# **DPW - Infrastructure Services Division Pothole Repair Activities** February 2014

The following is a short summary and update on DPW's efforts to address the issue of potholes and maintenance for your information and reference.

## **OVERVIEW**

- Moisture from snow melt-off and rains creeps into pavement cracks, joints and depressions and if not properly drained away, will collect beneath the surface. This moisture begins to soften the underlying base support of the roadway and is accelerated by frequent winter freeze-thaw cycles typically seen in spring.
- Pavement sections can heave with the frost and settle back down.
- All streets will have some potholes develop during their useful life and cannot be completely prevented.
- The continuing presence of potholes is a strong indication that the roadway pavement and base are beginning to fail and needs some additional remedial attention. Pothole repairs only fix the isolated location and do not restore a deteriorating roadway.

### **CURRENT EXPERIENCE**

Pothole requests to the City's Call Center through the end of February remain stable and a bit lower than last year.

Call Center Pothole Service Requests

Jan/Feb. 17, 2014 – 1,251 Jan/Feb 2013 - 1,347 Jan/Feb 2012 - 1.576 Jan/Feb 2011 - 1.030 Jan/Feb 2010 - 1,028 Jan/Feb 2009 - 2,025

Jan/Feb 2008 - 2,863

However, the real spring season has yet to come and conditions may become worse over the next couple months.

### **HOW TO REPORT**

- The most effective way for the public to report a pothole is to call the City Call Center 286-CITY so the location can be entered into the City's database.
- Additionally, Street managers monitor street conditions on a daily basis and log locations into the database as well.
- Managers review this database at least twice a day and prioritize work based on safety hazards, traffic volume and type of street.
- Crews are scheduled in assigned areas in a systematic fashion in order to be most efficient and to minimize travel time between locations.
- Claims against the City must be filed in writing with documentation submitted to the City Clerk. The City Attorney will review the merits of all claims.
- Motorists must remain alert and aware of changing roadway conditions, reduce speeds and allow ample room for safe maneuvering if warranted.

## **RESPONSE**

- Currently, the average goal to complete a repair is under three working days. This may become unrealistic in late winter/early spring when the freeze-cycles are at their peak.
- A backlog of complaints is expected this time of year and the response is prioritized where Arterial streets will be addressed before residential streets.
- Staffing at this time (and all through winter) consists of 9-10 patching street crews throughout the City. This winter staffing level is not intended to handle the seasonal flood of pothole complaints but to maintain average workloads.
- Second shift personnel are available weekdays for emergency call-out response through the City Hall Operator for general street maintenance emergencies.
- Additional seasonal crews are typically staffed beginning in mid-March to April to address this
  workload however, if conditions warrant, additional crews may be called back early.
- The City has two self contained Road Patcher vehicles which allow potholes to be filled by one operator; however this vehicle can not be operated in freezing temperatures and is not put into service until spring.

## REPAIR PROCEDURES

- Pothole patching in the late winter offers very challenging conditions. Potholes are damp, full of water, ice or snow and full of loose broken pavement pieces.
- These areas are cleaned as best as practical however, in these conditions, the asphalt patch does not adhere as well to the existing pavement and repair may not last.
- Crews will compact this material and patch may be slightly elevated or uneven. This is due to the lack of workability of the material.
- Repairs made during winter months are susceptible to snow plow damage.

## MATERIALS USED

- Hot mix asphalt is not available during winter months because it is not fluid enough to be placed in cold temperatures.
- Alternatively, a winter mix of cold asphalt emulsion and stone is used to fill these holes. Cold mix is the quickest and easiest material to place under these conditions.
- This type of repair is considered a temporary repair and will likely be replaced in summer with hot asphalt.
- City staff has experimented with several products and currently uses the best available product in the market.
- Typically, local asphalt plants do not begin producing hot asphalt until mid-April. However, supply vendors have started-up as early as mid-March for asphalt hot mix production in smaller batches. City will take advantage of this supply if it occurs.

### CONTACTS

- DPW Street Maintenance Managers are:
   SOUTH of Content Str. Ma. Paul Product.
  - SOUTH of Center St: Mr. Paul Brady Office 286-2136 Cell 708-8012 NORTH of Center St: Mr. Ron Golec Office 286-5519 Cell 708-4176
- Mr. Jeffrey Dellemann, Streets & Bridges Manager Office 286-2078 Cell 708-2182
- Mr. Samir Amin, Engineer in Charge Office 286-3437 Cell 708-2528

## DPW – Infrastructure Services Division Pothole Update Wednesday - 2/19/14

Through February 17, 2014, DPW Street crews have been able to maintain an effective pothole response effort. To date we have received 1,251 patching requests; 1,158 of these requests have been resolved. Our average response time is 2 days 13 hours. 93% of these potholes have been filled within three days.

#### PERSONNEL

- Winter staffing level of 7 to 8 crews each day are routinely assigned to this effort.
- Around mid-March we normally increase this effort to 8 to 10 crews each day.
- In April this effort is increased to 12 to 15 crews each day.
- Seasonal street personnel are anticipated to return mid-April and at the end of April, however this schedule can be modified if required.
- Pothole crews are only scheduled for 1<sup>st</sup> shift operation, Monday through Friday.
   We have increased our effort to include the weekend if needed.

#### **CALL CENTER REQUESTS**

- 1,251 total requests through February 17, 2014.
- Compared to 965 requests same period in 2013; 1,276 in 2012 and 2,056 in 2008.
- 1,158 (93%) resolved to date; pending requests as of February 17<sup>th</sup> was 93 requests.
- Total requests by Maintenance District: Central-D1 = 509; North-D2 = 482; South-D3 = 260.
- Average 2014 response to date is 2 days, 13hours.
- February through May usually have the highest call volume.

#### **MATERIALS**

- Use of cold mix asphalt continues and limits the quality of the repair
- Quality of repair depends on material used, structural condition of pavement, bonding capability, environment at time of repair and workmanship
- Availability of hot mix asphalt from local vendors is anticipated to become available in mid-April.
- Two single operator RoadPatcher vehicles are not deployed during winter due to freezing temperatures. Anticipate materials and temperatures will permit deploying this equipment in mid-April.

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