



## MEMO

To: Dana Brown  
Su Dowie

From: Ross Tilghman

Date: 20 April 2015

Subject: Foss Waterway Parking Development Potential

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This memo provides an assessment of parking supply and demand from potential new development along the Foss Waterway. It also evaluates the financial capacity of Tacoma's Parking Enterprise System to participate in developing new public parking facilities.

### I. CAPITAL FINANCE CAPACITY

Table 1 on the following page shows the parking system's anticipated net revenue after debt service payments annually through 2025. It considers four scenarios:

1. Existing assets and operations continue.
2. Potential sale of assets including public portion of Tacoma Parking Garage, and a portion of the Convention Center's parking
3. Potential loss of State Farm offices downtown.
4. A combination of losing State Farm offices and a sale of a portion of the Convention Center's parking.

Those scenarios take into account the numerous financial responsibilities facing the parking system, some of which remain to be addressed. Significant financial responsibilities include:

- The system's net operating revenues are fully pledged to the repayment of outstanding parking revenue and LTGO bonds. Bond payments continue through 2027.
- A capital reserve has yet to be fully funded to address major maintenance and facility replacement needs. The target reserve balance is \$2.5 million (equivalent to roughly 5% of the system's estimated replacement value).
- Deferred maintenance costs have grown to approximately \$4.5 million.
- Replacement of parking pay-stations will be required in 2020 costing \$1.7 million. It is assumed that this will be financed over 10 years at 5% interest, unless funds allow an outright purchase.

Table 1. Revenue Scenarios through 2025

1. Existing System Unchanged

Year	Net Revenue Available for Debt Service	Debt Service	Surplus (Deficit)	Sale Proceeds	Fund Balance Year-End	Balance in Excess of min. \$1 million Operating Reserve	Allocate to Capital Reserve	Accumulated Capital Reserve up to \$2.5 m	Available for Deferred Maintenance	Deferred Maintenance Requirement	Replace Pay Stations	Available for Other Uses
2014					\$ 1,383,907	\$ 383,907	\$ 500,000	\$ 500,000	\$ -	\$ (4,500,000)	\$ -	\$ -
2015	\$ 2,701,654	\$ 3,334,202	\$ (632,548)	\$ -	\$ 251,359	\$ (748,641)	\$ -	\$ 500,000	\$ -	\$ (4,590,000)	\$ -	\$ -
2016	\$ 2,817,290	\$ 3,332,697	\$ (515,407)	\$ -	\$ (264,048)	\$ (1,264,048)	\$ -	\$ 500,000	\$ -	\$ (4,681,800)	\$ -	\$ -
2017	\$ 3,138,579	\$ 3,336,903	\$ (198,324)	\$ -	\$ (462,372)	\$ (1,462,372)	\$ -	\$ 500,000	\$ -	\$ (4,775,436)	\$ -	\$ -
2018	\$ 3,211,351	\$ 3,340,616	\$ (129,265)	\$ -	\$ (591,637)	\$ (1,591,637)	\$ -	\$ 500,000	\$ -	\$ (4,870,945)	\$ -	\$ -
2019	\$ 3,289,874	\$ 3,338,990	\$ (49,116)	\$ -	\$ (640,753)	\$ (1,640,753)	\$ -	\$ 500,000	\$ -	\$ (4,968,364)	\$ -	\$ -
2020	\$ 3,353,833	\$ 3,340,738	\$ 13,095	\$ -	\$ (627,657)	\$ (1,627,657)	\$ -	\$ 500,000	\$ -	\$ (5,067,731)	\$ 1,700,000	\$ -
2021	\$ 3,407,815	\$ 3,564,055	\$ (156,241)	\$ -	\$ (783,898)	\$ (1,783,898)	\$ -	\$ 500,000	\$ -	\$ (5,169,086)	\$ -	\$ -
2022	\$ 3,462,351	\$ 3,561,606	\$ (99,255)	\$ -	\$ (883,153)	\$ (1,883,153)	\$ -	\$ 500,000	\$ -	\$ (5,272,467)	\$ -	\$ -
2023	\$ 3,517,441	\$ 3,121,630	\$ 395,811	\$ -	\$ (487,342)	\$ (1,487,342)	\$ -	\$ 500,000	\$ -	\$ (5,377,917)	\$ -	\$ -
2024	\$ 3,580,732	\$ 3,121,605	\$ 459,126	\$ -	\$ (28,216)	\$ (1,028,216)	\$ -	\$ 500,000	\$ -	\$ (5,485,475)	\$ -	\$ -
2025	\$ 3,640,385	\$ 1,036,658	\$ 2,603,727	\$ -	\$ 2,575,511	\$ 1,575,511	\$ 1,181,634	\$ 1,681,634	\$ -	\$ (5,595,184)	\$ -	\$ -
	\$ 36,121,304	\$ 34,429,700	\$ 1,691,604	\$ -			\$ 1,681,634				\$ 1,700,000	\$ -

2. With Asset Sales

Year	Net Revenue Available for Debt Service	Debt Service	Surplus (Deficit)	Sale Proceeds	Use Sale Proceeds to Replace Lost Parking	Use Sale Proceeds to Pay Down Debt (2007 LTGO)	Sale Proceeds Transferred to Operating Fund	Fund Balance Year-End	Balance in Excess of min. \$1 million Operating Reserve	Allocate to Capital Reserve	Accumulated Capital Reserve up to \$2.5 m	Available for Deferred Maintenance	Deferred Maintenance Requirement	Replace Pay Stations	Available for Other Uses
2014								\$ 1,383,907	\$ 383,907	\$ 500,000	\$ 500,000	\$ -	\$ (4,500,000)	\$ -	\$ -
2015	\$ 2,701,654	\$ 3,334,202	\$ (632,548)	\$ 5,800,000	\$ 3,610,000		\$ 2,190,000	\$ 2,441,359	\$ 1,441,359	\$ 360,340	\$ 860,340	\$ -	\$ (4,590,000)	\$ -	\$ -
2016	\$ 2,782,182	\$ 3,332,697	\$ (550,515)	\$ 8,900,000			\$ 8,900,000	\$ 10,430,504	\$ 9,430,504	\$ 1,639,660	\$ 2,500,000	\$ 1,109,156	\$ (5,813,139)	\$ -	\$ -
2017	\$ 3,106,379	\$ 3,336,903	\$ (230,524)			\$ 6,510,000	\$ (6,510,000)	\$ 2,050,319	\$ 1,050,319	\$ -	\$ 2,500,000	\$ 1,050,319	\$ (4,858,077)	\$ -	\$ -
2018	\$ 3,182,117	\$ 2,534,864	\$ 647,253				\$ -	\$ 2,697,572	\$ 1,697,572	\$ -	\$ 2,500,000	\$ 1,697,572	\$ (3,223,714)	\$ -	\$ -
2019	\$ 3,257,649	\$ 2,533,231	\$ 724,418				\$ -	\$ 3,421,990	\$ 2,421,990	\$ -	\$ 2,500,000	\$ 2,421,990	\$ (817,759)	\$ -	\$ 1,604,231
2020	\$ 3,318,676	\$ 2,531,439	\$ 787,237				\$ -	\$ 4,209,227	\$ 3,209,227	\$ -	\$ 2,500,000	\$ 3,209,227	\$ -	\$ 1,700,000	\$ 1,509,227
2021	\$ 3,369,788	\$ 2,532,679	\$ 837,110				\$ -	\$ 5,046,337	\$ 4,046,337	\$ -	\$ 2,500,000	\$ 4,046,337	\$ -	\$ -	\$ 4,046,337
2022	\$ 3,421,519	\$ 2,531,167	\$ 890,351				\$ -	\$ 5,936,688	\$ 4,936,688	\$ -	\$ 2,500,000	\$ 4,936,688	\$ -	\$ -	\$ 4,936,688
2023	\$ 3,473,866	\$ 2,088,816	\$ 1,385,051				\$ -	\$ 7,321,739	\$ 6,321,739	\$ -	\$ 2,500,000	\$ 6,321,739	\$ -	\$ -	\$ 6,321,739
2024	\$ 3,534,480	\$ 2,088,385	\$ 1,446,095				\$ -	\$ 8,767,835	\$ 7,767,835	\$ -	\$ 2,500,000	\$ 7,767,835	\$ -	\$ -	\$ 7,767,835
2025	\$ 3,591,524	\$ -	\$ 3,591,524				\$ -	\$ 12,359,359	\$ 11,359,359	\$ -	\$ 2,500,000	\$ 11,359,359	\$ -	\$ -	\$ 11,359,359
	\$ 35,739,834	\$ 26,844,382	\$ 8,895,452	\$ 14,700,000	\$ 3,610,000	\$ 6,510,000	\$ 4,580,000			\$ 2,500,000				\$ 1,700,000	\$ 37,545,417

Table 1. Revenue Scenarios through 2025 (cont'd)

3. State Farm Builds Own Parking 2019

Year	Net Revenue Available for Debt Service	Debt Service	Surplus (Deficit)	Sale Proceeds	Fund Balance Year-End	Balance in Excess of min. \$1 million Operating Reserve	Allocate to Capital Reserve	Accumulated Capital Reserve up to \$2.5 m	Available for Deferred Maintenance	Deferred Maintenance Requirement	Replace Pay Stations	Available for Other Uses
2014					\$ 1,383,907	\$ 383,907	\$ 500,000	\$ 500,000	\$ -	\$ (4,500,000)	\$ -	\$ -
2015	\$ 2,701,654	\$ 3,334,202	\$ (632,548)	\$ -	\$ 251,359	\$ (748,641)	\$ -	\$ 500,000	\$ -	\$ (4,590,000)	\$ -	\$ -
2016	\$ 2,817,290	\$ 3,332,697	\$ (515,407)	\$ -	\$ (264,048)	\$ (1,264,048)	\$ -	\$ 500,000	\$ -	\$ (4,681,800)	\$ -	\$ -
2017	\$ 3,138,579	\$ 3,336,903	\$ (198,324)	\$ -	\$ (462,372)	\$ (1,462,372)	\$ -	\$ 500,000	\$ -	\$ (4,775,436)	\$ -	\$ -
2018	\$ 3,211,351	\$ 3,340,616	\$ (129,265)	\$ -	\$ (591,637)	\$ (1,591,637)	\$ -	\$ 500,000	\$ -	\$ (4,870,945)	\$ -	\$ -
2019	\$ 2,175,267	\$ 3,338,990	\$ (1,163,723)	\$ -	\$ (1,755,360)	\$ (2,755,360)	\$ -	\$ 500,000	\$ -	\$ (4,968,364)	\$ -	\$ -
2020	\$ 2,174,186	\$ 3,340,738	\$ (1,166,551)	\$ -	\$ (2,921,912)	\$ (3,921,912)	\$ -	\$ 500,000	\$ -	\$ (5,067,731)	\$ 1,700,000	\$ -
2021	\$ 2,217,735	\$ 3,784,213	\$ (1,566,478)	\$ -	\$ (4,488,390)	\$ (5,488,390)	\$ -	\$ 500,000	\$ -	\$ (5,169,086)	\$ -	\$ -
2022	\$ 2,205,972	\$ 3,781,764	\$ (1,575,792)	\$ -	\$ (6,064,182)	\$ (7,064,182)	\$ -	\$ 500,000	\$ -	\$ (5,272,467)	\$ -	\$ -
2023	\$ 2,711,544	\$ 3,341,787	\$ (630,244)	\$ -	\$ (6,694,426)	\$ (7,694,426)	\$ -	\$ 500,000	\$ -	\$ (5,377,917)	\$ -	\$ -
2024	\$ 3,320,133	\$ 3,341,763	\$ (21,630)	\$ -	\$ (6,716,056)	\$ (7,716,056)	\$ -	\$ 500,000	\$ -	\$ (5,485,475)	\$ -	\$ -
2025	\$ 3,373,136	\$ 1,256,816	\$ 2,116,321	\$ -	\$ (4,599,735)	\$ (5,599,735)	\$ -	\$ 500,000	\$ -	\$ (5,595,184)	\$ -	\$ -
	\$ 30,046,846	\$ 35,530,489	\$ (5,483,642)	\$ -			\$ 500,000				\$ 1,700,000	\$ -

4. State Farm Builds Own Parking 2019 and Asset Sale

Year	Net Revenue Available for Debt Service	Debt Service	Surplus (Deficit)	Sale Proceeds	Use Sale Proceeds to Replace Lost Parking	Sale Proceeds Transferred to Operating Fund	Fund Balance Year-End	Balance in Excess of min. \$1 million Operating Reserve	Allocate to Capital Reserve	Accumulated Capital Reserve up to \$2.5 m	Available for Deferred Maintenance	Deferred Maintenance Requirement	Replace Pay Stations	Available for Other Uses
2014							\$ 1,383,907	\$ 383,907	\$ 500,000	\$ 500,000	\$ -	\$ (4,500,000)	\$ -	\$ -
2015	\$ 2,701,654	\$ 3,334,202	\$ (632,548)	\$ 5,800,000	\$ 3,610,000	\$ 2,190,000	\$ 2,441,359	\$ 1,441,359	\$ 1,081,019	\$ 1,581,019	\$ -	\$ (4,590,000)	\$ -	\$ -
2016	\$ 2,817,290	\$ 3,332,697	\$ (515,407)				\$ 844,933	\$ (155,067)	\$ -	\$ 1,581,019	\$ -	\$ (4,681,800)	\$ -	\$ -
2017	\$ 3,138,579	\$ 3,336,903	\$ (198,324)				\$ 646,609	\$ (353,391)	\$ -	\$ 1,581,019	\$ -	\$ (4,775,436)	\$ -	\$ -
2018	\$ 3,211,351	\$ 3,340,616	\$ (129,265)				\$ 517,344	\$ (482,656)	\$ -	\$ 1,581,019	\$ -	\$ (4,870,945)	\$ -	\$ -
2019	\$ 2,175,267	\$ 3,338,990	\$ (1,163,723)				\$ (646,379)	\$ (1,646,379)	\$ -	\$ 1,581,019	\$ -	\$ (4,968,364)	\$ -	\$ -
2020	\$ 2,174,186	\$ 3,340,738	\$ (1,166,551)				\$ (1,812,931)	\$ (2,812,931)	\$ -	\$ 1,581,019	\$ -	\$ (5,067,731)	\$ 1,700,000	\$ -
2021	\$ 2,217,735	\$ 4,004,371	\$ (1,786,636)				\$ (3,599,567)	\$ (4,599,567)	\$ -	\$ 1,581,019	\$ -	\$ (5,169,086)	\$ -	\$ -
2022	\$ 2,205,972	\$ 4,001,922	\$ (1,795,950)				\$ (5,395,517)	\$ (6,395,517)	\$ -	\$ 1,581,019	\$ -	\$ (5,272,467)	\$ -	\$ -
2023	\$ 2,711,544	\$ 3,561,945	\$ (850,402)				\$ (6,245,918)	\$ (7,245,918)	\$ -	\$ 1,581,019	\$ -	\$ (5,377,917)	\$ -	\$ -
2024	\$ 3,320,133	\$ 3,561,921	\$ (241,788)				\$ (6,487,706)	\$ (7,487,706)	\$ -	\$ 1,581,019	\$ -	\$ (5,485,475)	\$ -	\$ -
2025	\$ 3,373,136	\$ 1,476,973	\$ 1,896,163				\$ (4,591,543)	\$ (5,591,543)	\$ -	\$ 1,581,019	\$ -	\$ (5,595,184)	\$ -	\$ -
	\$ 30,046,846	\$ 36,631,277	\$ (6,584,431)	\$ 5,800,000	\$ 3,610,000	\$ 2,190,000			\$ 1,581,019				\$ 1,700,000	\$ -

In light of those responsibilities, the parking system's financial management priorities are to retire debt whenever possible, fund the capital reserve and reduce deferred maintenance needs.

### **Findings**

Scenario 1: The parking system has no net revenue available for other activities through 2025.

Scenario 2: This scenario offers the greatest potential to fund other parking activities. Through the sale of assets, the parking fund will be able to retire a portion of parking debt at the end of 2017 and complete deferred maintenance items, leaving it with funds available for other uses in 2019. Approximately \$1.6 million would become available in 2019 with additional amounts in subsequent years.

Scenario 3: This scenario eliminates any additional funding potential as the system would face net operating losses each year through at least 2023, and would be unable to fund its capital reserve or address deferred maintenance items through 2025.

Scenario 4: Even with sale of an asset, the capital reserve remains only partially funded through 2025, while operating losses continue through 2023.

## **II. FOSS WATERWAY DEVELOPMENT – PARKING DEMAND AND SUPPLY**

### **Projected Parking Demand**

Table 2 summarizes parking supply and demand associated with potential development of sites 8 through 12, including the Municipal Dock's ability to serve the marina. Development assumptions reflect findings of a recent market study for sites 8 & 9, as well as uses preferred by City Council and the Foss Waterway Development Authority for sites 10, 11 and 12. Demands have been estimated for a summer weekday and a summer Saturday, the busiest season of the year for water-related uses.

<b>Table 2. Supply and Demand Compared</b>			
<b>Site</b>	<b>Estimated Supply Single Level</b>	<b>Estimated Demand</b>	<b>Surplus (Defecit)</b>
Sites 8 & 9	58	58	0
Marina	65	175	-110
Site 10	76	151	-75
Site 11	48	150	-102
Site 12	63	127	-64

### Demand Assumptions

Demand for each land use has been calculated on an hourly basis for all 24 hours of the day. Values typically reflect parking patterns reported by the Urban Land Institute in its publication "Shared Parking", 2<sup>nd</sup> ed. An hourly approach works well for mixed-use projects in showing how parking can be shared across the day between office, retail and restaurant uses.

Key assumptions include:

- An average residential demand of 1.25 spaces per dwelling unit. This accounts for mainly studio and 1-bedroom units with some 2-bedroom units. A higher proportion of large units may increase demand for parking above that used here.
- For live/work units, 40% of residents would work on-site rather than commuting elsewhere.
- Marina demand reflects a maximum of 80 live-aboard vessels. It also assumes that half of vessels are active on a Saturday with one-third bringing along guests in separate vehicles.
- Waterway Seaport rental events would continue to occur on evenings and weekends, posing little to no conflict with workday demands.

The demand projections reflect the number of vehicles likely to park for each land use. However, the analysis does not include the effects of parking price that tend to influence where users park.

### Likely On-Site Parking Supply

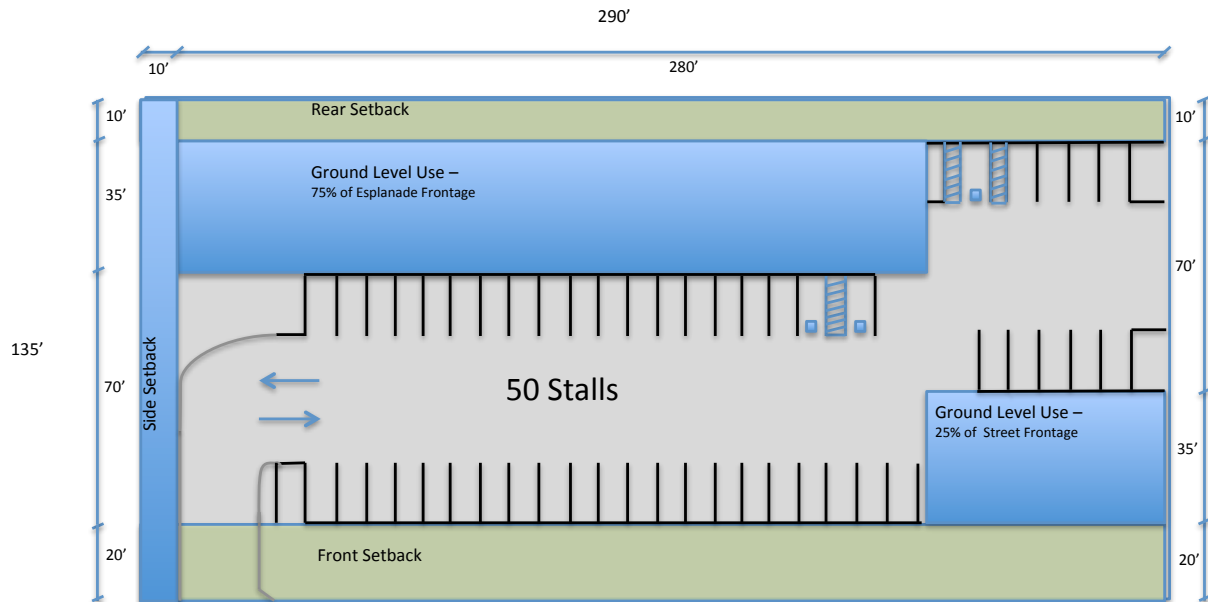
This study is predicated on the recognition that parking would be difficult to provide on these shallow-depth parcels. A high water table makes below grade parking virtually impossible to construct. Parcel dimensions that once worked well for waterfront industrial and warehousing functions now pose a challenge to contemporary commercial and residential development. Zoning requirements that work to encourage pedestrian activity along the waterfront further restrict the ability to provide efficient parking.

Parking works well with 120 feet of building depth, allowing for two, double-loaded aisles with 2-way circulation. However, the development sites range in depth from 115 feet to 135 feet. While double-loaded parking is possible with narrower parcels, they necessitate 1-way circulation that requires two driveways, using more space. The consequence of shallow depths for parking and zoning requirements for setbacks and ground level uses can be seen in this example:

Table 3. Consequence of Parcel Size and Code Requirements on Parking			
	Feet	Feet	Feet
Parcel Depth	115	125	135
Less Setbacks	-30	-30	-30
Less Ground Level Uses	-35	-35	-35
Depth Available for Parking	50	60	70
Possible Parking Aisle	1 Double Loaded	1 Double Loaded	1 Double Loaded
Stall Angle	50 deg.	90 deg.	90 deg.
Circulation	1-way	2-way	2-way

Consequently, each site could expect to build approximately 48 to 76 stalls at the ground level. Figure 1 gives an example of how parking would be configured according to the land use code.

Figure 1. Example of Parking Layout per Code for Site 9 and Municipal Dock



Source: Tilghman Group

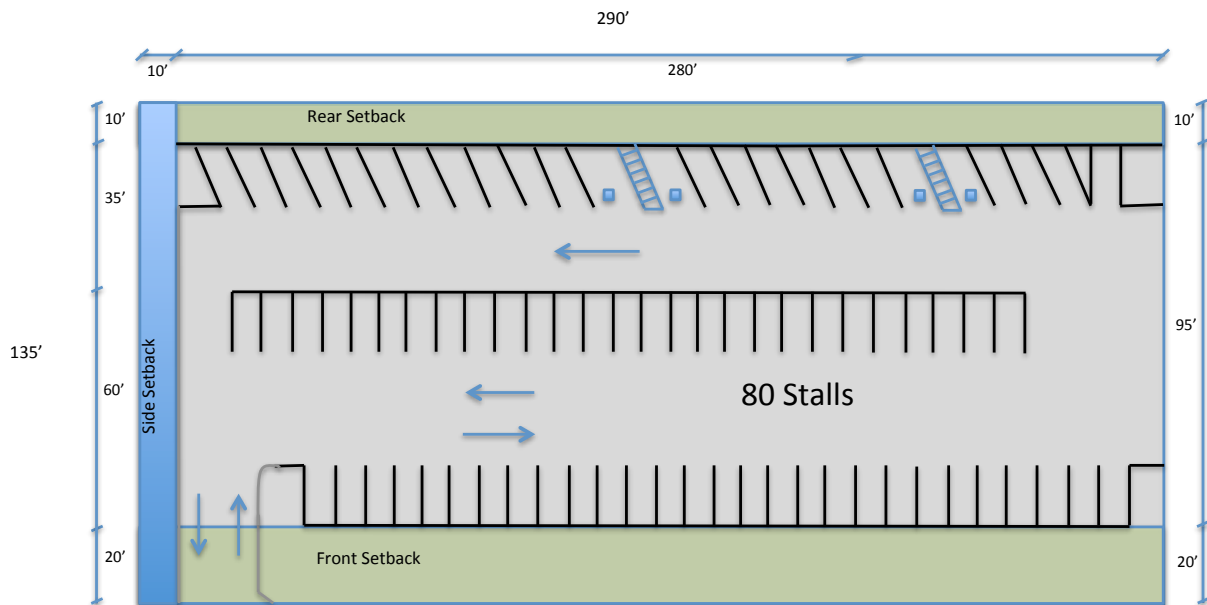
### Options to Expand Parking Supply

Constructing a second level of parking may be possible, and would increase the supply approximately 50%. The modest gain rests on the need to use ground level space to ramp up to a second level. Alternatively, if parking were allowed as a principal on Site 9 or the Municipal Dock and if a variance were granted from providing ground level uses, the supply could be maximized. Table 4 shows the potential gains in supply.

Figure 3 illustrates how surface parking could be maximized on Site 9 or the Municipal Dock. Figure 3a and 3b show how decking could work on those sites. Decking is only considered for those two sites given their proximity to the 11<sup>th</sup> Street Bridge.

Table 4. Potential Parking Supply				
	Following Code		As Principal Use without Ground Level Uses	
Site	Ground Level Only Supply per Code	Two Level Supply per code	Ground Level Supply Maximized	Two Level Supply Maximized
Site 9	50	70	80	127
Municipal Dock	65	95	80	127
Site 10	72	115	n/a	n/a
Site 11	50	75	n/a	n/a
Site 12	59	95	n/a	n/a

Figure 2. Example of Maximizing Surface Parking for Sites 9 and Municipal Dock



Source: Tilghman Group

Figure 3a. Possible Surface Level Layout for Deck on Site 9 or Municipal Dock

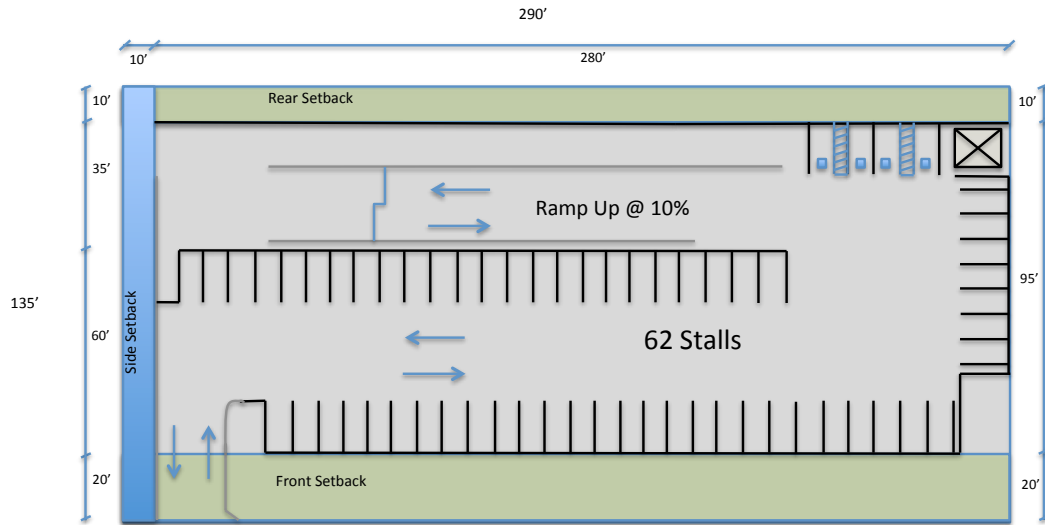
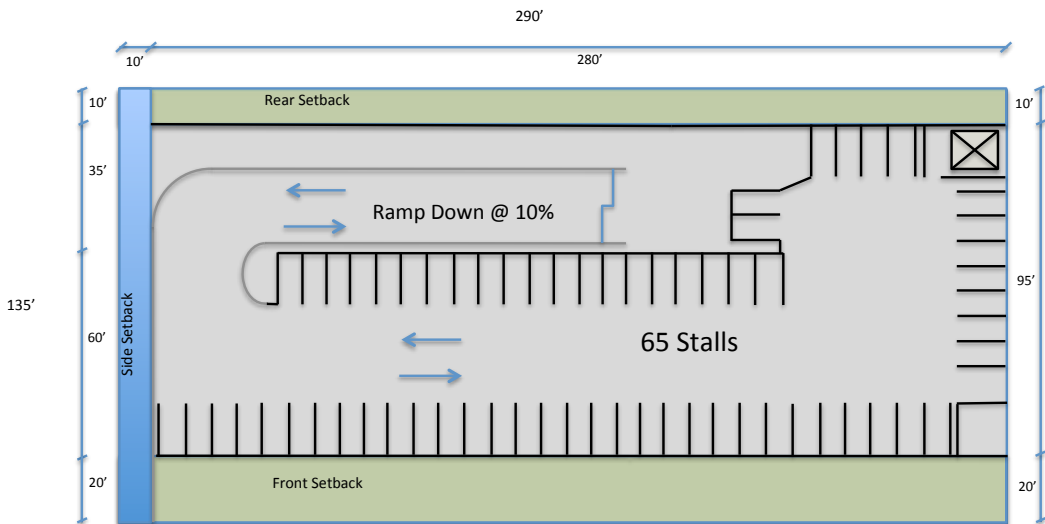


Figure 3b. Possible Second Level Layout for Deck on Site 9 or Municipal Dock



Source: Tilghman Group

That parking supply would support the following amounts of development.

<b>Table 5. Development Supported by Parking Supply</b>				
	<b>Per Code</b>		<b>Parking Maximized</b>	
<b>Site</b>	<b>Surface Parking</b>	<b>Two-Level Parking</b>	<b>Surface Parking</b>	<b>Two-Level Parking</b>
Municipal Dock	25-30% of Marina's Summer Saturday demand	40-45% of Marina's Summer Saturday demand	35-40% of Marina's Summer Saturday demand	55-60% of Marina's Summer Saturday demand
Site 10	13,000 s.f. Office 32 Residential Units	13,000 s.f. Office 63 Residential Units	n/a	n/a
Site 11	9,000 s.f. Office 18 Residential Units	9,000 s.f. Office 40 Residential Units	n/a	n/a
Site 12	21,000 s.f. Office	31,000 s.f. Office	n/a	n/a

### Observations

1. The amount of parking that can likely be built supports considerably less than the preferred amount of development, especially for Sites 10 and 11. Shallow lot depth, constraints on building underground parking, and code requirements for ground level uses do not support the higher levels of density that have been achieved downtown and further south along the Foss Waterway.
2. Additional on-site supply could be achieved through variances from code requirements for setbacks and/or ground level commercial uses. Even with such variances, most sites would then achieve one double-loaded aisle plus a single-loaded aisle, yielding roughly a 50% increase in parking capacity. While that increase would support additional development, it still falls short of the preferred densities.
3. Opportunities for shared parking are limited given the mix of residential, office and recreational uses. Reasons for this include:
  - a. Residential parking typically requires exclusive use based on residents' expectations for reliability, convenience and security. Notwithstanding those concerns, only about 50% of residential spaces would be available during the workday for other possible users.
  - b. Residential and recreational parking demands overlap, leaving little opportunity for shared use, even if residents' security concerns were addressed.
  - c. Marina parking demand could share office parking supply since marina use peaks on weekends when office use is minimal. However, current development assumptions flank the marina mainly with residential uses, leaving little possibility for shared use.
4. Land where new parking might be more easily developed does not exist in the immediate vicinity.

## Opportunities to Increase Supply

Methods to increase parking supply and maximize its efficient use include:

1. Consider decking either the Municipal Dock site or on Site 9 to create two levels of parking. Approximately 127 stalls could be provided. This option may require a variance from the zoning prohibition against principal use parking facilities along the waterfront. However, being situated immediately adjacent to the 11<sup>th</sup> Street bridge offers the possibility of designing an architecturally sympathetic structure that would also appear smaller due to the scale of the bridge than it would at other locations. Building two-level parking on the Municipal Dock depends on a positive assessment of the dock's structural capacity to support a parking structure. Such an assessment should consider use of lightweight construction such as a steel frame garage, as one option. Adding extra parking at either of these sites would:
  - a. Replace and increase parking for marina users that would otherwise be lost if Site 9 develops. A two-level structure could meet more than half of the marina's summer weekend demand.
  - b. Offer a shared-parking opportunity for Site 10's office users on weekdays while still accommodating marina live-aboards. In turn, Site 10's parking could be entirely devoted to residential users. This action would support an additional 30 residential units, bringing Site 10's total to 93 units.
2. Consider directing spillover marina users and visitors to park at the Tacoma Parking Garage located on A Street on summer weekends. Connected by the 11<sup>th</sup> Street Bridge with new elevator, users can walk from the garage to the marina in 3.5 minutes. About half of marina users would be able to park at the Municipal Dock and half at the Tacoma Parking Garage on a busy weekend day.
3. Consider adding on-street parking along Dock Street where its present 3-lane configuration provides sufficient space for parallel parking. Approximately 20 spaces could be provided. With 5-hour time limits similar to those now in effect elsewhere on Dock Street, new on-street parking could support a portion of office demand. Consequently, off-street parking could support more residential development. For every 10 office vehicles on the street, 8 additional residential units are supported.

This option, however, conflicts with the proposed LID project that would widen the sidewalk on Dock Street for use as a multi-purpose trail. At this moment, it is unclear whether the LID will extend the full length from 11<sup>th</sup> to 4<sup>th</sup>, or stop short at about 9th St.

The purpose of adding parking in these locations is to support waterfront uses. New **public** facilities may attract users from downtown who seek to find lower cost parking. As prices have increased downtown in recent years, parking personnel have observed more vehicles parking along Dock Street and in waterway lots. Careful management will be required to allocate parking fairly.

### III. CONCLUSIONS AND RECOMMENDATIONS

The development density that parking can support along the Foss Waterway will be less than occurs elsewhere on Dock Street and downtown. The combination of topographical constraints, high water table, shallow parcel depth and code requirements for ground level uses significantly limit the amount of parking that can be built on development sites 8 through 12. Additionally, due to its limited connections to the rest of downtown, the Waterway has few opportunities to use other existing parking facilities.

Tacoma has worked diligently to reclaim the waterway for public access, recreation, housing and other water-related uses, goals that its zoning code requirements protect and promote. Accordingly, this study recommends:

1. Seeking variance from two code requirements for a single site: allow a principal use parking structure on the Municipal Dock or on Site 9 without any requirement for ground level uses. If the dock proves capable of supporting a two-level structure, that variance would facilitate meeting approximately half of the marina's peak demand and would also create shared parking opportunities with adjacent office development, particularly on Site 10. Variances on other sites are not recommended as they would create little additional parking and considerably compromise the public realm along the waterway.
2. Timing construction of a principal use facility to coincide with that of adjacent development. New parking should not be undertaken as a speculative project or as a potential stimulant to future development.
3. Reconsidering density goals. Residential goals may need to be one-third to one-half of previous preferences given likely buildable parking supplies. Goals for commercial space appear supportable by probable parking supplies.
4. Price parking at market rates, especially in any public facility. Doing so will reduce the tendency for the Waterway to serve as a low-cost alternative to parking downtown.