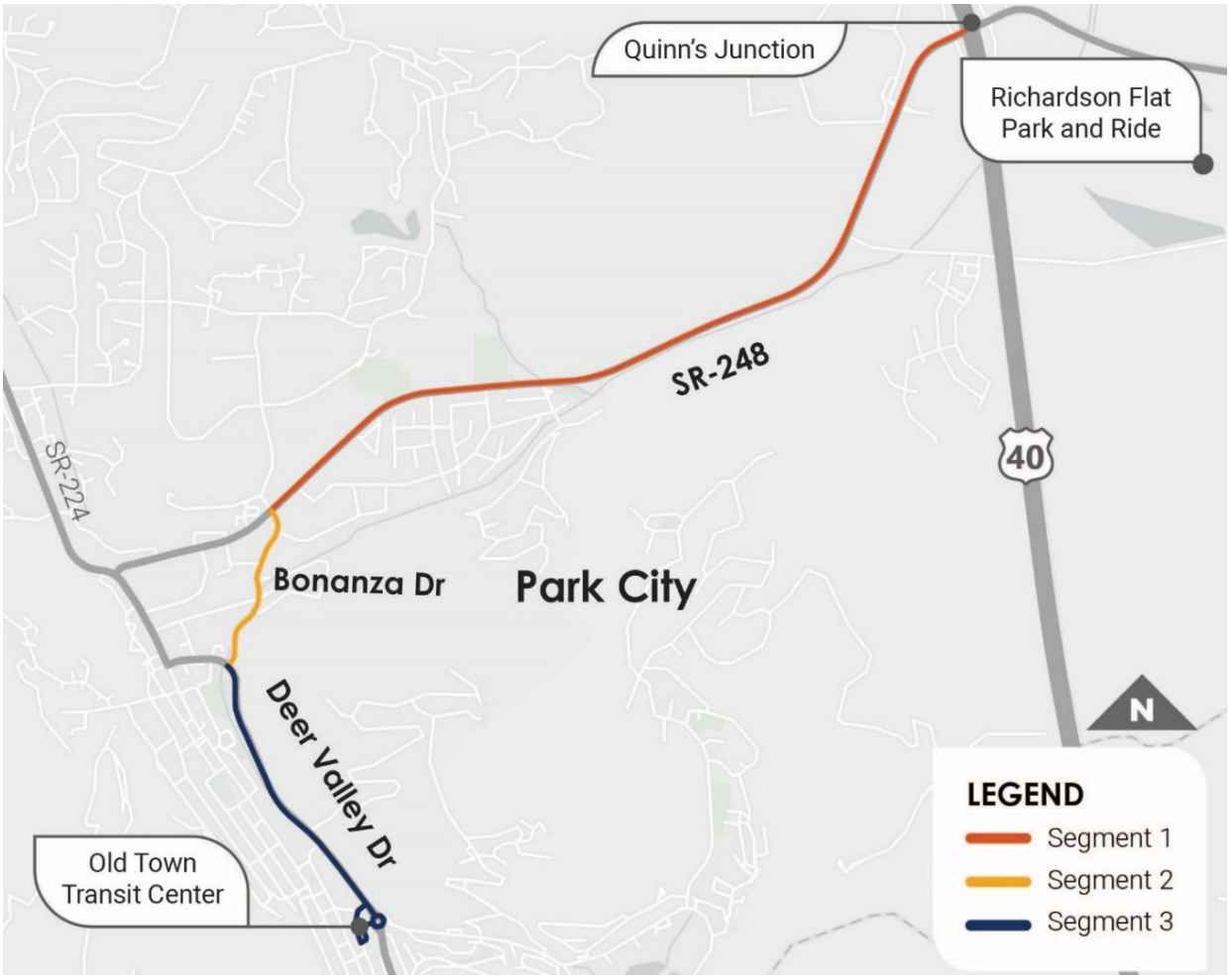
1.3 STUDY AREA

The study area for Re-create 248 is between Quinn's Junction (the interchange to access US-40) and the Richardson Flat Park and Ride on the east, along SR-248, then south along Bonanza Drive and Deer Valley Drive to the Old Town Transit Center (OTTC) (Figure 1).

- Segment 1 – SR-248 from Quinn's Junction to Bonanza Drive is state-owned.
- Segment 2 – Bonanza Drive from SR-248 to Deer Valley Drive is PCMC-owned.
- Segment 3 – Deer Valley Drive (also called SR-224) from Bonanza Drive to the OTTC is state-owned.

From Quinn's Junction to the OTTC is 4 miles long, and from Richardson Flat Park and Ride to the OTTC is 4.8 miles long. The study will also capture other transportation and land use investments in the area, including the SR-224 Bus Rapid Transit (BRT) project led by Summit County, which is currently in the design phase.

Figure 1. Re-create 248 Study Area



1.4 REPORT PURPOSE

The purpose of this report is to document the findings that support the definition of the project's Purpose and Need. The report builds upon and highlights the review of the existing and future conditions analysis and incorporates insight from Project Partners.

2 PURPOSE AND NEED DEVELOPMENT

A project's **purpose** defines the objectives to be achieved. A project's **need** describes the underlying problems or conditions the project should address.

If a major transit project seeks federal or state funding, a Purpose and Need statement is required under federal or state environmental regulations to be eligible to receive those funds. This report and the Purpose and Need statement will help guide decisions about alternatives that should be considered and will be used to measure the performance of the alternatives against these statements.

The Re-create 248 Purpose and Need statement was developed through a collaborative process and informed by an understanding of the study area context (documented in the Existing and Future Conditions Report) and ongoing Partner and agency coordination. The process for developing the project's Purpose and Need statement is shown below (Figure 2) and will be revisited during the future NEPA process.

Figure 2. Purpose and Need Development Process

3 PROJECT PURPOSE AND NEED

3.1 PROJECT NEEDS

3.1.1 Population and Employment Growth

3.1.1.1 Project Need: Local and regional population and job growth is substantial and will continue to increase travel demand on the corridor.

Summit and Wasatch Counties are projected to see high population and employment growth between now (2024) and 2050. **Summit County is expected to increase in population by 28% (from 44,003 to 56,361 people), while Wasatch County, which borders the study area to the east and generates many trips to the study area, is expected to see an increase of 80% in population (from 38,291 to 68,789 people) by 2050**. For reference, Utah will grow by 46% between 2024 and 2050 (from 3,148,000 people to 5,000,000 people). Employment is also projected to rapidly increase by nearly 22% in Summit County and by 33% in Wasatch County (Table 1).

Table 1. Current and Forecasted Numbers for Population, Household, and Employment

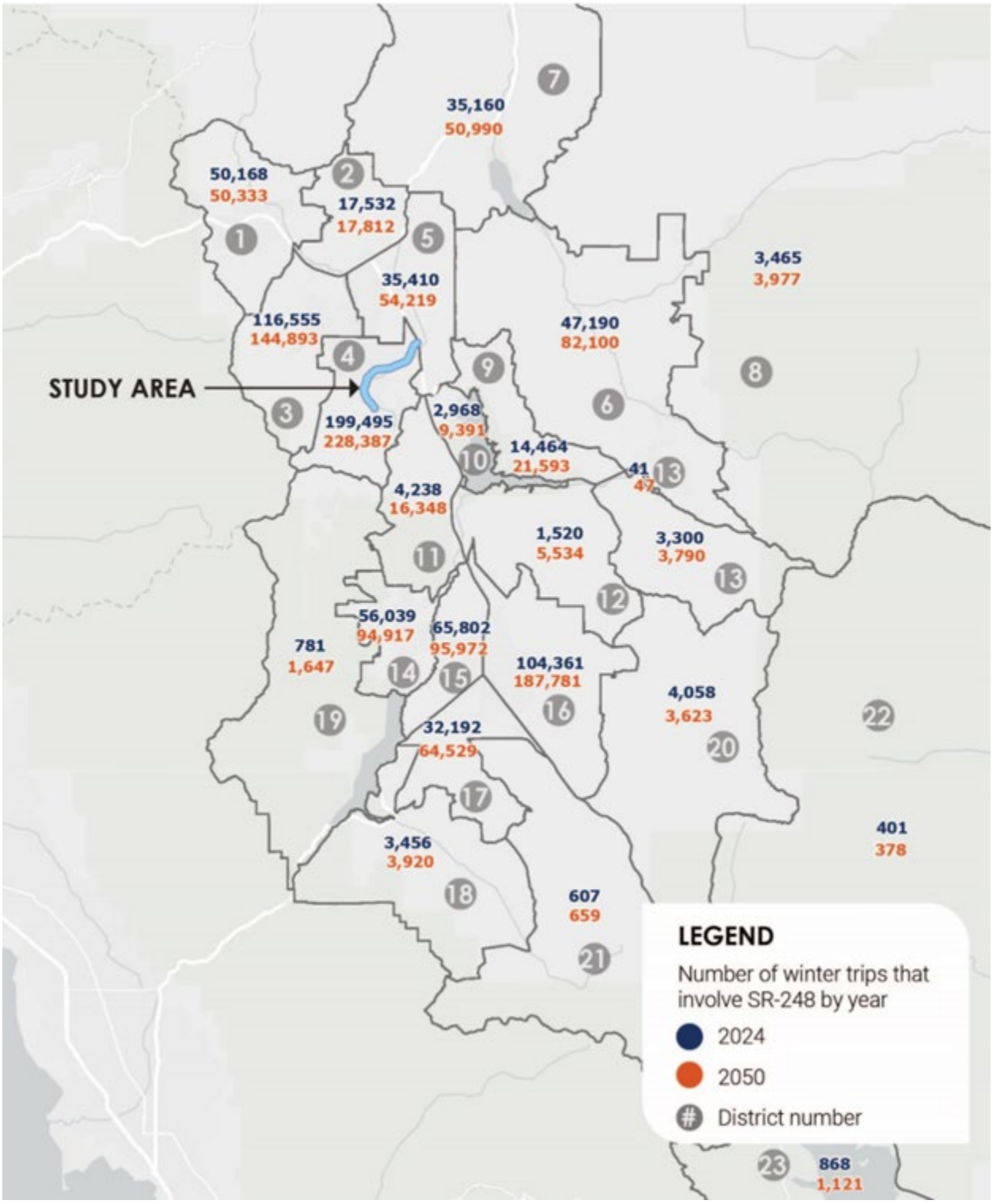
CATEGORY	2024	2050	PERCENT CHANGE
Study Area (TAZs within ½ mile buffer of the corridor)			
Population	6,981	7,973	14.21%
Household	3,592	4,696	30.73%
Employment	17,574	21,736	23.68%
Summit County			
Population	44,003	56,361	28.08%
Household	17,133	25,379	48.13%
Employment	41,466	50,567	21.95%
Wasatch County			
Population	38,291	68,789	80%
Household	12,777	26,861	110%
Employment	16,632	22,047	33%

Source: Summit-Wasatch Travel Demand Model v2.1 (Kem C. Gardner Policy Institute, May 2024)

Largely driven by this population and employment growth, trips utilizing the Re-create 248 study area corridor, originating in eastern Summit and Wasatch Counties, are projected to increase by **43% in 2050, from 800,000 trips annually in 2024 to 1,145,000 trips annually in 2050**

(Figure 3). Many of those new trips will originate from the Heber Valley in Wasatch County (districts 14-20 in Figure 3 below). This will be in addition to the majority of trips to Park City that come from regional and out-of-state visitors as well as short-term visitors from the Salt Lake Valley.

Figure 3. Number of Winter (Peak) Trips that Utilize SR-248 in 2024 and 2050

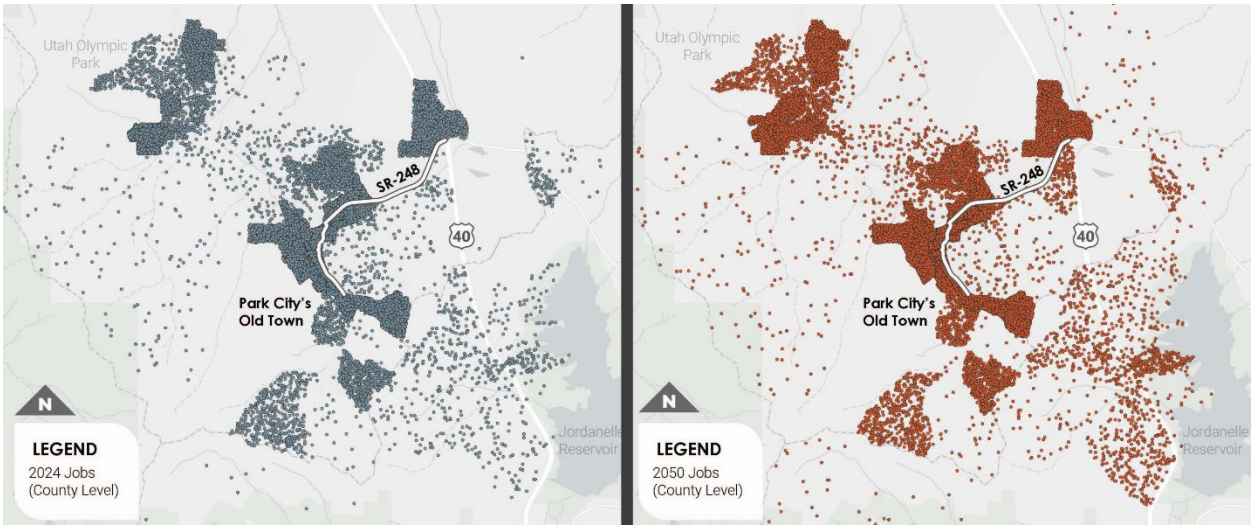


Source: Summit-Wasatch Travel Demand Model v2.1 (Kem C. Gardner Policy Institute, May 2024)

3.1.1.2 Project Need: Populations need access to key destinations on-corridor between Quinn's Junction and the OTTC for employment, education, and services.

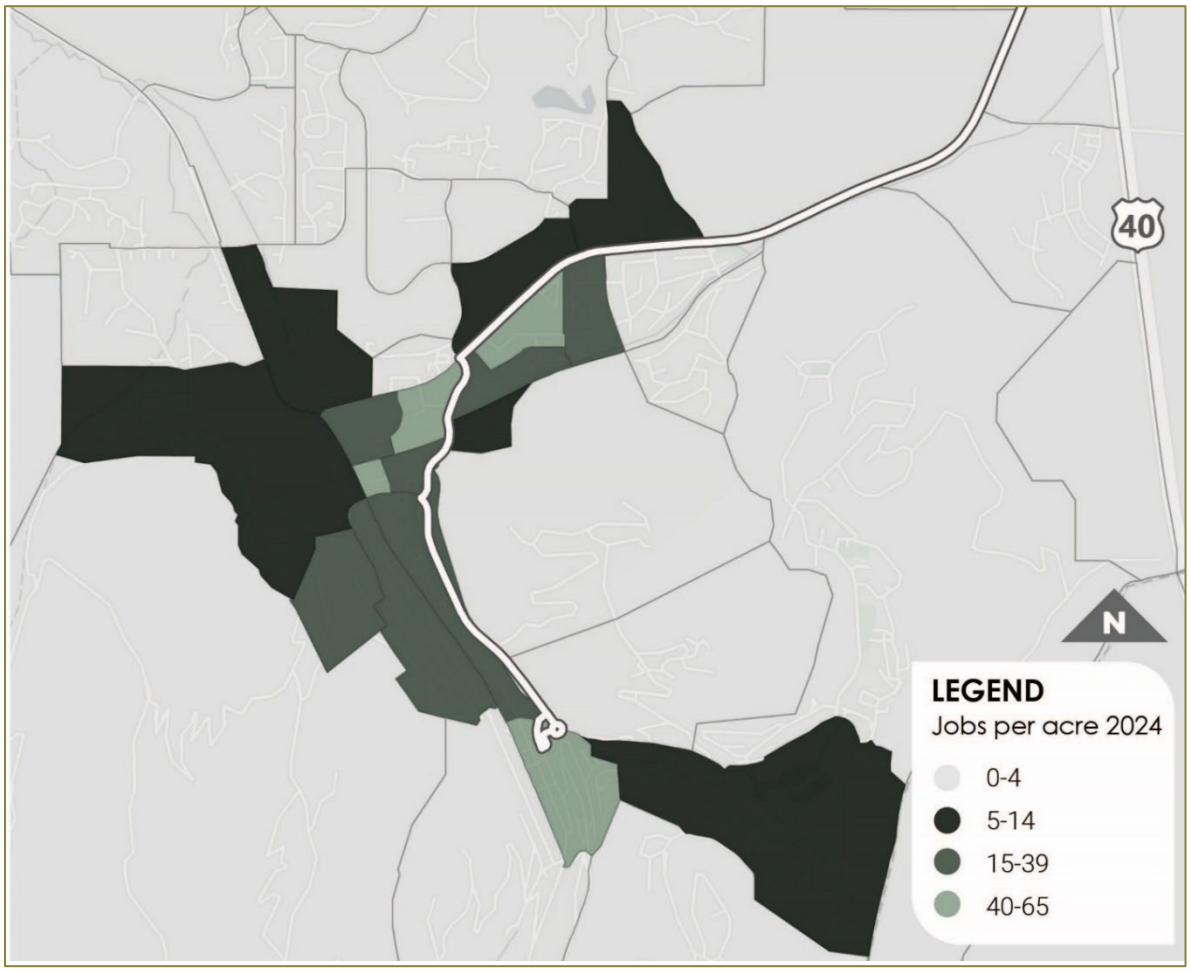
Many of Park City's large employment centers are located on SR-248, particularly on the western and eastern segments, and are most directly accessible via the SR-248 gateway corridor for travelers from eastern Summit County and Wasatch County (Figure 4). The census tracts immediately adjacent to the study area also have the highest concentration of jobs in Park City with upwards of 65 jobs per acre, falling to 0-4 jobs per acre outside the study area (Figure 5).

Figure 4. Job Density as a One-to-one Dot-per-job Comparison for 2024 and 2050



Source: Summit-Wasatch Travel Demand Model v2.1 (Kem C. Gardner Policy Institute, May 2024)

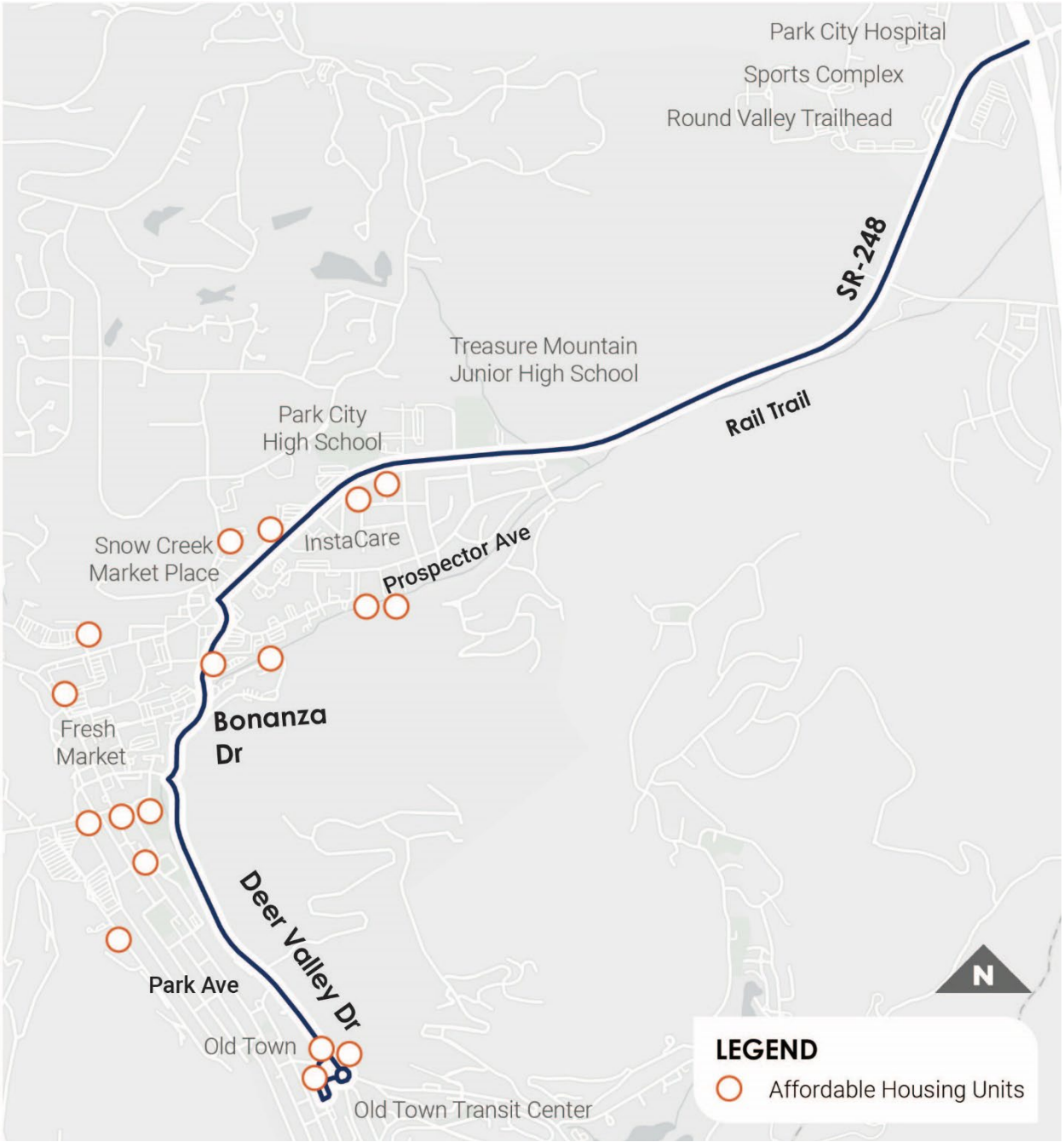
Figure 5. Job Density in the Study Area



Source: Summit-Wasatch Travel Demand Model v2.1 (Kem C. Gardner Policy Institute, May 2024)

Additionally, many of Park City's affordable housing units (Figure 6) are on or near the study area. Populations living in those units need reliable access along the corridor.

Figure 6. Affordable Housing Units on or Near the Study Corridor

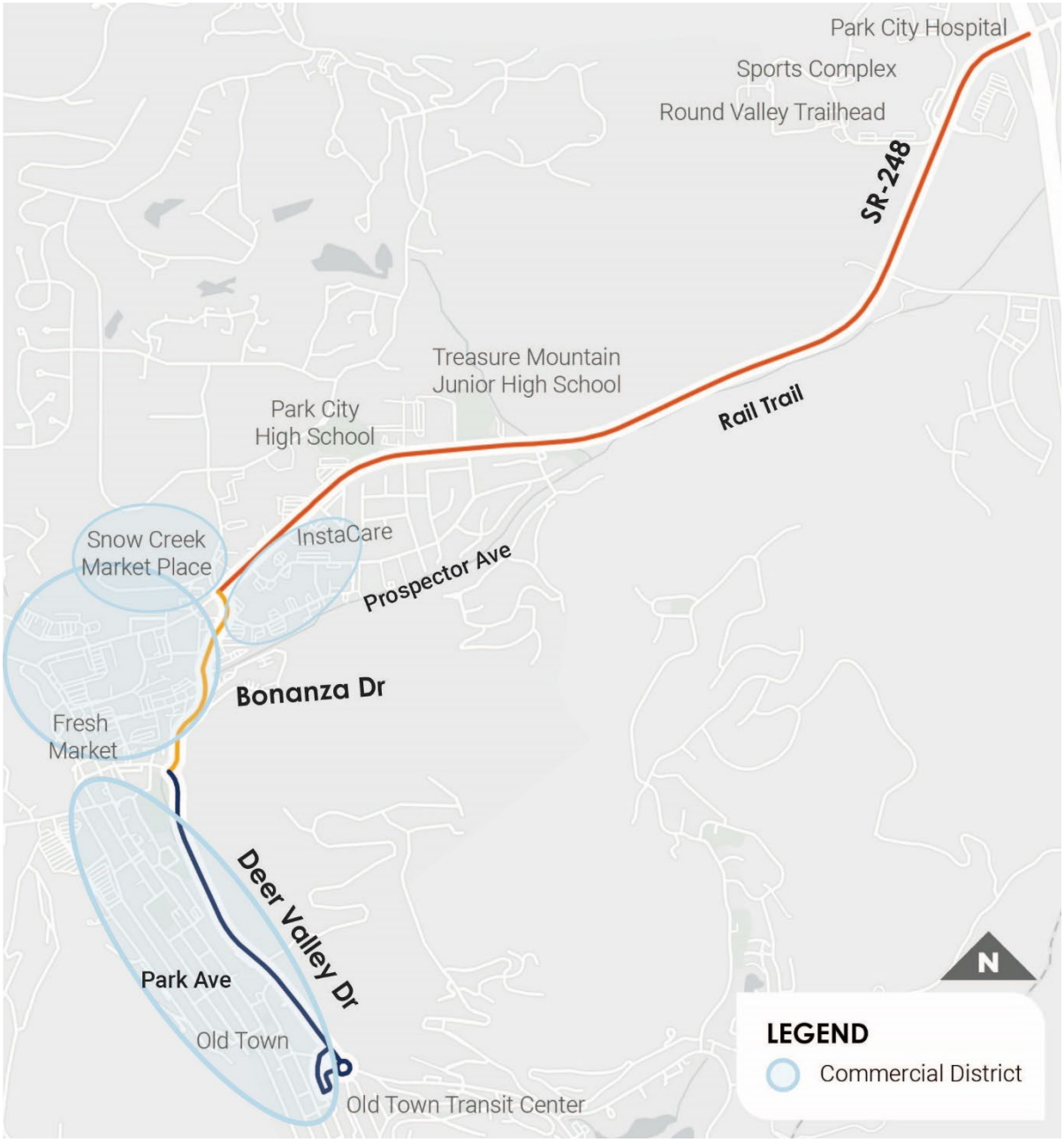


Source: Park City Short Range Transit Plan (Fehr & Peers, 2023)

Major commercial areas and top destinations are also located along the corridor (Figure 7). The Park City Hospital is located on the far eastern edge of the study area, opposite the clusters of affordable housing units and other commercial centers. Reliable access along the corridor is

important for populations to access employment opportunities and key destinations on either edge of the study area.

Figure 7. Commercial Districts and Top Destinations in the Study Area



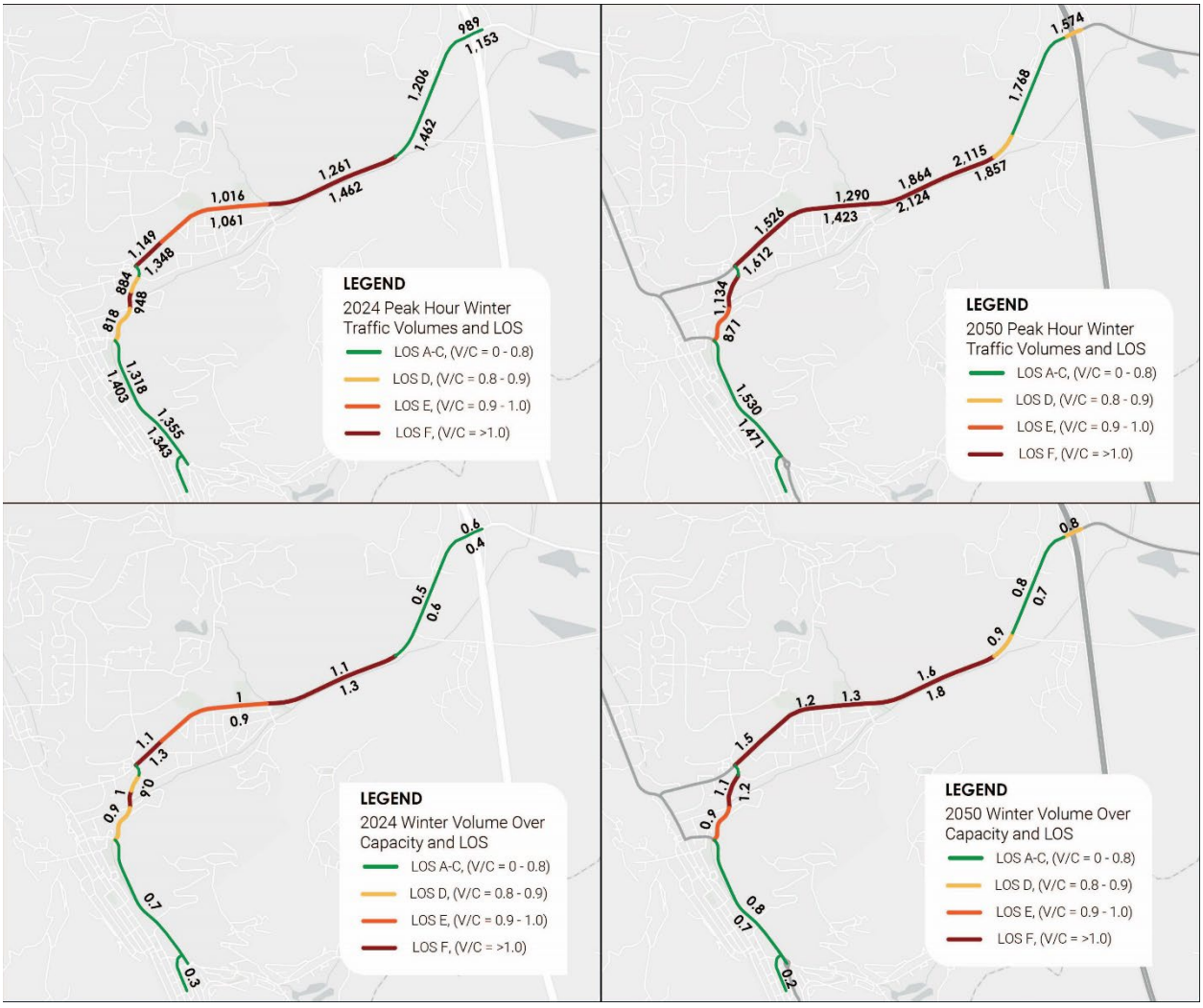
Source: Park City Aerial Imagery, Land Use and Key Destinations Assessment (PCMC, 2024)

3.1.2 Corridor Congestion and Transit Options

3.1.2.1 Project Need: Current (2024) transit travel times are often unreliable due to existing corridor congestion, which is exacerbated during peak times and will be a condition that continues into the future (2050).

Traffic delay and congestion are measured by volumes and Level of Service (LOS). LOS is a rating system that assigns letters A through F to different road conditions, with F being the worst, and is one tool for measuring performance and predicting future operational capacities. Today (2024), portions of SR-248 and Bonanza Drive are operating at LOS D, E, and F in the winter. Most of SR-248 from Bonanza Drive to Richardson Flat Drive **is projected to operate at LOS F in both directions** during peak winter times in 2050 (Figure 8).

Figure 8. Winter Season (Peak) Traffic Volumes and LOS, Respectively, for 2024 and 2050



Source: Summit-Wasatch Travel Demand Model v2.1 (Kem C. Gardner Policy Institute, May 2024)

With PCMC continuing to be a world-class destination today and into the future, unpredictable seasonal traffic patterns and seasonal variations in travel times on the corridor are common issues. PCMC has identified 71 peak days between November 2024 and March 2025 when these conditions will be exacerbated based on major winter events like the Sundance Film Festival and FIS World Cup and peak ski travel days.

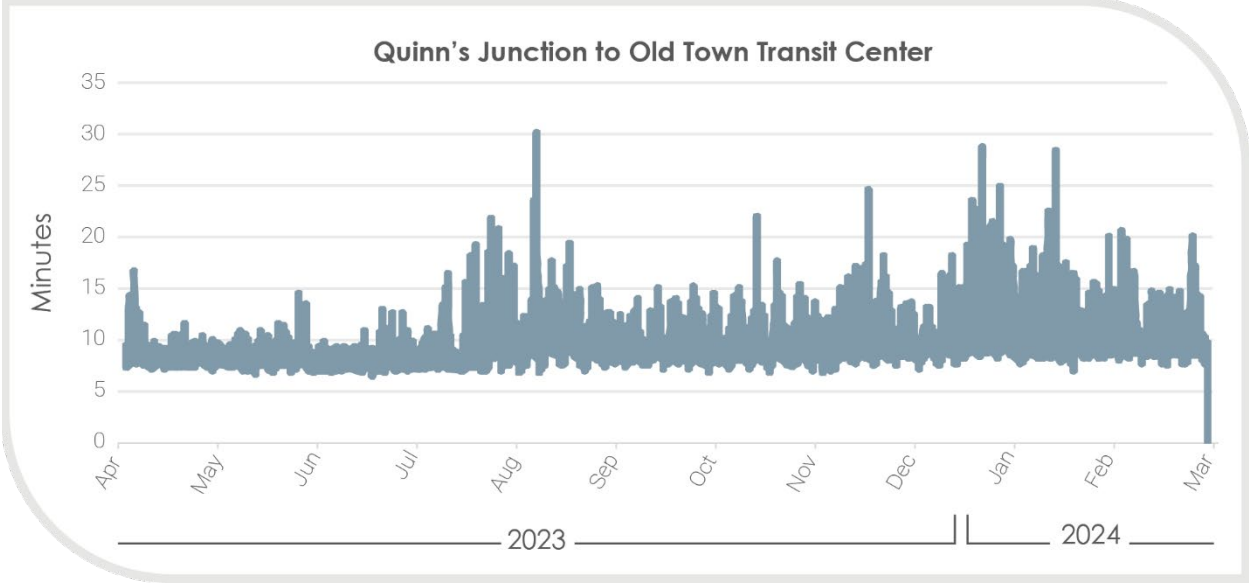
On non-peak days, average travel times from the OTTC to Quinn's Junction range from approximately 8 minutes in the summer to approximately 10 minutes in the winter (Table 2)Table 2. Average Travel Time in Minutes During PM Peak.

Table 2. Average Travel Time in Minutes During PM Peak

TIMEFRAME	OTTC TO QUINN'S JUNCTION AVERAGE TRAVEL TIME (MINUTES)		
	Year	Winter	Summer
7 a.m. to 7 p.m.	8.8	10.3	8.2

However, travelers, including visitors, residents, and the commuting workforce, experience substantial travel delays on peak days along SR-248, **sometimes exceeding 32 minutes** one way, from Quinn's Junction inbound to the OTTC (Figure 9). Travel times from OTTC to Quinn's Junction follow a similar pattern with additional travel delays in the winter months also exceeding 32 minutes.

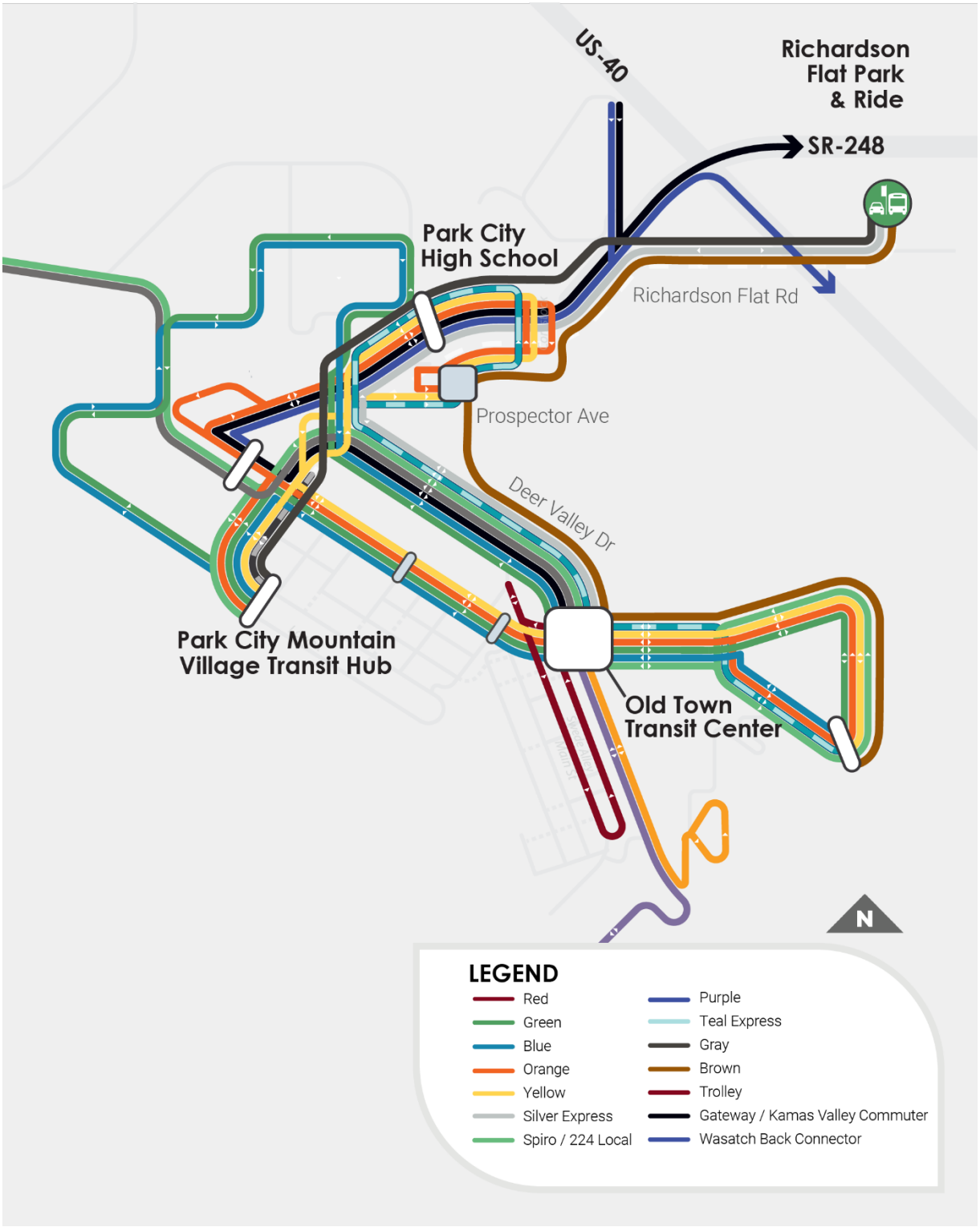
Figure 9. Average Travel Times from Old Town Transit Center to Quinn's Junction



Source: ClearGuide Maps (Iteris, 2024)

Up to eight bus routes utilize SR-248, Bonanza Drive, and Deer Valley Drive each day from both the High Valley Transit (HVT) system and the Park City Transit (PCT) system (Figure 10).

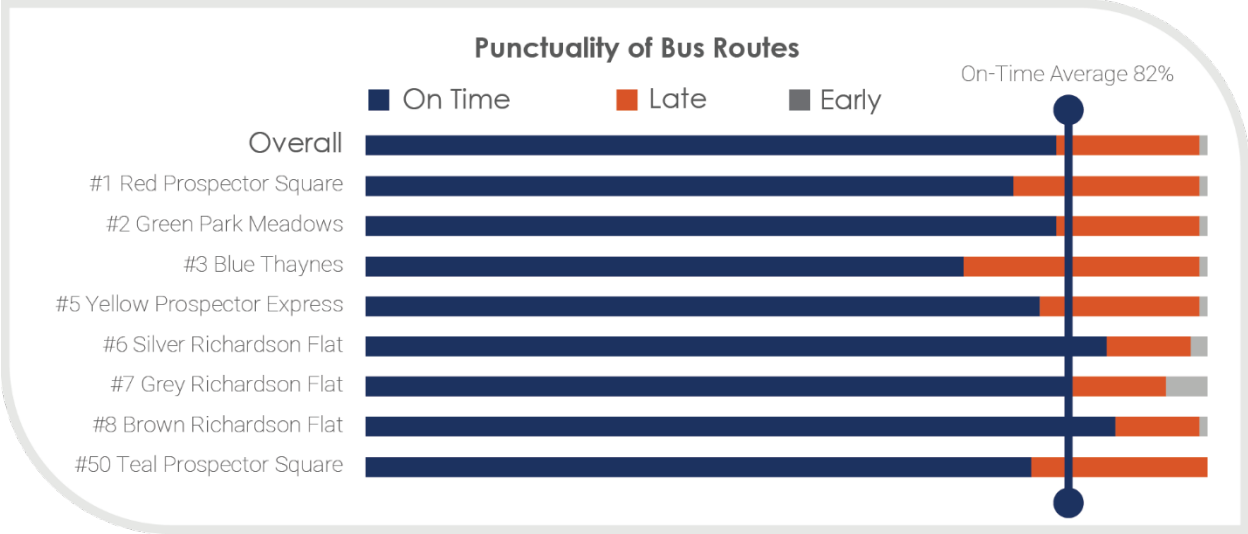
Figure 10. Park City Transit and High Valley Transit 2024 Routes



Source: Park City Transit (PCMC, n.d.)

Systemwide transit performance varies depending on the season, and corridor congestion exacerbates the reliability of service. A new bus service on SR-248 was activated in the winter season in 2022 and 2023 with Silver (Route 6), Grey (Route 7), and Brown (Route 8) bus routes. Data is still new, but the service has experienced unreliability in travel times and on-time performance (Figure 11).

Figure 11. Park City Transit 2023 On-Time Performance Analysis



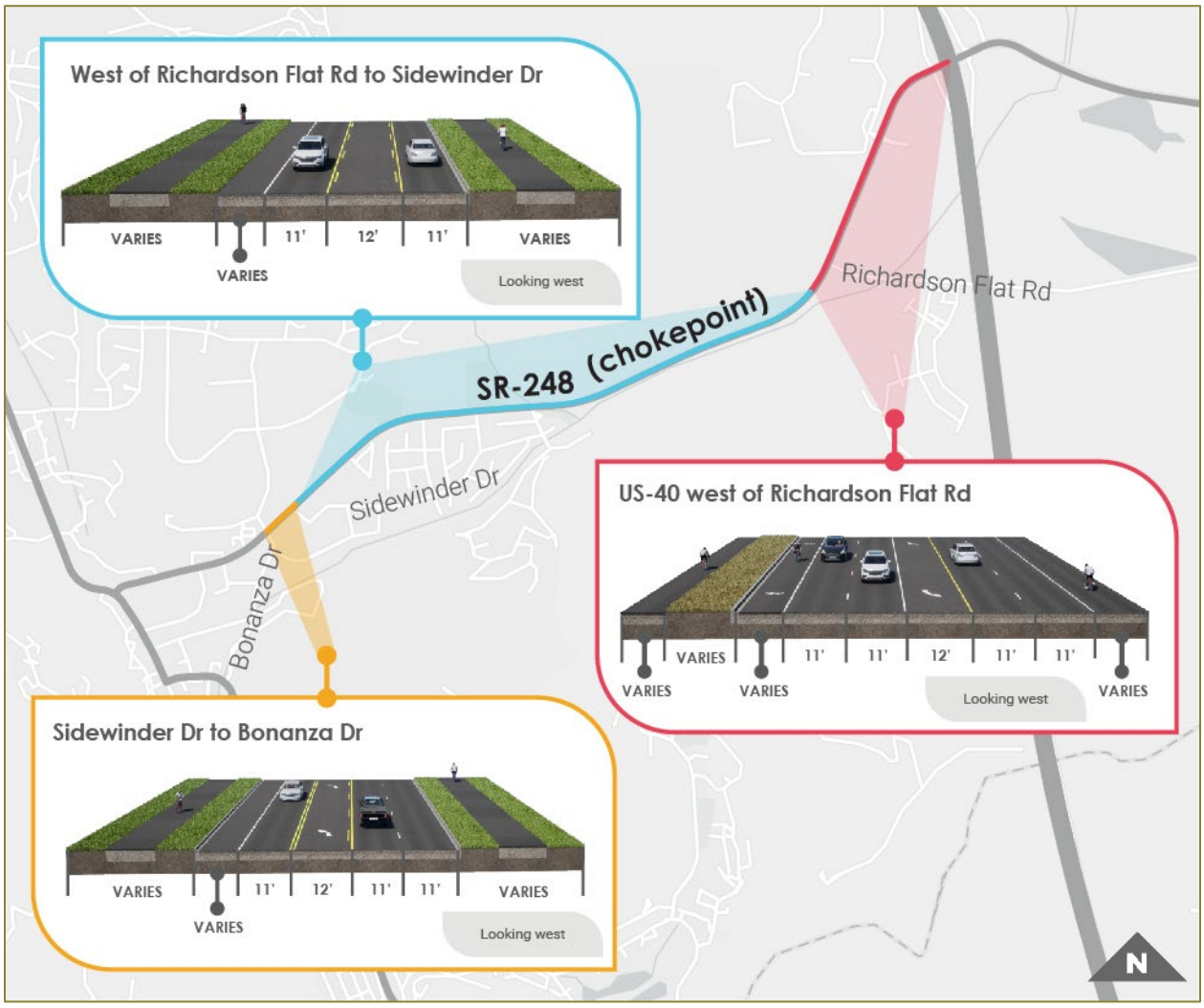
Source: Annual Transit Performance Statistics (PCMC, 2023)

3.1.2.2 Project Need: Shoulder-running buses transitioning into mixed-flow traffic limits the ability to provide contiguous transit service and decreases transit reliability.

Roadway Cross-section Constraints

HVT transit serving the region with commuter routes and PCT buses serving the Richardson Flat Park and Ride near Quinn's Junction, can operate in the existing 12-foot roadway shoulders during peak times on the eastern segment of the corridor, bypassing stopped traffic; however, as those shoulders end, the requirement to merge into mixed-flow traffic west of Richardson Flat Road **requires the transit vehicles to continue operating in congested conditions, which can lead to unreliability and schedule delays.** (Figure 12).

Figure 12. Varied Transit Cross-section Exacerbates Transit Service Reliability



Geographic Constraints

Additionally, the expansion of transportation facilities within the study area through added capacity will be constrained by steep topography, wetlands, and protected open space.

According to the Federal Emergency Management Agency (FEMA) maps, the study area overlies the 100-year floodplain that is associated with Silver Creek. As a tributary to the Weber River, Silver Creek is considered a jurisdictional Water of the United States (WOTUS), protected under the Clean Water Act. Wetlands are most likely found along SR-248 but may also exist near Bonanza Drive and Deer Valley Drive.

3.1.3 System Resiliency and Access to Transportation

3.1.3.1 Project Need: Populations living on and near the corridor and commuting into the area for work, need reliable transit service.

Six block groups within a ¼ mile of the on-corridor alignments have youth populations (under 18 years old) of around 20% of the total block group population. Two are at 21%, one at 20%, two at 19%, and one at 17%.

Three block groups within a ¼ mile of the rail trail/off-corridor alignments also have youth populations (under 18 years old) around 20% of the total population. One is at 21%, one is at 20%, and one is at 19%.

Summit County has a higher overall youth population at 24%. However, McPolin Elementary School, Treasure Mountain Junior High School, and Park City High School are located along the SR-248 corridor within the study area.

Table 3. Youth Population in the Study Area

LOCATION	TOTAL POPULATION[1]	UNDER 18	PERCENT UNDER 18
County			
Summit County	42,708	10151	24%
Census Tracts 9643.08			
Block Group 1	823	139	17%
Block Group 2	1780	337	19%
Census Tract 9644.02			
Block Group 2	1226	234	19%
Block Group 3	569	120	21%
Block Group 4	2037	416	20%
Census Tract 9644.02			
Block Group 1	1624	342	21%

[1]*U.S. Census American Community Survey 5-year Estimates, 2019-2023*

The on-corridor alignment provides ¼-mile access to five census tract block groups that have no-vehicle households. For one of these block groups, 6% of households are no-vehicle households, two block groups contain 5% no-vehicle households, one block group contains 3%, and one contains 2%.

The rail trail/off-corridor alignments provide ¼-mile access to three census tract block groups that have no-vehicle households. For one of these block groups, 6% of households are no-vehicle households, and two block groups contain 5% no-vehicle households.

In Summit County, 2% of households are no-vehicle households.

LOCATION	TOTAL HOUSEHOLDS	NO-VEHICLE HOUSEHOLDS	PERCENT NO-VEHICLE HOUSEHOLDS
County			
Summit County	14,477	291	2%
Census Tracts 9643.08			
Block Group 1	225	7	3%
Block Group 2	354	22	6%
Block Group 3	671	15	2%
Census Tract 9644.02			
Block Group 2	407	19	5%
Block Group 4	588	28	5%

[1]*U.S. Census American Community Survey 5-year Estimates, 2019-2023*

The 2022 American Community Survey (ACS) data indicates that approximately 5.2% of residents living in Summit County are considered to be living under the national poverty threshold. This is below the state average of 8.5% and the national average of 12.5%, according to the US Census (2020) (Table 4). Census Tract 9643.08 in the study area has a higher percentage of residents living below the poverty threshold than the Summit County average. It should be noted that income information was only available for the study area at the census tract level.

Table 4. Residents Living Under the National Poverty Threshold in the Study Area

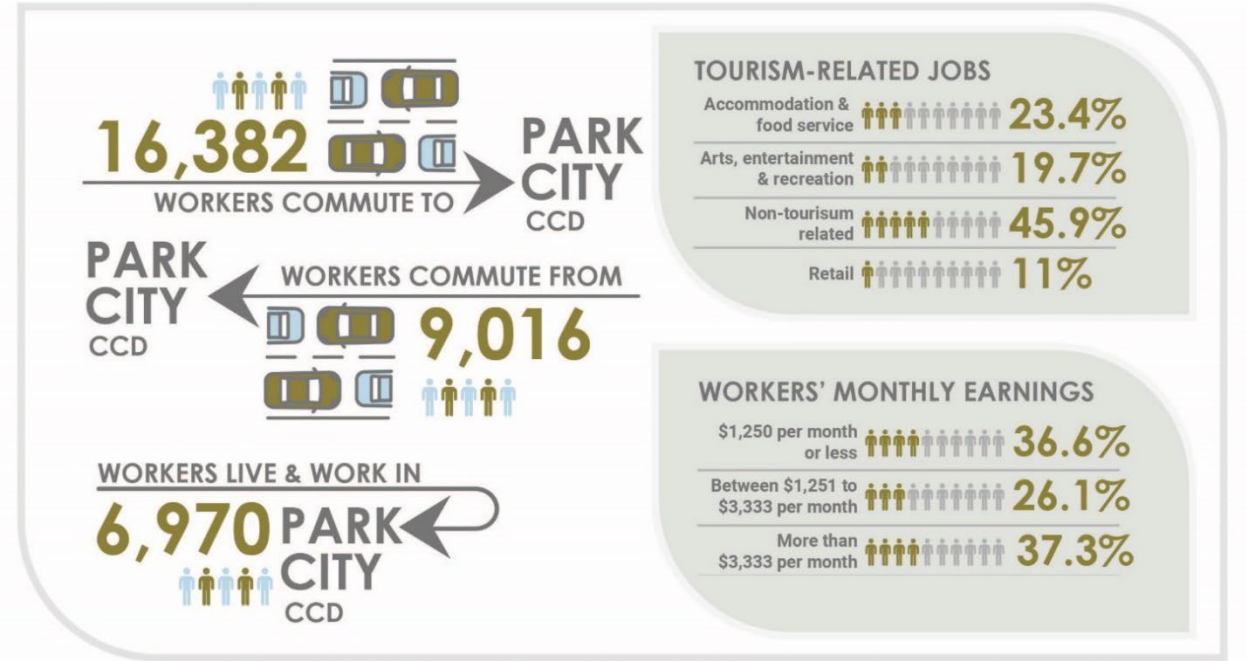
LOCATION	TOTAL POPULATION[1]	PERCENT BELOW POVERTY
County		
Summit County	42,362	5.2%
Census Tracts		
9643.08	3,294	9.4%
9644.02	1,695	3.4%

[1]*Population over 16 years old*

Park City Worker and Commuter Data

Over 16,000 people commute to Park City for work each day (Figure 13) and 54% of the jobs in the area fall under categories associated with tourism and hospitality, which are often associated with low pay and/or part-time work. According to the US Census (2020), 36.6% of commuting workers make $1,250 or less each month, **which is the current federal poverty rate.**

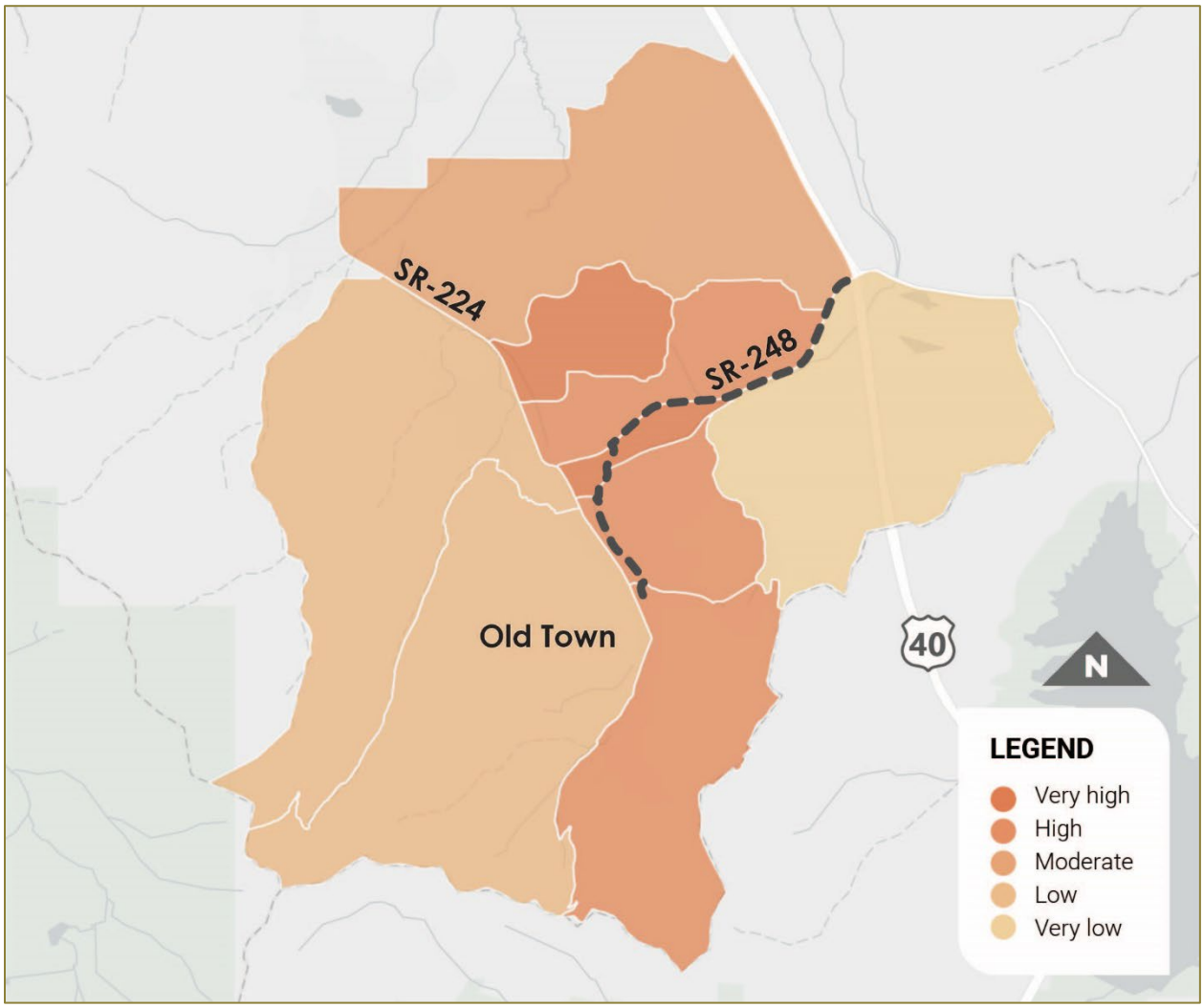
Figure 13. Travel Patterns to and From Park City, Monthly Earning in Park City from 2022



Source: OnTheMap, and LEHD Origin-Destination Employment Statistics (U.S. Census Bureau, 2024)

The Park City Short Range Transit Plan (SRTP) developed a transit dependency index (TDI) to determine various populations with a higher need for transit service. The index utilizes population density, no-car households, poverty level, older adults, and youth populations paired with population density to determine the TDI value for each census block group (Figure 14). The census block group along SR-248 in the Very High category is a key consideration for transit access strategies and is likely to generate higher ridership than other census block groups based on the demographic indicators above.

Figure 14. Transit Dependency Index



Source: Park City Short Range Transit Plan (Fehr & Peers, 2023)

3.1.4 Local and Regional Plans

3.1.4.1 Project need: Local and regional plans indicate a need for multimodal corridor solutions to support efforts that promote satellite parking strategies that are well-served by a high-frequency transit backbone network.

Existing annual ridership and park and ride utilization data for the Richardson Flat Park and Ride (Table 5) **indicate a high demand for transit service along the corridor**.

The Richardson Flat Park and Ride has the third highest number of boardings and alightings (people exiting the bus) of the 16 existing bus stops serving the corridor (Table 5).

Table 5. Transit Ridership from Old Town Transit Center to Richardson Flat Park and Ride between January 1, 2023, and October 9, 2024

NAME	BOARDINGS	ALIGHTINGS
Old Town Transit Center	447,743	525,454
Ironhorse Inbound	23,664	7,406
Ironhorse Outbound	7,039	23,627
Munchkin Rd	9,151	4,915
Park City Plaza	386	934
Homestake*	4,529	5,794
Park City Cemetery*	980	841
Kimball Arts Center*	1,225	2,641
Kearns and Bonanza*	751	7,800
Parkside Apartments	25,907	7,975
Park City High School Inbound	96,611	34,475
Park City High School Outbound	5,189	58,419
Learning Center	14,755	3,625
Treasure Mountain	352	9,608
Park City Heights	6,140	6,585
Richardson Flat Park and Ride	52,687	51,745
*On SR-248 between Bonanza Dr and SR-224, not within the study area portion of the corridor, but approximate to it and considered within walking distance.		

PCMC has also adopted and advanced several plans and strategies focused on travel demand management to reduce parking demand in the city and increase satellite parking lots served by high-frequency transit, including:

- **Regional Park and Ride Feasibility Study 2024:** Once complete, additional satellite parking lots will be recommended in the eastern portion of SR-248 to incentivize transit use for accessing Park City.

- **Emerging Disruptors: Future of Transportation 2024 Study:** Supports satellite parking lots and high-capacity/high-frequency transit on SR-248.
- **Park City Forward 2022:** PCMC's transportation master plan, recommends high-capacity/high-frequency transit on SR-248 as a phase 1 priority project.

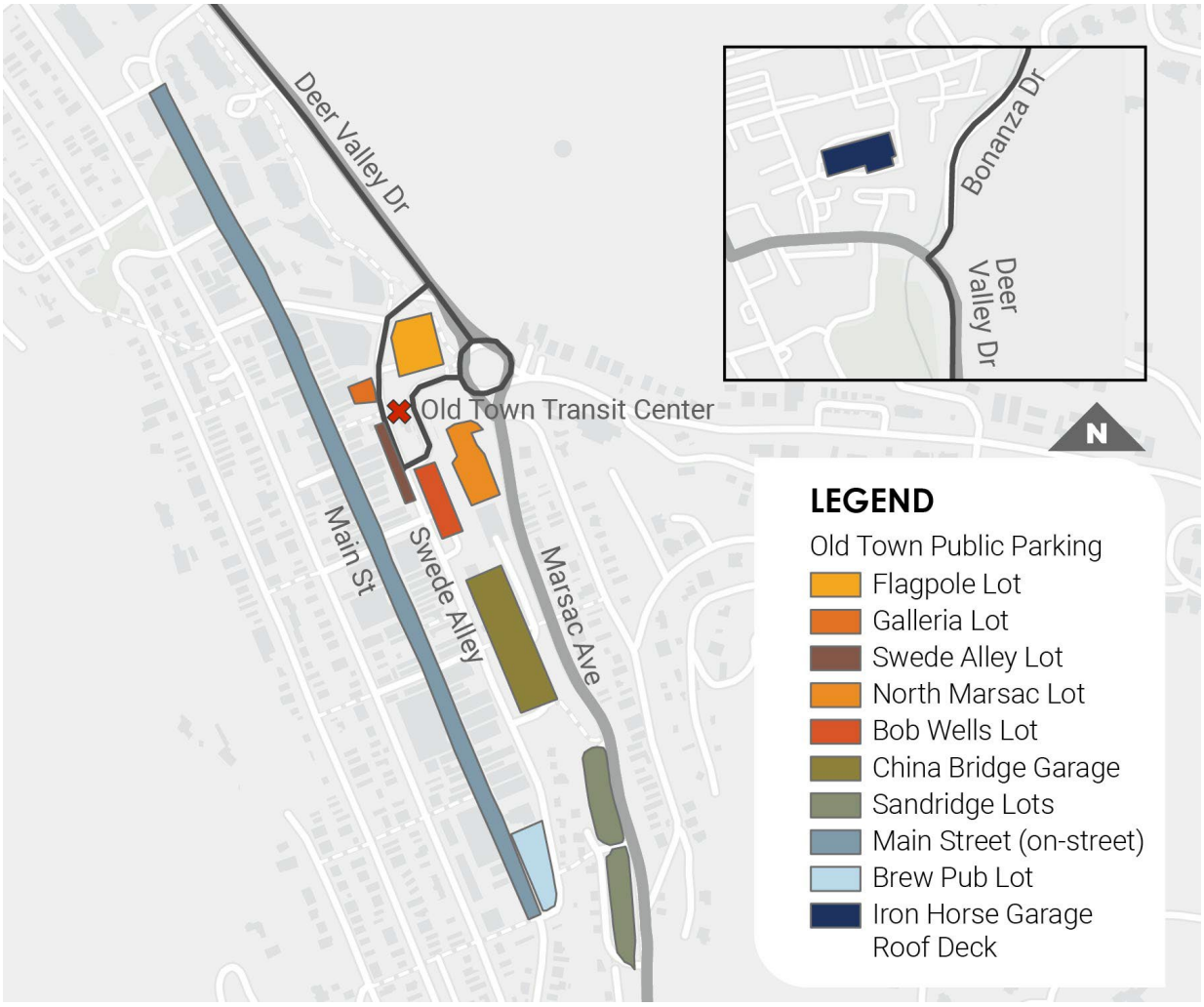
3.1.4.2 Project Need: Parking is limited in town and highly utilized; additional travel modes are needed to access Park City.

Existing public parking in Park City is constrained and utilized at a high rate by visitors. PCMC has been proactively managing parking demand and capacity in town through several strategies and is working with major developments that are high trip generators through partnerships and policies to incentivize the number of Single Occupancy Vehicles (SOV) accessing the core of town.

In-Town Parking Lot Utilization

There are nine separate locations available for public parking (Figure 15).

Figure 15. Available Parking in OTTC



Source: Summit County Regional park & Ride Needs Assessment + Policy Analysis (Park City Municipal Corporation, 2024)

The total inventory of available public parking spaces in town is 1,181 (Table 6). On December 30, 2023, Park City recorded AM and PM occupancy rates of these parking spaces for the Regional Park and Ride Feasibility Study 2024. In the afternoon, 86% of available parking was being utilized. This day was during the peak winter season and the demand for parking was close to maximum capacity in these lots. These lots are primarily proximate to Park City's Old Town and cannot capture the demand for the area.

Table 6. Peak Ski Season Parking Utilization (12/30/2023)

LOT/GARAGE	INVENTORY	10 A.M.		4 P.M.	
		Occupancy	Utilization	Occupancy	Utilization
China Bridge Garage	600	224	37%	586	98%

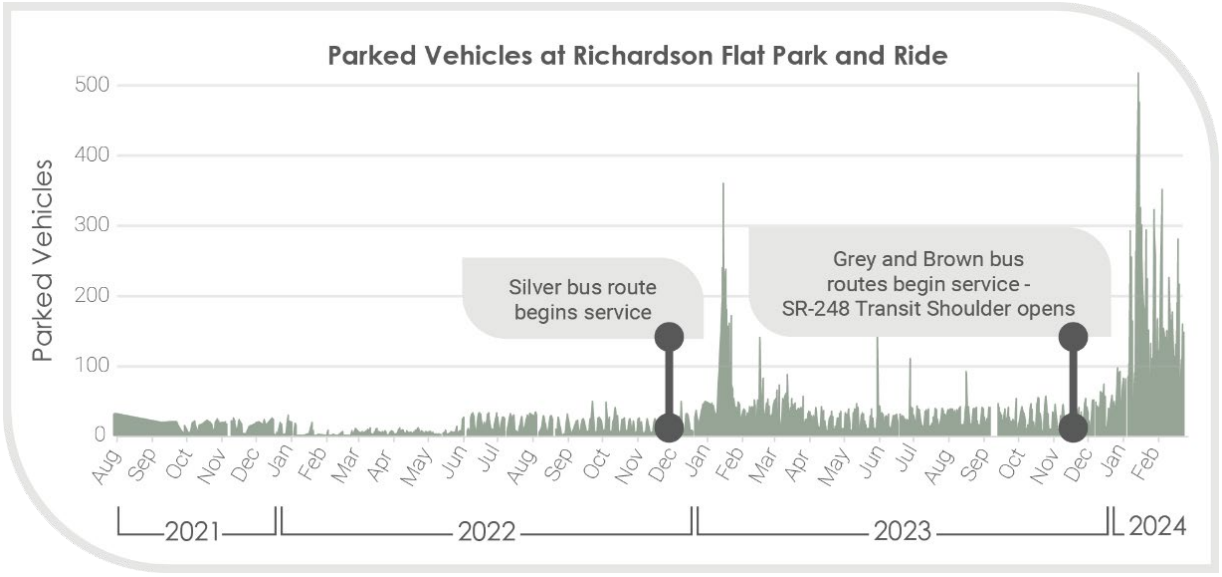
LOT/GARAGE	INVENTORY	10 A.M.		4 P.M.	
		Occupancy	Utilization	Occupancy	Utilization
Iron Horse Garage Roof Deck (just outside of Old Town)	84	40	48%	43	51%
Main Street (on-street)	175	151	86%	172	98%
Bob Wells Lot	32	26	81%	32	100%
Sandridge Lots	96	75	78%	25	26%
Brewpub Lot	49	23	47%	49	100%
North Marsac Lot	57	5	9%	21	37%
Flagpole Lot	59	44	75%	58	98%
Galleria Lot	8	8	100%	8	100%
Swede Alley Lot	21	20	95%	21	100%
TOTALS	1,181	616	52%	1,015	86%

Source: Summit County Regional Park & Ride Needs Assessment + Policy Analysis (PCMC, 2024b)

Advancing Satellite Parking Strategies

PCMC, in partnership with Summit County, has also continued to advance parking strategies encouraging those traveling from the region to park once and take transit into town. Most recently, PCT has activated the 742-stall Richardson Flat Park and Ride lot, a facility that sat unused in previous years and that is now served by frequent transit during events and the peak winter ski season. Additional transit service with the Silver, Grey, and Brown bus routes increased lot utilization to about 70% utilization in 2024, demonstrating the demand for transit on this corridor (Figure 16).

Figure 16. Richardson Flat Park and Ride Utilization



Source: Park City Transit (PCMC, n.d.)

3.2 PROJECT PURPOSE

Based on the identification of needs in the study area and the iterative process described in Figure 2. The following purpose statements describe the objectives of this project. The Project Purpose is to:

- ✓ Support the transportation demands of population, employment growth, and economic resiliency in the region.
- ✓ Increase the reliability, accessibility, and overall resiliency of travel on the corridor by improving transit travel times between Quinn's Junction and the OTTC.
- ✓ Enhance the quality of life in the region by improving access to opportunities between existing and planned employment, housing, and key destination centers on the corridor, especially during peak periods.
- ✓ Support local and regional plans and policies that address transportation demand management, and avoid excessive road widening.
- ✓ Enhance mobility along the corridor through transportation choices.

4 CONCLUSION

The next steps will be to utilize the existing and future conditions data and the Purpose and Need statement, to develop measures of effectiveness (MOE). The MOEs will be utilized for the next phase of the study, to develop a range of alternatives and conduct a fatal flaws screening to determine what alternatives meet the Purpose and Need and are reasonable and feasible to advance into Level 1 screening.

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