


Memorandum

To: Parking Study Advisory Committee
From: Derrick I. Tokos, AICP, Community Development Director 
Date: November 14, 2016
Re: Preliminary Parking Pavement Condition Assessment

Enclosed, for your review, is a draft parking pavement condition assessment. Newport Community Development and Public Works Department staff used a simplified Good-Fair-Poor (GFP) asphalt pavement rating system to gauge the condition of the surface parking areas owned and maintained by the City. This information was then used to estimate funds needed to maintain the parking lot paved surfaces in good condition. Background information on the GFP rating assumptions, photos, and a summary of the condition of each lot is attached. A table illustrating a typical maintenance program is also enclosed.

Please note that the maintenance assessment is for the travel surface only. It doesn't include the cost of striping and signing the lots, nor does it account for drainage, railing, sidewalk or other repairs that may be needed. Those additional costs will be calculated and shared with the Advisory Committee at a future meeting.

The City is purchasing the 30,000 sq. ft. vacant commercial property immediately south of City Hall for \$1,100,000. This acquisition has been funded with a bank loan, that will be paid off with the sale of city owned property that is not needed for public use. The closing date is November 23, 2016 and the City will be developing a parking lot at this location shortly thereafter, to ensure there are sufficient spaces to accommodate visitors to the City Hall campus once the aquatic facility is operational. A schematic drawing and cost estimate for the new lot is enclosed and it has been added to the list of City parking assets.

Lastly, for reference, maps are enclosed of each of the parking districts showing the location of on-street and off-street assets.

Attachments

GFP CONDITION RATING DEFINITIONS

Asphalt Concrete Pavement (AC)

<u>Condition</u>	<u>Definition</u>
Very Good	Stable, no cracking, no patching, and no deformation. Excellent riding qualities. Nothing would improve the roadway at this time.
Good	Stable, minor cracking, generally hairline and hard to detect. Minor patching and possibly some minor deformation evident. May have dry or light colored appearance. Very good riding qualities. Rutting may be present but is less than ½".
Fair	Generally stable, minor areas of structural weakness evident. Cracking is easier to detect, patched but not excessively. Deformation more pronounced and easily noticed. Ride qualities are good to acceptable. Rutting may be present but is less than ¾".
Poor	Areas of instability, marked evidence of structural deficiency, large crack patterns (alligating), heavy and numerous patches, deformation very noticeable. Riding qualities range from acceptable to poor. When rutting is present, rut depth is greater than ¾".
Very Poor	Pavement in extremely deteriorated condition. Numerous areas of instability. Majority of section showing structural deficiency. Ride quality is unacceptable (probably should slow down).

Special Circumstances:

<u>Score</u>	<u>Used When:</u>
"ST"	Section is on a structure (bridge, tunnel)
"UC"	Section is under construction
"NR"	Pavement was not rated

Transverse Cracking

This type of cracking occurs roughly perpendicular to the centerline of the pavement and is often caused by shrinkage of the asphalt layer or reflection from an existing crack.

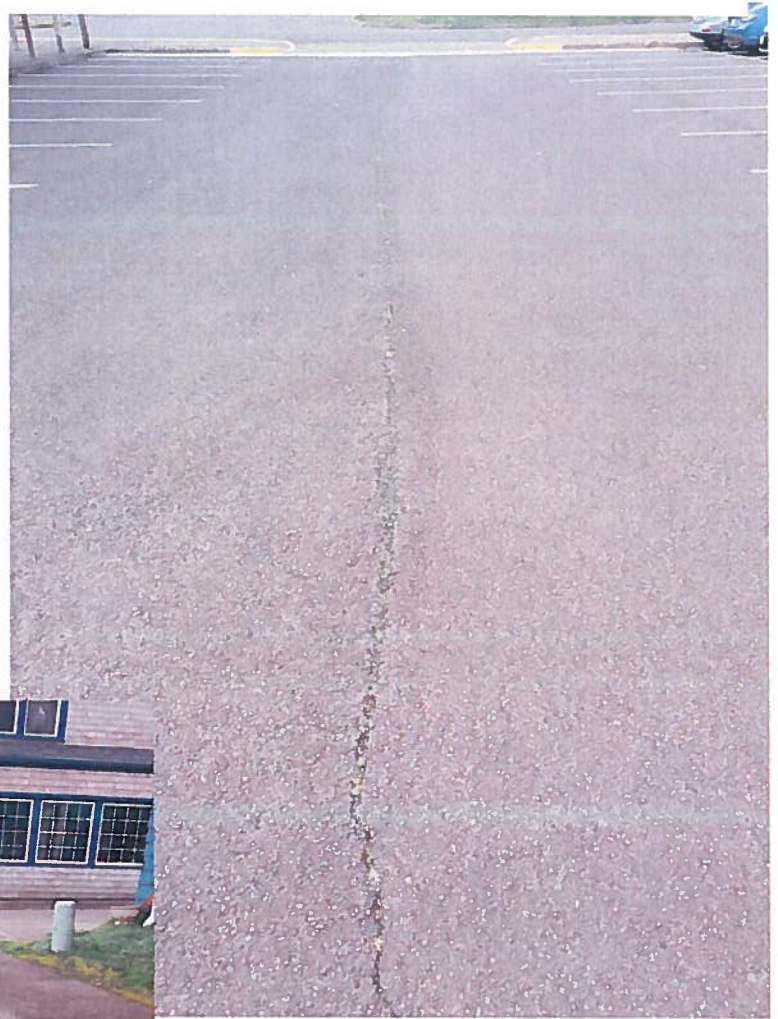
Longitudinal Cracking

Longitudinal cracking occurs parallel to the centerline of the pavement. It can be caused by a poorly constructed joint; shrinkage of the asphalt layer; cracks reflecting up from an underlying layer; and longitudinal segregation due to improper paver operation.

Patching - Visual Arts Center



Longitudinal Cracking - Performing Arts Center



Patching

Patching in itself isn't a problem unless it shows signs of deterioration, deformation or rutting. When pavements are patched, some distress may begin to occur. The rate at which a patch deteriorates is influenced by compaction, materials selection, and the quality of the surrounding or underlying pavement.

Fatigue Cracking

Fatigue cracking is sometimes called alligator cracking due to the interconnected cracks which resemble an alligator's skin. Fatigue cracking is caused by load-related deterioration resulting from a weakened base course or subgrade, too little pavement thickness, overloading, or a combination of these factors.

Fatigue Cracking – Abbey Street Lot



Deformation – Visual Arts Center



Deformation

A distortion in asphalt pavement that is often attributed to instability of an asphalt mix or weakness of the base or subgrade layers. This type of distress may include rutting, shoving, depressions, swelling and patch failures.

Edge Cracking – Lee Street Lot

Edge Cracking

Edge cracks are longitudinal cracks which develop within one or two feet of the outer edge of pavement. They form because of a lack of support at the pavement edge; which in this case would be poorly managed drainage that is undermining the road surface



Raveling – Abbey Street Lot



Raveling

Raveling is the wearing away of the asphalt cement from the aggregate particles. This can occur as a result of normal wear over time and it can be exacerbated by such conditions as oil dripping from vehicles as is evident here at the Abbey Street lot.

Pavement failure – Nye Beach Turnaround

Structural weakness

When pavement conditions wear to the point that there is substantial fatigue cracking, deformation, and/or patching, it can no longer be preserved with a slurry seal and will need to be reconstructed. The Nye Beach Turnaround is an example of a lot that has deteriorated to the point that it must now be replaced.



Curb Failure – 9th and Hubert Lot



Other Parking Elements

While not a specific focus of the pavement condition assessment, it was evident that a number of the parking lots have components that need to be replaced or improved, such as the failed curbs at the 9th and Hubert lot (pictured).

Parking Lot	Structural			Transverse/L			Deformation			Overall	Comments
	Stability	Weakness	Fatigue	ongitudinal	Patching	Raveling	and Rutting	Condition			
City Hall	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Minor raveling in stalls due to vehicle oil leaks
9th & Hurbert	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Fair	Fair	Curb failed at 10th. Needs to be replaced
US 101 & Hurbert	Fair	Good	Fair	Fair	Good	Good	Poor	Good	Fair	Fair	Curb stops need to be replaced
Nye Beach Turnaround	Poor	Poor	Poor	Fair	Fair	Poor	Fair	Fair	Poor	Poor	Wood railing is rotted and due for replacement. Pavers are in good condition
Visual Arts Center	Fair	Poor	Fair	Good	Poor	Poor	Poor	Poor	Poor	Poor	Deformation in lower section and drive warrants reconstruction. Lacks striping on south side
Don Davis Park	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Significant transverse cracking in drive isles. Spot patching
Performing Arts Center	Good	Good	Good	Fair	Good	Fair	Good	Good	Good	Good	Due for striping
Jump Off Joe	Good	Good	Good	Good	Good	Fair	Good	Good	Good	Good	Spaces not available. Blocked off by pallettes
Port Dock 7	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Not rated. Unimproved gravel area
Fogarty & 5th (row)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	Drainage misses catch basin at entrance and directed through curb onto lower (private) lot. Needs improvement. Pavement edge failing at entrance
Lee Street	Good	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Severe aligator cracking and potholes
Fall & Bay	Poor	Poor	Poor	Fair	Good	Fair	Fair	Fair	Poor	Poor	Significant deformation impacting two stalls. Aligator cracking at entrance
Fall & 13th	Fair	Fair	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Borderline fair to poor with significant aligator cracking and potholes and traverse lines. ADA striping worn and confusing
Abbey Lot	Fair	Poor	Poor	Fair	Good	Fair	Good	Good	Poor	Poor	
Abbey (row)	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	
Hurbert (row)	Good	Good	Good	Good	Good	Poor	Good	Good	Fair	Fair	Extensive raveling and seepage on west side. Severe slope
Case (row)	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	West side striping is worn
Canyon Way	Good	Fair	Fair	Good	Good	Fair	Good	Good	Fair	Fair	Pavement condition varies. Good to very good (west) and fair (east). ADA striping is worn and needs to be reapplied

Projection of Parking Lot Surface Maintenance Needs

(Road surface only. Does not account for striping, drainage, curb/sidewalks, walls, railing, etc.)

Parking Lot	District	Size (SF)	Spaces	Condition	1-5 Years	5-10 Years	10-15 Years	15-20 Years
US 101 & Angle	City Center	30,000	65	Good	New \$151,024	Seal \$55,500		Seal \$73,500
City Hall	City Center	57,900	112	Good		Seal \$107,115		Seal \$141,855
Don Davis Park	Nye Beach	9,800	25	Good		Seal \$18,130		Seal \$24,010
Performing Arts Center	Nye Beach	74,800	151	Good		Seal \$138,380		Seal \$183,260
Jump Off Joe	Nye Beach	6,100	10	Good		Seal \$11,285		Seal \$14,945
Port Dock 7	Bay Front	14,000	TBD	Good		Seal \$25,900		Seal \$34,300
Lee Street	Bay Front	11,000	19	Good		Seal \$20,350		Seal \$26,950
Abbey (row)	Bay Front	5,800	10	Good		Seal \$10,730		Seal \$14,210
Case (row)	Bay Front	3,600	6	Good		Seal \$6,660		Seal \$8,820
9th & Hurbert	City Center	29,700	48	Fair	Seal \$47,817		Rebuild \$157,113	
US 101 & Hurbert	City Center	9,200	20	Fair	Seal \$14,812		Rebuild \$48,668	
Fall & 13th	Bay Front	11,800	22	Fair	Seal \$18,998		Rebuild \$62,422	
Hurbert (row)	Bay Front	13,400	28	Fair	Seal \$21,574		Rebuild \$70,886	
Canyon Way	Bay Front	23,000	33	Fair	Seal \$37,030		Rebuild \$121,670	
Nye Beach Turnaround	Nye Beach	40,400	45	Poor	Rebuild \$125,000		Seal \$86,052	
Visual Arts Center	Nye Beach	12,900	21	Poor	Rebuild \$51,600		Seal \$27,477	
Fall & Bay	Bay Front	8,600	13	Poor	Rebuild \$34,400		Seal \$18,318	
Abbey Lot	Bay Front	21,200	53	Poor	Rebuild \$84,800		Seal \$45,156	
Fogarty & 5th (row)	Bay Front	6,300	TBD	N/A				
					Cost: \$587,055	\$394,050	\$637,762	\$521,850
								Total Cost: \$2,140,717
								Annual: \$107,036

Seal Coat Inflationary Adjustment (SF)

Year 1-5	\$1.61
Year 5-10	\$1.85
Year 10-15	\$2.13
Year 15-20	\$2.45

Rebuild Inflationary Adjustment (SF)

Year 1-5	\$4.00
Year 5-10	\$4.60
Year 10-15	\$5.29
Year 15-20	\$6.08

Estimate

Project: City Hall Parking Lot

Project Number: N/A

Bid Opening: N/A

Tabulated by: J. Northern

				Engineers Estimate	
	Bid Item	Unit	Est. Qty.	Unit Price	Total Price
1	Mobilization Bonds and Insurance	LS	1	\$ 13,067.00	\$13,067.00
2	Demolition & Site Preperation	LS	1	\$ 9,147.00	\$9,147.00
3	Site Excavation	CY	916	\$ 30.00	\$27,480.00
4	6" PVC SD Pipe	LF	122	\$ 65.00	\$7,930.00
4	Asphalt Concrete Pavement (231 Cubic Yards)	TON	467	\$ 85.00	\$39,695.00
5	Aggregate Base-3/4" Minus (153.9 Cubic Yards)	TON	208	\$ 55.00	\$11,423.50
6	Aggregate Sub Base- 1 1/2" Minus (461.7 Cubic Yards)	TON	623	\$ 55.00	\$34,281.50
7	Remove and Replace Existing Catch Basin	EA	2	\$ 4,000.00	\$8,000.00
7	Street Light Pole Base - Installed (Acorn)	EA	2	\$ 700.00	\$1,400.00
8	1" Conduit & Materials for Street Light Pole Lighting - Installed	LF	167	\$ 22.00	\$3,674.00
9	Typical Straight Type "C" Curb	LF	502	\$ 18.00	\$9,036.00
10	Lighting Handhold	EA	1	\$ 250.00	\$250.00
10	Handicap Accessible Markings with Handicap Signs	EA	4	\$ 350.00	\$1,400.00
11	Painted Parking Pavement Striping	LF	1245	\$ 0.50	\$622.50
12	Parking Bumpers Not installed (Concrete)	EA	23	\$ 31.94	\$734.62
13	Top Soil	CY	47	\$ 35.00	\$1,645.00
13	Seeding	SF	3850	\$ 0.50	\$1,925.00
14	4" Concrete Slab Bike Rack	SF	96.3	\$ 11.00	\$1,058.75
15	C. Total Bid Price (Base Bid):				\$151,024.00



- Nye Beach Unmarked On-Street Spaces
- - - Nye Beach Marked On-Street Spaces
- Nye Beach Special Parking Area
- Nye Beach Public Parking Lots



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Nye Beach Special Parking Area Parking Inventory

Image Taken July 2013
 4-inch, 4-band Digital Orthophotos
 David Smith & Associates, Inc. Portland, OR



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- █ City Center Special Parking Area
- █ Marked On-Street Spaces
- █ Unmarked On-Street Spaces
- █ City Center Parking Lots
- █ City Center Acquisition Site



City Center Special Parking Area Parking Inventory

Image Taken July 2013
4-inch, 4-band Digital Orthophotos
David Smith & Associates, Inc. Portland, OR

City of Newport
Community Development Department
188 SW Coast Highway
Newport, OR 97365



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Bay Front Special Parking Area Parking Inventory

Image Taken July 2013
4-inch, 4-band Digital Orthophotos
David Smith & Associates, Inc., Portland, OR

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