

## PHASE 1 - FEASIBILITY ANALYSIS

### Adams Street

(Mountain Ave. to Cushman Ave.)

Also included under the Phase 1 paving program of 2016 is the milling and paving of Adams Street, for the entire length of the street, from Mountain Ave. to Cushman Ave. The limits of Adams street will connect with Mountain Ave. to the south, which is also proposed under Phase 1 of the 2016 street program and Cushman Ave. to the north, which was milled and paved in 2015. This connection of work completed in 2015 and work proposed in 2016 will connect three heavily traveled streets, all with refreshed roadway surfaces.

The condition of Adams Street today is poor / very poor. As shown in the photos, large sections of the roadway are breaking up and pothole repairs have become numerous along the entire corridor. The roadway suffers extensive alligator, longitudinal & transverse cracking and numerous transverse utility trenches. The condition of the alligator cracking is worst between Mountain Ave and Proctor Ave and just south of Constitution Ave. Cracking worst in the wheel path which is to be expected on a heavily traveled way such as Adams Street. Despite the extensive cracking of various types, extreme settlement of the roadway is not evident. The roadway does show some settlement along section of alligator cracking, poor base material may be present in that area, otherwise the base of the road is expected to be suitable for milling and paving based upon surface observations. Settlement in the wheel path could also be due to rutting caused by the pressure exerted on the road by vehicle tires.

Open potholes were observed and the material below the open potholes appears to be stable asphalt, opposed to many side streets where macadam is visible at open potholes. Considering the lack of settlement of the roadway overall and the observation of solid asphalt beneath the open potholes, this road is a good candidate for milling and paving. If the milling operation does expose areas where the base has deteriorated, such areas will be reconstructed by excavation as necessary. The extent of such reconstruction is not expected to be substantial and limited to utility trenches, but may be present along the rutted areas where alligator cracking is extensive. Curb reveal is sufficient and shall be approximately the same upon final paving.

Sidewalks and curbing are in mostly good condition along this road. Broken panels do exist on both sides of the road between Mountain Ave. and Proctor Ave. Excavation and replacement of those panels has been accounted for in the cost estimate. Further curb and sidewalk work along the roadway has been deemed unnecessary as the existing curb and sidewalk is in good condition.

In addition to the sidewalk spot repairs, the fire hydrant shown in photo 12 should also be replaced ahead of the paving operation. The hydrant can be replaced under DPCD-2015-1014 - Fire Hydrant Replacement Contract. Under that contract, the hydrant items themselves have been exhausted, but sufficient funds under the contract are available and the replacement can be completed under a change order. The Contractor R&D Site Development has been made aware of the fire hydrant and has verbally agreed to complete the work asap come spring.

Lastly, the crosswalks at Constitution Ave and Cooledge Street must be re-stripped as soon as possible upon final paving. Striping of crosswalks is typically completed under a DPW contract and coordinated by Paul Argenzio and has not been included in the estimate due to a separate striping budget. DPW will be kept in the loop regarding the construction schedule as project approvals are obtained from the Mayor's office and a firm schedule is established.

**SEE NEXT PAGE FOR COST ESTIMATE**

# **CONSTRUCTION COST ESTIMATE BY CONTRACT BID PRICES**

1/4/2016

Project Location: Adams Street (Entire Road)  
Scope: Mill + Pave & Sidewalk Spot Repairs

TOTAL MILL + PAVE AREA INCLUDING SETBACKS = 4930 SY  
APPX LENGTH = 1365 LF  
WIDTH OF ADAMS STREET VARIES BETWEEN 21' & 33'

Item #	Description	Quantity	Unit	Unit Price	Item Cost
1	Sidewalk Excavation	275	SY	\$13.00	\$3,575.00
2	Grading & Compaction for Sidewalks	275	SY	\$9.00	\$2,475.00
3	Conc. Sidewalk	175	SY	\$24.50	\$4,287.50
4	Conc. Driveways	100	SY	\$34.00	\$3,400.00
5	Asphalt Pavement Milling (2")	4,930	SY	\$3.25	\$16,022.50
6	Drainage & Sanitary Structures Adjusted	25	EA	\$125.00	\$3,125.00
7	Excavation of Poor Base Material	500	SY	\$13.00	\$6,500.00
8	Supplemental Gravel	80	Ton	\$0.01	\$0.80
9	Compaction of Supplemental Gravel / Exposed Base Material	500	SY	\$9.00	\$4,500.00
10	Binder for Reconstruction Areas	60	TON	\$125.00	\$7,500.00
11	Gate Boxes Adjusted	15	EA	\$100.00	\$1,500.00
12	Hand Work for Paving Prep Work / Leveling	40	TON	\$125.00	\$5,000.00
13	Street Sweeping	8	HOURS	\$160.00	\$1,280.00
14	Bitument For Tack Coat	246.5	GALLONS	\$4.00	\$986.00
15	Hot Mix Asphalt Pavement (2")	616	TONS	\$75.45	\$46,496.06
16	Police Detail	80	HOURS	\$40.00	\$3,200.00
17	Contingency (15%)	1	LS	\$14,416.55	\$14,416.55

**ESTIMATE = \$124,264.42**

## NOTES:

1. Sidewalk work mostly on e/s of Adams b/t Mountain Ave. and Proctor Ave.

# Adams Street

At Mountain Ave. looking north

Extreme alligator cracking of roadway shown.  
Pothole shown. Broken sidewalk panels shown.

Broken sidewalk panels should be replaced between  
Mountain Ave. & Proctor.  
Curb and sidewalk north of proctor are in good  
condition.



2/1/2016

# Adams Street

At Mountain Ave. looking north

Highlighting broken sidewalk panels on the east side of Adams between Proctor and Mountain.

All broken sidewalk panels should be replaced.



2/1/2016

# Adams Street

Looking south towards Mountain Ave.

Alligator cracking is breaking up.  
Pothole repairs shown.



2/1/2016

# Adams Street

Looking South towards Mountain Ave.

Proposed paving of Adams street to meet the  
proposed paving limits of Mountain Ave.



2/1/2016

# Adams Street

Looking north towards Proctor

Photo shows more broken sidewalk panels on the west side of Adams between Mountain Ave. and Proctor



2/1/2016



# Adams Street

At Proctor looking north

Curb and sidewalk in good condition.

Road has various patches, utility trenches and potholes along this stretch



2/1/2016

## Adams Street

Continuing north towards Constitution Ave.  
Curb and sidewalk remains in good condition.  
Road shows cracking and settlement at utility  
trenches.



2/1/2016

## Adams Street

Continuing north towards Constitution Ave.

Curb and sidewalk remains in good condition.

Cracked condition of roadway continues.  
Worsens toward gutter. Extreme settlement of  
the roadway not observed.

Milling and paving recommended



2/1/2016

## Adams Street

Continuing north towards Constitution Ave.

Curb and sidewalk remains in good condition.

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2/1/2016

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Continuing north towards Constitution Ave.

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2/1/2016

## Adams Street

Continuing north towards Constitution Ave.

Curb and sidewalk remains in good condition.

Pothole and pothole repairs shown where alligator cracking has broken away from the road.

No extreme settlement at utility trenches shown.



2/1/2016

# Adams Street

Continuing north towards Constitution Ave.

Typical condition of curb, sidewalk and roadway shown. Alligator cracking will begin to break away from roadway soon.

Fire hydrant requires replacement prior to paving the roadway. Can be completed under Hydrant Contract DPCD-2015-1014 in early spring. Funding and Contract both in place.



2/1/2016



# Adams Street

Intersection of Constitution Ave.

Very large intersection as Adams widens at this location.

Recommend milling and paving through the intersection.

Many utility castings exist in this intersection



2/1/2016



# Adams Street

At Constitution Ave. Looking North

Cracking of roadway can be seen in this photo.

Painted crosswalks shown. City should consider options for crosswalk striping and have measures in place to stripe crosswalks asap after the street is paved as this is a heavily traveled pedestrian intersection.



2/1/2016

# Adams Street

Continuing north on Adams

Condition of the roadway relatively consistent as we travel north.

Curb and sidewalk in good condition.



2/1/2016

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Continuing north on Adams

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Continuing north on Adams

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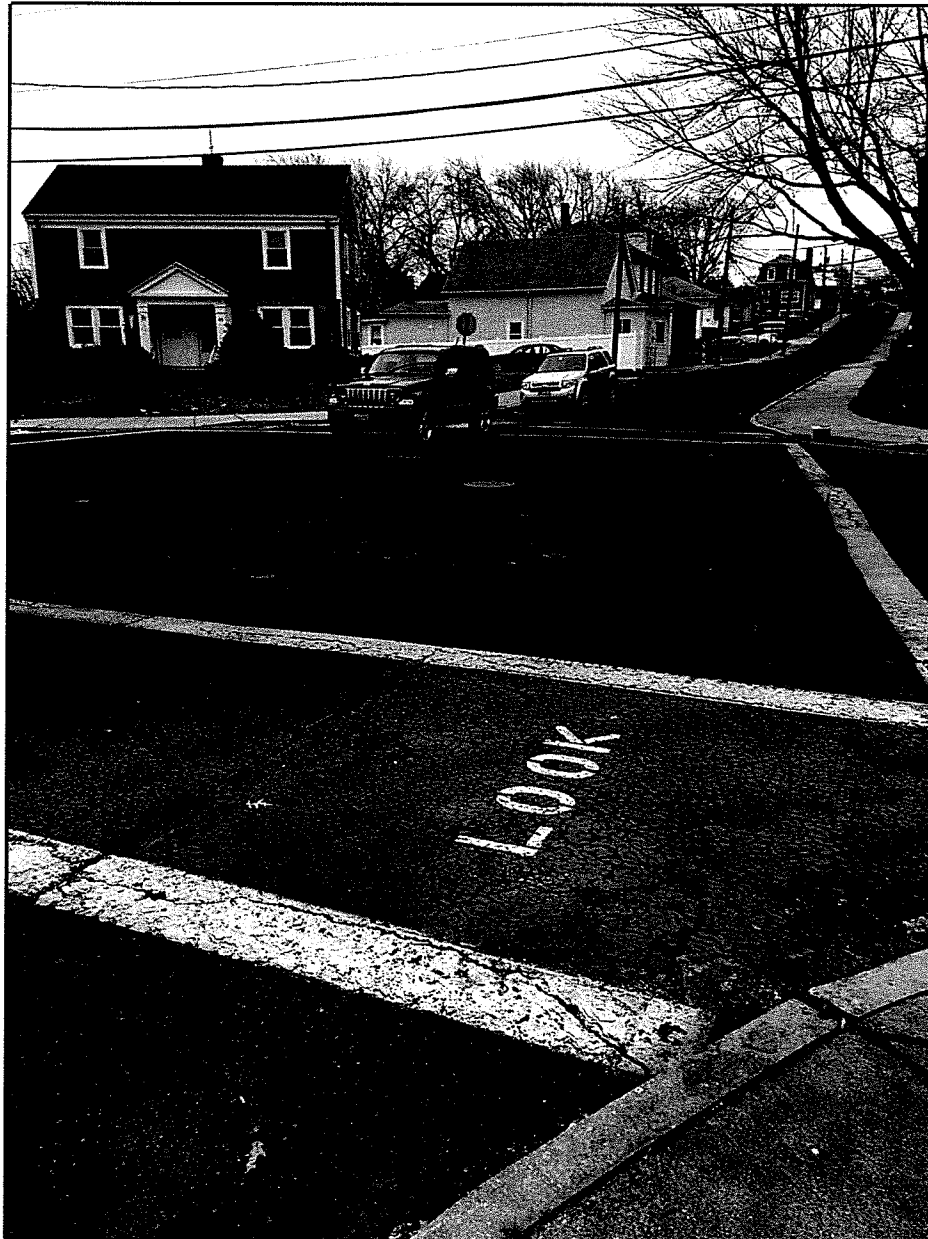


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Curb and sidewalk in good condition.



2/1/2016

# Adams Street

Continuing north on Adams

Condition of the roadway relatively consistent as we travel north.

Curb and sidewalk in good condition

Multiple layers of asphalt seen at pothole.

Milling and paving recommended.



2/1/2016

# Adams Street

Continuing north on Adams

Condition of the roadway relatively consistent as we travel north.

Curb and sidewalk in good condition



2/1/2016

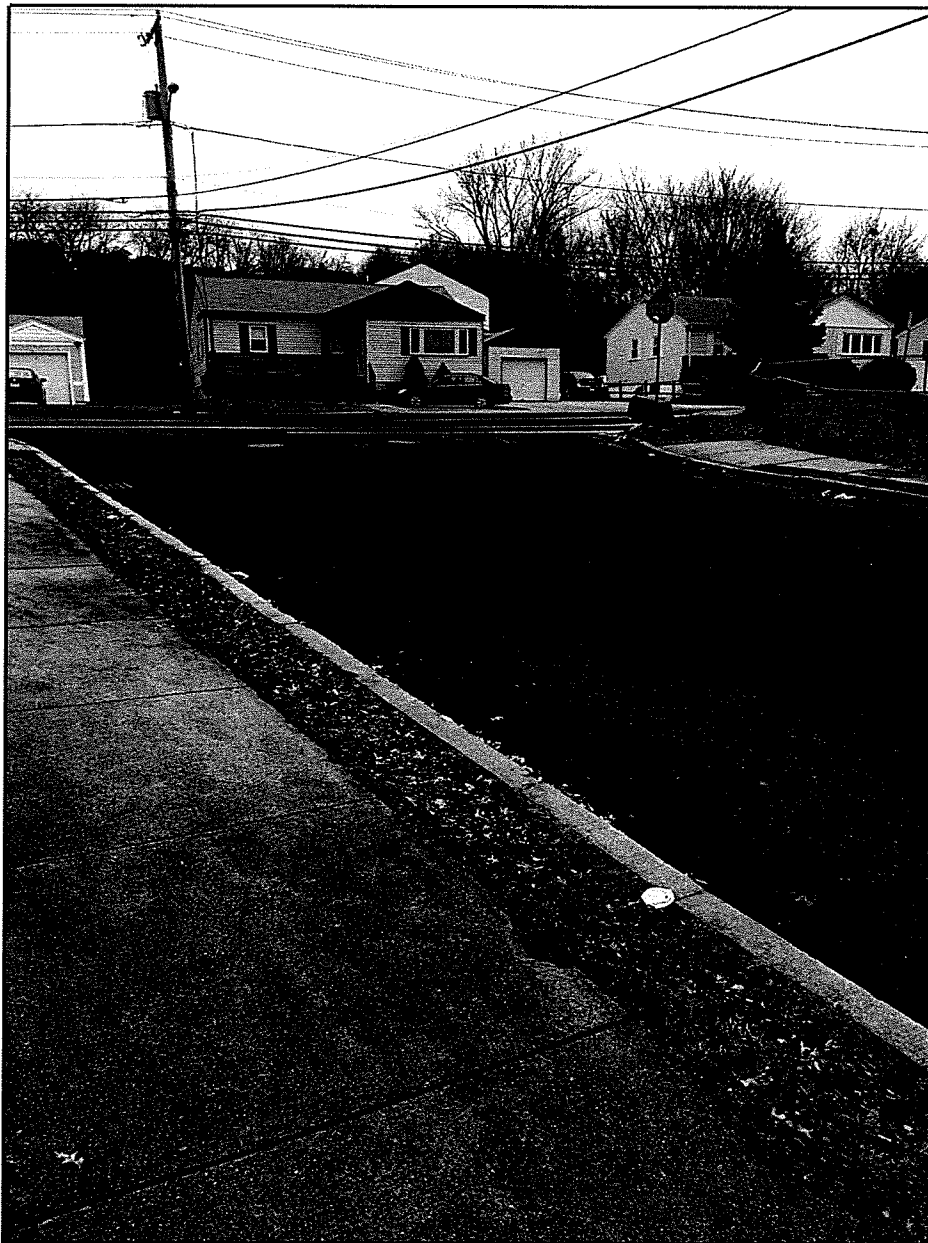


# Adams Street

Looking north to Cushman Ave.

Condition of the roadway relatively consistent as we travel north.

Roadway appears suitable to support a milling and paving operation. Proposed operation to connect with Cushman Ave. (paved 2015) and Mountain Ave. (to be paved in 2016).



2/1/2016