Land Use Analysis 7740 N Lombard BottleDrop Redemption Center

March 2024

Executive Summary

The bottle waste facility proposed for 7740 N Lombard (Property ID Numbers R156052, R156053, R156054, and R264003) is incompatible with the property's zoning.

1. Bottle waste facilities engage in two primary activities: redemption and processing
2. The uses are characteristic of (1) **industrial services recycling operations** and (2) **waste-related services**
3. **Recycling operations are limited and conditional** in the zone
4. **Waste-related uses are prohibited** in the zone
5. The use is **incompatible with the desired character of the area** as described in the St. Johns/Lombard Plan and the Portland 2035 Comprehensive plan
6. Similar uses show a pattern of **chronic and very high risk nuisance activities and crimes**
7. The use poses a **serious risk to the pedestrian-oriented nature of the area** and to the traffic-related safety of customers and neighbors of the site

Select findings

Below are a subset of the relevant issues based on our analysis and forecasts. A detailed analysis is in the attached report.

Characteristics

1. The use **fails to meet 4 out of 6 of the characteristics of a recycling drop-off center**
2. The use is **not characteristic of retail trade and other commercial uses**
3. The use meets **100% of the characteristics of a recycling operation**
4. Recycling operations are an example use in the **industrial services** category
5. The use meets the narrative characteristics of a **waste-related use**
6. An estimated **275,000 bottles a day are processed**[1]
7. The majority of the floor area is dedicated to industrial bottle waste processing
8. The machines used are industrial and large (ranging from 7 to 20+ feet)
9. The redemption element is a tightly integrated part of the the processing use

[1] Fentanyl Threatens Oregon's Cherished Bottle Bill

Nuisance and impact analysis

1. The uses are **unlikely to satisfy 75% of the limitations, conditions, or additional regulations for the uses**
2. The uses are **100% incompatible with the desired character elements evaluated from the St. Johns/Lombard Plan 2004 and Portland 2035 Comprehensive Plan**
3. The uses are **auto-oriented in a pedestrian-oriented area**
4. There are consistent statements from residents documenting **chronic, negative noise, odor, and light nuisances from similar locations**
5. The use is **certain to result in very high risk nuisance activities (such as assaults)** as well as various other high and medium risk nuisances
6. Based on analysis of PPB dispatch data, **after the Glisan center opened, high priority calls increased by 136%** in the corresponding block
7. Based on analysis of PPB dispatch data, **after the Menlo Park center closed, high priority calls decreased by 87%** in the corresponding block
8. Based on analysis of PPB dispatch data, **after the Glisan center opened, assaults rose by 300% while disorder calls rose by 220%** in the corresponding block
9. **67 police visits in 2023 and a fatal shooting in 2021 at Delta Park**[2]
10. Unprecedented opposition to the use from residents and businesses with over **650 citizens contacting the Bureau of Development Services** 5 days after initial grass roots effort was organized
11. **Overwhelming and formal opposition from the St Johns Neighborhood association**
12. **Chronic problems at BottleDrops as evidenced by the Governor's suspension of sites with much more limited processing capacity**

Transportation

1. **High crash corridor** where **a car passes during heavy traffic every 3.7 seconds** [3]
2. **Seven vision zero accidents within 1500 feet, five injuring pedestrians**[4]
3. **Left-turn without a turn lane** plus traffic routed onto residential, local-traffic streets

[2] New BottleDrop facility proposed for St. Johns has neighbors on edge
[3] High Crash Network streets and intersections and Oregon TDMS
[4] Portland Traffic Deaths and Injuries since 2011

4. **Left turns are 3 to 4 times more likely to be fatal for pedestrians**[5]
5. Likely to attract **traffic from Washington related to cross-border bottle fraud**
6. **Additional congestion due to left turn queuing** from Northbound traffic
7. Segment of N Lombard was a **hotspot for high priority traffic collision calls in 2023**

[5] A Systems-level Analysis of Left-turning Vehicle-Pedestrian Crashes

Overview

The analysis is divided into three sections with the corresponding goals:

1. **Section 1. Analysis of the proposed uses**

   We describe our **methodology and our classification recommendations** for the primary uses. Since we believe that the primary uses are likely to be the most restrictive uses, we do not analyze accessory uses.

   We conclude that the proposed uses consist of (1) a conditional and regulatorily limited industrial services use for bottle waste redemption (“redemption”) and (2) an bottle waste processing use (“processing”) which is an industrial waste-related use prohibited in the zone.

2. **Section 2. Classification analysis for the uses**

   We provide **supporting data for our classification recommendations**. To do so, we reference and leverage the Portland City Code, neighborhood plans, and the North American Industry Classification System.

   We describe how the **volume, percent of usage, and equipage** are characteristic of an industrial use.

   Furthermore, we highlight the **distinguishing characteristics of waste processing** versus other commercial or industrial material handling uses.

3. **Section 3. Conditional use potential effects analysis**

   To address the question of the potential adverse effects related to the redemption conditional use, **we define the area** by drawing from the St Johns/Lombard Plan and the St Johns Plan District.

   Having defined the area, we draw from various Title 33 sections and neighborhood planning documents to **enumerate characteristics that may be impacted and evaluate likely potential impacts**.

   Similarly, we analyze **public safety questions** through police dispatch trend data at the most-comparable bottle waste processing location.

   Finally, we analyze **traffic volume and hazard data** to characterize traffic risks and impacts.

Following the analysis sections, we provide various annexes.

Section 1. Analysis of the proposed uses

1.1. Defining the activity and industry

1.1.1. Plain language descriptions of the use and its industry context

Our understanding is that the proponent proposes a “Full-Service Redemption Center” at 7740 N Lombard.

Based on language from the proponent’s website, we understand this facility to be part of a broader vertically-integrated system providing recovery, reuse and recycling services of beverage containers for partner distributors, retailers, and the public. Furthermore, this system is serviced by a dedicated trucking fleet.

A full-service center provides processing of individual, bagged, or bulk containers as well as services related to the purchase of specialized material handling bags, account cards, credit, and cash transactions (source).

1.1.2. Site plan analysis

Our site plan analysis is based on (1) the 2014 permit set for the most-proximate bottle waste facility (Delta Park) (2) the 2021 permit set for the most recently constructed facility (Glisan), and (3) the site plan submitted by the proponent in their land use compatibility statement (LUCS). Extracts from the site plans are located in Annex 2, Site Plans.

Functionally, we identify the following primary site areas:

1. “Retail” or “front of house” areas (“**redemption**” areas)
2. “Sorting”, “loading”, and “back of house” areas (“**processing**” areas)

Additional characterization analysis, including square footage usage estimates, are provided in Section 2. We refer to these areas, activities, and the associated uses as “redemption” and “processing”. Redemption and processing are both terms used by the proponent to describe full-service redemption center activities (source).

1.1.3. North American Industry Classification System

In addition to the City of Portland’s Zoning Code, Title 33, we consulted the United States Census Bureau's North American Industry Classification System (NAICS) to evaluate the appropriate industry for the activities.

A part of the *Waste Management Remediation Services* subsector

In searching the NAICS, we found 15 classifications mentioning recycling across five sectors (Table A-3.1) . Based on the sector narratives, we eliminated four sectors and determined that both the redemption and processing fall within the *Waste Management Remediation Services* subsector (subsector 562) of the *Administrative and Support and Waste Management and Remediation Services* sector (sector 56).

We evaluated and eliminated the industry classification of *Recyclable Material Merchant Wholesalers* (423930). While this is a related use and cross-referenced in the NAICS, based on our analysis, the merchant wholesaling portion of the process takes place at other facilities after the materials have been collected at and transferred from the full-service centers.

Not commercial, retail trade

Similarly, we evaluated the claim that the redemption use could be *Retail Trade* (Sector 44-45). However, we found no inbound cross-references from the candidate recycling related industries 423930 and 562111 and no suitable candidate subsector either in the enumerated subsectors or in the *All Other Miscellaneous Retailers* index (459999).

The Sector description for retail trade, while broad, describes a Sector focused on the sale of small amounts of merchandise to the general public:

> *"The Retail Trade sector comprises establishments primarily engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.*
>
> *The retailing process is the final step in the distribution of merchandise; retailers are, therefore, organized to sell merchandise in* ***small quantities to the general public****."* (emphasis ours)
>
> NAICS, Retail Trade, "The Sector as a Whole"

Part of the *Solid Waste Collection* industry

Ultimately, the activities described by the proponent and described by comparable site plans best fit within the Solid Waste Collection (562111) industry

> *"This industry comprises establishments primarily engaged in (1)* ***collecting and/or hauling*** *hazardous waste, nonhazardous waste, and/or* ***recyclable materials within a local area*** *and/or (2) operating hazardous or nonhazardous waste transfer stations."* (emphasis ours)
>
> NAICS, "Waste Collection"

1.1.4. Statutory and regulatory definitions of recyclables as waste

Federal definitions

In addition to the NAICS categories and narratives, we turned to Federal, State, and Local statutes and regulations. The following is not a legal analysis, but rather provides context by focusing on plain language definitions found in relevant standards or statutes.

Statutorily at the National level, 42 USC Ch 82, the Resource Conservation and Recovery Act, provides a definition of waste and solid waste management:

> *"(27)* ***The term 'solid waste' means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities****, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 1342 of title 33, or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923) [42 U.S.C. 2011 et seq.]."* (emphasis ours)
>
> *(28) The term "solid waste management" means the systematic administration of activities which provide for the collection, source separation, storage, transportation, transfer, processing, treatment, and disposal of solid waste."*
>
> 42 USC Ch. 82: SOLID WASTE DISPOSAL (also referred to as the "Resource Conservation and Recovery Act")

At the Federal regulatory level, the Code of Federal Regulations provides an expanded definition of solid waste discarding:

> *"(2) (i) A discarded material is any material which is: (A) Abandoned, as explained in paragraph (b) of this section; or (B)* ***Recycled****, as explained in paragraph (c) of this section; or (C) Considered inherently waste-like, as explained in paragraph (d) of this section; or (D) A military munition identified as a solid waste in § 266.202."* (emphasis ours)
>
> 40 CFR § 261.2 Definition of solid waste

State of Oregon definitions

Similarly, the Oregon Revised Statutes, provide definitions of waste with ORS 459.005 (21), Definitions, defining recycling as waste related.

> *(20) "Recyclable material" means any material identified for recycling collection under ORS 459A.914 or any other material or group of materials that can be*

collected and sold for recycling at a net cost equal to or less than the cost of collection and disposal of the same material.

(21) "Recycling" means any process by which solid waste materials are transformed into new products in a manner that the original products may lose their identity.

…

(25) 'Solid waste' means all useless or discarded putrescible and nonputrescible materials, including but not limited to garbage, rubbish, refuse, ashes, paper and cardboard, sewage sludge, septic tank and cesspool pumpings or other sludge, useless or discarded commercial, industrial, demolition and construction materials, discarded or abandoned vehicles or parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid materials, dead animals and infectious waste as defined in ORS 459.386.

(26) "Solid waste management" means prevention or reduction of solid waste, management of the storage, collection, transportation, treatment, utilization, ***processing and final disposal of solid waste, recycling,*** *reuse and material or energy recovery from solid waste and facilities necessary or convenient to such activities.* (emphasis ours)

– State of Oregon, Oregon Revised Statutes, Chapter 459 — Solid Waste Management

Similarly Oregon Administrative Rules define waste similarly as activities involving the storing, collecting, transporting, and disposing of solid waste (OAR 340-093-0005). ORS Chapter 459A.700 "Beverage Containers; Bottle Bill" is a sub-part of Chapter 459 "Solid Waste Management". Clearly, recyclables are a subset of the larger waste management regulatory framework.

The proponent has argued, incorrectly, that legislatively a full-service redemption center is not a recycling center but a bottle drop.

First, the Bottle Bill does not define a "bottle drop". The Bill defines a "*Full-service redemption center*" to mean "*a location that meets the requirements of ORS 459A.737, at which any person may return empty beverage containers and receive payment of the refund value of the beverage containers.*" (ORS 459A.700).

Second, the Bottle Bill never uses the terms "recycling center" or "recycling operation". ORS 459A.735 (4) states "*A full-service redemption center approved by the commission under this section is* ***not a recycling depot for purposes of ORS 90.318, 459A.007, 459A.010, 459A.050 or 459A.080***." (emphasis ours)

These parts of the ORS do not relate to zoning or land-use questions, but relate respectively to "Criteria for landlord provision of certain recycling services", "Opportunity to recycle program

elements; local government fee", "Policy; statewide goals; recovery rates", "Recycling reports", and "Prohibitions against removing or mixing recyclable material; rules".

The intent of this section of the ORS is not to provide general definitions, zoning, or use guidance for specific uses in local jurisdictions (definitions are in Section 459A.700). The scope of ORS 459A.735 (4) is to define a center's relationship to other State recycling regulatory elements within the ORS.

Oregon Metro Definitions

As with Federal and State definitions, Oregon Metro places recyclables within the "garbage and recycling system" encompassing all related programs, services, and facilities.

> *"Garbage and recycling system: All the programs, services and facilities that enable residents and businesses to safely, and with the highest environmental benefit, get rid of their discarded items when they no longer have use for them. Metro, cities and counties oversee and manage garbage, recycling and composting services. The system also includes organizations and businesses that provide donation, reuse and repair services to reduce the amount of materials going to the landfills."*
>
> – Metro, 2030 Regional Waste Plan, Definitions

The Metro 2030 Regional Waste Plan not only defines recycling as part of the waste system, recycling is a cornerstone of the plan with 380 uses of recycling related terms and recognition of recycling as one of two pillars or the waste management system which includes (1) garbage and (2) recycling.

City of Portland Definitions

> *"(Amended by Ordinance No. 189293, effective January 11, 2019.) It is the policy of the City of Portland to reduce the amount of* ***solid waste, both generated and disposed of, by promoting aggressive waste prevention and recycling activities****. The City shall promote the development of environmentally and economically sound practices regarding the collection, processing and end use of solid waste, recyclable material and compostable material. In order to attain these goals and protect public health and the environment, the City shall regulate collection of solid waste, recyclable and compostable materials within the City.*
>
> *…*
>
> ***'Solid Waste' has the meaning given in ORS 459.005(24) (2013)****..."* (emphasis ours)
>
> – City of Portland, Title 17, Chapter 17.102, Solid Waste & Recycling Collection

As with Federal, State, and Metro definitions, the City of Portland defines recycling as part of the waste ecosystem. The City points to the Oregon Revised Statutes definition of “solid waste” from the 2013 version of the ORS. Aside from numbering, the definition of solid waste is exactly the same as the one quoted above in the Oregon definitions. Similarly, the definition for recycling is the same aside from numbering.

Within the City of Portland, waste is also defined within the zoning regulations in the definitions, in the description of the use categories, and in the additional use and development chapter specific to waste related uses, and in the solid waste & recycling collection chapters.

1.2. Two primary activities: redemption and waste processing

Thus, our analysis derives the following definition:

> *Full bottle redemption centers provide waste-related recycling services that are part of the solid waste collection industry. These include (1) recyclable bottle waste deposit redemption services and (2) recyclable bottle waste processing services including the transportation of recyclable waste.*

Section 2. Classification analysis for the uses

2.1. Overview

Having defined the activities and industry classification of the bottle waste redemption and processing services using government definitions related to industry classification and waste management, we turn our attention to zoning related matters by analyzing candidate use categories with City of Portland Code.

Title 33 provides relevant definitions in its narratives related to (1) waste-related uses, (2) recycling drop-off-locations, and (3) recycling operations.

Our conclusion is that the proposed use meets the characteristics of recycling operations and waste-related uses.

For this use, *waste-related* is the most-restrictive and prohibited in the CE zone while *recycling operations* is the most specific falling under industrial services and therefore limited and conditional in the CE zone.

At a minimum, both the limitations of Chapter 33.130 and conditions 33.815.115 Specified Uses in Commercial/Mixed Use Zones should apply to the proposed uses.

While the back-of-house processing operation is clearly characteristic of recycling operations and waste-related uses, The front-of-house, bottle waste redemption activity is complex in that it involves:

2A.1. the general public, commercial, and potentially industrial users;

2A.2. a government mandated and regulated financial transaction; and,

2A.3. the transport, handling, and introduction of recyclable waste into the processing use.

Therefore, we conclude that in addition to the limitations of Chapter 33.130 and conditions in 33.815.115 Specified Uses in Commercial/Mixed Use Zones the unique nature of the uses creates ambiguity as described in 33.700.070 with regards to its classification not only as an industrial service recycling operation but also as a waste-related activity. Based on the characteristics of the use, *industrial services* and *waste-related* both characterize the uses. As per 33.920.030.B., Developments with multiple primary uses, both uses can be assigned. We see no disqualifying characteristics in either use with industrial services as the most specific and waste-related as the most-restrictive.

Specifically, we recommend consideration of the conditions in Chapter 33.254, Mining and Waste-Related Uses which highlight (1) the general potential for impacts and nuisances; (2) the potential impact on the transportation system; (3) the potential long term impact on the land; and (4) that potential security measures may be required so that uses “are not a safety hazard to other land uses or to nearby residents.”

Based on our analysis of 33.910, we reject the claim that the front-of-house redemption functions are recycling drop-off collection centers under commercial retail and service repair-oriented services. We assert that the redemption use is not easily separable from the back-of-house processing use and both are part of an overall recycling operations **and** waste-related system.

We assert that both redemption and processing uses are characteristic of (1) a recycling operation and (2) an industrial, waste-related use, not just by regulatory and Title 33 Zoning definitions; but also because:

2B.1. the nature of the material is waste,

2B.2. the volume of waste processed is significant,

2B.3. the area is predominantly dedicated to waste-related activities,

2B.4. the equipment used to process the bottle waste is waste-specific and industrial,

2B.5. the redemption and processing functions are tightly integrated; and,

2B.6. the relationship of the facility to the subsequent processes is waste related.

For the reasons enumerated above, particularly 2B.1 thru 2B.5, we also reject the claim that the use is comparable to the accessory waste collection area uses of commercial or industrial uses.

2.2. Title 33 analysis

2.2.1. Recycling: Drop-Off Centers, Operations, Areas & Accessory Uses

There are two recycling-related formal definitions in 33.910. These define (1) a “Recycling Drop-Off Center” and (2) a “Recycling Operation”:

> *“**Recycling Drop-Off Center**. A facility for the drop-off and temporary holding of materials such as paper, cardboard, glass, metal, plastic, batteries, and motor oil. Processing of materials is limited to glass breaking and separation. Recycling materials are not sold to a recycling drop-off center. A recycling drop-off center is intended for household or consumer use. Use by commercial or industrial establishments is not included. Unattended drop-off stations for single materials, such as newsprint, are also not included.*
>
> ***Recycling Operation**. A use where one or more recycling materials are accumulated, stored, sorted, or processed. A recycling operation may get recycling materials from drop-off centers, from a household or business pick-up operation, or from commercial or industrial uses. Materials may be processed on site or accumulated in large quantities for eventual sale or transfer to other processors. Recycling operation does not include the processing of yard debris or other decomposable material except for clean paper products.”*

The term “recycling area” is also used through the regulation. For the Commercial/Mixed Use Zones the following requirement is provided:

> ***“33.130.310 Recycling Areas.*** *Requirements for recycling areas are regulated by the Bureau of Planning and Sustainability. See Section 17.102.270, Businesses and Multifamily Complexes Required to Recycle, of the Portland City Code.”*

Section 17.102.270 does not provide further zoning-related definitions but instead focuses on waste prevention and recycling requirements. In our view, the definition of a recycling area is related to development standards and not classification and use.

Finally, Section 33.920.350, Waste-Related, from 33.910, Description of the Uses, mentions “recycling of materials” as an accessory industrial use. In the case of the proposed use, recycling is a primary use and not an accessory use.

Thus, the question arises: is the proposed development of a full-service bottle redemption center characterized as a recycling drop-off center, a recycling operation, both, or neither? To analyze this question we looked at different elements of the definitions:

Recycling Drop-Off Center		
Item	**Narrative**	**Qualifies**
RDOC1	***A facility for the drop-off and temporary holding of materials such as paper, cardboard, glass, metal, plastic, batteries, and motor oil.***	**Yes**
RDOC2	***Processing of materials is limited to glass breaking and separation.***	**No**
	Activity is not limited to glass breaking and separation but also includes processing of plastic and aluminum.	
RDOC3	***Recycling materials are not sold to a recycling drop-off center.***	**No**
	A financial transaction is involved with regards to the bottle redemption process. While it is not a traditional sale, it does involve the exchange of an item for currency and the person redeeming the bottle may not necessarily be the original consumer. In this way, it shares similar characteristics to a sale. Chapter 33.910 does not provide a definition for sale or sales. So, using the dictionary definition, “[t]o transfer goods or provide services in exchange for money,” the activity constitutes a sale. (source)	
RDOC4	***A recycling drop-off center is intended for household or consumer use.***	**Yes**

RDOC5	***Use by commercial or industrial establishments is not included.***	**No**
	We are not aware of any limitations on the use of the full service bottle redemption centers by commercial or industrial establishments.	
RDOC6	***Unattended drop-off stations for single materials, such as newsprint, are also not included.***	**No**
	Other similar facilities include "after hour" unattended drop off stations	
Recycling Operation		
Item	**Narrative**	**Qualifies**
RO1	*A use where one or more recycling materials are accumulated, stored, sorted, or processed.*	Yes
RO2	*A recycling operation may get recycling materials from drop-off centers, from a household or business pick-up operation, or from commercial or industrial uses.*	Yes
RO3	*Materials may be processed on site or accumulated in large quantities for eventual sale or transfer to other processors.*	Yes
RO3	*Recycling operation does not include the processing of yard debris or other decomposable material except for clean paper products.*	Yes

Table 2.3.7.1. Analysis of Recycling Drop-off Centers and Recycling Operations

A full-service bottle redemption center meets only two of the six characteristics of a recycling drop-off center and it is disqualified in four cases. By contrast, the center qualifies for all four of the characteristics described in a recycling operation.

Explanatory notes are provided above in Table 2.3.7.1 for RDOC2, RDOC3, RDOC5, and RDOC6.

Based on our analysis it is clear that the use is **not** a *recycling drop-off center* and does meet the narrative descriptions of a *recycling operation*.

2.2.2. Retail: an incompatible use.

In addition to not meeting the definition of a *recycling drop-off center*, we further eliminated both the redemption and processing uses from the retail trade sector based on the NAICS definitions described in Section 1, the lack of ties in the NAICS from the retail sector to the corresponding waste management industry and no related industries in the retail trade sector index. We confirmed this analysis with the relevant narratives in Title 33.

2.3. Additional considerations

Based on our analysis of site plans, proponent descriptions, and characteristics of other full-service bottle waste redemption and processing facilities, our determination is that both redemption and processing uses are characteristic of *recycling operations* **and** *waste-related* uses as:

2B.1. the nature of the material is waste,

2B.2. the volume of waste processed is significant,

2B.3. the area is predominantly dedicated to waste-related activities,

2B.4. the equipment used to process the bottle waste is waste-specific and industrial,

2B.5. the redemption and processing functions are tightly integrated; and,

2B.6. the relationship of the facility to the subsequent processes is waste related.

While one could separate the uses between redemption (front-of-house) and processing (back-of-house), we maintain both fall within the waste-related category and should be assigned that category as per 33.920.030.B.

In particular, the level of integration (2B.5) describes an overall system linked in process, design, and equipment. This and other considerations are described in the following subsections.

2.3.1. The material is waste

In Section 1, we provided statutory and regulatory definitions classifying used bottles, the primary material involved in the use, as recyclable waste. To our understanding, the workflow is as follows: (1) a beverage contained in a qualifying container is purchased, (2) the used container waste is transported to the facility either loose or bagged in specialized bottle waste material handling bags, (3) the bottle waste is received through a bag drop, bottle return machine, or hand count service, (4) the material is (a) processed through conveyor belts, sorting machines, onsite crushers, dispensers, and compactors and/or (b) transported for processing at an off-site location. In addition, processes work to attribute the bottle waste return units to the individual's account for credit and/or provide a voucher which may be redeemed for cash.

We are aware of three scenarios regarding redemption. The bottle was redeemed:

2D.1. directly by the purchaser;

2D.2. after being discarded and recovered from recycling containers and other locations;

2D.3. or, otherwise sourced (e.g. exchanged, traded, or bartered).

In every case, the material meets the definitions of waste. While it is possible that a bottle may travel from the consumer to the redemption point without entering the broader waste or recycling stream, the Federal definition for discarding includes materials that are to be recycled. Furthermore, a used bottle by definition has contained a beverage and is likely to contain

residue from the beverage. Even a container that was never used as a bottle meets the definition of solid waste.

Through all parts of the redemption and processing lifecycle, the primary material involved is recyclable bottle waste.

2.3.2. The volume of waste processed is significant

We found three sources for the volume processed at a comparable facility (1) an OBRC press release on the Glisan facility, (2) the OBRCs quarterly reports for the last four quarters available at the time of the analysis (2022 Q4 thru 2023 Q3), and (3) an article from the Willamette Week.

Name	Figure
OBRC quarterly reports (22Q4 - 23Q3) *	85 million per year
OBRC press release	90 million per year
Willamette Week	100 million

* Figure estimated based on visual interpretation of charts

Using the figure of 90 million provided by the OBRC press release, the figure is **equivalent to approximately 247,000 cans per day.**

If every container was a 12 oz can measuring 2.6” by 4.8”, **the amount of cans processed in a year would be equivalent to a building that is approximately 9400 square feet and 18 stories tall**.

Considering that the cans may be either bagged or loose, 90 million cans a year represents a very large amount of waste processing, individual transactions, pedestrian, and vehicular traffic. We believe this volume is characteristic of industrial-scale bottle waste processing.

2.3.3. Floor area is predominantly dedicated to waste-related activities

In our analysis, both the redemption and processing functions are waste-related and represent the majority of the floor area allocations for the sites. In addition, we do not believe that the uses are significantly separable as an essential part of the redemption process directly ties into the processing elements of the sites.

Regardless, we have analyzed site plans for Delta Park and Glisan to evaluate the overall ratios.

Delta park calculations

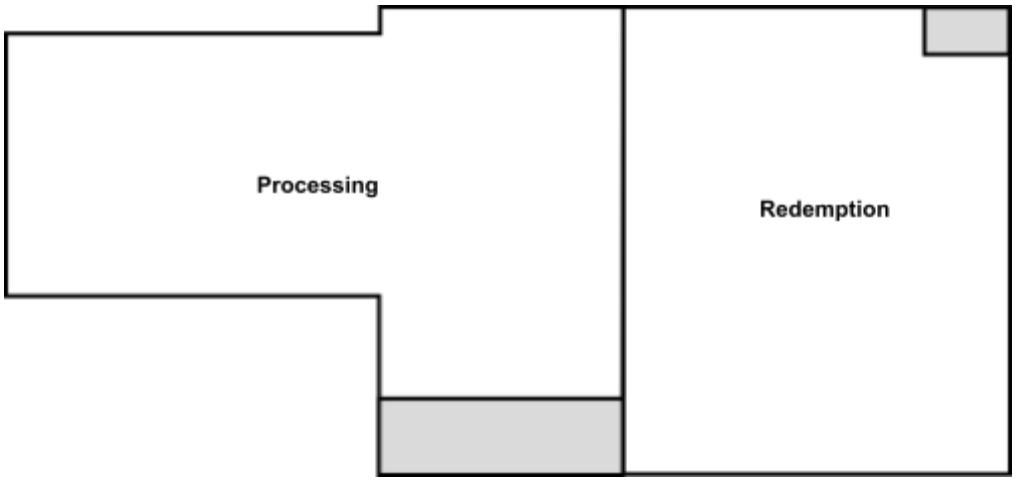
For Delta Park our calculations are based on the square footage markings on the plan.

In total, 94% of the square footage is allocated to recycling operations and waste-related uses: 36% for redemption and 58% for processing.

Area	**Activity**	**SF**
Break Room	Accessory	109
Office	Accessory	100
Restroom (Customer)	Accessory	62
Restroom (Employee)	Accessory	56
Loading/Trash	Processing	791
Sorting	Processing	2444
Customer Service	Redemption	231
Retail	Redemption	1739
Total		**5532**
Activity Group	**SF**	**%**
Accessory	327	6%
Processing	3235	58%
Redemption	1970	36%
Total	**5532**	**100%**

Glisan calculations

For Glisan, the site plan we have does not have similar square footage markings so we have estimated the ratios pending further analysis by an architect. The figures below are not to scale and are intended to convey the overall, general allocations. Accessory uses are shown in gray, The general dimensions of the processing and redemption functions are labeled accordingly.



For the Glisan facility, the waste-related processing and redemption uses appear to be comparable in size and to comprise the majority of the square footage. The uses in gray include a customer restroom, an employee restroom, an employee break room, and ATM machines.

Lombard calculations

For Lombard our calculations are based on the square footage markings on the plan. In total, 96% of the square footage is allocated to recycling operations and waste-related uses: 24% for redemption and 72% for processing.

Area	**Activity**	**SF**
Hall	Accessory	168
Bathrooms	Accessory	142
Receiving/Queuing	Redemption	1852
Sorting/Storage	Processing	5453
Total		**7615**
Activity Group	**SF**	**%**
Accessory	310	4%
Processing	5453	72%
Redemption	1852	24%
Total	**7615**	**100%**

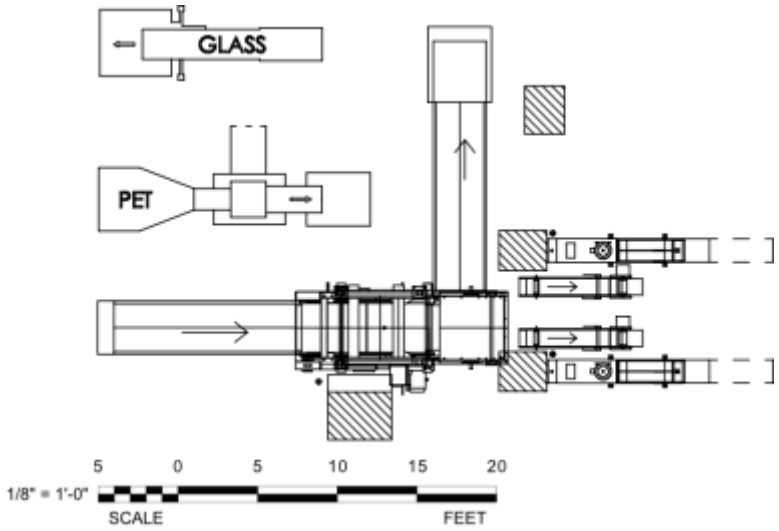
2.3.4. Waste-specific industrial equipment

Both Delta Park and Glisan site plans show various components of a system that includes items such as conveyors, auto sorters, bottle crushers, can dispensers, and PET compactors. For Lombard, the processing systems are not drawn in the plan we have available. We believe it is reasonable to assume that the site will be comparable to Glisan, a recently constructed site. The

dashed line markings seem to indicate a three-stream processing operation consistent with the other sites for processing aluminum, glass, and plastic.

The arrangement, size, & composition of the equipment on the plans is consistent with systems and machines we found in the top of search results when searching for terms from the plans. The websites returned by our searches were business-to-business waste management equipment supply companies.

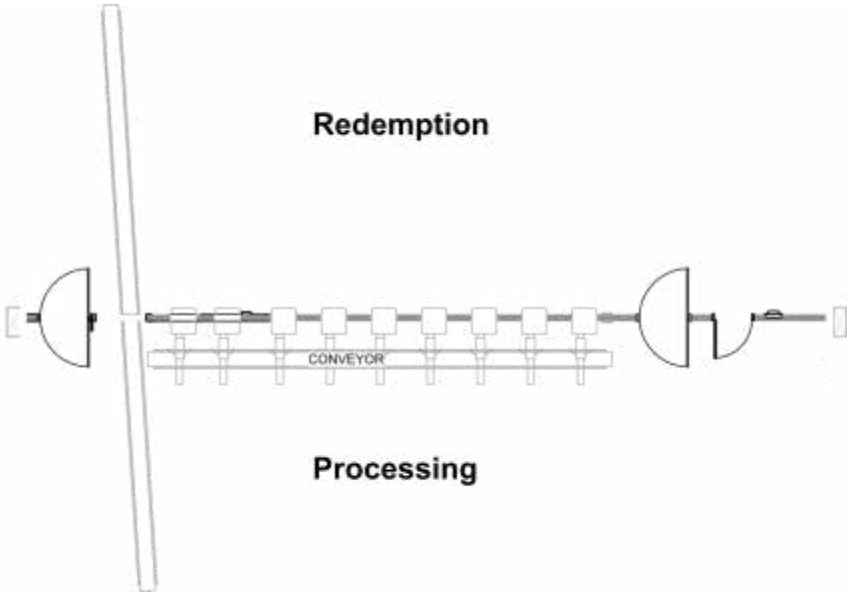
A subset of the machines and systems from the Glisan site are shown below. Individual machines range from approximately seven feet to what appears to be integrated system element well over 20 feet long.



2.3.5. Redemption and processing functions tightly integrated

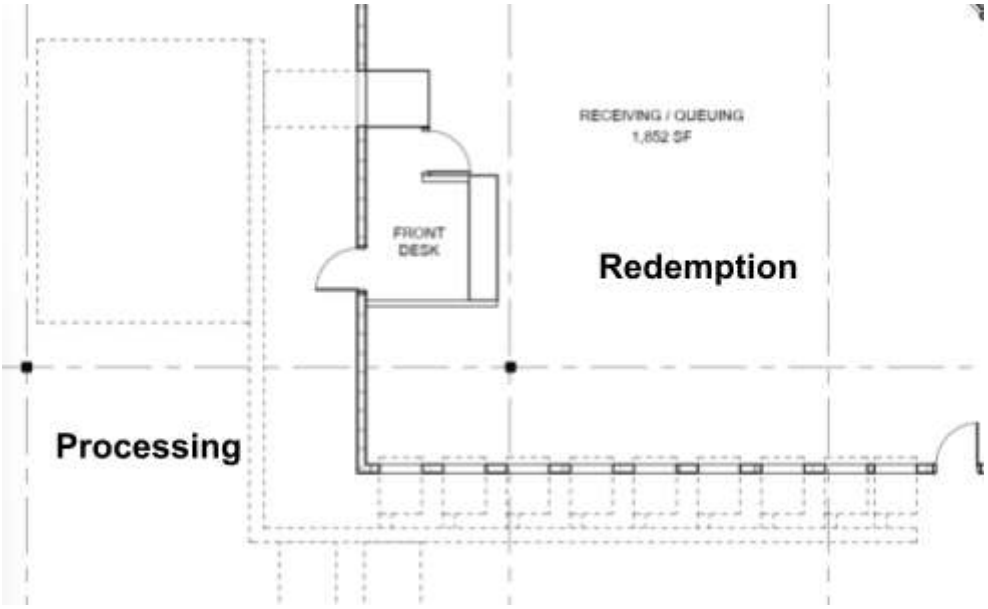
Not only do the processing functions appear to be composed of various industrial waste processing machines and systems, the redemption and processing functions are highly integrated with redemption users feeding bottle waste into the processing system.

In general, the design of the redemption area appears to be largely designed to accommodate the queuing of customers with bottle waste and having those customers input the waste into the waste processing system. The figure below shows how the wall in the Glisan site feeds from the redemption side of the building to the processing side.



Various industrial waste elements were removed from the processing side image above for the sake of visual simplicity. The site plans convey the integrated nature of the activities as part of a bottle waste recycling industrial process.

We see similar characteristics at the Lombard site indicative of an integrated system



2.3.6. Subsequent processes are waste related

Finally, it is our understanding that the waste from the full service bottle waste processing centers is subsequently integrated into a larger process that involves various other waste-related industrial activities as part of the BottleDrop network (source, accessed 2024.03.03).

2.3.7. Conclusion

Based on our analysis we conclude that the proposed use:

2E.1. is **not** a commercial recycling drop-off center;

2E.2. is **not** any other commercial activity;

2E.3. **is** an industrial recycling operation; and,

2E.4. has characteristics **both of** recycling operations and waste-related uses.

And, thus the proposed use:

2E.5. **is not** a by-right commercial use in the CE zone;

2E.6. **is subject to limitations and conditions** as an industrial services use in the zone;

2E.7. and, **may be subject to** more-restrictive waste-related conditions or prohibitions.

Section 3. Nuisance and impact analysis

3.1. Overview

Based on 2E.6 and 2E.7 in Section 2, we analyzed limitation, conditions, and additional regulations described in the following sections of Title 33:

Section	Type
33.130.100 B., Limited uses, Commercial/Mixed Use Zones	Limitations
33.815.115 Specified Uses in Commercial/Mixed Use Zones	Conditions
33.254, Mining and Waste-Related Uses	Additional regulations

Table 3.1-1, Applicable regulations

In total we identified thirteen candidate limitations, conditions, or additional regulations for the uses. We were not able to evaluate all selected regulations due to lack of information or because the information is normally provided later in the zoning process

Section	Selected	Evaluated	Passed	Failed
33.130.100	1	1	1	0
33.815.115	6	4	0	4
33.254	6	3	1	2
Total	**13**	**8**	**2**	**6**

Table 3.1-2, Conditions passed or failed analysis

Overall, with the information we have available, we determined that the uses were likely to comply with the limitation in 33.130.100 but are likely to fail to meet the regulatory conditional use requirements of 33.815.115 and 33.254.

The regulations selected, their descriptions, our forecast, and the related rationale are provided in the following table:

Section	Description	Pass/Fail Forecast
33.130.100 B.2.d	In the CE zone, each individual Industrial use is limited to 40,000 square feet of net building area.	**Pass**. Likely to be less than 40,000 SF of net building area

33.815.115.A	The proposed use will not have nuisance impacts from noise, odor, and vibrations greater than usually generated by uses allowed by right in the zone;	**Fail**. Industrial use with consistent indicators of greater nuisance impacts
33.815.115.B	Based on the characteristics of the proposed use and its development, the proposal is consistent with the purpose of the commercial/mixed use zone and with the character of the specific area;	**Fail**. Contiguous with residential, design overlay, and pedestrian scale CM zones. Use includes conditional industrial use inconsistent with the character of the area.
33.815.115.C	The proposed use will not significantly alter the overall character of the area, based on the existing proportion of commercial and noncommercial uses and the effects of incremental changes	**Fail**. All uses are (1) noncommercial and (2) either industrial services and/or waste-related
33.815.115.D.1.	The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated	**Fail.** Two lane district collector without a turn lane already stressed during large portions of the day. Risk to pedestrians. Insufficient public transit infrastructure
33.815.115.D.2.	Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.	**Not evaluated.** No mitigation plan available to evaluate.

33.815.115.D.3.	Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.	**Not evaluated.** No transportation improvement data to evaluate.
33.254.040.A	On-site queueing. The site layout must include adequate areas to accommodate the peak number of vehicles expected to come to the site at any one time.	**Fail.** Vehicle load combined with pedestrian load including traditional and improvised material handling devices.
33.254.040.B	Processing of waste products. In the case of Waste-Related uses other than landfills and composting operations, all activities relating to the receiving, sorting, processing, storage, transfer, and shipping of wastes must take place entirely within enclosed structures. The transfer of waste products from one vehicle or container to another vehicle or container and the cleaning of such vehicles or containers must be done within a containment area.	**Fail.** Transfer of waste from vehicles or pedestrians traverses unenclosed areas with potential for liquid waste that attracts vermin
33.254.040.C	Liquid waste pretreatment. The use, if other than a sewage treatment facility, must provide pretreatment of any liquids being discharged into the City's stormwater or sanitary disposal system. The pretreatment must meet the standards of the Bureau of Environmental Services.	**Not applicable.**
33.254.040.D	Posted information. A sign must be posted near the entrance to the site, stating the telephone number(s) where a representative of the use may be reached at all times.	**Pass.** Proponent is likely able to comply with this regulation.
33.254.050	A traffic impact study must be submitted for the proposed use. As part of the study, measures must be proposed for mitigating traffic impacts resulting from vehicles going to and from the site. The study must also include a plan and mechanisms to ensure that traffic, especially trucks, travel primarily on truck streets or Major City Traffic Streets when near the site. The traffic study must	**Not evaluated.** No impact study available to evaluate.

	include information on proposed access points, hours of operation, types of vehicles, and number of trips.	
33.254.060	The applicant must submit a mitigation plan that addresses potential nuisance impacts which might be created by the proposed use. The plan must include the following components: A. Off-site impacts. The plan must document that the use will comply with the off-site impact standards stated in Chapter 33.262; B. Litter. For Waste-Related uses, the plan must address litter generated on the site and litter along roadways leading to the use that is generated by vehicles coming to the site. The plan must also address illegally dumped waste products near the site. The plan must provide for regular litter removal. The plan must also include means to limit litter from vehicles coming to site; and Dust, mud, and vector control. The plan must provide mechanisms to limit impacts from dust, mud, and disease carrying organisms such as rats and mosquitoes.	**Not evaluated.** No mitigation plan available to evaluate.
Note on 33.254.080 and 33.254.090: We did not evaluate these criteria as they appeared to be design element regulations and not use, nuisance, and impact regulations.		

Table 3.1-3, Limitations and conditions analysis

Additional information for some items related to the above analysis can be found in Section 3.3., Impact Analysis.

3.2. Defining the area and its character

Analysis of the various regulations requires defining the character of an area and how an area might be impacted.

In the first case, we turn to 33.910 which defines "*Desired Character*" as

> *"The preferred and envisioned character (usually of an area) based on the purpose statement or character statement of the base zone, overlay zone, or plan district. It also includes the preferred and envisioned character based on any adopted area plans or design guidelines for an area."*

Using this definition, the proposed use:

3A.1. falls within the adopted St. Johns/Lombard plan;

3A.2. is within the CE zone;

3A.3. is contiguous with the R2.5 and CM2 zones; and,

3A.4. is contiguous with the St Johns Plan District.

3.2.1. St. Johns/Lombard Plan 2004

The preferred and envisioned character of the area is described in the section titled "*A Vision for the St. Johns and Lombard Street Area*".

Based on feedback from the community, journalist research, analysis of traffic, and public safety data analysis, the proposed use fails in every category analyzed.

Section	Selected	Evaluated	Passed	Failed
Vision	7	7	0	7
Goals	6	6	0	6
Urban development concept	1	1	0	1
Total	**14**	**14**	**0**	**14**

Table 3.2.1-1, Envisioned character category pass/fail analysis

The section is approximately five pages in length, so we have selected a subset of items focused on character defining elements. Emphasis, where provided, is ours. We have also included Plan elements related to Lombard from the Planning Goals and Urban development concept sections. A breakdown of the evaluated plan elements is provided below:

Section	ID	Narrative	Pass/Fail Forecast
Vision	V1	*Lombard is defined by **pedestrian-oriented retail centers**, linked by tree-lined segments featuring attractive housing and land uses that serve the peninsula.*	**Fail**. Auto-oriented, regional scale business
	V2	*It is a place where people are **comfortable walking the streets** and spending time in public places.*	**Fail**. Pedestrian risks as well as public safety risks
	V3	*[Lombard's] appealing **sidewalk environment** is accentuated by small community gathering places, and an array of retailers, restaurants, and services for the surrounding neighborhoods.*	**Fail**. Industrial processing center with parking lot focus and likely to impinge on sidewalks
	V4	***Walking is safe and convenient** - it is the*	**Fail**. Pedestrian risks

		preferred means of travel between local destinations for many residents.	as well as public safety risks
	V5	***Impacts of truck traffic are minimized*** *through the careful design of transportation improvements and configuration of land uses.* ***Truck traffic does not create a barrier to access and circulation by pedestrians, bicyclists, and other vehicles****.*	**Fail**. Auto-oriented use from customers as well as bottle waste transfer vehicles.
	V6	***Auto-oriented businesses do not overshadow the smaller businesses in number, and are designed to complement the area's pedestrian emphasis****.*	**Fail.** Consistent feedback of negative impacts of full service centers on smaller businesses
	V7	The area's ***multi-use buildings successfully incorporate housing, commercial uses, and office space; they complement the street environment and are compatible with the area's historic character.*** Most importantly, they are well designed and human in scale, drawing inspiration from the positive characteristics of the adjacent established neighborhoods.	**Fail**. High volume, Industrial, and auto-oriented business incompatible with mixed commercial and residential neighborhood
Goals	G1	***Enhance opportunities for residents to walk or bike to shops or leisure facilities***	**Fail**. Pedestrian risks as well as public safety risks
	G2	***Promote locally-owned and community-oriented businesses***	**Fail.** State-wide, city-scale and regional oriented business
	G3	*Support efforts to establish* ***businesses that are catalysts for community revitalization***	**Fail**. Likely to create various off-site nuisances and public safety issues
	G4	***Enhance the safety, convenience and attractiveness of walking, using transit, and bicycling***	**Fail.** Pedestrian risks as well as public safety risks. Strain on public transit from bottle waste transport
	G5	***Improve circulation on the main street and in the town center while calming traffic***	**Fail.** Auto-oriented, city-scale, and likely to attract traffic from cross-border fraud
	G6	***Reduce reliance on autos****, and make transit,*	**Fail.** Bottle waste is

		walking and bicycling the preferred modes of travel to and from the town center and main street	bulky and requires vehicular transit or bulky material handling
Urban development concept	U1	*The western portion of the Lombard main street is envisioned as becoming more **pedestrian-friendly** over time.*	**Fail**. Reverses the trend toward pedestrian friendly to auto-oriented

Table 3.2.2-2, St. Johns/Lombard Plan 2004 characteristics

3.2.2. The area and its character

Defining an area generally

While 33.910 defines *desired character*, we did not find guidance on what defines an area. However, it is clear that the property falls within the St. Johns/Lombard Plan area.

Thus, we followed the guidance of 33.700.070 that "[w]ords used in the zoning code have their dictionary meaning unless they are listed in Chapter 33.910, Definitions." We used Wiktionary for our reference defining an area as "*a particular geographic region*." Unfortunately, this definition could be interpreted very narrowly or very broadly.

Mapping to a specific area

Given Title 33's emphasis on adjacent properties, we believe it is appropriate to include the desired character of bordering zones contiguous with the proposed development in defining the area and that their characteristics should be strongly weighed in the analysis. These include (1) R2.5, (2) CM2, and (3) CM2 with the St. Johns Plan District design overlay.

We looked for additional context for defining an area within Title 33 and found the distance of 400' consistently used in determining neighborhood contact. We believe this 400' radius provides a very conservative definition of an immediate neighborhood area. In this case, that definition adds the characteristics of the R5, RM2, and CR zones.

We believe this is a conservative and narrow definition of what constitutes an area. Using this definition we analyzed the characteristics of the zones. Annex 4 aggregates the various characteristics of the zone proposed for the development (CE) as well as the additional zones and plan districts in the area.

The immediately impacted area is shown in Figure 3.2.2-1. The proposed use is in a CE zone that measures approximately 88,102 ft² while the immediately impacted area overall is approximately 868,223 ft². Thus, CE zoning represents only about 10% of the total area. The overwhelming majority of the area (90%) is not CE zoned.

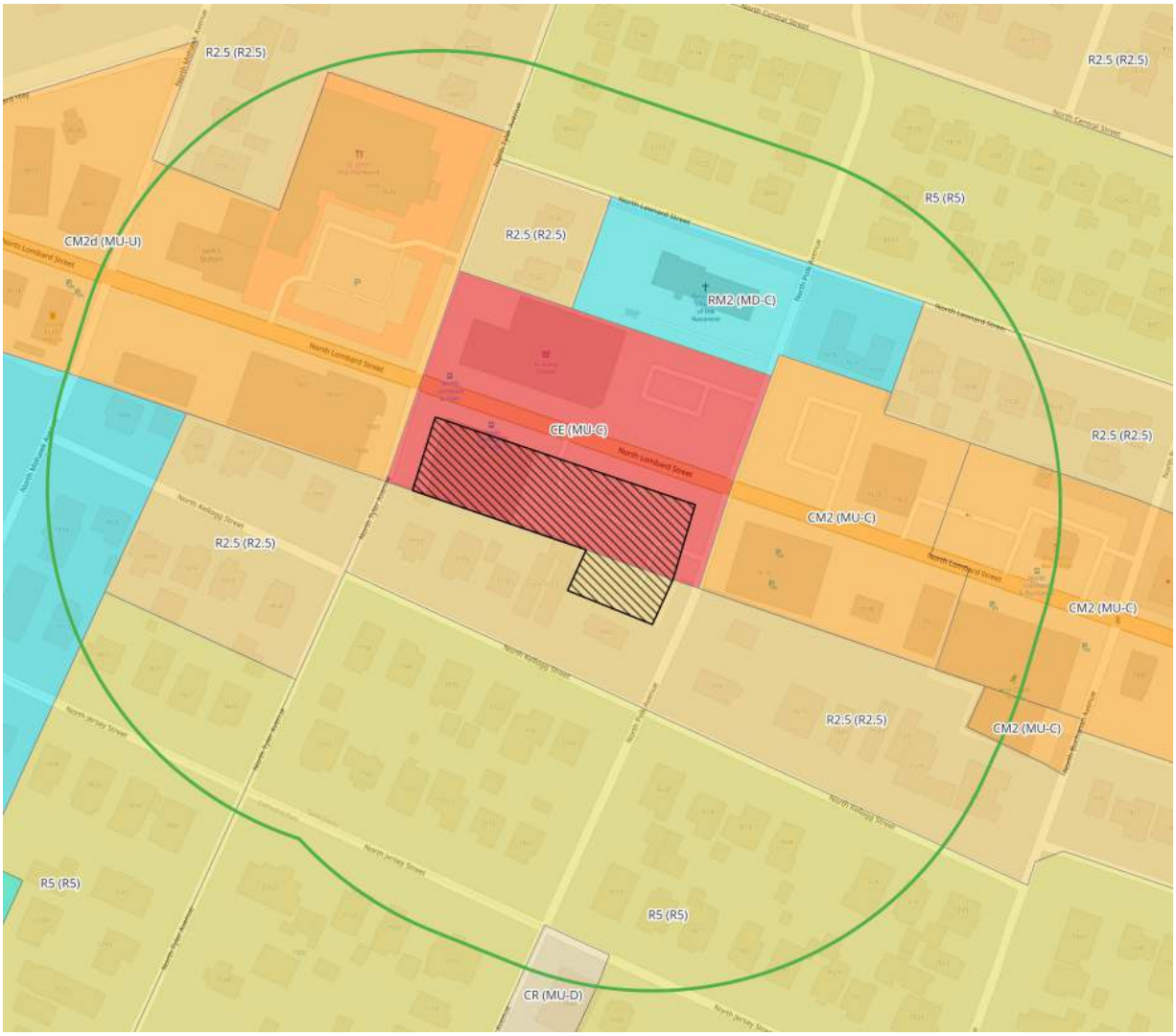


Figure 3.2.2-1. Immediately impacted area

Derived characteristics

In addition, to the characteristics of the St. Johns/Lombard plan (shown in Table 3.2.2-2). We analyzed the characteristics of the various zones (shown in Annex–4, Table A4-1) and the 2035 Comprehensive Plan (shown in Annex–4, T, Table A4-2). Given the proportion of the CE zone (10%) area versus other areas (90%) we weighted our analysis accordingly.

Based on this analysis, we synthesized the following characteristics for the area:

3B.1. pedestrian-oriented and walkable scale;

3B.2. compatible with, enhances, and protects St Johns' character and community identity;

3B.3. promotes locally oriented and neighborhood scale businesses;

3B.4. medium-scale mixed commercial residential with low-intensity single-dwelling;

3B.5. commercial uses complement residential; and,

3B.6. safe, privacy respecting, crime-preventing, and fire-preventing design.

Likely impact beyond the area defined

Based on substantial feedback from the community, communities located near similar sites, and extensive reporting in the press, we have strong reason to believe that the proposed use will have a significant, negative impact on the character of the area extending well beyond our narrow definition.

3.3. Impact analysis

3.3.1. Greater impacts than by-right (33.815.115.A)

33.815.115.A	The proposed use will not have nuisance impacts from noise, odor, and vibrations greater than usually generated by uses allowed by right in the zone;	**Fail**. Industrial use with consistent indicators of greater nuisance impacts

In the CE zone, the by-right uses of the CE zone include residential, commercial (not including self-service storage and major entertainment) and institutional categories aside from basic utilities and community service uses.

Reported impacts from community indicate greater nuisance impacts

The uses from the site are industrial and may include both industrial services and waste-related uses. Based on media reports and testimony provided to the Beaverton City Council, it is very likely that the use will generate odors and noises greater than those of the by-right uses.

In the press articles and Beaverton City Council minutes surveyed, community members explicitly compared the noises, odors, and illumination generated to similar uses and the historic character of the areas. Neighbors routinely described the bottle redemption and processing centers as a much greater nuisance.

Impact	Summary	Source
Noise	Truck noise, customer cart, and can noise	KATU, 2018
Noise	Various complaints	Beaverton City Council Minutes, 2018
Odor	Various complaints	Beaverton City Council Minutes, 2018
Light	Lights from parking lot area	KOIN, 2023
Noise	Truck noise	KOIN, 2023

Table 3.3.1-1, Impacts and their sources

In addition to the noise, light, and odor nuisances documented by the media and City Council Minutes, the size and nature of the equipment shown on the site plans of similar sites raises concerns about the machine noise generated. Without additional information about the systems it is difficult to forecast, but the comparable equipment that we did find had **potential noise levels up to 90 db**.

In the site plans we do not see any indication of substantial noise, light, or odor mitigation design approaches.

As a property in a commercial/mixed use zone abutting a residential zone, the permissible sound level is limited to 60 dBA (source) at the residential property line boundaries. This is perceptually equivalent to normal talking from 1m away or the lower end of passenger car noise from 10m away (source). **It is very likely that the proposed use will be consistently nonconformant with noise regulations**.

In addition, part of the parking lot shown on the Lombard site plan is within the R2.5. zone and shares a property line with the non-rear facing elements of two residences.

Figure 3.3.1-1

3.3.2. Consistency with the purpose and character (33.815.115.B)

33.815.115.B	Based on the characteristics of the proposed use and its development, the proposal is consistent with the purpose of the commercial/mixed use zone and with the character of the specific area;	**Fail**. Contiguous with residential, design overlay, and pedestrian scale CM zones. Use includes conditional industrial use inconsistent with the character of the area.

As outlined in Section 3.2, we synthesized the following characteristics and conclusions:

ID	Characteristic	Conclusions
3B.1.	pedestrian-oriented and walkable scale;	**Inconsistent**: ● Car oriented use ● Carts often used for material ● City or regional scale clients
3B.2.	compatible with, enhances, and protects St Johns' character and community identity;	**Inconsistent:** ● Industrial use ● Outdoor queuing from customers ● High volume waste processing
3B.3.	promotes locally oriented and neighborhood scale businesses;	**Inconsistent**: ● State level cooperative ● City or regional scale service area ● Industrial character ● Industrial volume ● Waste-related activities
3B.4.	medium-scale mixed commercial residential with low-intensity single-dwelling;	**Inconsistent:** ● Industrial use ● High volume waste processing ● Industrial machinery
3B.5.	commercial uses complement residential; and,	**Inconsistent:** ● Industrial use ● City or regional scale service area ● Chronic safety & livability issues ● Parking lot in R2.5
3B.6.	safe, privacy respecting design, crime-preventing design, and fire-preventing design.	**Inconsistent:** ● Shootings and stabbings by staff ● Cross border bottle fraud ● Ongoing safety litigation ● Chronic documented problems ● Mitigations unlikely and incompatible

Table 3.3.2-1, Consistency with character

An upcoming section related to Section 33.815.115.D. covers items related to traffic and traffic. Similarly, Section 33.815.115.B and its associated narrative above (Greater impacts than by right) covered impacts as defined within Title 33.262, Off-Site impacts.

3.3.3. Other impacts on the character of the area

The St Johns community have expressed their concern about the proposed use across a variety of online platforms, grass-roots efforts, and neighborhood association meetings.

Their concerns are consistent with the impacts articulated by various citizens in the 2018 Beaverton City Council minutes and the extensive reporting on the impacts of bottle redemption centers across the State. A subset of these articles is provided in Annex 6, Neighborhood impact stories.

It is consistent to analyze those impacts in the scope of Chapter 33.815, Conditional Uses, based on desired characteristics definition in 33.910 and captured by the St Johns/Lombard Plan and Comprehensive City Plan.

To anchor these impacts in regulatory backing we referenced:

- Title 14, Chapter 14B.60, Chronic Nuisance Properties; and,
- Title 29, Chapter 29.20, Property Nuisances.

In addition, the City of Portland provides a list of priority impacts in their campsite assessment documentation. We are including those examples here independent of their relationship to campsites as a useful list of impacts of activities on an area. These include:

- Evidence of conspicuous drug use, paraphernalia, or improperly disposed of syringes
- Impact on neighborhood livability as measured by the amount of uncontained debris
- Restriction of access as defined in the Americans with Disabilities Act standards
- Blocking public access
- Restricting construction or maintenance activities

The following table provides an overview of potential impacts from the use based on analysis of media articles and input to the Beaverton City Council. We used the Risk matrix approach described in Wikipedia leveraging analyst risk assessment analysis experience.

Title	Characteristic	Likelihood	Severity	Risk
29.20.010 H.	Trash and debris	Certain	Minor	High
29.20.010 K	Obstruction of rights of way	Likely	Critical	High
14B.60.010 D	Nuisance activities	Certain	Critical	Very High

Other impacts	Conspicuous drug use	Likely	Marginal	High
	Debris (off-site)	Certain	Minor	High
	Restriction to ADA	Likely	Critical	High
	Blocking public access	Likely	Marginal	High
	Restricting construction/maint.	Possible	Marginal	Medium

Table 3.3.3-1, Impact risk assessment

The following table summarizes the impact risk

	Risk			
Evaluated	**Very High**	**High**	**Medium**	**Low**
8	1	6	1	0

Table 3.3.3-2, Impact risk summary

Chronic history of serious crimes and nuisance activities

Both the Hayden Meadows (Delta Park) and Glisan (Hazelwood) locations have consistent media reporting and neighborhood community reports regarding chronic nuisance activities related to the sites.

The situation has necessitated hiring professional security services not just for the third-party landlord at Hayden Meadows (source) but also for the OBRC itself at the Glisan facility. At the ORBC facility, the security staff stabbed an individual (source).

Both existing sites have proven to be a chronic nuisance and safety issue to the point where both locations have required specialized security personnel who were unable to safely manage the situation. In a related case, the same security used by the BottleDrop at the Hayden Meadows location shot an individual at the nearby Lowes.

A nexus of nuisance activities, drug-use, and drug-dealing

The article Fentanyl Threatens Oregon's Cherished Bottle Bill describes a nexus of nuisance activities, drug-use, and drug-dealing.

We have found no compelling indicators that the proponent has taken significant measures to address these issues. Furthermore, the Governor has suspended bottle and can redemption and two bottle drop locations in response to issues at these bottle return locations. Neighbors report substantial overnight improvements to nuisance related impacts (source 1 and 2).

3.3.4. High priority police dispatch data

To examine the public safety impact, we analyzed the Portland Police Bureau's 2022 and 2023 police dispatch data for the OBRC Hazlewood location (Glisan). In our assessment, this location provides a more comparable area than the Delta Park location.

For the majority of 2022, the bottle drop location was located at 12403 NE Glisan in the 12400 NE Glisan block. According to OBRC press releases, the redemption center moved in November of 2022. The location moved approximately 700' to the 500 NE 122nd Ave block where it was located for all of 2023. For these reasons, the local area provides a reasonable and bounded location for analysis.

In addition, we applied the following filters:

- Selected only high priority police dispatch calls
- Filtered out traffic and alarm calls
- Bounded to the center's operating hours +/- 30 minutes (7:30 am to 6:30pm)

The table below shows the result of our analysis:

Block	Businesses	2022	2023	% Δ
NE Glisan & 122nd	Intersection	20	15	-25%
500 NE 122nd	OBRC (2023) AutoZone, 76	11	26	136%
12100 NE Glisan	McDonalds, KFC	25	20	-20%
12300 NE Glisan	Walgreens, Menlo Park East	16	3	-81%
12400 NE Glisan	Menlo Park West, OBRC (2022)	23	3	-87%

Table 3.3.4-1, High priority police dispatch 2022 and 2023

Subsequent to the move of the OBRC redemption center, **high priority calls increased in the corresponding block by 136%.**

Every other block group analyzed saw decreases ranging from 20% to 87%. The block where the center was located saw the sharpest improvement with high priority calls dropping by 87%.

Call types are broken down in the following table for the 500 NE 122nd block:

Call Type	2022	2023	% Δ
Assault	1	4	300%
Assist	1	1	0%
Disorder[1]	5	16	220%

Threat	4	3	-25%
Vandalism[2]	0	1	-
Warrant[2]	0	1	-
Sum	**11**	**26**	136%

Table 3.3.4-1, Call type changes

[1] Includes all disorder categories: area/premise check, disorder, disturbance, suspicious, & welfare check

[2] Percent change can not be calculated for items with a start value of 0

As shown above **83% of high-priority call types saw an increase**. The threat category saw a decrease of 25% from 4 to 3 calls while **assault calls increased by 300% and disorder calls by 220%**.

3.3.5. Traffic and pedestrian impacts

33.815.115.D.1.	*The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated*	**Fail.** Two lane district collector without a turn lane already stressed during large periods of the day. Risk to pedestrians. Insufficient public transit infrastructure

We analyzed a portion of the characteristics provided in 33.815.115.D.1 and quoted above. Our concerns are captured in the following table:

Characteristic	Concerns
Safety: pedestrian & cyclists	● High crash network street ● 5 vision zero accidents ● Dangerous crossing: location, visibility after dark ● Dangerous crossing: left turns with no turn lane ● Dangerous crossing: traffic frequency ● No vision zero improvements in this stretch ● No bike lane
Safety: vehicular	● High crash network street ● High number of high priority collision dispatch calls

	● 2 vision zero accidents ● Difficult left turn with no turn lane ● Increase in unregistered and uninsured vehicle traffic
Street capacity: Lombard	● Left hand queuing ● Stressed district collector ● Feeds to Beaverton, Hillsboro St Johns route ● Ivanhoe, Philadelphia, Lombard congestion ● Non-local cross border traffic committing bottle fraud
Street capacity: Polk	● New high density apartments ● Lot entry conflicts with pedestrian scale & orientation
Connectivity	● Challenging connectivity due to peninsula and railroad cut ● Limited local service traffic routes in and out ● Local traffic forced onto collectors to enter/exit St Johns ● St Johns bridge construction and traffic ● Southbound Ivanhoe and Lombard merges near area
Transit availability	● Bus system not designed for bulk cargo ● Bus system contamination from waste-related spillage ● Waste cargo reducing seating capacity ● Waste cargo blocking aisles and ADA seating areas ● Distant from MAX lines ● MAX also not designed for bulk cargo and spillage
Pedestrian & bicycle network	● Traffic shifting to Central Greenway to avoid Lombard ● Sidewalk obstructions ● ADA obstructions
Neighborhood impacts	See various concerns in the impact analysis section

Table 3.3.5-1, Traffic and pedestrian impacts

We are particularly concerned about the safety of pedestrians in this pedestrian oriented neighborhood, increases in non-district and cross-border fraud traffic, left-hand turn queuing congestion, and increased traffic collisions.

Pedestrian safety and accessibility risks.

1. Hazardous non-crosswalk, mid-block crossing. While the property is serviced by a South/Southeast bound Trimet stop, the nearest North/Northwest bound Trimet stop is likely to create a mid-block pedestrian crossing hazard.

From the crosswalk at N Oswego to the crosswalk at N Buchanan, the length of area without a crosswalk is over a quarter mile. This area is already challenging for pedestrians accessing local commercial services and is likely to become even more hazardous with the development of a city-scale industrial use.

Since the majority of the population serviced by this transit line is located to the South of the property, it is likely that a significant portion of the public transit use will be Northbound and prone to this dangerous crossing.

Figure 3.3.5-1. Transit overview

Peak traffic in the area when last measured by ODOT measured 1314 vehicles per hour at 4:00 PM with volumes of over 800 cars per hour for the majority of the operating hours. This means that at peak traffic a car is passing every 3.7 seconds while a person is trying to cross potentially laden with hard-to-maneuver, hand-carried bottle waste cargo or while attempting to cross with a cart or other material handling equipment.

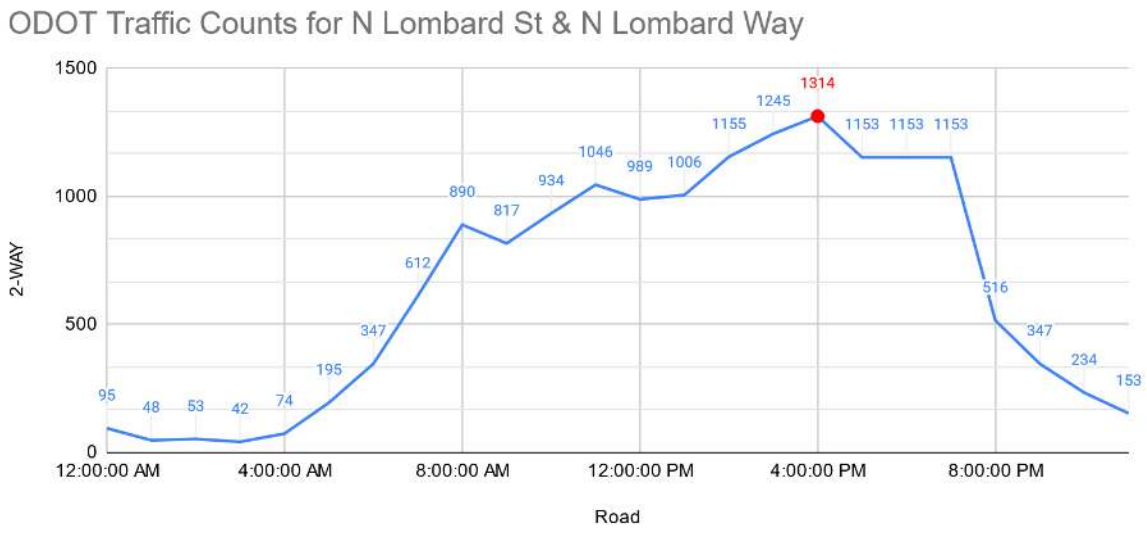


Chart 3.3.5-1, Traffic counts

2. Increased traffic resulting in pedestrian collisions while turning into the lot. The proposed use will result in vehicles turning off of an already busy street into the property's lot.

On Lombard, this presents a high risk of pedestrian collisions especially with the majority of the traffic likely traveling Northbound and negotiating a non turn-lane turn across a sidewalk onto the property. **Left turns are 3 to 4 times more likely to be fatal for pedestrians.**[6]

The entry on N Polk will require turns off of Lombard followed by an immediate right turn onto the property across a sidewalk that services local residents walking from the nearby apartments and houses to the gym, food-carts and various other pedestrian-scale businesses.

Given the limited number of full service beverage waste deposit centers and the likely corresponding suspension of collection services by retailers currently collecting bottles, it is very likely that traffic previously distributed between large grocery stores will be routed here, much of the traffic will not be local, vehicles will be managing bottle waste cargo in truck beds or cargo, and many will be unfamiliar with the area presenting an additional risk to pedestrians.

3. Cross-border fraud, and potential for untagged, uninsured, unregistered vehicle risks

According to a report from the Secretary of State, Oregon Audits Division, the OBRC estimates that "almost 100 million containers are fraudulently redeemed each year". The report continues:

> ***"Fraud in Oregon is likely concentrated in Portland**, simply due to population density, but is probably occurring along much of the state's borders. **It is likely that an increase to a state's deposit amount would increase fraud from border states.***
>
> *Auditors observed two Portland BottleDrop redemption centers near the Washington border. During those hours, numerous people driving cars with Washington license plates redeemed containers, as well as cars with front or rear plates removed.*
>
> *…*
>
> *News articles have reported that residents of Vancouver, Washington, are upset at others going through their trash and recyclables for cans and bottles. In 2018, the C-TRAN bus service from Vancouver to Portland banned containers from their bus lines."* (emphasis ours)

The embattled Delta Park location appears likely to be shuttered impacted by litigation, inability to renew their lease, or other issues. This could very realistically result in a large percentage of Delta Park's former traffic utilizing the St Johns location instead. In addition, untagged vehicles pose significant challenges for identifying vehicles involved in traffic incidents or nuisance behaviors. Furthermore, neighbors of the Glisan site report additional stress on residential parking from Washington vehicles parking in front of their properties to avoid detection.

4. Traffic and congestion issues due to left turn queuing. The proposed use will create additional congestion on Lombard and N Polk. With the majority of the traffic traveling Northbound, most entries will require a left turn on a stretch of Lombard which is narrow and

[6] A Systems-level Analysis of Left-turning Vehicle-Pedestrian Crashes

does not have a turn lane. This is likely to add congestion not just in the immediate vicinity of the property but throughout an area already experiencing vehicular congestion.

5. High priority police dispatch for traffic collisions. Using the PPB Data mentioned in the section on high priority impact data, we analyzed the amount of high priority traffic collision calls for 2023. We found this segment of Lombard a hotspot for traffic collisions alongside other parts of Lombard, Columbia, and Fessenden. See Supplemental traffic data and figures for a diagram of the larger collision data context.

Furthermore, this segment of Lombard has not benefited from the same improvements as the N Ida, N Lombard Main Street Repair, and Upper St. Johns & N Burr Neighborhood Greenways projects nor is it on the Corridor Improvement projects list.

This segment of Lombard, as recognized in the plan, has been transitioning to pedestrian oriented for some time. The walkable businesses, housing developments, and presence of many single-family homes on this segment of N Lombard is consistent with the desired character of the area. We are concerned that this segment has been overlooked and the use is a step in the wrong direction for this segment.

We are particularly concerned about potential bleed over effects into local traffic streets. Based on our analysis, we found a cluster of accidents close to N Lombard within the local traffic street of N Buchanan.

There are only 3 of these local traffic street accident clusters in St Johns: (1) N Lombard and N Buchanan, (2) N Hendricks and N Mohawk, and (3) N St Johns and N Central.

The N Lombard and N Buchanan cluster has the largest number of nearby high priority collision dispatch calls and is within 500’ of the proposed use. We are also concerned that locating an industrial, nuisance, and auto-oriented use on N Lombard will result in local traffic routing onto local traffic roads to avoid the segment putting strain on the Central neighborhood greenway and other local traffic roads.

Figure 3.3.5-2, N Lombard and N Buchanan high priority traffic collisions

Annex 1. “BottleDrop” facilities and their context

“OBRC is the industry steward of Oregon’s nationally recognized beverage container redemption program. We help keep Oregon beautiful by providing outstanding services to our partner distributors, retailers and to the public for the recovery, reuse and recycling of beverage containers.”

“OBRC serves as a not-for-profit statewide operator with full vertical integration, making the co-op a major employer and providing 500 clean economy jobs in Oregon.”

“Through our statewide Route Operations, OBRC collects containers from more than 2,000 retail stores in Oregon and picks up Green and Blue Bags daily from 71 bag drop locations. With a team of 71 employees and a fleet of more than 60 trucks and 250 trailers, OBRC’s Route Operations division is a large enterprise providing efficient, reliable services for our retail partners and BottleDrop account holders across Oregon.”

OBRC, “Who We Are & What We Do” **accessed 2024.03.02**

“The Glisan BottleDrop Redemption Center is one of the busiest facilities of its type in the world, routinely counting, redeeming, and processing around 90 million containers each year.”

“Instead of redeeming containers one-at-a-time through reverse vending machines, customers will have the option to simply empty their containers onto a conveyor belt, which passes under an optical counting devise (sic) that uses artificial intelligence and a neural network to instantly recognize and count containers as they pass by underneath.”

“OBRC Opens State of the Art BottleDrop Redemption Center in NE Portland” **accessed 2024.03.02**

“You can do all things BottleDrop at our full-service Redemption Centers. At these staffed locations, you can drop off Green and Blue Bags, use self-serve bottle and can return machines, use our first of its kind Stream Count AI bulk counting technology (where available), purchase Green Bags, pick up Blue Bags, get a new/replacement account card, get up to 50 containers hand-counted by BottleDrop staff, or use a kiosk to withdraw funds as cash or store credit (at participating Plus retailers only).”

“Understanding BottleDrop” accessed 2024.03.02

Annex 2. Site Plans

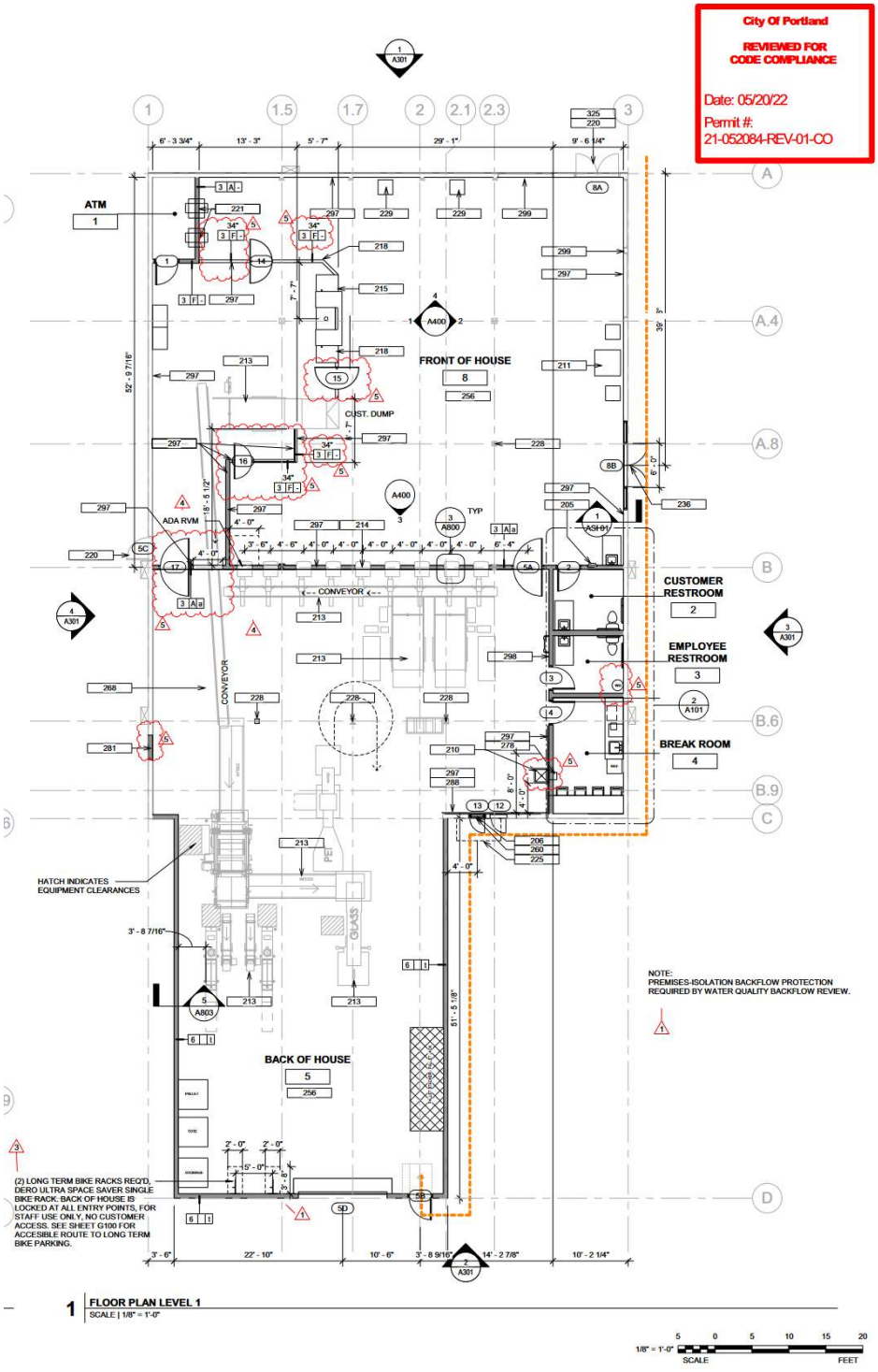


Figure A-2.1, Glisan Facility

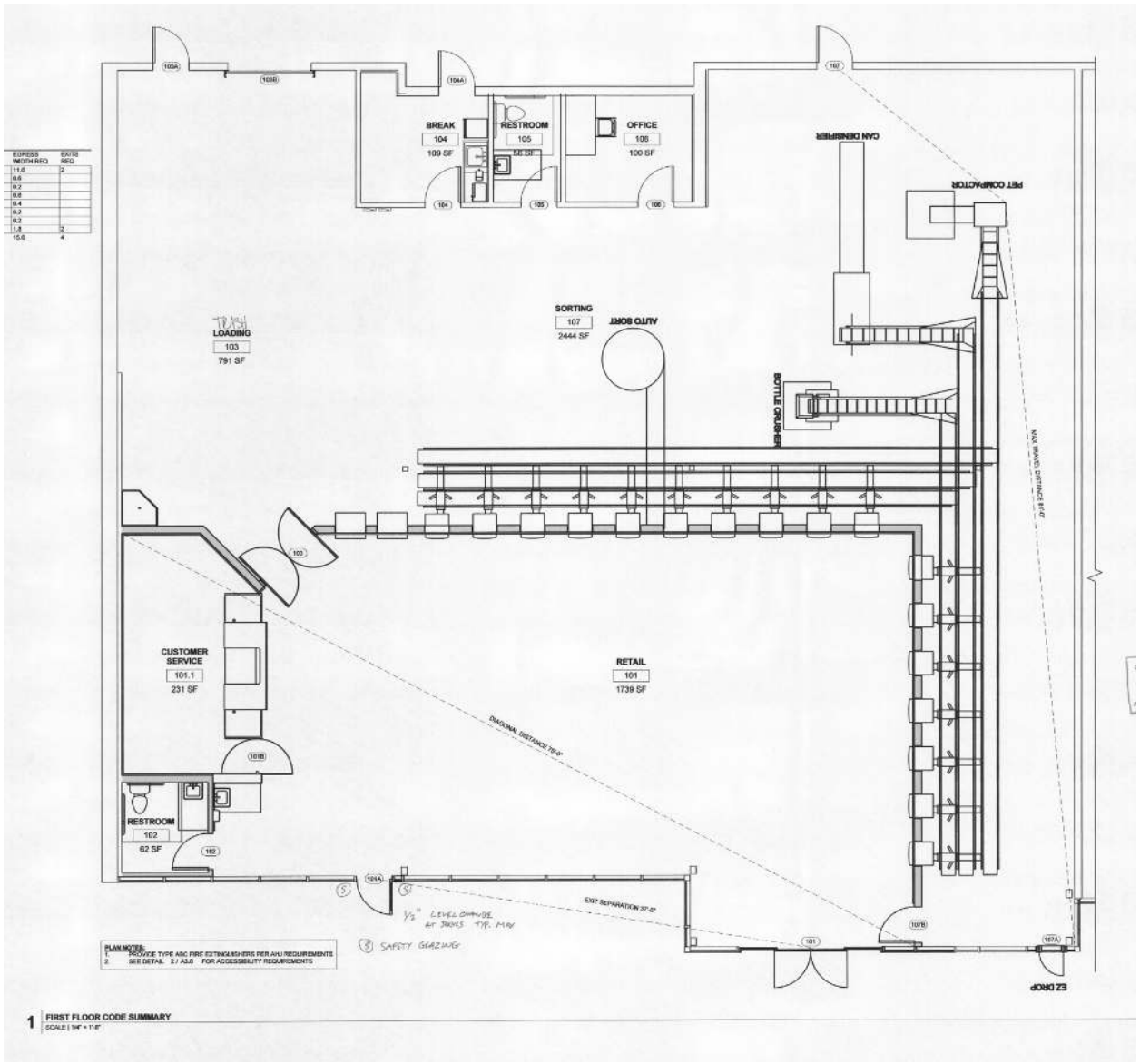


Figure A-2.2, Delta Park Facility

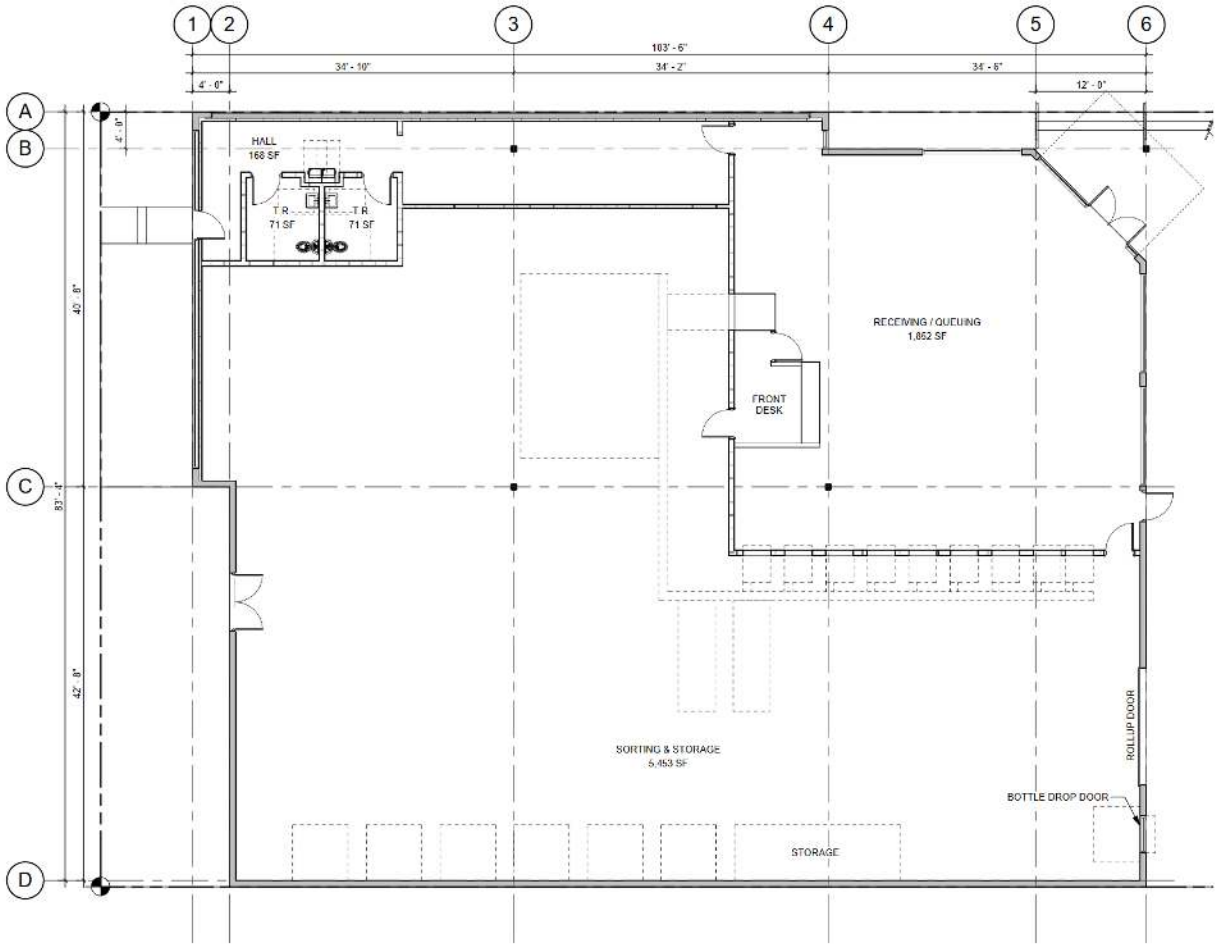


Figure A-2.3, Lombard Building

Lombard site

Annex 3. North American Industry Classification System (NAICS)

325 Chemical Manufacturing		
1	325612	Recycling drycleaning fluids
2	325991	Plastics resins compounding from recycled materials
3	325991	Reformulating plastics resins from recycled plastics products
4	325998	Recycling services for degreasing solvents (e.g., engine, machinery) manufacturing
333 Machinery Manufacturing		
5	333248	Recycling sorting machinery manufacturing
6	333310	Wash water recycling machinery manufacturing
423 Merchant Wholesalers, Durable Goods		
7	423930	Electronics parts, recyclable, merchant wholesalers
8	423930	Recyclable inkjet cartridges merchant wholesalers
9	423930	Recyclable materials (e.g., glass, metal, paper) merchant wholesalers
484 Truck Transportation		
10	484220	Ash, garbage, recyclable material, refuse, rubbish, trash, or waste hauling (except collection or disposal)
11	484230	Recyclable material hauling, long-distance
562 Waste Management and Remediation Services		
12	562111	Recyclable material collection services
13	562111	Recyclable material hauling, local
14	562920	Recyclable materials recovery facilities
15	562920	Removal of recyclable materials from a waste stream

Table A-3.1 - NAICS Categories

Annex 4. Title 33 & 2035 Comprehensive Plan

Section	Narrative
33.110.010 R	*The single-dwelling zones are intended to preserve land for housing and to provide housing opportunities for individual households. The zones implement the comprehensive plan policies and designations for single-dwelling housing and provide options for infill housing that is compatible with the scale of the single-dwelling neighborhood.*
33.120.030.B. RM2	*The RM2 zone is a medium-scale multi-dwelling zone that is generally applied in and around a variety of centers and corridors that are well-served by transit. Allowed housing is characterized by buildings of up to three or four stories with a higher percentage of building coverage than in the RM1 zone, while still providing opportunities for landscaping and outdoor spaces that integrate with residential neighborhood characteristics. The major types of new housing development will be a diverse range of multi-dwelling structures and other compact housing that contribute to the intended urban scale of centers and corridors, while providing transitions in scale and characteristics to lower-scale residential neighborhoods.*
33.130.030.A CR	*Commercial Residential zone. The Commercial Residential (CR) zone is a low-intensity zone for small and isolated sites in residential neighborhoods. The zone is intended to be applied in limited situations on local streets and neighborhood collectors in areas that are predominately zoned single-dwelling residential. The zone encourages the provision of small scale retail and service uses for surrounding residential areas. Uses are restricted in size to promote a local orientation, and to limit adverse impacts on surrounding residential areas. Where commercial uses are not present, residential density is limited to provide compatibility with surrounding residential areas. Development is intended to be pedestrian-oriented and building height is intended to be compatible with the scale of surrounding residentially zoned areas.*
33.130.030.C CM2	*The Commercial/Mixed Use 2 (CM2) zone is a medium-scale zone intended for sites in a variety of centers, along corridors, and in other mixed use areas that have frequent transit service. The zone allows a wide range and mix of commercial and residential uses, as well as employment uses that have limited off-site impacts. Buildings in this zone will generally be up to four stories tall unless height and floor area bonuses are used, or plan district provisions specify other height limits. Development is intended to be pedestrian-oriented, provide a strong relationship between buildings and sidewalks, and complement the scale of surrounding residentially zoned areas.*

33.130.030.E CE	*The Commercial Employment (CE) zone is a medium-scale zone intended for sites along corridors with a Neighborhood Collector or higher traffic classification, especially along civic corridors that are also Major Truck Streets or Priority Truck Streets. This zone is generally not appropriate in designated centers, except on a site that is currently developed in an auto-oriented manner and where more urban development is not yet economically feasible. The zone allows a mix of commercial uses,including auto-accommodating development and drive-through facilities, as well as some light manufacturing and distribution uses that have few off-site impacts. The emphasis of this zone is on commercial and employment uses, but residential uses are also allowed. Buildings in this zone will generally be up to four stories tall. This zone is intended to allow for development with auto-accommodating configurations, while also including pedestrian-oriented design features that support transit and pedestrian access.*
33.583.010 St Johns	*• Stimulate business and economic vitality;* *• Promote housing and mixed-use development;* *• Discourage auto-oriented uses and development;* *• Enhance the pedestrian environment;* *• Enhance the character of buildings in the plan district; and* *• Support the Willamette greenway and opportunities to celebrate the Willamette River as a unique element of the urban environment.*
33.910 Development Types	*Auto-Accommodating Development. Development which is designed to accommodate customers who use autos to travel to the site. Buildings feature entrances providing convenient access to parking areas. In many cases, the building will have parking between secondary streets and the building. Other typical characteristics are drive-through facilities, more than one driveway, and a low percentage of the site covered by buildings. Auto-accommodating development along transit streets and in pedestrian districts typically include a mix of auto-accommodating and pedestrian-oriented characteristics. See also Pedestrian-Oriented Development.* *Pedestrian-Oriented Development. Development which is designed with an emphasis primarily on the street sidewalk and on pedestrian access to the site and building, rather than on auto access and parking areas. The building is generally placed close to the street and the main entrance is oriented to the street sidewalk. There are generally windows or display cases along building facades which face the street. Typically, buildings cover a large portion of the site. Although parking areas may be provided, they are generally limited*

	in size and they are not emphasized by the design of the site. See also Auto-Accommodating Development.

Table A-4.1, Title 33 use narratives

Finally, we turn to the 2034 Comprehensive Plan for additional guidance on the overall goals and policies for the City.

Section	***Narrative***
Context	
Policy 4.2	*Community identity. Encourage the development of character-giving design features that are responsive to place and the cultures of communities.*
Policy 4.3	*Site and context. Encourage development that responds to and enhances the positive qualities of site and context — the neighborhood, the block, the public realm, and natural features.*
Policy 4.5	*Pedestrian-oriented design. Enhance the pedestrian experience throughout Portland through public and private development that creates accessible, safe, and attractive places for all those who walk and/or use wheelchairs or other mobility devices.*
Health and safety	
Policy 4.12	*Privacy and solar access. Encourage building and site designs that consider privacy and solar access for residents and neighbors while accommodating urban-scale development.*
Policy 4.13	*Crime-preventive design. Encourage building, site, and public infrastructure design approaches that help prevent crime.*
Policy 4.14	*Fire prevention and safety. Encourage building and site design that improves fire prevention, safety, and reduces seismic risks.*
Design and development of centers and corridors	
Policy 4.20	*Walkable scale. Focus services and higher-density housing in the core of centers to support a critical mass of demand for commercial services and more walkable access for customers*
Policy 4.21	*Street environment. Encourage development in centers and corridors to include amenities that create a pedestrian-oriented environment and provide places for people to sit, spend time, and gather*
Policy 4.23	*Design for pedestrian and bicycle access. Provide accessible sidewalks, high-quality bicycle access, and frequent street connections and crossings in centers and corridors.*

Policy 4.27	*Protect defining features. Protect and enhance defining places and features of centers and corridors, including landmarks, natural features, and historic and cultural resources, through application of zoning, incentive programs, and regulatory tools.*
Transitions	
Policy 4.31	*Land use transitions. Improve the interface between non-residential uses and residential uses in areas where commercial or employment uses are adjacent to residentially-zoned land.*

Table A-4.2, Title 33 & 2035 Comprehensive Plan

Annex 5. Nuisances and impacts

Off-site impacts	
Policy 4.33	*Off-site impacts. Limit and mitigate public health impacts, such as odor, noise, glare, light pollution, air pollutants, and vibration that public facilities, land uses, or development may have on adjacent residential or institutional uses, and on significant fish and wildlife habitat areas. Pay particular attention to limiting and mitigating impacts to under-served and under-represented communities.*
Policy 4.34	*Auto-oriented facilities, uses, and exterior displays. Minimize the adverse impacts of highways, auto-oriented uses, vehicle areas, drive-through areas, signage, and exterior display and storage areas on adjacent residential uses*
Policy 4.35	*Noise impacts. Encourage building and landscape design and land use patterns that limit and/or mitigate negative noise impacts to building users and residents, particularly in areas near freeways, regional truckways, major city traffic streets, and other sources of noise*
Policy 4.36	*Air quality impacts. Encourage building and landscape design and land use patterns that limit and/or mitigate negative air quality impacts to building users and residents, particularly in areas near freeways, regional truckways, high traffic streets, and other sources of air pollution.*
Policy 4.37	*Diesel emissions. Encourage best practices to reduce diesel emissions and related impacts when considering land use and public facilities that will increase truck or train traffic. Advocate for state legislation to accelerate replacement of older diesel engines.*
Policy 4.38	*Light pollution. Encourage lighting design and practices that reduce the negative impacts of light pollution, including sky glow, glare, energy waste, impacts to public health and safety, disruption of ecosystems, and hazards to wildlife*

A-5.1, Off-site impacts

Annex 6. Neighborhood impact stories

Title	Area	Year
'We don't want that here': Safety concerns at Portland bottle redemption centers reach far beyond the central city	Portland	2024
2 downtown Portland bottle return locations suspend service to fight fentanyl crisis	Portland	2024
Fentanyl Threatens Oregon's Cherished Bottle Bill	Portland	2024
"It's not safe" Northeast Portland neighborhood fed up with homeless, blame BottleDrop center	Portland	2023
Police arrest 19-year-old security guard suspected of stabbing man in NE Portland parking lot	Portland	2023
BottleDrop hit with $300K lawsuit claiming recycler drew trash, crime to Delta Park	Portland	2023
Is Bottle Bill worth the trouble?	Portland	2023
Security guard charged with murder in North Portland parking lot killing	Portland	2021
North Portland BottleDrop Landlord Deploys Armed Guards	Portland	2020
Four charged in crime crackdown near Bend BottleDrop	Bend	2020
Bend BottleDrop target of policing in response to crime	Bend	2018
Neighbors object to Beaverton Bottle Drop can return	Beaverton	2017

A-6.1, Stories

Annex 7. Supplemental traffic data and figures

Vision Zero accidents

ID	Location	Involved	Impacted	Speed, Alcohol, Drugs
1869098	Mohawk & N Lombard	1	Pedestrian	N
1494232	N Lombard & N Tyler	1	Pedestrian	N
1788792	N Lombard & 7740 N	1	Pedestrian	N
1622496	N Lombard & Buchanan	1	Pedestrian	N
1407756	N Lombard & Buchanan	1	Vehicle	N
1494164	N Lombard & Buchanan	1	Pedestrian	N
1832678	N Lombard & N Burr	2	Vehicle	Y / Y / N

Table A-7.1, Vision zero accidents