

PBOT

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Chloe Eudaly Commissioner Chris Warner Director

Memorandum

To: Morgan Tracy, RIP Project Manager
From: Bob Kellett, Transportation Planner
RE: Residential Infill Project Local Streets Infrastructure
Date: March 11, 2020

This memorandum supplements PBOT's previous memorandum dated March 1, 2019 which evaluated the overall systemwide traffic impacts from the Residential Infill Project (RIP). This memorandum summarizes the approaches the City of Portland uses to improve the infrastructure of local streets when there is residential development. It details the long-standing challenge of improving local streets and the specific challenges that may result from RIP.

New housing units that are expected to result from RIP will be predominantly located on local streets on the transportation network. There are approximately 134,000 lots in the RIP zones (R2.5, R5 and R7). Roughly 1,900 (1.4%) of these lots are on unimproved and unpaved (gravel) streets. Another 17,000 (12.8%) of these lots are on a paved street without a curb, or unimproved and paved. **This memorandum recommends that the City change the development types that are eligible to pay the Local Transportation Infrastructure Charge (LTIC) so that developments of three or more housing units may be constructed on any unimproved residential street.** This memorandum also offers additional considerations for future funding of local street improvements and the transportation system as RIP is implemented.

Unimproved Local Streets Background

Approximately 3% of the 2,066 miles of streets in Portland are unimproved and unpaved (dirt and gravel) and about 15% of Portland streets have some pavement but no curb. Paved roads without curbs are unlikely to have sidewalks or adequate stormwater management infrastructure. Unimproved streets are often a problem for adjacent property owners and residents. Deficient infrastructure impacts the quality of local access, multimodal connectivity, property values, traffic management, and localized drainage. Adjacent property owners are responsible for maintaining most dirt and gravel streets in the City, while the City maintains most streets that have pavement but no curbs. Unimproved streets are the weak link in the City's local transportation network, especially for pedestrians, people with disabilities, and those trying to access transit.

Unimproved streets also come with a significant financial cost. As part of the City's development of the Local Transportation Improvement Charge (LTIC) in 2016, an analysis estimated the average cost for the City to improve local residential streets to City standards is \$600 per linear foot of frontage, or \$6.3 million per mile. The same analysis estimated that the cost to improve all the unimproved local streets citywide is \$1.5 billion.



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Local Street Infrastructure Improvement Approaches

Since Portland's founding, improvement of local streets has been the responsibility of the adjacent property owners. This has historically been achieved either by a single property owner through a public works permit or through a Local Improvement District (LID), which involves funding from multiple property owners. The City's efforts to fund local street infrastructure improvements through LIDs has had mixed success. It has been difficult for the City to collect fees or require infrastructure improvements from developers on unimproved streets. For many years, developers would provide a waiver of remonstrance, which is a legally-binding agreement that requires future homeowners to take part in the formation of any future LID for infrastructure improvements.

While over 12,500 waivers of remonstrance have been provided by developers, very few have resulted in LIDs formed for local streets. A significant barrier has been the cost of infrastructure improvements incurred by property owners in a LID. The City's 2012 "Up Out of the Mud" report estimated a cost of \$300 a month for 20 years (\$72,000 total) for a typical property owner participating in a LID. The 2016 LTIC study found that improving a dirt or gravel road increases property values by an average of \$18,000 per home, and that improving an under-improved street to a fully-improved street increases property values by an average of \$4,100 per home. The estimated average cost to improve local streets to the traditional standard is \$30,000 per home and can be even greater when transportation improvements necessitate the relocation of water, sewer, and other utilities and when adding impervious areas triggers stormwater management requirements.

For developers forgoing a waiver of remonstrance, another option is to construct partial street improvements directly in front of a building site. This approach results in partial solutions, leaving some areas with a collection of unconnected half-street improvements and sidewalks that are intermittent and piecemeal that only marginally benefit residents and the transportation system. This is a costly and inefficient approach to infrastructure development.

One additional approach to addressing local street improvements is the adoption of alternative street standards for local streets. The residential shared street standards recommended in the Up Out of the Mud report and adopted by Council allows more flexibility in local street design. The intent of those standards is to provide context-sensitive solutions and a possible avenue for less expensive infrastructure improvements. While this may result in lower-cost solutions, this approach does not address the source of funds needed to pay for local streets improvements. To date, few streets have been built to these alternative standards.

Transportation System Development Charge

When a new housing unit is built, it impacts the transportation system by generating trips to and from the home (vehicles, bicycles, pedestrians). To adequately address transportation system impacts and to cover part of the cost of building transportation infrastructure to serve new development, the City charges a one-time fee to developers, the Transportation System Development Charge (TSDC), during the building permit process. The TSDC fee schedule is based upon an assessment of new travel demand (all modes) that a development generates and places impacts on the transportation system. This demand is measured by the number of person trips generated during the evening peak hour. For residential dwellings, trip generation data are provided as a function of the number of dwelling units in a development.

By state law, TSDC funds can only be used to fund construction of projects that add to the capacity of the system to accommodate its users, not projects that maintain existing infrastructure. TSDCs are used to fund a 10-year citywide list of capital improvement projects adopted by City Council. These are capital projects that have been identified as critical for accommodating future residential and economic growth. Because local streets are

intended to provide local access and do not collect traffic such as collectors or arterials, there is not much capacity gained by improving individual local streets and, as such, TSDCs have traditionally not been used to fund improvements of local streets. With the increased availability in recent years of funding to amass a network of local street improvements in designated neighborhoods (with LTIC funding, for example, as described in the next section), SDCs have become an appropriate application to these local street network improvements.

Local Transportation Infrastructure Charge (LTIC)

In 2016, City Council adopted the Local Transportation Infrastructure Charge (LTIC). This is a charge for street improvements that is based on the linear feet of frontage of property. The amount of the fee is calculated from the average cost to the City to build local street improvements to City standards. As described previously, certain location-specific attributes can significantly increase the actual cost that would be incurred if improvements were built, but for the purposes of the LTIC, a standardized fee is applied. Properties that are eligible for the LTIC must be located within a Single-Dwelling Zone (R2.5-R20) or the Farm and Forest Zone (RF) and have frontage on a local service street without a curb other than a local street that has been formally adopted by PBOT as fully-built under an alternative street standard not requiring a curb. Paying the LTIC is currently only allowed for single-family and duplex developments and is required prior to the issuance of a building permit. The LTIC is also required as part of a land division partition that results in three parcels or fewer. Other development (e.g., nonresidential, triplex) is currently not eligible for the LTIC and must provide physical improvements as part of the development as a requirement for a building permit.

Some properties and land use actions are exempt from the LTIC. This includes waivers for:

- Affordable housing and low-income owners and renters¹
- Accessory Dwelling Units (ADUs)
- Disaster replacement
- Alterations of existing structures
- Property line adjustments or lot confirmations
- Properties that have already paid the LTIC for a previous land use or development action

To address disparities between lots with large amounts of frontage, like corner lots, the LTIC is capped as follows:

R2.5: no maximum

R5: 50 feet x \$600 = \$30,000

R7: 70 feet x \$600 = \$42,000

R10: 100 feet x \$600 = \$60,000

R20 & RF: 120 feet x \$600 = \$72,000

The LTIC is collected by PBOT and used to construct improvements on unimproved local streets. The city will be improving streets to standards in many areas where RIP is expected to occur. These four areas include: Cully, Southwest Tryon-Stephens area, Brentwood-Darlington, and Division-Midway. LTIC revenue is allocated based on the city's adopted methodology. Specifically, on April 11, 2018, Council passed the Allocation Methodology for the Local Transportation Infrastructure Charge Ordinance, including the allocation methodology found in LTIC Administrative Rules (TRN-1.26). The determination of the allocation methodology and framework for a comprehensive neighborhood streets program to address the 250 miles of unimproved local streets was guided

¹ LTIC Low-Income and Affordable Housing Exemptions, <https://www.portlandoregon.gov/transportation/article/710223>

by a multi-tiered public engagement process, resulting in 28,000 households on unimproved streets invited to participate in focus groups and direct feedback from 4000 of these residents. The allocation methodology is consistent with the City's equity goals and ADA requirements and it implements adopted neighborhood transportation plans, responds to public input, seeks to leverage other available funding sources, and uses the best available data and methods for identifying high-priority transportation and stormwater improvements.

The LTIC allocation methodology establishes three fundamental criteria to determine a short list of the highest-priority unimproved local residential street projects to be funded with the LTIC. This process is intended to be repeatable for future investment cycles, dependent upon the availability of LTIC funds. These criteria are:

- 1: Equity: Areas with high concentrations of under-served populations to ensure everyone has access to opportunities necessary to satisfy their essential needs, advance their well-being, and achieve their full potential.
- 2: Effectiveness & Connectivity: Projects that support connectivity and fill critical gaps in the City's transportation and stormwater infrastructure.
- 3: Project Readiness: Projects that are consistent with adopted plans, informed by the results of previous community involvement efforts, cognizant of other related improvements occurring in the City, and that make efficient use of limited City resources by leveraging other funds.

As discussed, the LTIC analysis in 2016 estimated the average cost for the City to improve local residential streets to the traditional street standard is \$600 per linear foot of frontage, or \$6.3 million per mile. The estimated cost to improve all 250 miles of unimproved local residential streets citywide is \$1.5 billion. Annual LTIC revenue was estimated to be approximately \$2 million in 2018 but, due to the cap and other factors, the program is generating less revenue. LTIC revenue by itself will only be sufficient to address a small fraction of the City's unimproved local service streets. Therefore, the strategy to improve these streets involves a combination of financial resources, building where the need is the greatest, and building to the minimum acceptable standard. Available revenue is a combination of LTIC funds, SDCs, general fund Out of The Mud money, and partnerships with BES stormwater improvement resources and development. By expanding the LTIC and removing the fee cap on the denser developments, we will further our goal of generating revenue that will be directly applied to improving these streets.

The revenue generated by the total number of lots that could be developed under RIP and subject to the LTIC charge could be significant and would allow the unimproved streets to be significantly improved to the City's standards by the combination of revenue with the other strategies discussed above.

Significance of RIP on Local Streets

As detailed in PBOT's March 1, 2019 memorandum, the Bureau of Planning and Sustainability used the Buildable Lands Inventory and Allocation GIS model to estimate how the RIP Proposal would change household distributions.² The modeling shows approximately 4,000 housing units will be reallocated from other zones to the R2.5-R7 zones by 2035. While the model cannot predict which specific parcels will develop over the next 20 years, it does show a net reduction of units in western neighborhoods as well as a reduction in more distant eastern neighborhoods. Many of those units will be reallocated to inner neighborhoods, including neighborhoods where there currently are higher concentrations of unimproved local streets, including

² Additional detailed information about the original model is found here:

<https://www.portlandoregon.gov/bps/article/627460>

Montavilla, Brentwood-Darlington, Lents, and Cully. These are areas that were annexed into Portland with streets lacking city standard infrastructure. The RIP proposed housing type allowances for 3 or more units on a lot means that, in cases where lots are developed on streets lacking infrastructure, more units would be permissible than what current zoning allows.

The Planning and Sustainability Commission’s Recommended Draft (August 2019) partially limited where new triplexes and fourplexes may be built. To build a triplex or fourplex, a lot “must abut a street that has been accepted for maintenance by the City of Portland, or the State of Oregon in the case of state highways, or must abut a private street that connects to a street or highway accepted for maintenance by the City or State.” The Recommended Draft allowed new single-family and duplex housing units to be situated on gravel and dirt roads and on streets without curbs.

Local residential streets fall into one of two categories:

- “Improved” – a street built to a city standard, and maintenance of the pavement accepted by the city
- “Unimproved” – a street without a curb (other than a local street that has been formally accepted by the Bureau of Transportation as having been fully built to an adopted Residential Shared or Residential Separated City street standard that does not require a curb; few currently exist).

“Unimproved” streets fall into one of three subsets:

- “Unimproved, Paved and Maintained” – a curbless street with pavement, and maintenance of the pavement accepted by the city
- “Unimproved, Paved and Non-Maintained” - a curbless street with pavement, and maintenance of the pavement not accepted by the city
- “Unimproved, Unpaved and Non-Maintained” - a curbless street without pavement, generally dirt or gravel, and not maintained by the city

It is important to note local streets with pavement and accepted for maintenance by the city exist in both improved and unimproved street categories.

Under the PSC requirements, a developer looking to build a single-family housing unit or duplex on any unimproved local street would be eligible to pay the LTIC. A developer seeking to build a triplex or a fourplex on any unimproved local street, as allowed by RIP, is currently ineligible to pay the LTIC in these cases due to current limitations on the LTIC housing types. A developer would be required to pay and build local street improvements to city standards as a part of the building permit process if they desired a triplex or fourplex on any unimproved and non-maintained local street. The costs associated with local street improvements associated with stormwater and utility work, engineering, permitting, and inspection could make it prohibitively expensive for triplexes and fourplexes on local streets without curbs and could make it further unlikely that transportation infrastructure improvements will be funded and implemented.

Recommendation for RIP

- **Change the development types that are eligible to pay the Local Transportation Infrastructure Charge (LTIC) to include three or more housing units on residential streets.** In order to alleviate the challenges of getting local street infrastructure built as part of smaller-scale development projects, PBOT supports the additional proposed housing types in RIP when there is a dedicated funding mechanism to make

local street improvements that support multi-modal transportation mobility and access to goods and services.

The LTIC was adopted by City Council to collect funds from residential streets to finance the construction of street improvements necessitated by such development. Section 17.88.090 of the City Code allows an LTIC payment by an applicant for a new residential building permit for a project of one or two units on a property that has frontage on an unimproved street. PBOT recommends that, prior to the adoption of RIP, Section 17.88.090 be amended to expand the development types that are eligible for LTIC payments to include three or more units.

By expanding the housing types that are eligible for LTIC, additional funding that is necessary to address current deficiencies and future growth and capacity in the local streets network will be generated as new development occurs.

Additional Recommendations

- **Monitor and Evaluate LTIC rates.** In addition to expanding the eligibility of developments to pay the LTIC, the City should monitor and evaluate the LTIC as RIP is implemented. This should include monitoring rates and the cap to ensure that the payments reflect the actual costs of improving local streets infrastructure. Current LTIC exemptions should also be evaluated to ensure that they meet policy and infrastructure goals. Finally, consideration should be given to areas identified for future growth under RIP in future LTIC allocation processes.
- **Combine LTIC funds with other funds.** To date, PBOT and the Bureau of Environmental Services have worked collaboratively on LTIC-funded local streets projects with both bureaus contributing funding. In addition to TSDCs for neighborhood street networks, PBOT should continue to seek ways to work with other infrastructure bureaus to maximize the benefits of investments on local streets.
- **Residential Streets Inventory and Typology Development.** As part of any future infrastructure adequacy analysis for local streets, PBOT should work with BPS, City infrastructure bureaus, and the community to further develop street typologies for local streets. These typologies should provide guidance and standards for when PBOT can accept streets that are the minimum acceptable standard, not the fully-built, most expensive, traditional streets. Alternative street standards can reduce overall costs, extending the reach of LTIC funding. Standards should consider asset conditions such as pavement, pedestrian facilities, stormwater, lighting, and fire hydrants. The analysis should include a data inventory of local streets conditions in areas that have been identified for growth under RIP and that have an existing Master Street Plan.
- **Adopt tiered TSDC rates.** While TSDCs are not widely used to pay for improvements to local streets, they are an important source of funding to support the overall transportation system in a growing city. Currently, TSDCs are assessed on trip-generation rates that are based on the number of dwelling units in a development and not in relation to the size of the dwelling. A recent study conducted for PBOT shows that there is a statistically significant difference in the trip-generation rates by dwelling unit size. The study generally shows that larger dwelling units generate more transportation trips and thus have a greater impact on the transportation network. Currently, TSDCs for single family homes that are smaller

than 1,200 square feet are discounted by 50%. Based on person trip-generation rates, the study shows that this discount is greater than the impact these smaller housing units have on the transportation system. Part of the intent of RIP is to provide a greater range of housing types, including smaller housing units. As part of RIP's implementation, it is recommended that TSDC rates for single family homes be considered to include tiered rates based on dwelling unit size. These updated rates would more accurately reflect impacts on the transportation system, especially from the smaller housing units that are expected when RIP is implemented.

- **Consider Developing New Funding Sources.** Consideration should also be given to longer-term funding sources to supplement LTIC that may be able to address local streets transportation needs. Funding could be used by the City to improve local infrastructure or as mechanism to subsidize LIDs to reduce the cost burden on property owners. Ideas that could be explored include:
 - **Expiring Urban Renewal Areas (URA):** As existing URA funds approach expiration, funding could be used to address local streets and stormwater in designated areas. This investment would support future housing from RIP and meet the intent of Urban Renewal Areas to improve areas that are physical deteriorated, suffering economic stagnation, and are unsafe or poorly planned.
 - **New TSDC Projects:** While projects on local streets were historically not included on the TSDC projects list prior to the 2017 TSDC Methodology update, areas anticipating growth from RIP could be identified for TSDC funding. The recently adopted Connected Centers Plan, for example, includes recommendations to include local street improvements and connectivity projects in the Rosewood and Jade-Montavilla centers in the TSDC project list. Similar localized projects identified through planning could be included in other areas where residential growth is anticipated on unimproved local street networks.