Seattle Public Utilities

MEMORANDUM

To: Councilmember Joy Hollingsworth, Parks and Public Utilities Committee Chair
Councilmember Sara Nelson, Vice Chair
Councilmember Dan Strauss
Councilmember Robert Kettle
Councilmember Maritza Rivera

From: Andrew Lee, Seattle Public Utilities General Manager/CEO

Date: April 23, 2025

Subject: Response to Statement of Legislative Intent SPU-801S-A (Waste Removal in the CID)

Executive Summary

Seattle Public Utilities (SPU) initiated its Clear Alleys Program (CAP) in 2009 to support business district neighborhoods with older building stock that lack internal solid waste storage areas, causing customers to store dumpsters in alleys behind their buildings. These dumpsters concealed illegal activities, including illegal dumping, causing debris scatter and health and safety issues in the community. The CAP Program was designed to replace the dumpsters with frequent garbage, recycle bag collection and flattened cardboard collection service.

In December 2023, the City Council adopted a Statement of Legislative Intent (SLI) requesting SPU review the CAP for its effectiveness, customer satisfaction and evaluate alternative methods of delivering solid waste services in the Chinatown International District (CID).

Various means, including analysis of customer surveys, SPU subscription data, and other service delivery option data indicate the CAP is meeting its objectives of providing an alternative to dumpsters stored in alleys, creating cleaner, safer business districts, reclaiming public space in the alleyways by shrinking the solid waste footprint, and improving alley access for deliveries and community activity.

Among other things, the evaluation found:

- The high-frequency bag collection is an effective way to keep alleys clean throughout the week.
- Multifamily and commercial solid waste CAP subscriptions have increased over the past several years, with an attendant increase in bag purchases and equivalent solid waste volumes.
- Some respondents to a BIA survey express concern that the bags are expensive, but they are similarly priced to carts and dumpster services.
- The CID spends less on solid waste services overall, including on CAP bags, than other neighborhoods.
- The biggest CAP challenges are customers' correct use of the services, illegal dumping, and the ongoing presence of nearby encampments and the unhoused in the alleys.
- Clean City CID cleanup services, including illegal dumping abatement, declined in 2023.

The SLI requests Seattle Public Utilities (SPU):

- Evaluate the effectiveness of, and customer satisfaction with, the Clear Alleys Program in the Chinatown-International District.
- Propose short-term recommendations to the Council for program improvements and increasing cleanliness in the CID.
- Study longer-term alternative waste removal solutions for the CID.
- The pre-paid bag fee amounts and how, for typical customers, they compare to solid waste charges for other customer types and programs.
- The impact of these fees on low-income residential customers and the extent to which those customers are using alternative disposal options.
- The boundaries of the Clean Alleys Program area and whether they should be extended to include nearby neighborhoods, such as Little Saigon.

SPU has worked with internal and external partners to gather data and feedback on the Clear Alleys Program to analyze and assess the program's operations, its impacts, and potential alternative solutions.

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Section 1. Clear Alleys Program Background

The Clear Alleys Program (CAP) Director's Rule, Temporary Container and Bag Placement and Removal at Curbs and Public Alleys SW-406, was promulgated in 2009 and was intended to support business district neighborhoods that have older building stock that do not have internal solid waste storage areas. Without internal solid waste storage areas, these older buildings had to permanently store their solid waste dumpsters in the right of way alleys behind their buildings. These dumpsters hid many illegal activities, causing health and safety issues in the community. The CAP solid waste service was designed to replace the dumpsters with frequent garbage, recycle bag collection and flattened cardboard collection service. The system was also designed to be a reasonable cost alternative service.

By removing dumpsters from the alleys, the CAP was intended to:

- Create cleaner, safer business districts.
- Reduce the possibility of uncivil behaviors and illegal activities in alleys by removing dumpsters where this activity could be done without being seen.
- Reclaim public space in the alleyways by shrinking the solid waste footprint.
- Increase the attractiveness of the alley for public activities and pedestrian use.
- Allow better alley access for business services (e.g., deliveries) and expansion of commercial and community activity (e.g., seating, art, events, etc.).

The CAP option was introduced through the Business Improvement Areas (BIAs) organizations. BIA members vote on implementing the CAP. Once approved, SPU's Solid Waste helps implement the CAP services where needed in partnership with the contracted solid waste haulers, WM and Recology. The following business districts have voted to be a CAP area since 2009: the Downtown Core (including Belltown and the Denny Triangle), Pioneer Square, Columbia City, and the Chinatown International District (CID). Mayor Murray assigned the CAP to the Pike Pine Corridor Business District in 2017 due to long standing dumpster related health and safety issues.

CAP areas include both Commercial (COM) and Multifamily (MF) buildings. For a full description of Clear Alleys Program design, a CAP services summary and CID BIA's interest in CAP, see Appendix 1.

Section 2. CAP Effectiveness and Satisfaction

CAP Program Effectiveness

1. Do CAP solid waste services work to replace carts and dumpsters for older buildings that cannot use carts or dumpsters?

- These buildings do not have inside storage for solid waste containers, nor can they store containers outside permanently. The multiple times per day bag service allows these buildings to receive regular solid waste collections.

What do the effectiveness data show for this criterion?

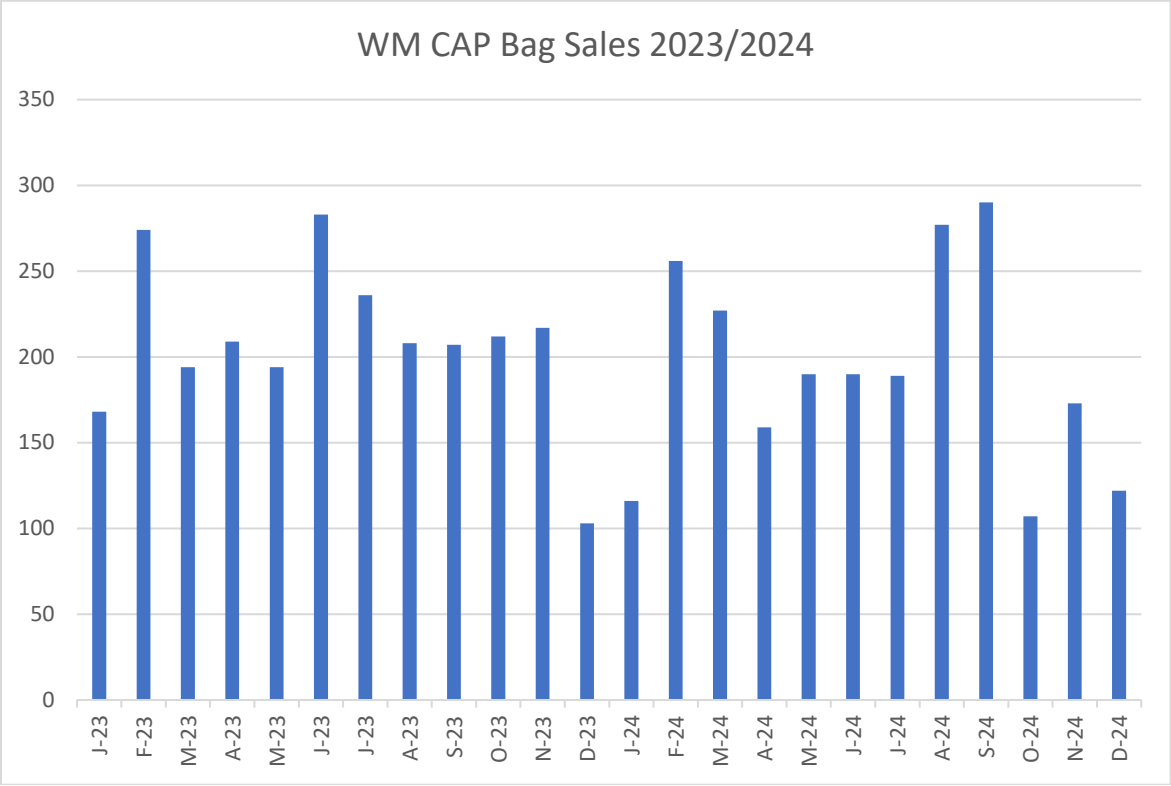
- **CAP bags are a large portion of solid waste subscriptions and customers are buying into the service, suggesting that it is working as designed**. Approximately 64% of CID customers use the CAP service. The WM Contractor picks up CAP and illegal bags in the CID up to 5 times per day with the additional illegal bag collections provided by WM. The CID area is cleaned every day because of these CAP services.

  CAP bag services increased over the 2022-23 timeframe as the CID was growing, resulting in an overall increase in solid waste service in the CID which helps the goal of a clean and safe Business District.

  a. Commercial customers solid waste subscription services increased by approximately 5% across all services during the 2022-2023 timeframe indicating a continued commitment to using the CAP system.

b. **Multifamily (MF) solid waste CAP bag purchase increased significantly during the same time frame, resulting in cleaner alleys and reduced illegal dumping**. Over the 2022 and 2023 timeframe, CAP Bag purchases increased by 42% and MF solid waste subscription total volume of service increased by 125**%.**

c. **WM CAP (Commercial and Multifamily) customers continue their commitment to buying bags over the 2023 and 2024 timeframe.** Bags are ordered in rolls (bulk) of 25 bags per roll. As a result, orders fluctuate over time. Several MF buildings continued to be in flux in terms of solid waste system management over this timeframe, including moving to dumpsters which affects long term bag sales.



Graph 1. CAP Bag orders January 2023 – December 2024

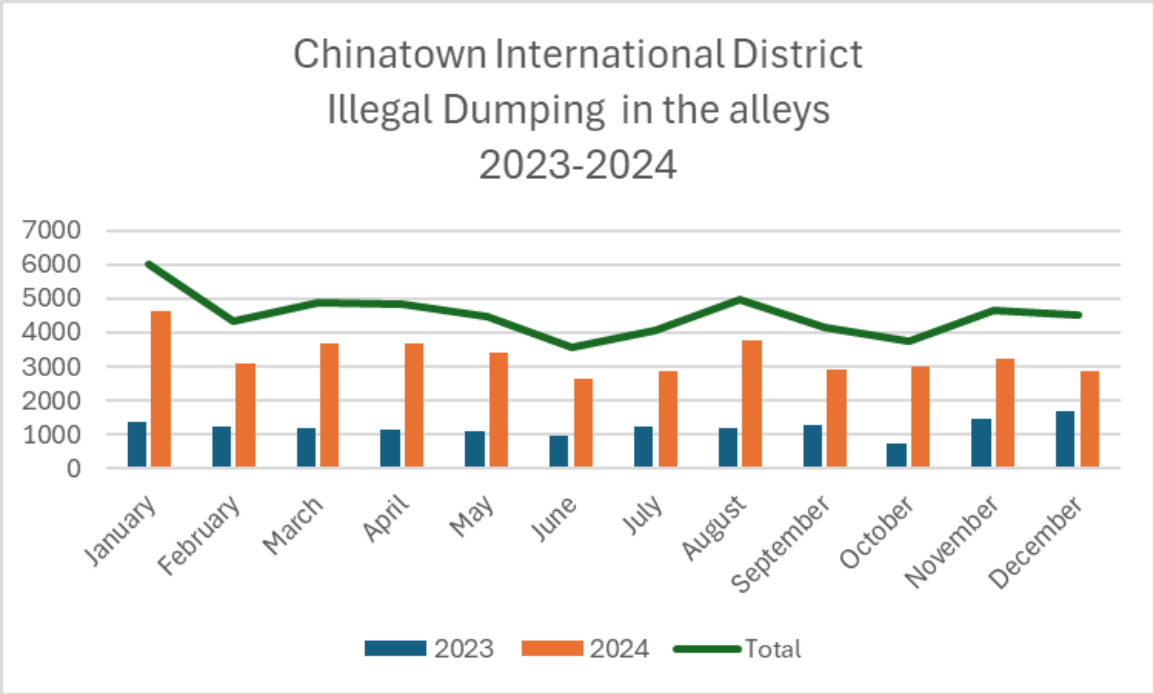
2. Does the CAP system encourage clean collection areas?

CAP bags are susceptible to being ripped open by people, rats and birds, so the CAP systematic three times per-day bag pickup results in regular and thorough collection of all approved & illegal bags and extreme scatter. Extreme scatter noted by the contractor can be picked up by the driver at that time or dispatched immediately to their team.

What do the effectiveness data show for this criterion?

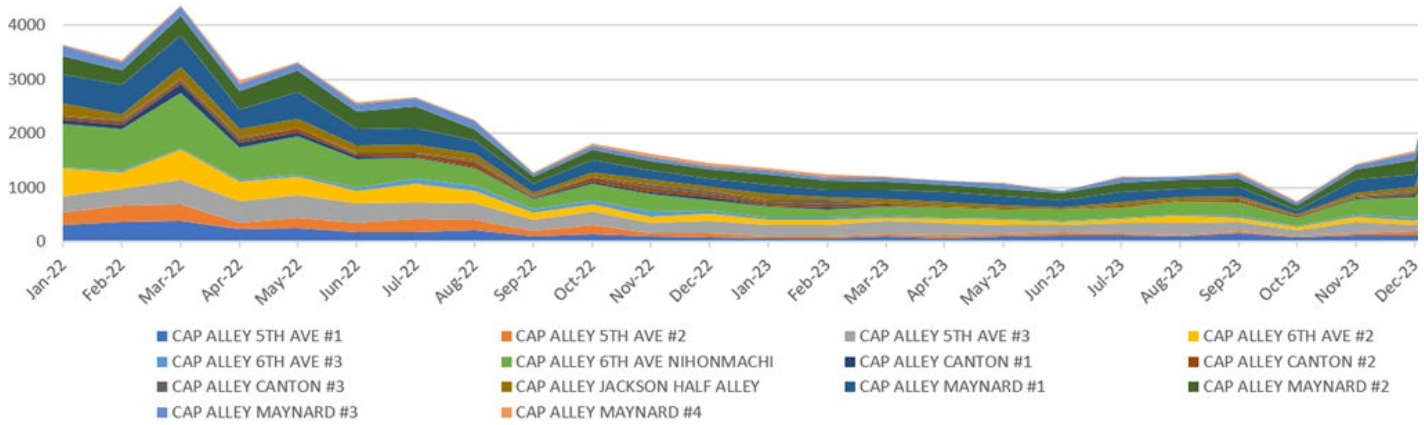
- **Illegal dumping collections continue to decline.**

A decline in illegal dumping is an indicator that customers are likely buying more legal bags. Further that fewer illegal bags to pick up means the alleys are cleaner, and this improves the overall state of the alleys.



Graph 2. Illegal Dumping by month 2023-2024 Chinatown International District

For a more detailed view, see Graph 3 to see illegal dumping in the top 14 CID highest illegal dumping alleys decline over the 2022-2023 years from 4,000 bags a month to under 1,000 bags a month.



Graph 3. Illegal Dumping by month in top 14 CID alleys, 2022-2023

- **In 2023, Clean City CID Service spending declined.**

SPU's Clean City Program provides several cleanup services on behalf of the City of Seattle and the CID. Several of these activities showed an overall decrease from 2022 to 2023.

a. **Litter Abatement Routes:** Clean City provides supplemental CID solid waste cleanup with through litter abatement routes. These routes are typically run during holidays, special events, and large stadium events, 7 days a week, primarily through the main CID street fronts. They also support alley cleanliness as needed, providing alley service up to 50% of the time. The CID Litter Abatement route expenditures are decreasing over time based on the data provided by Clean Cities.

The following are the 2023 and 2024 CID Litter Abatement Expenditures data provided by Clean City.

- 6 Months 2023 - $51,495.96
- 4 Months 2024 - $34,330.64

These are the costs for the hours spent in the Chinatown and Japantown CAP alleys. It does not reflect the citywide CID expenditures**.**

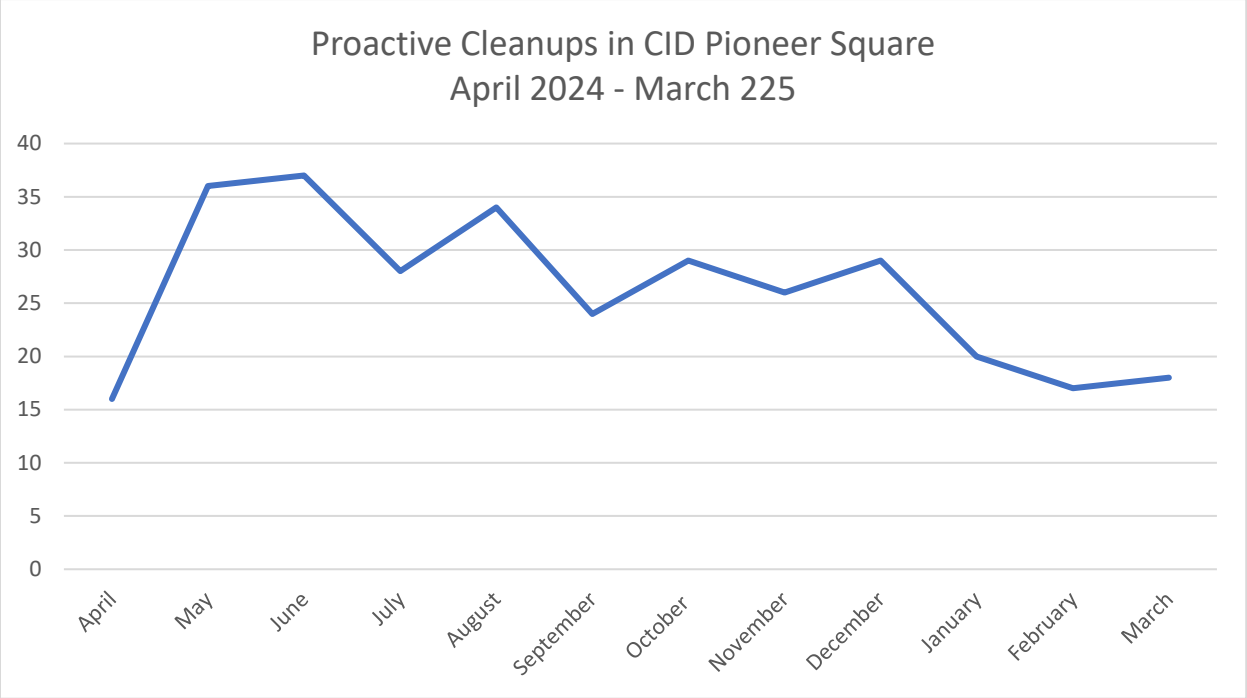
b. **Supplemental Clean ups:** Clean City also provides supplemental clean ups for special events or focused clean up periods, including the Surge, MLB's All-Star Week and NHL Winter Classic. The data below show total pounds collected during 2022 and 2023 supplemental clean ups and the garbage collected declining over time.

CID CAP Pounds Collected

Surge						MLB All Star		NHL Winter Classic	
Oct-22	**22-Nov**	**Dec-22**	**23-Jan**	**23-Feb**	**Mar-23**	**Jun-23**	**Jul-23**	**Dec-23**	
11,723	11,718	13,025	11,040	7,327	9,268	8,053	6,358	5,961	
				Total	**64,101**	**Total**	**14,411**	**Total**	**5,961**

Table 1. CID CAP Pounds collected during Supplemental cleanups over time.

c. **CID WM Scatter Clean up requests.** In April 2024, WM began to proactively clean up extreme scatter daily on behalf of the CID and SPU. Scatter requests are trending downward over time indicating the removal of garbage reduces overall garbage cleanup needs over time.



Graph 4. CID WM proactive Scatter clean up requests 2024

Anecdotal evidence: CID BIA CAP Before and After Cleanliness Evaluation. The CID BIA issued an assessment in 2016 that documented CAP-related solid waste, safety and cleanliness improvements. Below are examples noted in their assessment. The CID has not called a vote of their rate payers since enacting the CAP program to request a change to their CAP status to overturn CAP and allow dumpsters back into the alleys.

5th Avenue South Alley

Between S. King St. and S. Jackson St.



Figure 1. 5th Avenue South Alley Before and After Photo

South Maynard Alley

Behind Gee How Oak Tin, Across from Honey Court Parking Lot



Figure 2. South Maynard Alley Before and After Photo

6th Avenue South Alley
Between S. King St. and S. Weller St.



Figure 3. 6th Avenue South Alley Photo

3. **Does the CAP system allow for safe solid waste collections?** Alleys can be unsafe for drivers and residents. With no dumpsters in the alleys, there are fewer places to hide and do illegal activities. Only food waste and recycle carts are allowed in the alley.

   The Seattle Police Department was a primary proponent of the CAP at its launch in 2009. They recognize the benefits of having "line-of-sight" down an alley where no dumpsters block illegal activity visibility. The safety benefit of the program is a primary reason Mayor Murray mandated the CAP for the Pike Pine Corridor in 2017.

   It is difficult to use crime statistics to evaluate safety over time in a specific neighborhood, and it is especially difficult to evaluate crime reduction during a time when there are more encampments and unhoused in or around the CID. Anecdotally, moving large encampments and the unhoused out of the CID has improved overall CID safety and cleanliness in the alleys, however the crime issues around Little Saigon 12th and S. Jackson area impact all of the CID.

Section 3. Clear Alley Program Satisfaction

SPU sought and received customer feedback from multiple areas regarding program satisfaction.

1. **Seattle Chinatown International District Preservation and Development Authority (SCIDpda) Feedback**

   The Seattle Chinatown International District Preservation and Development Authority (SCIDpda) requested community feedback as part of the Nihonmachi Alley Design Vision Plan. The contractor held listening and outreach sessions. Trash and cleanliness were a common concern. One of the proposed designs moved alley services to the fronts of the businesses. Many businesses were concerned about moving bags and carts in front of their businesses and preferred the solid waste systems to stay in the alley.

2. 2023 SPU Clean City Survey

SPU conducted an informal survey of residential and business customers in 2023 to assess their understanding and satisfaction with CID public safety and cleanliness. Customer responses included:

- Trash pickup needs to be more reliable, especially Saturday evenings and Sundays.
- Restaurants take trash bags to the alley before closing to match the pickup times. The last pickup time for the CID is 10 pm. Most businesses close between 8 and 10 pm.
- People who do not live or work in the CID bring trucks full of trash to our alleys.
- In the summer season, garbage and drains smell more, and there are more rodents.
- Multifamily buildings do not have enough services.

3. Cost of Bag feedback

The BIA and SPU stakeholders have heard from customers that customers believe CAP bags are more expensive than other solid waste services. In general, however, CAP bags are similarly priced to carts or small dumpsters. Please see Section 4 for Solid Waste service cost comparisons.

4. The 2024 SPU Commercial Customer Satisfaction Survey

SPU conducted a Commercial Customer Satisfaction Survey in 2024. The survey indicated CAP customers on a scale from 1-7 were less satisfied than the average with CAP services on two main fronts:

a. The amount of information they received about the CAP service
b. The timing of CAP bag delivery.

5. The issue of encampments and the unhoused living in the CID and CID area

The BIA and other CID organizations have provided feedback that how solid waste services are impacted by encampments and having the unhoused in the area. Bags and carts are broken into, customers and drivers are harassed in the alleys, and additional illegal dumping happens on top of the broken bags.

Section 4. Cost-Comparison of CAP Bags to Other Services

The following is a comparison of the CAP garbage bags to other garbage service levels. A useful way to look at the cost of CAP disposal bags is to compare the monthly fee for the service to a traditional 96-gallon garbage cart pickup. Garbage carts are charged monthly for any level of subscribed service. The subscription service costs includes the cost of the truck, the driver and the disposal for the frequency and size of the service. The difference between the cart and the bag is that the same costs are embedded into the cost of each CAP bag.

Below is a breakdown of the 96-gal CAP bag compared to a 96-gal cart:

- Each month, a 96-gallon garbage cart costs $31.55

- Each month, three 30-gallon garbage bags cost a total of $24.60. This is the same total volume as a 96-gallon garbage cart

For the same volume of disposal removal, three CAP garbage bags are 22% less expensive than a traditional 96-gallon garbage cart. Furthermore, they get picked up a much higher frequency, 3 times per day instead of 1/week. That is 21 bag pickups for every cart tip.

Below are the cost differences across several container sizes:

2024 Retail CAP Equivalent Cost differences between bags and other svc levels		
Size	15 gal bag	30 gal bag
96 gal cart	10%	-22%
1 yd dumpster	22%	-14%
2 yd dumpster	50%	6%
3 yd dumpster	63%	15%
4 yd dumpster	70%	20%

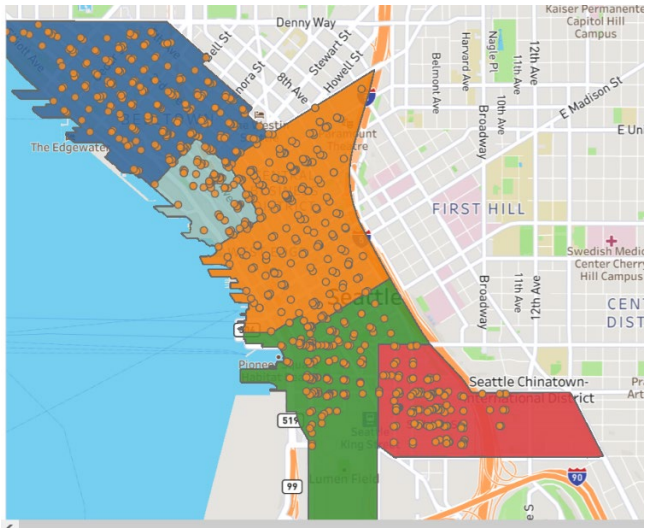
Table 2. Cost Differences Between Bags and Other Service Levels

Approximately 64% of CID customers use CAP, including small restaurants, businesses, and five multifamily buildings. The rest use dumpsters and carts as they have underground solid waste storage.

Comparison of CID Garbage spending compared to other neighborhood business districts

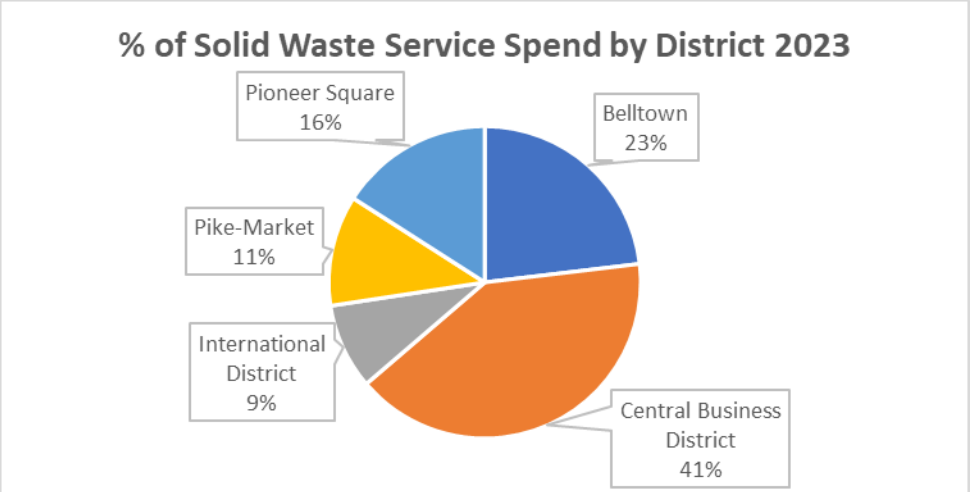
Five Neighborhood Districts' (districts)[1], solid waste spending in 2023 were compared. These 5 districts were compared both on overall garbage spending per customer and on CAP bag spending per customer.

The districts are CID, Pioneer Square, Belltown, Central Downtown, and the Pike Place Market area.



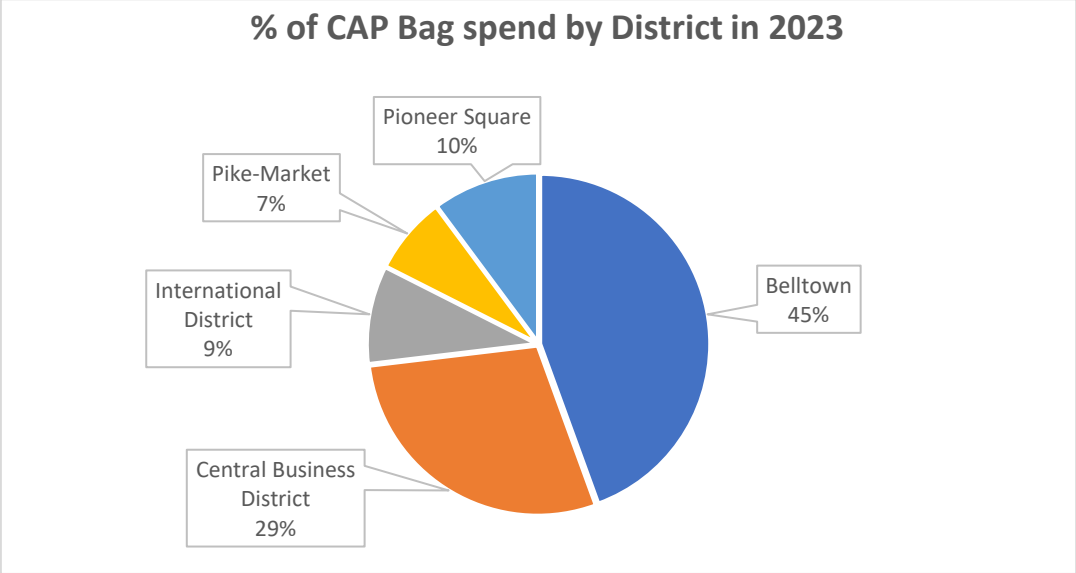
[1] Neighborhood Map Atlas Neighborhoods | Seattle GeoData

Figure 4. Map of Comparison Neighborhoods



Graph 5. % of solid waste service spend by neighborhood 2023

As a percentage of solid waste subscription services spending overall, the CID spends the smallest amount on solid waste services.



Graph 6. % of CAP bag spend by District 2023

As a percentage of CAP bag spend per district, the CID is one of the lower spenders.

Average monthly Solid Waste Service costs by District in 2023

Table 3. Average monthly Solid Waste Service Costs by District 2023

Service Type	Belltown	Central Business District	International District	Pike-Market	Pioneer Square
Can/Cart	$2,785	$4,073	$1,998	$2,007	$6,984
Compactor (Dumpster)	$2,423	$17,522	$1,407	$3,475	$16,121
Dumpster	$4,810	$12,113	$5,240	$8,258	$8,533
Prepaid Bag	$7,082	$6,344	$2,942	$3,529	$1,928

The CID spends less overall on solid waste services than other neighborhoods across most service types. For prepaid bags, spending in the CID is higher than Pioneer Square because Pioneer Square has fewer CAP buildings.

Section 5. Low-Income Solid Waste Service Impacts

Most CID residents live in multifamily (MF) buildings and the MF buildings serve all income levels. Most of these MF buildings use dumpster service because they have private property or indoor solid waste storage. There are five MF buildings that use the CAP bag service, and only one is a low-income building. It is difficult therefore to make a determination of the impact of the CAP fees on low-income customers in the CID. It is known however that many residential buildings do not have CAP service, and those that do, the CAP bags are similar in cost to cart or small dumpster service.

It is important to note that the CID population is on average a lower income and a more vulnerable population in comparison to other neighborhoods, and the CAP service offers valuable safety and cleanliness benefits to the CID. The CID's residential economic status factored into the BIA's interest in the safety benefits of the CAP system. The neighborhood and the BIA have expressed their interest in crime reduction, health, and safety strategies including CAP.

Specific demographic and other data regarding the CID[2]:

- 65 or older: 31.1% versus 12.7% Citywide
- Non-White: 67.6% versus 28.5% Citywide
- Non-Native speakers: 43% speak a language other than English at home versus 22% Citywide
- Renters: 94.06% versus 54.8% Citywide
- Median household income: $39,171 versus $105,391 Citywide
- Population below the poverty level: 29.6% versus 10% citywide

2 https://www.seattle.gov/documents/Departments/Neighborhoods/Shared/NeighborhoodSnapshots/CHINATOWN_INTERNATIONAL_DISTRICT_PIONEER_SQUARE_2023.pdf

Section 6. CAP Boundaries and Other CAP Areas

The SLI requested a study of the boundaries of the CAP program area and whether it should be extended to include nearby neighborhoods, such as Little Saigon.

CAP Boundaries

Extending the CAP beyond its current boundaries is not recommended. The program can only service commercial zones, as noted in Appendix 1, because CAP runs 24 hours, and can be only in Commercial zoned areas. Therefore, it is not able to be extended in most cases. There are also many newer buildings in many business districts which require indoor private storage.

Little Saigon

Little Saigon is the neighborhood directly east of the CID on S. Jackson. It generally does not need CAP.

- Little Saigon does not have alleys and has fewer historic buildings or older building stock than the CID CAP area.
- Most importantly, it has considerable private storage available in its buildings' parking lots and internal solid waste storage rooms.
- With the available solid waste storage onsite, the majority of commercial customers store their dumpsters on private property indoors or in parking lots.
- There are also many newer MF buildings with required garage solid waste storage rooms.

Other Areas

CAP works well in larger business districts serviced by alleys, where there is older building stock, limited internal private solid waste storage, and few private parking lots available. The area also must be zoned commercially so three-times-per-day service can be achieved. Areas that could meet these criteria include:

- Ballard and the University District
- On Capitol Hill there are several alleys where CAP could be extended

In the above locations, the BIA would vote on CAP, or the Mayor could direct SPU to extend CAP for safety and cleanliness improvements.

Section 7. Other Strategies and Service Alternatives to Improve CID Solid Waste and Cleanliness

Service Improvements	Goal	Metric	Timeline	Budget	Who	Notes
Increase CAP approved bag use education	Increase bag use	Monthly sales data	2025	Available and add small advertising budget yearly	Recology, WM, SPU outreach staff and marketing staff/budget	
Increase proactive cleanups in CID and to other CAP areas	Remove extreme scatters more quickly	# of proactive scatter and extreme scatter cleanups per month	2025	Available	Recology, WM	Done by WM and will be done by Recology in Recology CAP areas.
Increase Solid Waste and Litter code enforcement	Increase solid waste use to avoid illegal dumping	Monthly sales data	2025	Available	SPU	Developing Code improvements currently.
More alley art partnerships with SDOT and Arts & Culture	Improve solid waste customer compliance	Illegal dumping, CAP sales and proactive cleanups	2026	1% for Arts	SDOT, Arts & Culture, SPU	Nihonmachi alley is the template for additional alleys.
Reduce Encampments	Reduce bags being broken into	# of Extreme scatter cleanups done	NA	NA	Seattle	

Here are some suggested service alternatives.

Service Alternatives	Goal	Metric	Timeline	Budget	Who	Notes
SW manages used cooking oil containers	Increase alley cleanliness	Faster cleanups	2026	Available	DWW, SPU	Currently done by DWW, but SPU is considering expanding code enforcement to SW.
Allow recycle and garbage carts as exceptions in Directors Rule	Reduce bags being broken into	Reduced illegal dumping pickups and scatter clean ups	2026	Available	SPU	Will likely have to remove bag services altogether; and may not be room in alley for more carts.
Increase garbage and recycle bag thickness	Reduce breaking into bags by small animals	Reduced small letter pickup and scatter cleanup requests	2026	Available	Recology, WM	Have to do ahead of large bag order.
Increase pickup small litter	Reduce the small litter in alleys not addressed by regular services	Increased customer satisfaction and reduced pressure washing costs	2026	Available	SPU, Recology WM	This is not a contracted service currently so it would have to be negotiated on how to implement it. Done by MID in MID areas
Pressure wash more alleys	Add to the existing 5 CID alleys done 2/week	Reduced proactive cleanups and requested scatter pickups	2025	available	SPU, Recology, WM	Paid for by SW to ensure clean and clear alleys for collection drivers. Unlikely to provide much additional benefit.

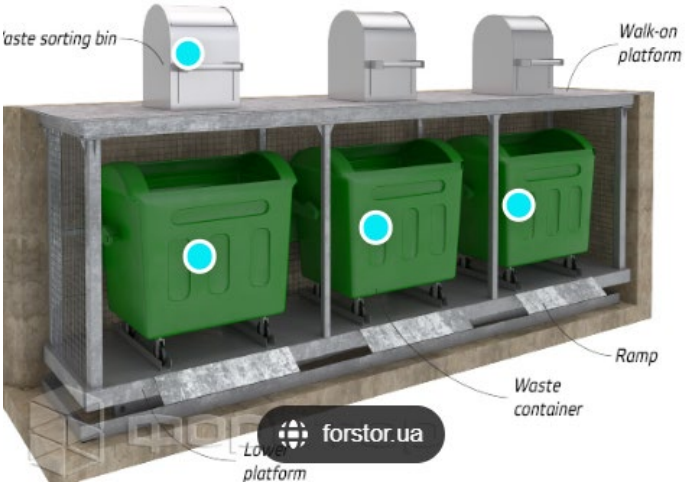
Section 8. Newer Collection Technologies

A number of European cities and a few small US cities have installed a shared neighborhood underground container collection system that replaces individually subscribed to carts and dumpsters. Here are photos of various examples of the containers followed by photos of the underground storage elements of the containers.



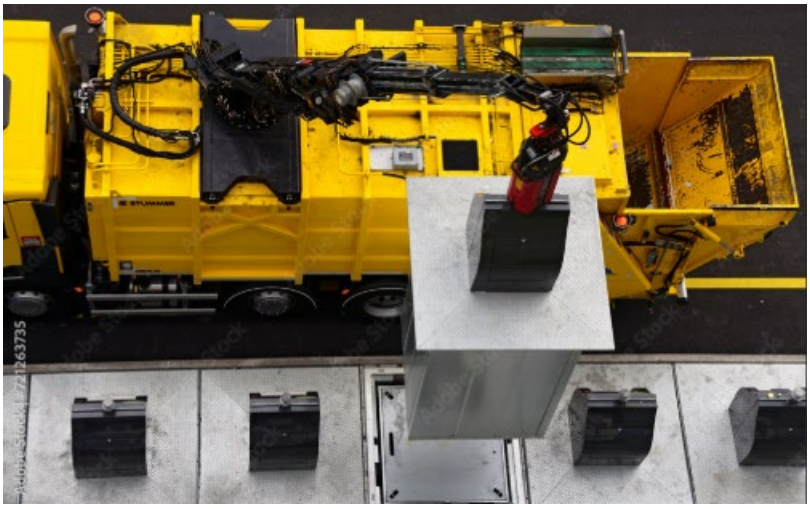

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The system works the following way:

Equipment:

- The system requires special equipment including containers and a collection truck.
- An above ground kiosk and the below ground container are one piece of equipment.
- The system requires an underground installation as well as a full electronics and computer network system installation

Paying for service

- The City owns the containers and administers a system that allows all the area/neighborhood residents and businesses to pay into the shared system for an amount of disposal representing how much they pay into the system.
- The system could be a direct pay per use payment system and/or a system that allocates space through taxes.

Using the system:

- The above ground kiosk is a keypad for account entry and an opening for bags to be thrown into the underground container.
- The user puts their account number into the kiosk and the bag entry area opens, and they drop their bags into the underground tank.

Collection:

- To collect the garbage from the underground container, the specially engineered compactor truck pulls the kiosk and the tank out as one unit and dumps the tank's contents into the compactor truck.

Neighborhood Installation:

- Containers would be spaced throughout the service area so customers would have containers nearby.
- The system would take up Right of Way sidewalk space as well as underground infrastructure space for installation. Containers would require underground space as well as above ground

space. There are a variety of widths of sidewalks in the CID, and the siting of the system would have to take up ROW sidewalk. SDOT does not allow container storage or other use of sidewalks for solid waste containers on the ROW sidewalks.

- The 3-part system: kiosk, tank and truck would replace bags and dumpsters currently in the right of way.
- There are no additional siting concerns around overhead powerlines that are already needed with any dumpster or compactor picked up in the area. A Front Load container or the lifting of the underground storage container into the air to dump on the back of a garbage truck must be tipped without hitting overhead powerlines.

This underground system is a completely new system that would have to be purchased and installed in the above and below ground Right of Way for customers currently using CAP bags. It is an expensive system that requires completely new rates and services for a small set of customers. Below are some of the details on the challenges to the implementation of underground containerization systems in Seattle: public administration of a new system vs private subscriptions; Right of Way space limitations; and System installation costs.

1. **City Administration of a Shared system for Commercial and MF customers – Shared Containers vs Individual/Private Containers**

An underground, shared, city-owned and managed container and collection system would mean significant changes to how SPU administers solid waste management. Commercial and MF customers would move from the current system of private purchase of individual containers and sufficient service, plus maintenance of these containers, to the purchase of space in a container shared by all customers. Currently the City manages a very small subset of CAP-related services, the MF Yard Waste customers. In a shared system, it would manage MF and Commercial Recycle and Garbage customers as well.

The change to a shared system would also require several significant administrative changes that would require additional capacity, budget and management.

- New subscription levels and rates would have to be developed for Commercial and MF customers to reflect the new services and the increased costs of the new system.
- The new system would have to be integrated into the current SPU/Seattle City Light CCB billing and customer service system.
- Commercial customers, currently billed by the contractors, would need to be billed and managed by the City.
- The Solid Waste collection contractors who bill the Commercial customers would have to make upgrades to their billing systems to accommodate the move to a shared City run system. The costs to modify their billing systems to account for the changes required of the system would be significant and would be the responsibility of SPU.
- A new underground shared system with new rates and new impacts on the right of way would require updates to the Seattle Municipal Code.

2. **Space Limitations**

Above ground ROW space. This would be required for an above-ground public container and would be limited by the availability of sidewalks, parking space and/or public open space.

The ROW would be impacted. In the CAP areas, customers are not allowed to permanently store their garbage carts or dumpsters in the ROW, so there are no containers impeding into the driving area of the ROW currently. With the new system, the shared system kiosks would be placed in the ROW, and it is not clear where the kiosks would be able to be installed in the alleys given the clearance needed for the containers to be serviced. There is risk of impact to the use of the ROW for neighborhood use. Currently the only solid waste storage containers allowed to be permanently in the ROW are food waste and recycling carts. Dumpsters outside of CAP areas are allowed to be in the ROW for service day only. Most of the ROW is clear parking, deliveries and pedestrians.

Underground Space. There is limited space available underground for solid waste containers according to the Seattle Department of Transportation. This is due to the following regulatory and delivery factors:

- **Underground Utility & Other Existing Public Infrastructure Clearance Requirements**

Clearances are closely regulated and require sufficient separation from other public infrastructure such that existing or new infrastructure will not impede the additional use of this crowded underground area.

In particular, electricity and gas lines are underground downtown and in the CID. This leaves almost no space for additional underground infrastructure, particularly private (solid waste subscription containers) infrastructure since SDOT and the City prioritize public over private utilities that need to serve the community.

- **Density**

The lack of sufficient space underground correlates with the density of development in the CID, as well as the sharp increase in density in the past ten years. Therefore, the need for space for SPU and other underground utilities beyond electricity and gas has been significant, making most underground container siting infeasible.

- **Areaways**

Areaways are in Pioneer Square. They are historic older underground spaces used as walkways dating back to Seattle's founding. Areaways are made of very old brick walls and are very fragile. SDOT maintains them and does not allow areaways to be driven over by contracted hauling trucks due to the truck weight.

3. <u>High Equipment, Installation and Implementation Cost</u>

An underground (or above-ground) containerized solid waste collection system has a variety of startup and ongoing costs for both the contractor and SPU. These include new trucks, new containers, electrical systems, network installation for the kiosks, new data specifications, and the installation costs.

Below are three examples of underground storage equipment costs:

City	Truck	Container	Installation	Population	Total Cost
Florida	500,000	20,000	880,000	80,000	For Florida city, 1.6 M. Estimated Seattle Cost for CAP areas 8-10M
Van Dyke	1 truck	3 containers	Not provided	5 CAP BIAs	Estimated 8-10M
Brussels	Over 50	3,000-4,000	Not provided	1.2 M	200M estimated

a. A city in Florida with 80,000 residents put in a system in 2017. The components and approximate 2017 costs of their underground container system were the following:
   - Equipment: Truck—$500,000, Underground container—$15,000–$20,000
   - Installation: permitting and installation work to be determined
   - The City spent $1.6 M to service 11 containers and 1 truck.

For an equivalent system in the five CAP areas of Seattle, costs excluding implementation and CCB upgrades might conservatively be $6–8 million.

b. A leading underground container system manufacturer, VanDyke Services, who supports multiple systems in Europe including Amsterdam, indicated that a container and truck for a CAP area would be at least $1 million for a truck, three containers, the administrative system and installation. Total costs for a full system for the five CAP areas across the WM and Recology areas could be $8–10 million.

c. Brussels, Belgium: A 2024 estimated cost to implement an underground waste collection system in the City of Brussels was €200 Million. This cost included over 50 vehicles and 3,000 to 4,000 containers/sorting areas.

Other costs would include changes to the Customer Care and Billing (CCB) and reporting systems to accommodate the new rates, service levels and billing needs. The estimate for an update to CCB to account for these new system costs is estimated to be well over $1 million for the CCB, not including costs for the Customer Portal system. The new system would require very large changes to the contractors' database, routing, and invoicing systems and SPU would have to negotiate new contractor reimbursement rates.

Summary: The majority of the City has customer subscription services on private property that generally work as designed; and SPU offers the Clean City supplemental Public Litter Can collection services to address public space needs. The actual need for an underground solid waste system is limited.
The cost to implement and manage a City owned shared underground solid waste system of trucks, containers, electronic kiosks, billing system and database to address the 6% of CAP services would be very high.

APPENDIX 1

CAP Solid Waste Service Design Strategy.

CAP Services Summary, Chinatown International District Interest in CAP

CAP Solid Waste Service Design Strategy

CAP areas typically have older building stock that does not have indoor or outdoor private property for solid waste container storage space, meaning that containers were stored in the adjacent alley. To eliminate the issues created by dumpsters in alleys, the CAP service was designed to meet these buildings' solid waste service needs. The following are the intentional design elements of the CAP:



Figure 1 - CID alley with CAP garbage bags and recycling and food waste carts

- **Create smaller footprint.** By removing dumpsters and replacing them with smaller containers (i.e., bags) picked up more frequently, the total solid waste container footprint is smaller since less solid waste can accumulate at any one time.

- **Provide high-frequency service.** Garbage bags are collected three times daily, approximately every eight hours, and recycling bags and cardboard are collected twice daily. The CAP high frequency plastic bag collection is required to ensure CAP bags are collected and off the ground quickly, so no animals (e.g., rodents or birds) or people can break into the bags. Additionally, we try to align the bag collection times to pick up bags at or near business closure times or their bag set out times, so the bags do not sit outside for long.

- **Focus on food waste and recyclables.** Garbage carts were also removed. This was done to allow for more space for carts for food waste and recyclables. With bans on recyclables and food waste in the garbage, food waste and recyclables services have become a significant volume of the solid waste stream and are prolific in the alleys. Food waste and glass recycling carts (for bars) are a critical service and take up alley space. Removing garbage carts allowed for the growth of food waste and recycling carts. In addition, removing garbage carts reduced potential for illegal dumping.

- **Target only commercial areas.** The service is only allowed in Commercial Zones where 24-hour services are allowed.
- **Collect illegal bags.** Included in the CAP is the collection of illegal bags, which are picked up at the same frequency as the CAP garbage bags to remove all garbage and bulky items dumped illegally in the alleys. Removing illegal bags with this frequency helps to reduce copycat activities. There is still illegal dumping behavior, so compliance is a continued need.

- **Provide low-cost service.** The CAP service rates are similarly priced to other solid waste services and they are cost effective for the collection contractors (WM and Recology) who have to deliver this high-frequency service.

- **Target cardboard with specialized free collection.** Cardboard-only pickup is offered in CAP because cardboard does not fit into the recycling carts, so it is collected twice daily without charge. To get the cardboard off the ground, cardboard-only dumpsters are allowed.

- **Provide thicker bags.** To minimize breakage, CAP garbage bags are thicker than standard garbage bags.

- **Offer convenient bags sales.** CAP bags are conveniently sold in rolls and online. The cost of all the CAP solid waste services is built into the cost of each bag, including collection and disposal charges. This gives businesses flexibility and convenience of buying bags only when needed and at the volume required.

- **Provide Code exemptions that allow for required services in the alleys.** There are several exemptions to CAP requirements:

    1. Recycled glass-only carts. These are intended for high-volume glass users like bars because it is not safe to put more than 8–10 bottles into a CAP bag.
    2. Food waste carts. Food waste carts are exempted because food waste cannot be put in bags on the ground for health and safety reasons. Rats and birds would get into food put into a bag.
    3. Dumpsters for homeless service organizations. These are provided to organizations who request them whose clients cannot sort the recycling from the garbage and therefore the operational and cost burden of CAP where only garbage is produced is great.
    4. Glass-only dumpsters for glass manufacturers where the extreme weight of glass would break the cart.
    5. A small (1 yard) cardboard-only dumpster that is serviced twice daily.
    6. Oil tanks that allow restaurants to recycle their used cooking oil. These are regulated by SPU's Drainage and Wastewater Line of Business.

- **Include Multifamily.** MF buildings in CAP areas require that they also use CAP. SPU does not provide a bag fulfillment service, so MF CAP buildings become commercial customers and are able to buy bags from the contractors' online ordering and fulfillment systems.

- **Allow dumpster use in CAP areas**. If a building has private storage such as a basement or an internal loading dock or alcove, it can have dumpster or cart services. For these customers, the building sets out containers in the alley at night, the containers are serviced at night, and the building then brings them back into their building the next morning. This is noted in Director's Rule Rule SW-406.



Figure 2 - Cardboard-only 1-yard dumpster

CID CAP Garbage Bag Collection times:

1st pass – Between 4:30 am and 8:00 am
2nd pass – Between 8:00 am and 4:00 pm
3rd pass – Between 8:00 pm and 10:00 pm
Most CID restaurants close between 8 pm and 10 pm.

CAP Business District Solid Waste Services Summary

Table 1 below summarizes the solid waste services offered in CAP areas, including CAP and non-CAP services. Customers can choose how much service they desire.

Table 1. Summary of Solid Waste Services details for all services in the CAP areas

Commodity	Service Type	Cost	Contract Non Contract	Volume	Pick up Frequency	Storage and Staging
Garbage	Bag service	Per bag	Contract	As needed	3x/day	Alley storage/staging
	Carts	Based on volume	Contract	As needed	As needed	Inside storage/alley staging
	Dumpsters	Based on volume	Contract	As needed	As needed	Inside storage/alley staging
Illegal Dumping	Bags, boxes, bulky Items	Per bag, bulky	Contract	Everything	3x/day	Alley
Plastic paper aluminum	Bag service	Per bag	Non Contract	As needed	2x/day	Alley storage/staging
	Small Business Carts	Free	Contract	Up to 2 carts	Every other week	Alley storage/staging
	Carts	Based on volume	Non Contract	As needed	As needed	Inside storage/alley staging
	Dumpsters	Based on volume	Non Contract	As needed	As needed	Inside storage/alley staging
Glass	Cart	Based on volume	Non Contract	Up to 2 carts	As needed	Alley storage/staging
Cardboard	Flattened and bundled	Free	Contract	All set out	2x/day	Alley storage/staging
	Cardboard Only Dumpster	Free	Contract	All set out	2x/day	Alley storage/staging
Food Waste	Cart service	Based on volume		Up to 2 carts	As needed	Alley storage/staging

Comparison of volumes of CAP services vs All Services

The following data represents WM citywide **All garbage** services compared to WM CID/Pioneer Square **CAP garbage** services:

- Citywide, the number of CAP garbage subscriptions is small compared to overall commercial garbage subscriptions which include carts, dumpsters and compactors.

- All WM areas: CAP services account for **6.09%** of all types of solid waste services.

- 98104 Zip Code: CAP services account for **63.7%** of the solid waste services used in the CID.

Chinatown International District Interest in CAP

Improvement to alley conditions and Right of Way (ROW) space
Chinatown International District (CID) alleys are critical to residents and visitors' access to the neighborhood and to the commercial success of the CID. Prior to CAP, the CID had dumpsters in alleys. These dumpsters were continually overflowing, creating health and safety hazards. Illegal activity behind and around dumpsters was a persistent problem. The goal of improving alley conditions with CAP drove the BIA's interest.

Here are some of the considerations around CID alleys:

- **Alleys in the CID are historic and are used to represent and celebrate the CID's past.** Two of three historic Seattle alleys are in the CID. Alleys are frequently used for public activation including the Canton, Maynard, and Nihonmachi alleys.
- **Alleys in the CID are part of the community.** Many alleys have two or more multifamily building entrances on the alley, and the alleys are important for pedestrian access and community movement through the neighborhood.
- **Alleys in the CID are integral to the daily operations of neighborhood businesses**. The CID is the densest restaurant district in Seattle and the alleys are the primary location used for restaurant solid waste carts and oil tank storage.

The CID has many older buildings.
The CID has many older buildings that do not have internal solid waste storage rooms. Due to the neighborhood's historic designation, many of these buildings will not be re-developed. Whereas newer buildings are required to have internal solid waste storage rooms, these CID buildings will not be redeveloped and therefore solid waste container storage will continue to be outside the building in the alleys.

APPENDIX 2

Section 7 a and 7 b - Service Alternatives and Improvements Narrative

Increase CAP approved bag use Education

WM and SPU provide education on the CAP bag system. They recommend bag purchase quantities, food waste (FW) and recycle service recommendations, and education on maximizing the garbage placed in the bag to get the most benefit from the bag service.

Residents and businesses are not fully aware of the relative CAP bag costs and collection frequencies as indicated by community feedback and the 2024 Commercial Customer Satisfaction Survey. More education and information will improve the program. **SPU and WM will increase education and outreach in 2025.**

Pursue more Partnerships with SDOT and the Arts Community

In 2023 SDOT and SPU collaborated on a 1*% to Arts* project to enhance the Nihonmachi Alley. A local artist developed art patterns for each of the three services that reflect the community and culture of the alley. The patterns were permanently placed on the alley by thermoplastic application accompanied by education signage. The project was designed to help residents place their solid waste accurately and improve the look and feel of the alley.



Figure 6. SDOT and SPU Nihomachi Alley Art Project

Anecdotally, stakeholders (including CID BIA, SPU inspection teams and SPU solid waste contracts staff) have seen residents put their garbage and recycle bags in the correct place since the artwork was installed.

The Mayne Suites building has increased its bag purchases—and is more consistent with bag purchases—since the artwork was installed. This is likely attributable to the artwork installation and increased outreach and enforcement. The NP Hotel has been under construction for the last 1–2 years, so it is harder to assess the impact at this location.

Extend Driver-Initiated Proactive Clean Ups to all CAP Areas

As of the end of 2024, WM drivers report incidents of large garbage scatter in the alleys, which automatically become an Illegal dumping cleanup. The Illegal dumping cleanup will be done that afternoon or the next morning. This is an improvement from the previous process of sending the information to SPU for SPU to request a cleanup which could take up to two-three days. After the process was initiated, proactive cleanups started to decline. Extending this capability to Recology drivers can increase the number of cleanups.

Increase Solid Waste Code Enforcement Activities

The goal of Solid Waste Code & Contracts Enforcement is to hold customers and contractors accountable to the solid waste rules and practices designed to optimize Solid Waste collections, safety and cleanliness. Over the past five years, SPU's Solid Waste Code & Contracts Compliance Team has written more than 500 letters to CID customers and visited these customers to enforce many elements of solid waste code to ensure safety and cleanliness in the CID. This includes enforcement of Solid Waste code concerning the following areas:

- Having enough service to meet volumes produced by building
- Storing containers correctly
- Locking carts as required
- Ensuring WM collects their customers as is contractually required

To continue to improve upon Solid Waste Code enforcement, Solid Waste can increase the number of groups that observe and report on non-compliant customers or contractor activity, which will allow for more information about customer and contractor activities. Solid Waste can enlist the support of the CID BIA, WM and the Solid Waste Business District Area Inspector to visit the alleys on a regularly scheduled weekly cadence during Q2 of 2025 to make observations and take photos of areas with non-compliance issues. With more observations, this will enable an increase in Enforcement activities such as the enforcement letters and visits. The Code & Contracts Compliance Team can also dedicate an Inspector to the CID and Pioneer Square area. The public can report via Find It Fix It, but these are already being reported to Solid Waste, so bringing on additional reporting groups would be helpful to increase overall observations.

Increase Regular Pressure Washing to More Alleys

To ensure safe passage through the alleys for the solid waste drivers and the community, WM, on behalf of SPU, pressure washes five main CID alleys twice per week. Pressure washing is done on Tuesday and Thursday mornings. The alleys that are pressure washed are the Nihonmachi, Maynard Alleys North and Central, 6th Ave., and the Middle Main St Alley. This is paid by the Solid Waste LOB to ensure the alleys are clean and free or debris and grease for the driver to move through the alley efficiently and safely. SPU could request that WM increase the number of alleys being pressure washed through a safety study of the other alleys. There are other alley flushing services such as done by SDOT and SPU, and the DAT pressure washing, but the Contractor pressure washing is specific and consistent to address grime that builds up as a result of carts, bags and oil tanks in the alleys.

Photos after alley pressure washing:



Figure 10. Maynard North Alley

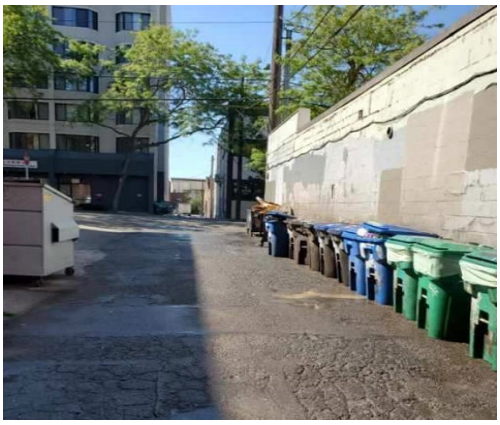


Figure 11. 6th Ave Alley

7B. Improvements or Alternatives to CAP

Below are additional considerations that might drive improvements.

A Reduction in encampments and the unhoused

Encampments and the presence of the unhoused in the CID and Little Saigon negatively affect solid waste collections. Individuals experiencing homelessness often break open the garbage bags and increase scatter. Some individuals are known to break into alcoves, fences and locked containers, and move containers around and take garbage out of the public litter cans. This activity has been documented by many stakeholders over the years. In areas where there are no homeless people, CAP bags are not broken into.

Increase Pickup of Alley Small Litter or Scatter

SPU provides subscription solid waste services and illegal dumping pickup in the alleys through WM. Contracted service providers pick up bags on the sides of the alley where the CAP bags are set out. They pick up large amounts of scatter in the alleys on the spot. They do not, however, pick up small litter or small scatter in the middle of the alleys on a regular and paid basis. SPU Solid Waste could pay for more litter cleanup – at an additional cost. Small litter in the middle of the alleys is now picked up by the Tuesday/Thursday pressure washing service.

In the Downtown Core, this type of alley litter pickup is provided by the Metropolitan Improvement District (MID) in the Downtown Seattle Association BIA (DSA BIA) area. A potential solution for CID litter would be to have the CID BIA become a member of the DSA's MID.

Increased or Changed Management of Used Cooking Oil

Oil tanks are allowed to be stored in the alleys as per the Directors Rule 406, "Temporary Container and Bag Placement and Removal at Curbs and Public Alleys." The oil tanks are serviced by oil recovery companies at no cost to the restaurants that use them.

Oil tanks in the alleys have historically presented challenges to cleanliness. The companies service the tanks regularly; however, the service is not provided as consistently as needed, which may cause some overflow of oil into the alley. Also, restaurants at times do not put clear oil in the tank as required. Occasionally, the oil still contains food, which causes the tanks to smell and attracts rodents and birds. Furthermore, multiple restaurants may share the service, making program management challenging.

SPU Drainage & Wastewater (DWW) is responsible for the Seattle Municipal Code for oil tank usage. The DWW code requires that all containers be covered and have the vendor's name on them.

SPU could consider two options for improving the management of oil tanks:
1) DWW could increase the tank management code and the enforcement of the current code with respect to oil tanks.
2) SPU is considering sharing oil tank management with Solid Waste. Solid Waste could then develop code and contracts specifically for oil tank subscription service and management.

Either option could potentially improve overall cleanliness in the alleys. Both options would require additional efforts on behalf of either DWW or Solid Waste.

Allow Garbage Carts in CAP Areas

Allowing carts would reduce the number of bags set on the ground. However:

- Carts collect illegal dumping and are broken into as well as the bags
- Carts are picked up at a reduced frequency, often weekly, not 3 times per day
- Carts should be locked but often aren't and cart locks can be broken easily
- The alleys are already full of carts so this could cause an overfilling of the alleys
- If some customers moved to carts and some didn't, it would reduce the 3 times per day service benefit. If we allow carts, it is likely that the CAP program would need to be reconsidered to achieve the level of commitment from customers and contractors to the high level of service built into the CAP service.

Increase the Thickness of the Bags

This would reduce bag breakage. However, it would cost more to produce thicker bags. SPU could ask for this in the current contract for 2025, but there might be an additional cost to the Solid Waste Line of Business. We can also include it in the 2029 Collections Contract renewal where the cost would be borne by the Solid Waste Line of Business**.**

Allow All Types of Recycling in the Recycle Cart, Not Just Glass

This could reduce the need for CAP recycle bags and would potentially encourage greater recycling participation. In addition, providing the Small Business Recycle Cart customers with bags instead of carts would reduce the overall number carts stored in the alley. SPU could request this change from the two contracted haulers.