

PHASE 1 - FEASIBILITY ANALYSIS

Thorndike Street

(Revere St. to Hastings St.)

The condition of Thorndike Street varies from good to very poor. The condition of the sidewalks overall are decent and granite curb with substantial reveal exists. Overall the condition of the sidewalks are good to decent with a few poor spots mixed in. As you travel away from Revere Street, the condition of the roadway worsens. Exposed macadam was observed in multiple locations. The road suffers from differential settlement in several locations. Those factors lead to the conclusion that this road will not support milling and paving, that the base of the road is in poor condition, and reclamation is required. Similarly other factors should be considered, such as the close proximity to the marsh, and the overall soil profile of the road. For example, if soft, compressible, organic material is found below the existing road base, reclamation itself will not address the condition of the material at a depth greater than 18".

Prior to any road resurfacing, reclamation or any substantial road work on the street, a full understanding of the overall soil profile is required. This may be obtained by completing a series of soil borings along the entire length of the street. The results of soil borings will help determine why the road is settling and the extent of work required to properly firm up the road. If substantial soft material exists below the existing road base, excavation of such material and replacement with suitable base material will be necessary to properly stabilize the road into the long term future. If the problem is not with underlying soils, but with the base itself, then reclamation might be the correct action. Either way, milling and paving of this road is not recommended, and further no action is recommended until such time as a full understanding of the overall soil profile be determined.

Thorndike Street

View from Revere Street

Photo highlighting decent condition of curb and sidewalk

Roadway settling towards the edges and alligator cracking is expanding.

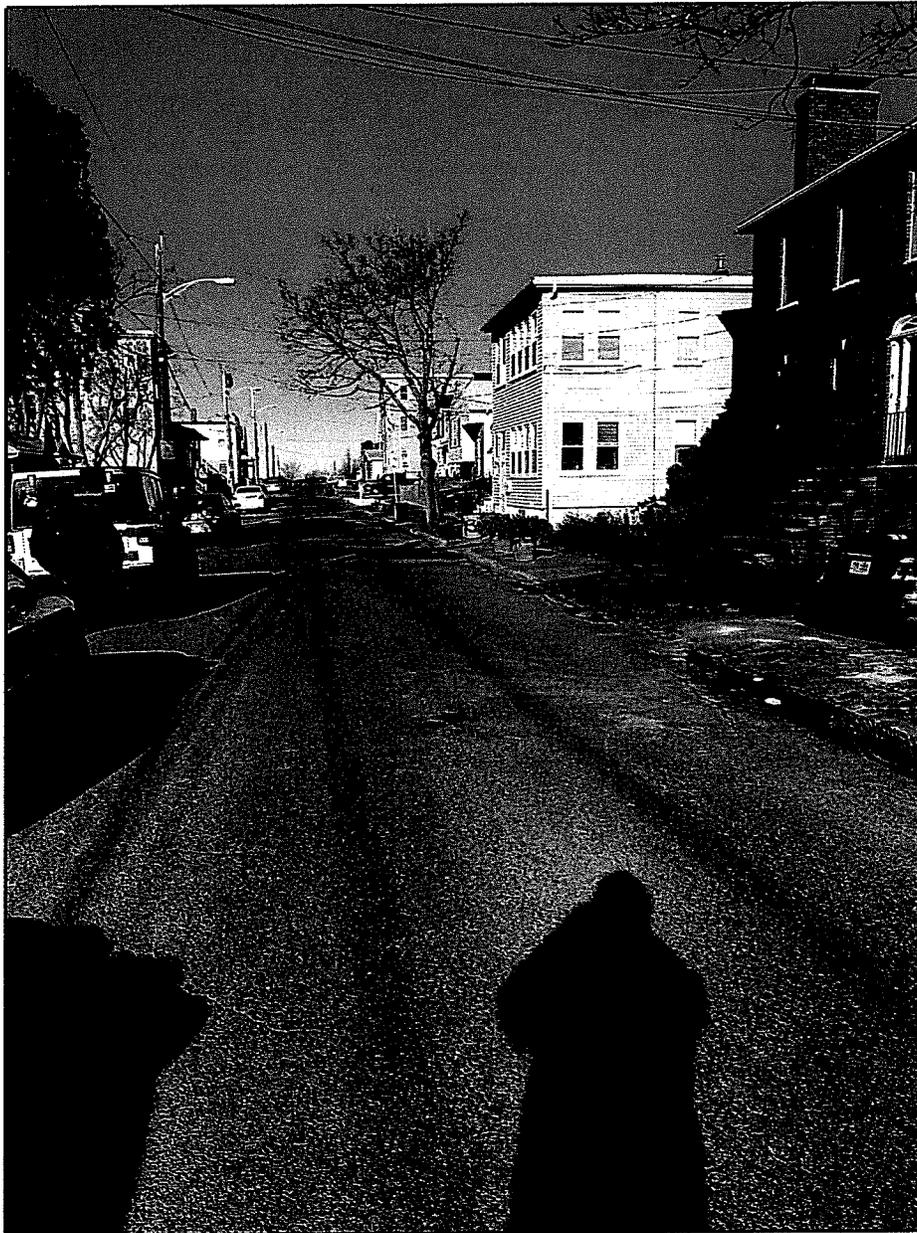


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Thorndike Street

Near Revere Street looking north

Thorndike Street is in good condition close to Revere St. but condition worsen as you travel north.



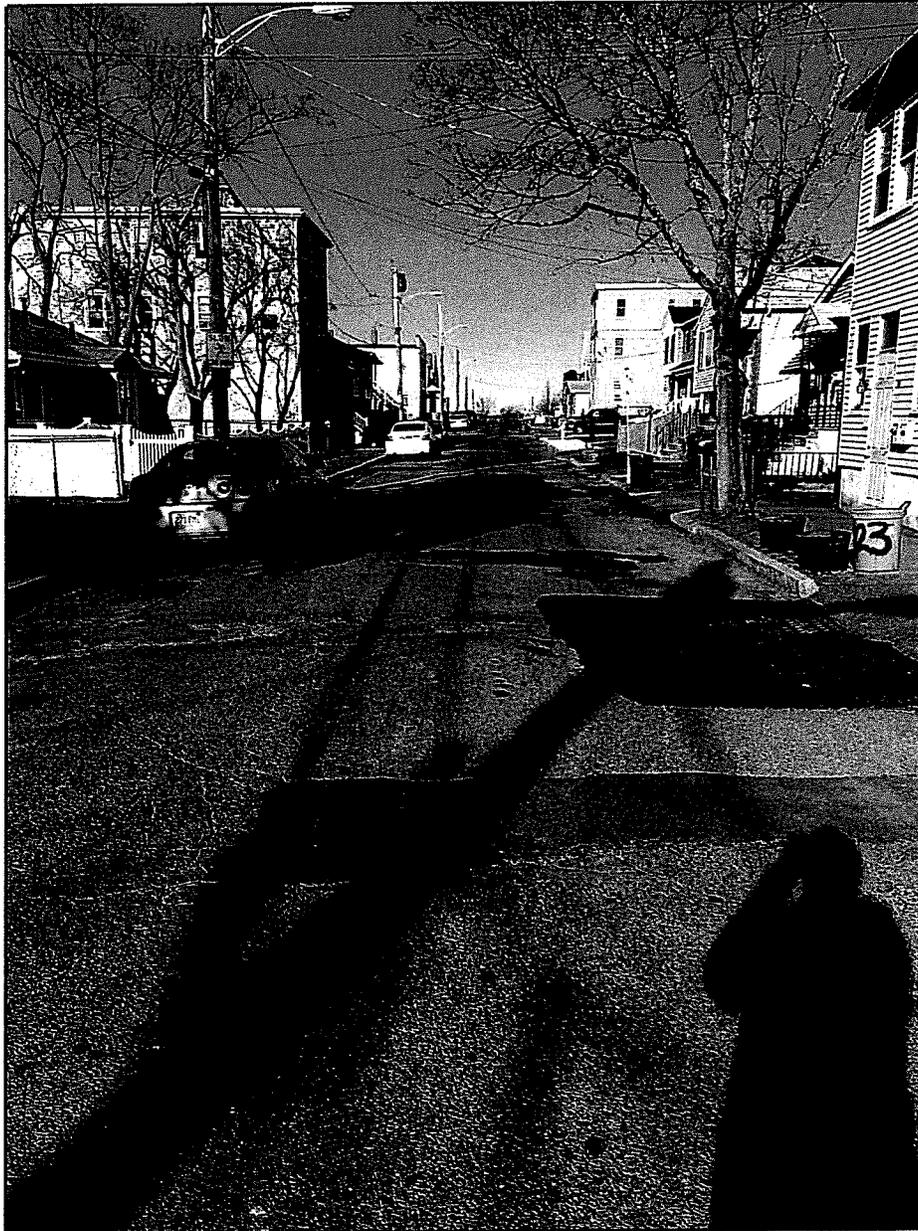
Thorndike Street

Continuing north

Settlement shown, alligator cracking related to settlement. Pothole and trench repairs shown.

Differential settlement equates to questionable condition of roadway base.

Curb and sidewalk in moderate condition



Thorndike Street

Continuing north

Condition of the roadway worsens, multiple failures, multiple repairs.

Failures appear to be due to soft roadway base.
Roadway 'wavy', evidence of differential settlement.

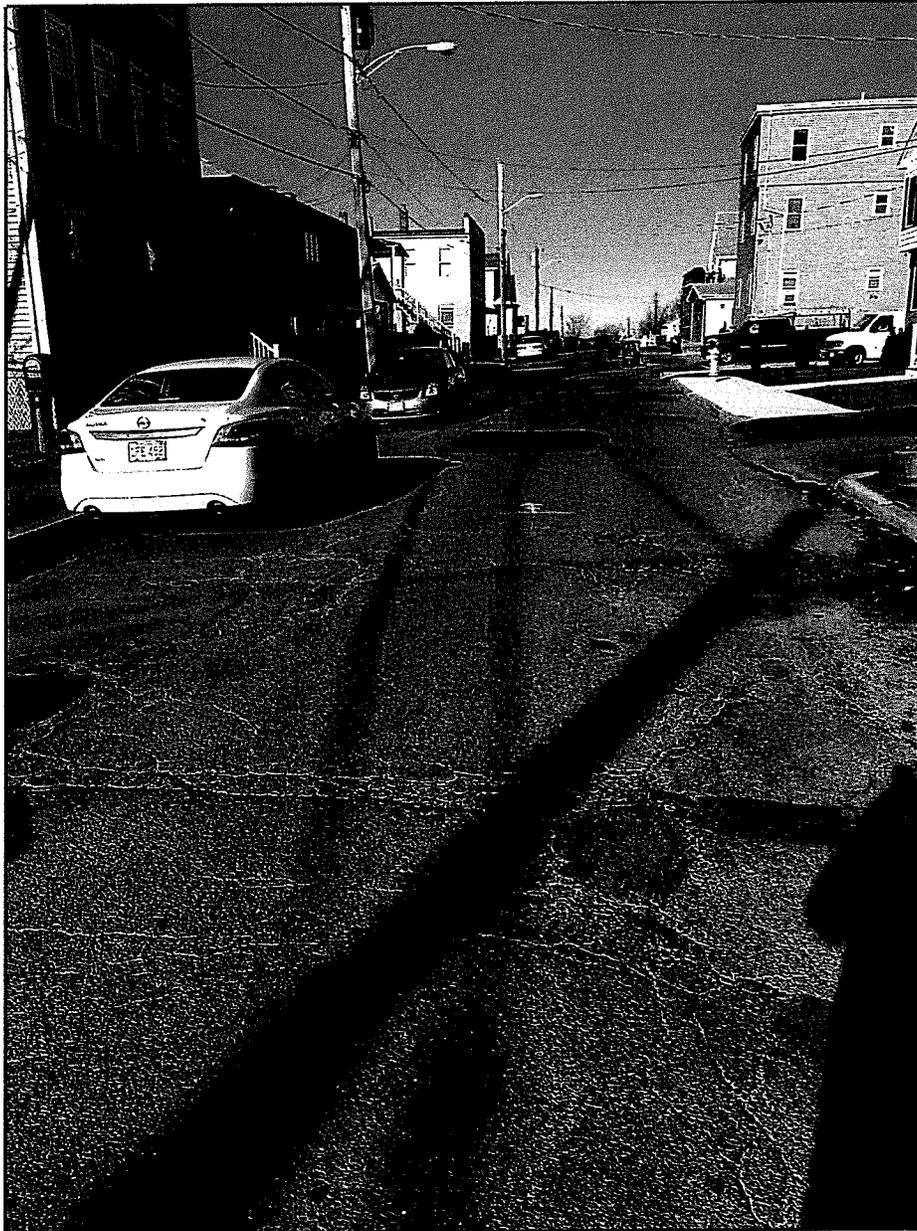


Thorndike Street

Continuing north

Differential settlement and failures due to settlement evident.

Milling and paving will not improve the condition of the roadway base.



Thorndike Street

Detail of exposed roadway base

Exposed macadam shown. Roadway surface very thin over base.

Condition of base on this road should be addressed.

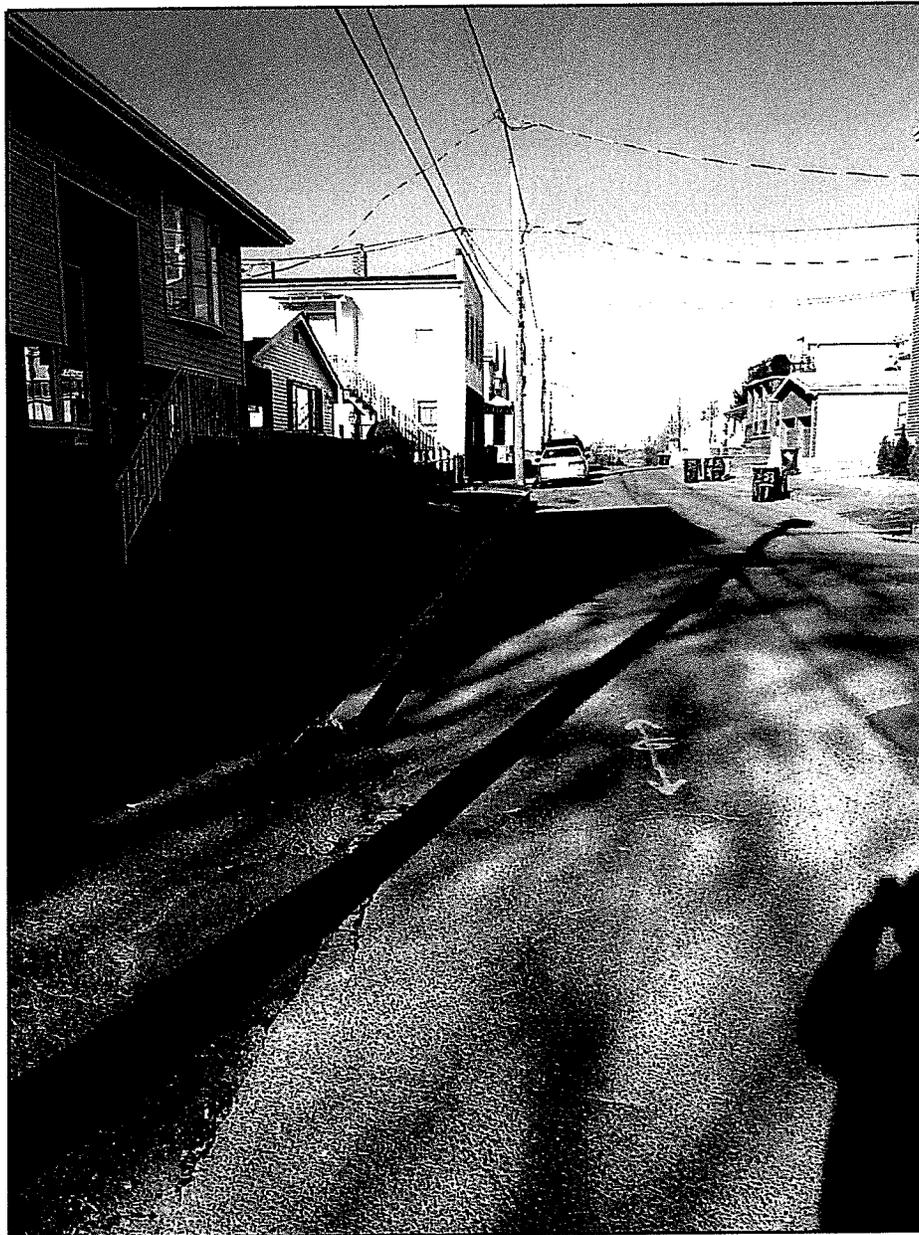


Thorndike Street

Continuing north

Sidewalk and curb in decent condition.

Failure of the roadway continues consistently



Thorndike Street

Looking back towards Revere St.

Very old fire hydrant shown (1910-1920 appx.)
Hydrant should be upgraded.

Despite aging water infrastructure no water
breaks reported in recent history.

Roadway failure consistent.



Thorndike Street

Detail of sewer manhole

Again, note the exposed macadam.

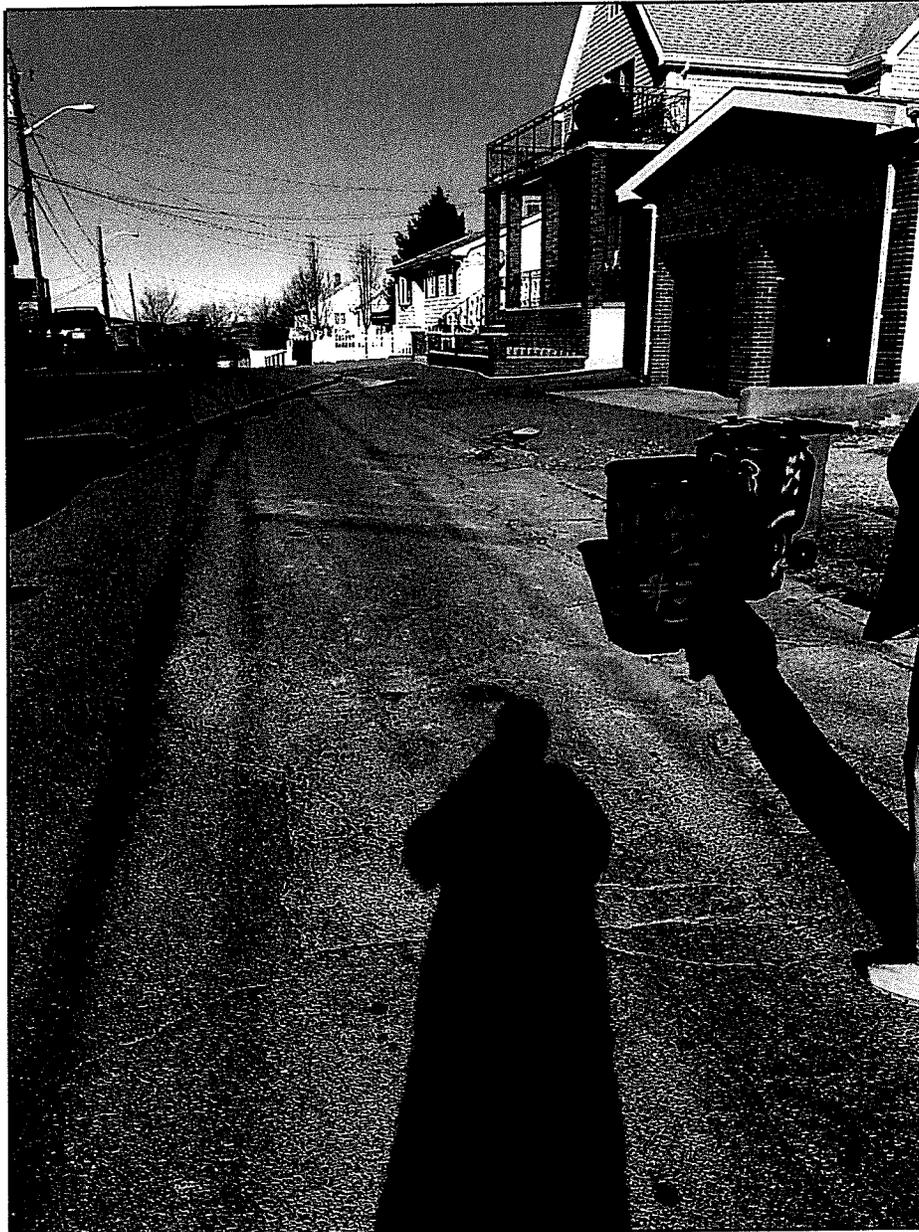
Roadway base questionable



Thorndike Street

Looking North

Settlement and alligator cracking of the shoulder obvious. Base material questionable as condition is consistent



Thorndike Street

Looking north towards the marsh

Roadway seems to improve towards end of road,
although cracking is evident and appears to
becoming expansive.

Improved condition possibly due to lighter traffic
at this end of the road.

Despite that, road still in poor condition.
Curbing and sidewalk are better than the road.



2/3/2016