

City of West Jordan Public Works

Public Services Division



Public Services

- **Parks**
 - Urban Forestry
 - Open Space Maintenance
 - Detention Basin Maintenance
 - Streetscape Maintenance
 - Parkstrip
 - Hardscape
 - Irrigation Maintenance & Inspections
 - Trail Maintenance
 - Athletic Field Maintenance
 - Snow Removal
- **Cemeteries**



Streets Division

- Street lights
- Pavement Markings
- Street sweeping
- Street signs
- Traffic striping
- Graffiti Abatement
- Snow removal
- Solid Waste



Solid Waste



- **Contract Administration for collection**
- **Recycling**
- **Dumpster Program**
- **Container Management**
- **Education**



Services Requests in the Public Services Division

- **Parks**

- Irrigation issues: Dry spots or broken lines or sprinklers
- Tree issues: Missing trees, low hanging limbs, broken limbs, etc.
- Weed complaints
- Playground issues: Vandalized, damaged items
- Park facility issues: Broken, damaged or vandalized restrooms and structures
- Rodent issues on city property: Control of gophers, beavers, etc.

- **Streets**

- Pavement issues: Potholes, sinkholes, etc.
- Concrete issues: Damaged curb, gutter or sidewalk. Sunken or lifted concrete
- Snow removal complaints
- Sign issues: Damaged signs, faded signs, missing signs
- Graffiti issues: Graffiti removal from public property and private walls and fences on arterials
- Streetlight issues: Lights not working, lights on 24/7, damaged lights
- Traffic striping : Work orders from the Traffic Engineer, request to re-paint lines
- Sweeping: Clean up following an accident or spill, sweeping requests from residents

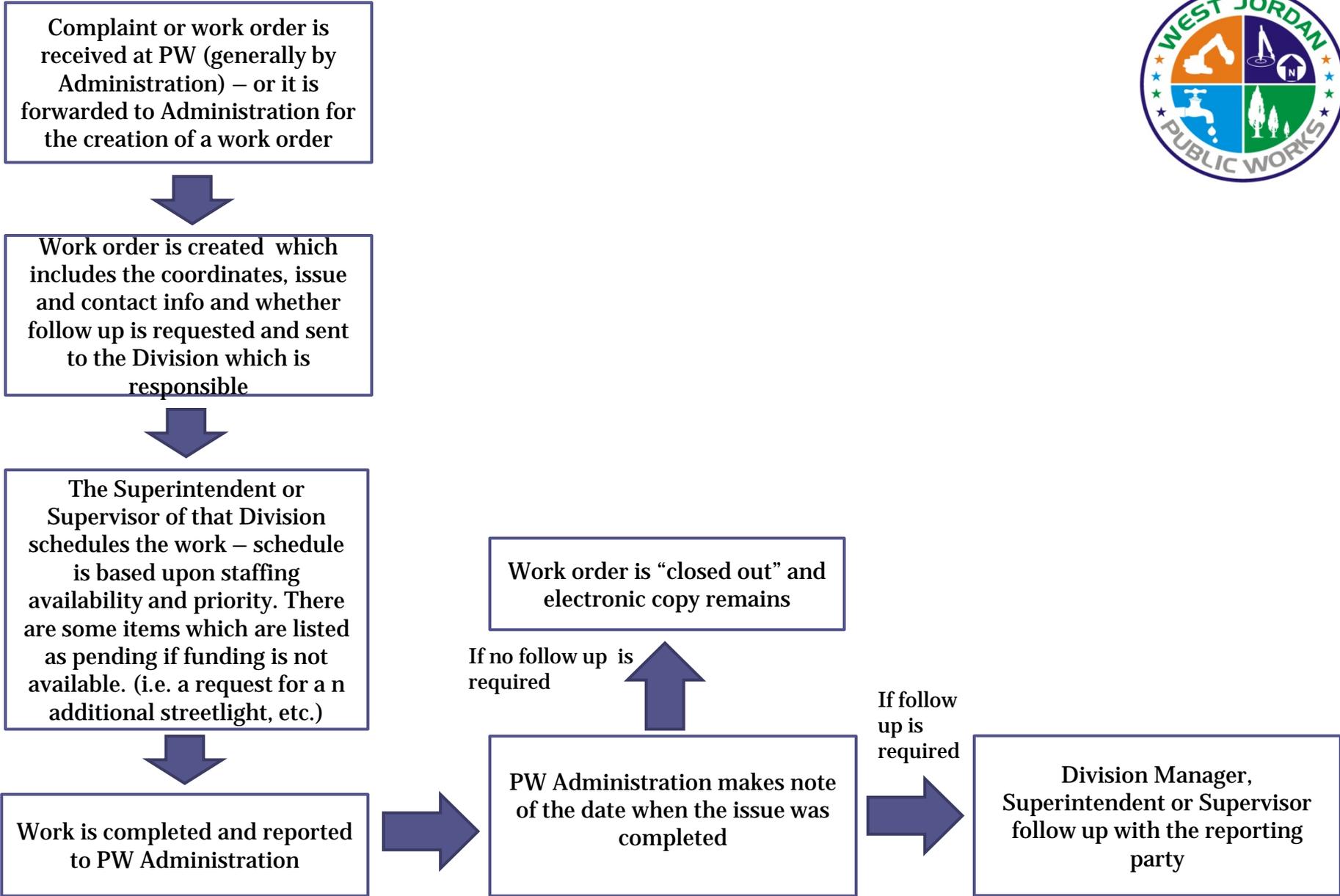
- **Solid Waste**

- Automated can issues: Request for additional cans, missing cans, damaged cans
- Dumpster issues: Overloaded dumpsters, pick up of objectionable material
- Cleanup of miscellaneous unauthorized dumping

- **Cemetery**

- Site maintenance issues: turf maintenance, removal of mementos not in accordance with policy

Public Services Work Order Process





Parks

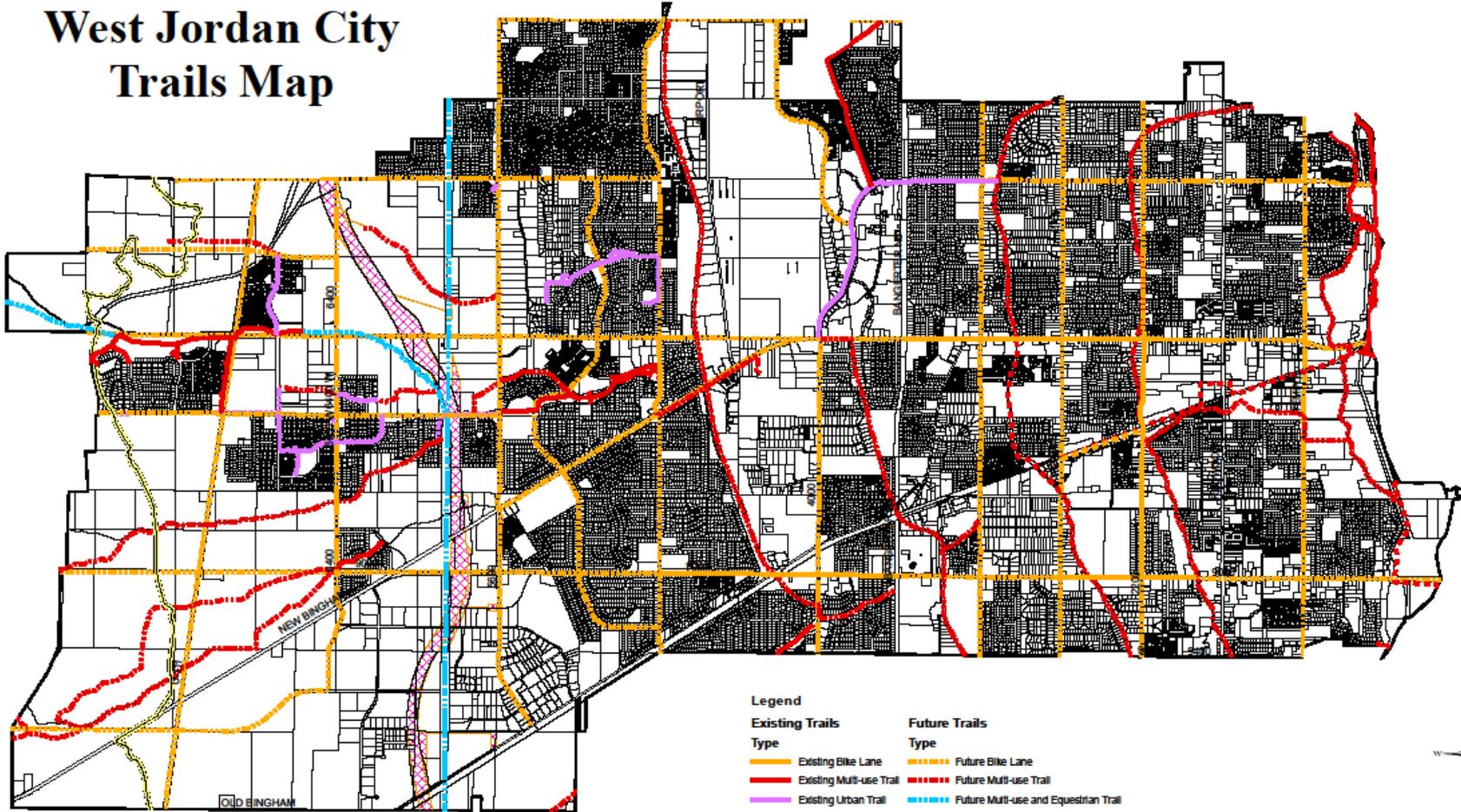
Brian Clegg, Parks Superintendent

Parks



- Landscape maintenance
 - In-house maintenance
 - Contract Administration of contracted maintenance
- Trails
- Open Space
- Athletic Fields
- Inspection of new landscaping
- Administrative and city owned property
- Urban Forestry
- Event support
- Service projects – average approximately 1 per week
- Snow removal – Administrative properties, sidewalks and support to Streets

West Jordan City Trails Map



Legend

Existing Trails

Type

- Existing Bike Lane
- Existing Multi-use Trail
- Existing Urban Trail

Planned Trails

Type

- Planned Bike Lane
- Planned Multi-use Trail

Future Trails

Type

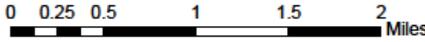
- Future Bike Lane
- Future Multi-use Trail
- Future Multi-use and Equestrian Trail
- Future Urban Trail
- Bonneville Shoreline Trail

- WJordanJan2012
- MVC
- boundary07



May 2012
City of West Jordan
For Reference Purposes Only

T:\Planning & Zoning\Users Sub-Folders\
Common Folder\ArcGIS\Open Space Maps\
WJC Trails Map.mxd



Parks

- **Current staff**
 - **13 full time employees (currently have two vacancies)**
 - **Public Works “training ground” – “lost” 54% of fulltime staff this year...**
 - **Approximately 34 seasonal employees**
 - **Turnover results in additional training...**



Parks

- Parks: 47 parks, approximately 335 acres
 - Attempting to establish a capital replacement fund
 - Infrastructure
 - Pavilions
 - Play structures
 - Irrigations systems



- Approximately 477 acres of open space maintenance
 - Detention basins
 - Undeveloped city property
 - Washes – maintain top to top of bank where accessible

Parks Division

- Trails
 - No resources for paved trails and parking lots
- Streetscape
 - Hardscapes
 - Park strip: Approximately 26 acres
- Administrative properties: Approximately 22 acres
- Quantities are increasing rapidly...



Parks Division

- “Support Services” for special events
 - Increasing annually
- 65 miles of sidewalk for snow removal
- Inspection of new construction and contract administration for landscape maintenance



Urban Forestry

- **Approximately 12,000 trees**
- Challenges for street trees
 - Growth
 - Irrigation
 - Vandalism
- Replacement limitations
- Average life for “street trees”



Responsibility of Trees - Municipal Code...

- **D. Trees: Tree maintenance and pruning on private property shall be the responsibility of the property owner or tenant.**
- **1. For any tree in a park strip or within the landscape setback area where there is no park strip, property owners or tenants are not permitted to remove or conduct major pruning (20 percent or more of the crown), without prior approval from the city's urban forester. As a condition of such approval, the permittee may be required to replace the tree.**
- **2. Protect trees against damage caused by maintenance equipment, such as lawn mowers, weed trimmers, snowblowers and snowplows.**

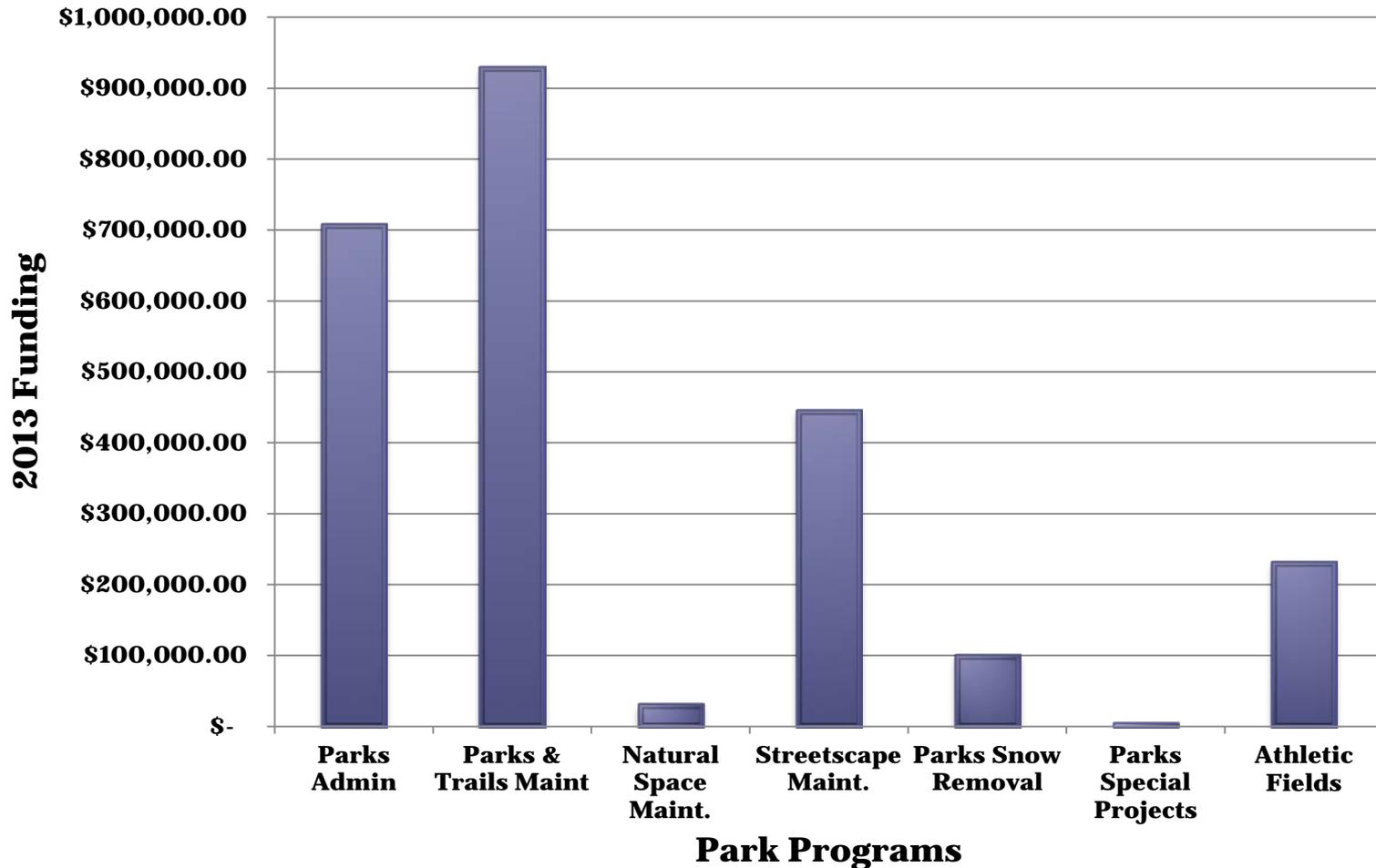


Responsibility of Trees - Municipal Code...

- **G. Clearance And Visibility:**
- **1. Trees adjacent to pedestrian walkways shall have a minimum canopy clearance of eight feet (8') above grade.**
- **2. Tree canopies that extend over street travelways shall be pruned to provide canopy clearance of at least fifteen feet (15') above street pavement in travel lanes and ten feet (10') above pavement in parking lanes.**



Parks Funding



****Annual Operation Cost Approximately \$22.71 per capita****

Parks

- Parks maintained approximately every two weeks
 - Fertilizer and weed abatement – once a year
 - Open space – addressed once a season
 - Athletic fields
 - (4) tournaments this year – one included 350 teams!
 - Over 250 football reservations
 - Over 350 baseball reservations
 - Over 680 soccer reservations



Weed Abatement



- (2) Crews consisting of
 - (2) Fulltime employees and (8) seasonal employees
- Spraying herbicide
- Cutting weeds



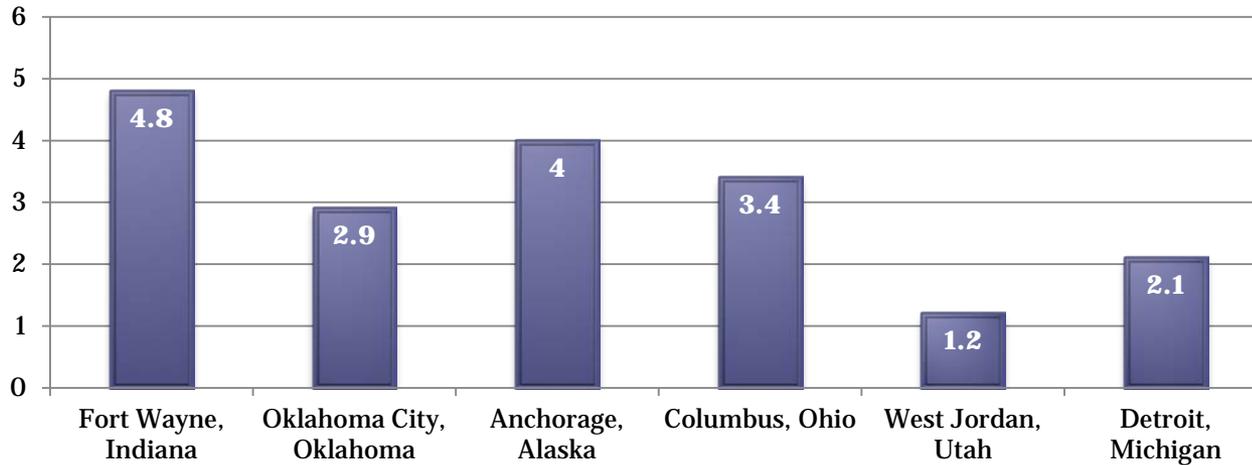
Irrigation Specialists

- **2 Irrigations Specialist - one currently vacant**
- ****Over 200 points of connection****
- **No central irrigation system**
- **Inspection of new landscaping**
- **Contract administration of multiple landscape contractors**

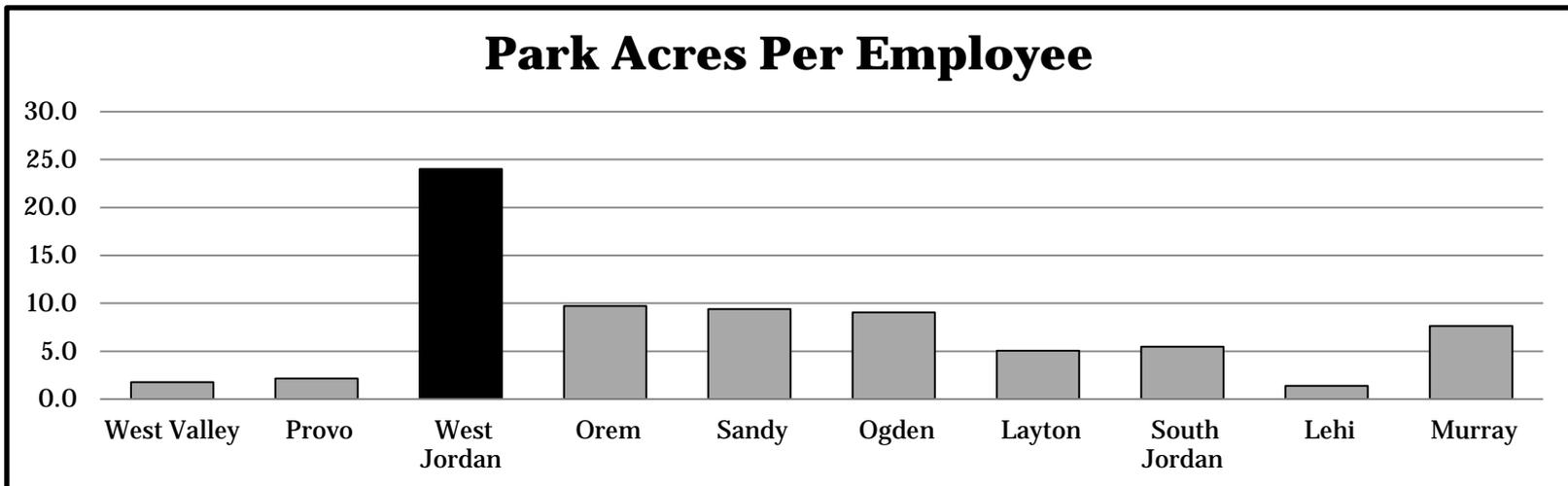


Parks challenges

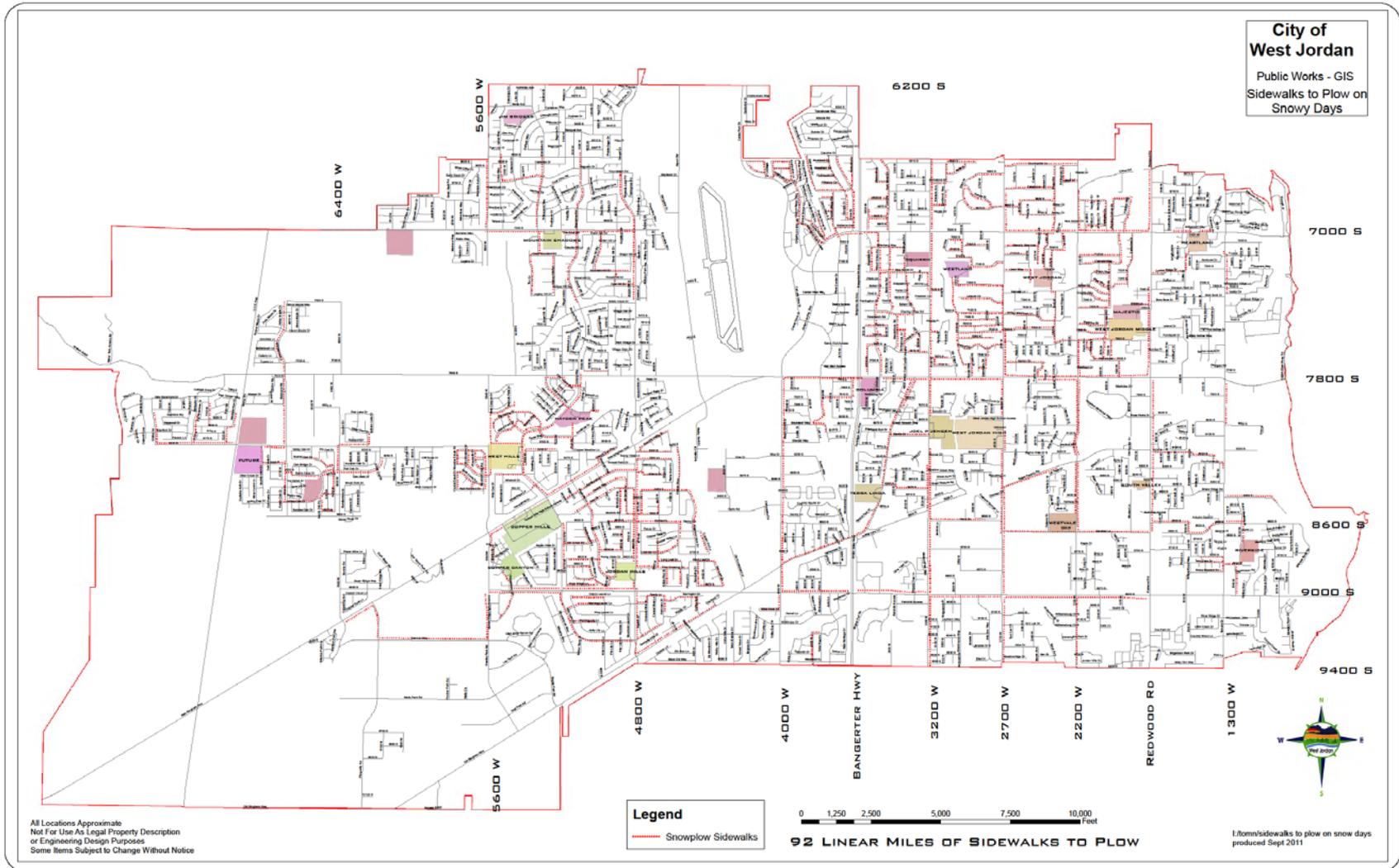
Parks Employees per 10,000 Residents



Park Acres Per Employee



Sidewalk Snow Removal



Cemeteries

- 1 Cemetery Sexton
 - 2 cemetery seasonal employees
- 2 Cemeteries
 - West Jordan Main Cemetery at 1300 W and 7800 S. – approximately 15 acres
 - Wights Fort Cemetery 9000 S. – approximately 1 acre



WEST JORDAN CITY CEMETERY FEES

Burial space for resident	\$790.00
Burial space for non-resident	\$930.00
Opening and closing costs	
Regular	\$455.00
Cremation Urn	\$165.00
Infants	\$255.00

Other fees

* There will be a **\$200.00** fee if the interment ceremony is held on a weekend or holiday.

* There will be a **\$75.00** fee if ceremony is held before 1:00pm on a day following a non-working day.

* There will be a **\$75.00** fee if the ceremony begins after 1:30pm of a regular work day.

Disinterment (re-opening a grave and removing the vault)	\$650.00
Title transfer of burial space / Certificate Replacement	\$10.00

Cemeteries

- There are approximately 1000 lots remaining for sale from a total of approximately 9800...
- Staff conducts about 2 burials a week



Review Parks Equipment in the Shop



6:55 – 7:15 pm, then break until 7:30 pm

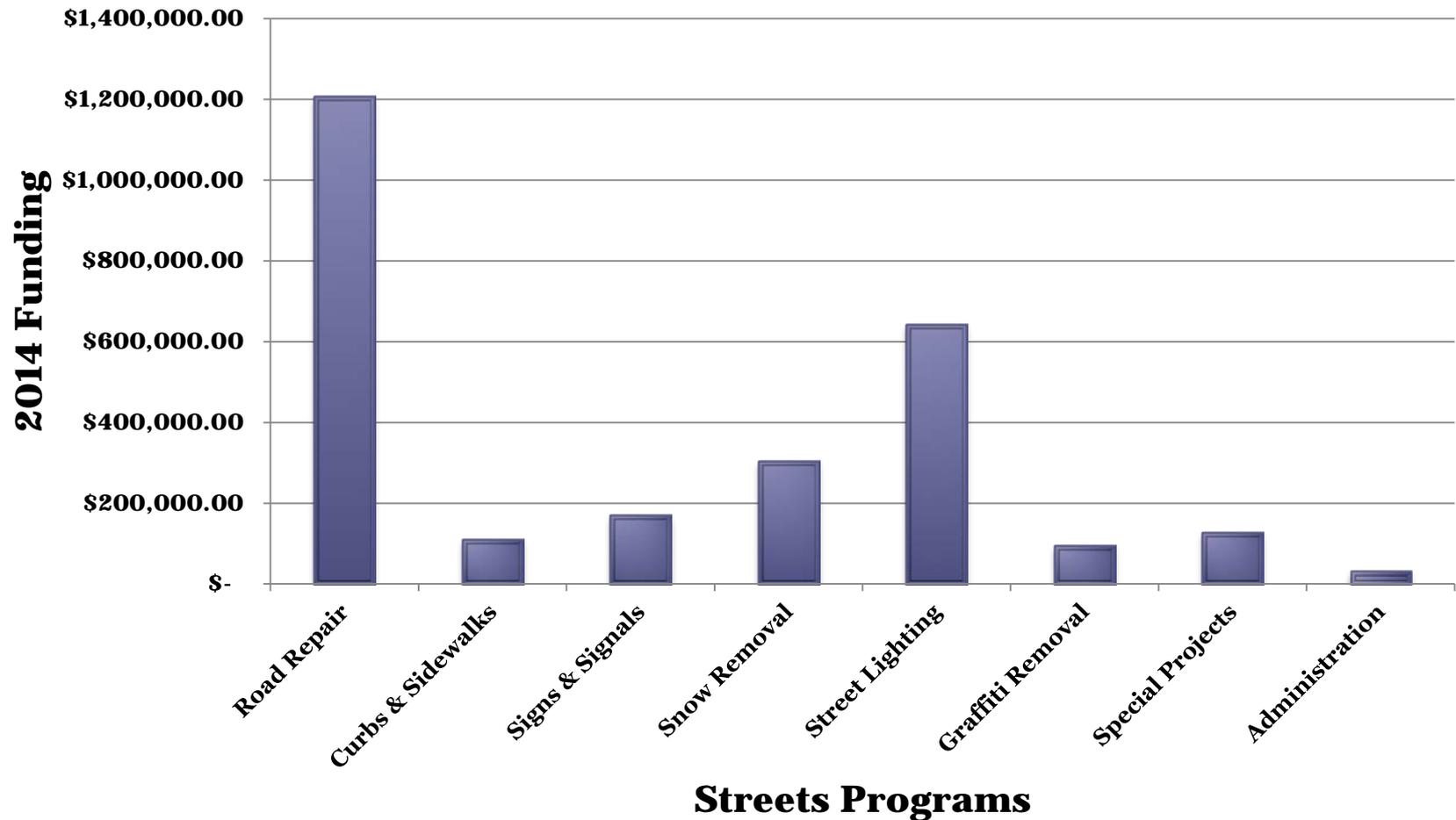


Streets Division

Richard Smolik, Streets Superintendent
Rochelle Smith, Streets Supervisor

Streets Division

More than road repairs...



Streets Division



- Pavement Maintenance
 - Sweeping
 - Snow removal
- Pavement Markings
- Street lights
- Signs
- Curbs and gutters
- Sidewalks
- Graffiti abatement

Streets Division



- Asphalt/concrete
 - Road surveys, pothole repairs, crack sealing, overlays
 - 13 employees
 - Placed over 100 tons of crack seal material
 - ****Placed over 16,655 tons of asphalt this year.****
 - More concrete work orders than resources and time allows...
 - Milling with outside sources and selling of the material to the asphalt supplier

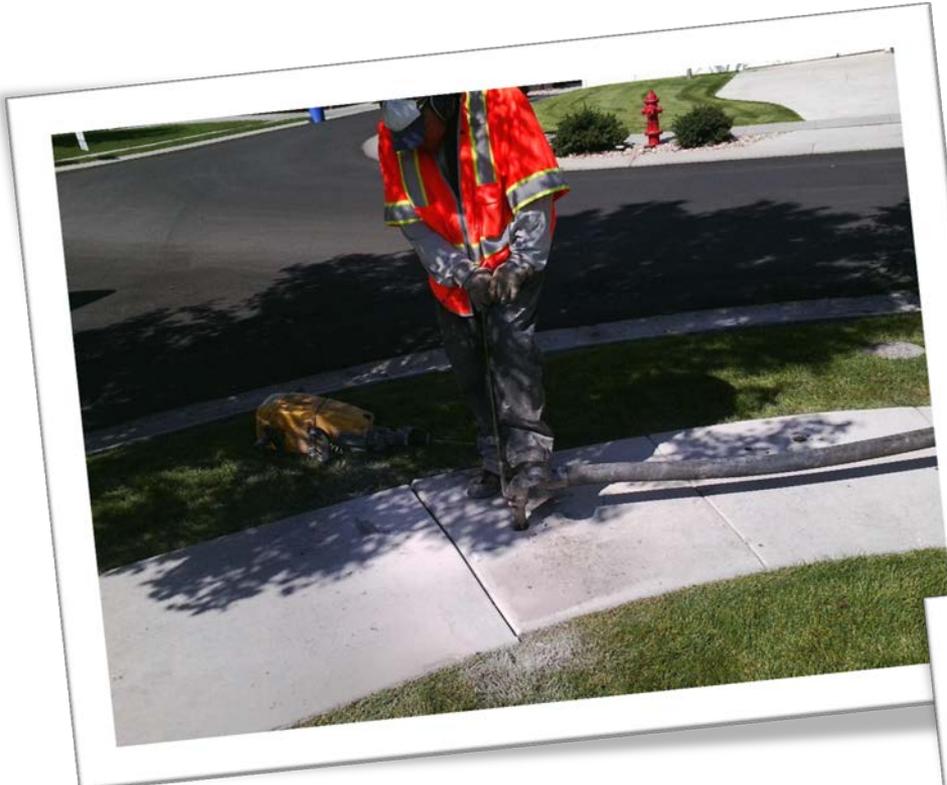


Concrete Repair

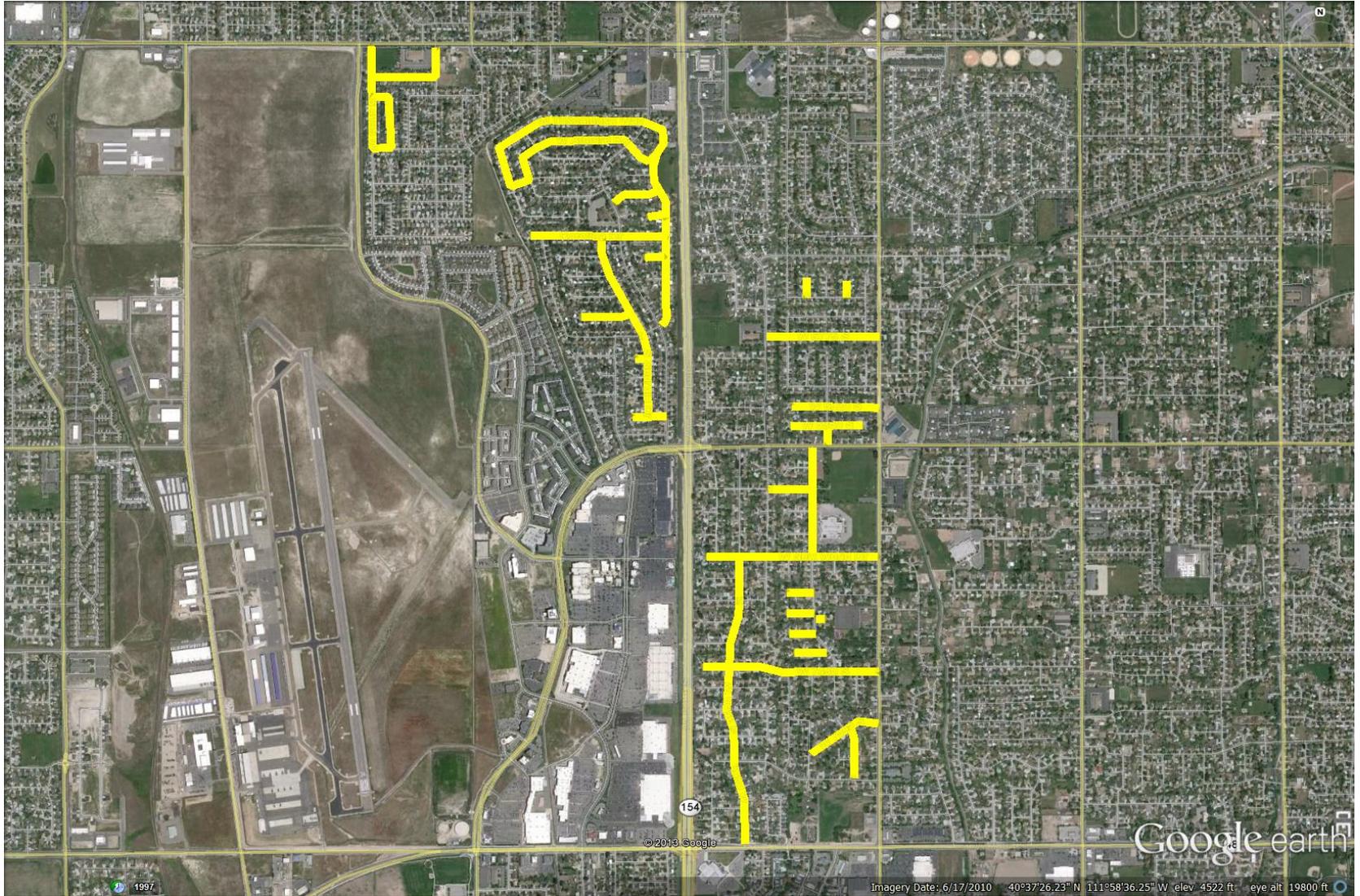
Concrete replacement

- Tree damage - grade differential
- Sunken concrete
 - “mud pumping”





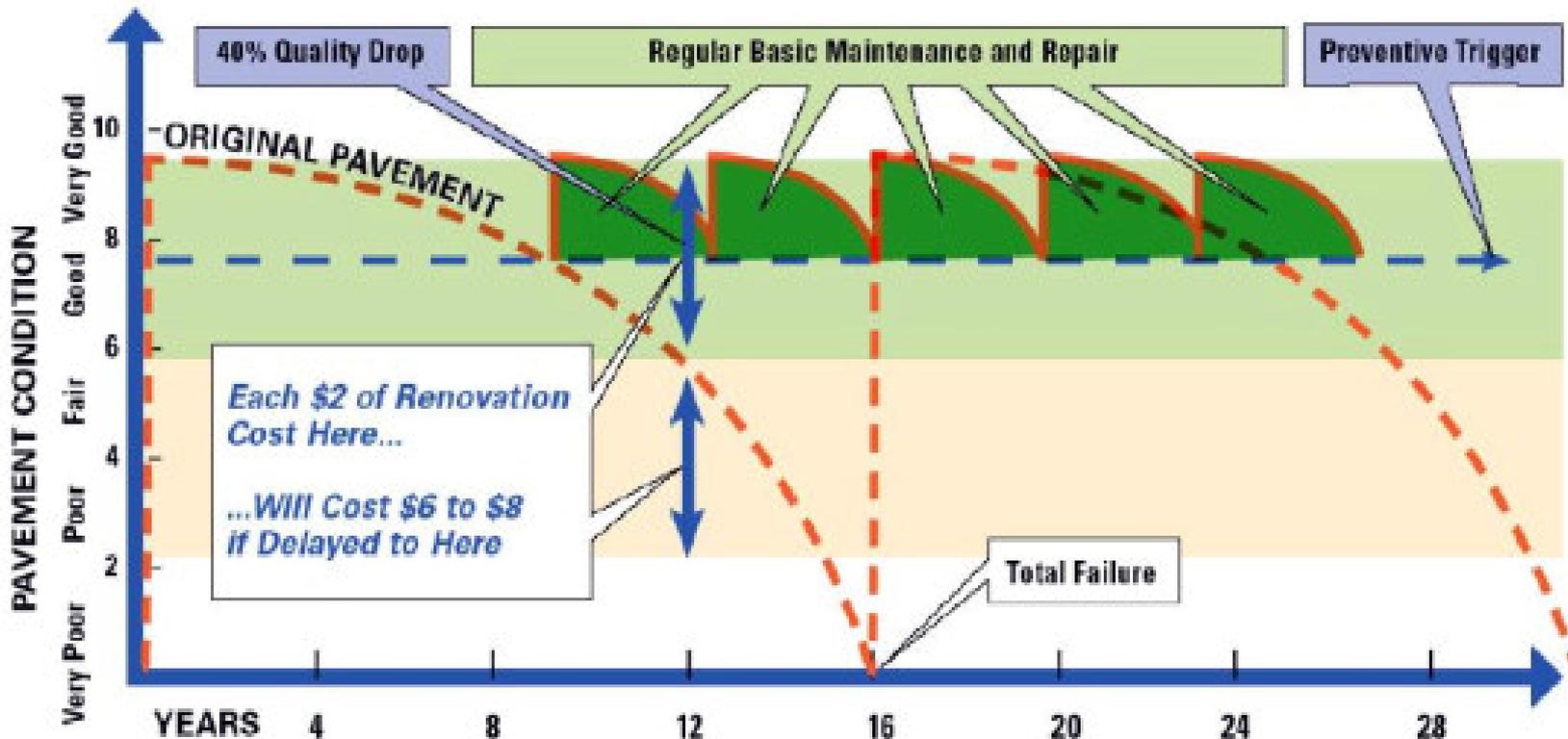
Streets Paving 2013



Streets In-House Paving

- Approximately 845 lane miles – does not include parking lots, trails, etc.

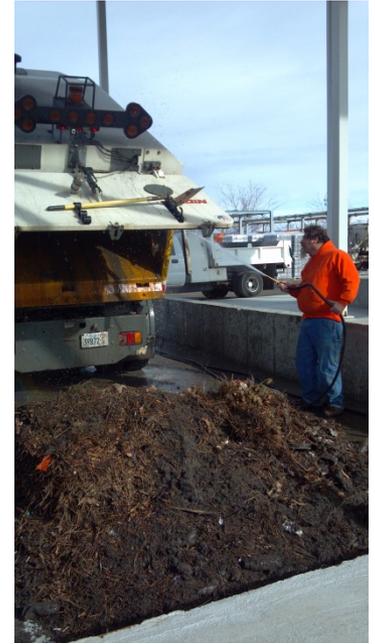
The Cost of “Timely” Maintenance



Streets Division

- Sweepers

- 3 sweeper operators – 1 currently vacant

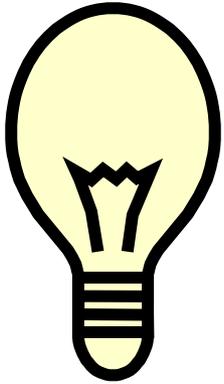


Streets Division

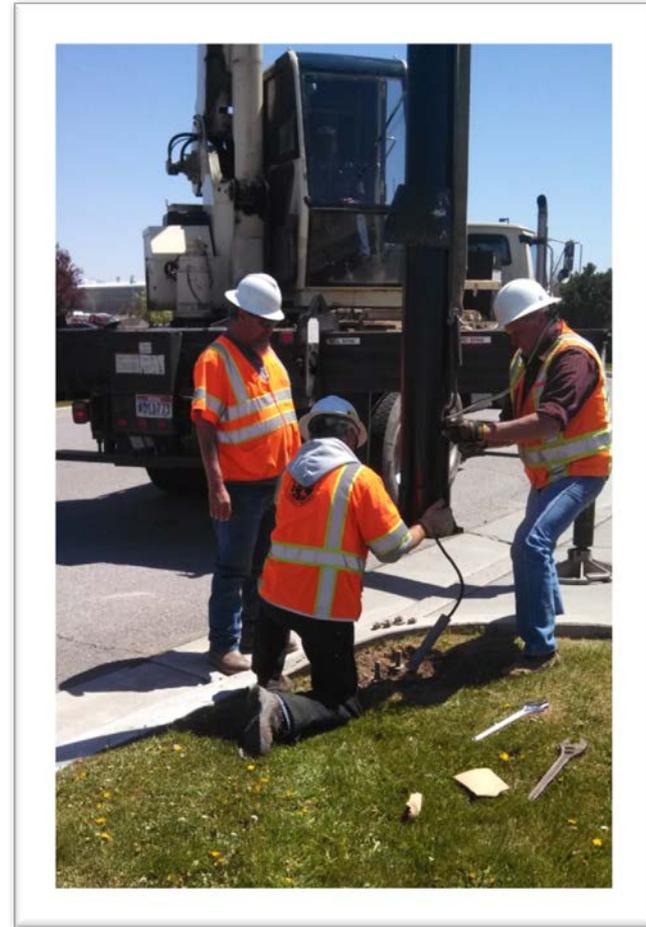
- Street lighting
 - **Over 4900 street lights to maintain**
 - **1 employee**
 - The City is in the process of hiring an electrician
 - Maintaining outdoor facility lighting
 - We hope to establish
 - Capital replacement
 - Additional light program



Lighting Maintenance



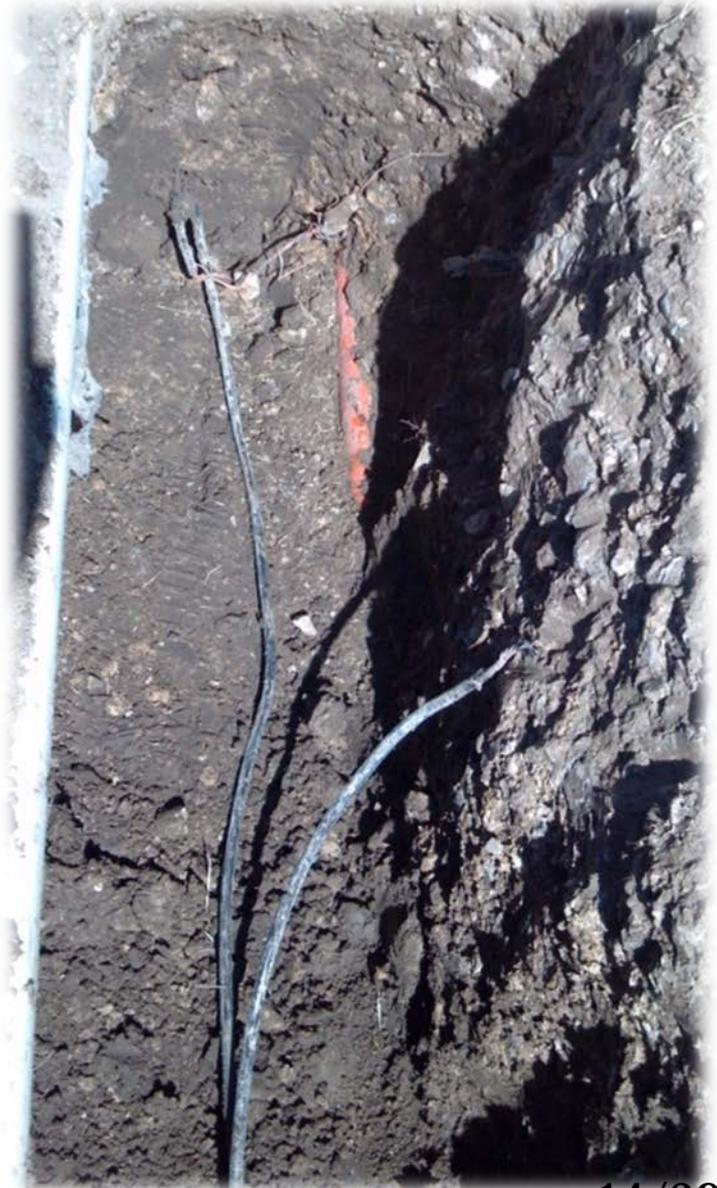
Pole Replacement



Dealing with Copper Wire Theft



Tracing and Fault Locating



Streets Division

- **Signs and striping**
 - Approximately 15,000 signs – of those, approximately 6300 regulatory signs to maintain. Attempt to stripe the city approximately once every 2 years
 - ****1.25 employees****



Sign Purpose: Promote Roadway Safety

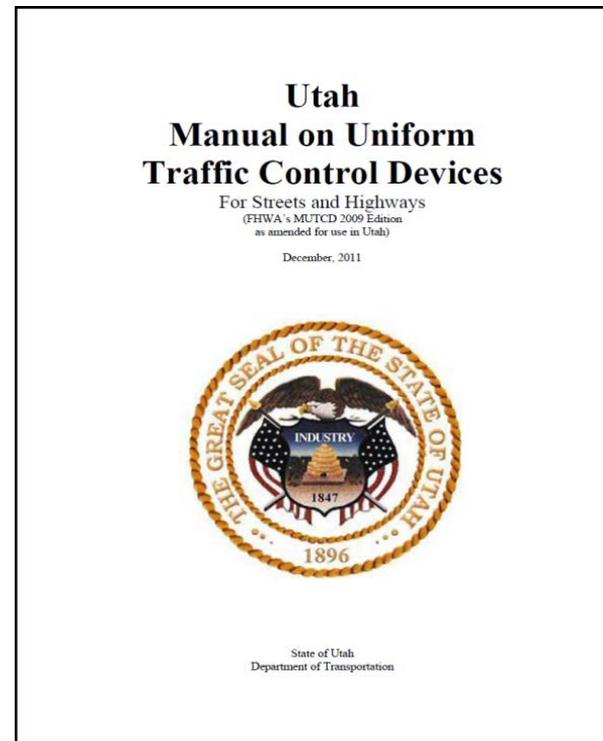
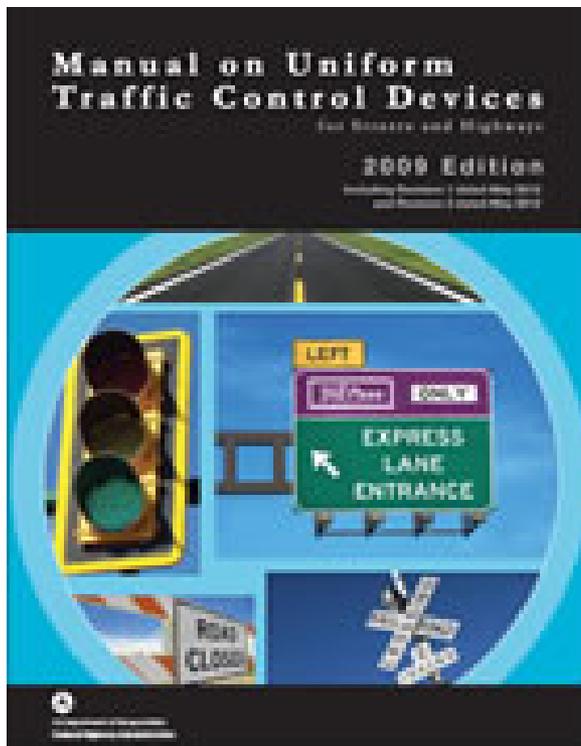
*Reasonably safe for
day or night travel?*



MUTCD Principles:

- Fulfill a need;
- Command attention;
- Convey a clear, simple meaning;
- Command respect from road users; and
- Give adequate time for proper response.

The MUTCD is the National Standard for all traffic control devices installed on all roads that are open to public travel.



Summary of New Language

Working to be in compliance with new retro reflectivity maintenance requirements.

- Public agencies or officials having jurisdiction shall use an assessment or management method that is designed to maintain sign retroreflectivity at or above the minimum levels in Table 2A-3”
- Compliance... is achieved by having a method in place and using the method to maintain the minimum levels established in Table 2A-3. Provided that... a method is being used, an agency would be in compliance... even if there are some individual signs that do not meet the... levels at a particular point in time.



Compliance Dates

What this means:

MUTCD language is requiring agencies to have and use a management/assessment method for regulatory and warning signs by ***June 13th, 2014.***

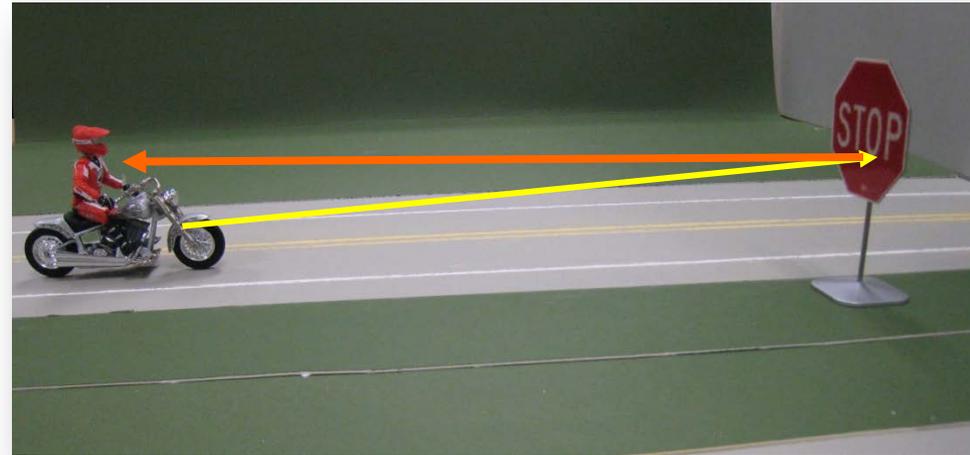
Retroreflectivity Compliance Dates

- What this means:
 - Any sign a jurisdiction identifies as not meeting the established minimum retroreflectivity levels would still need to be replaced but:
 - No specific date is required
 - Flexibility to determine when the replacement would be scheduled
 - *However, the jurisdiction would need to be prepared to defend its replacement scheduling decisions if liability issues arise.*

Retroreflection

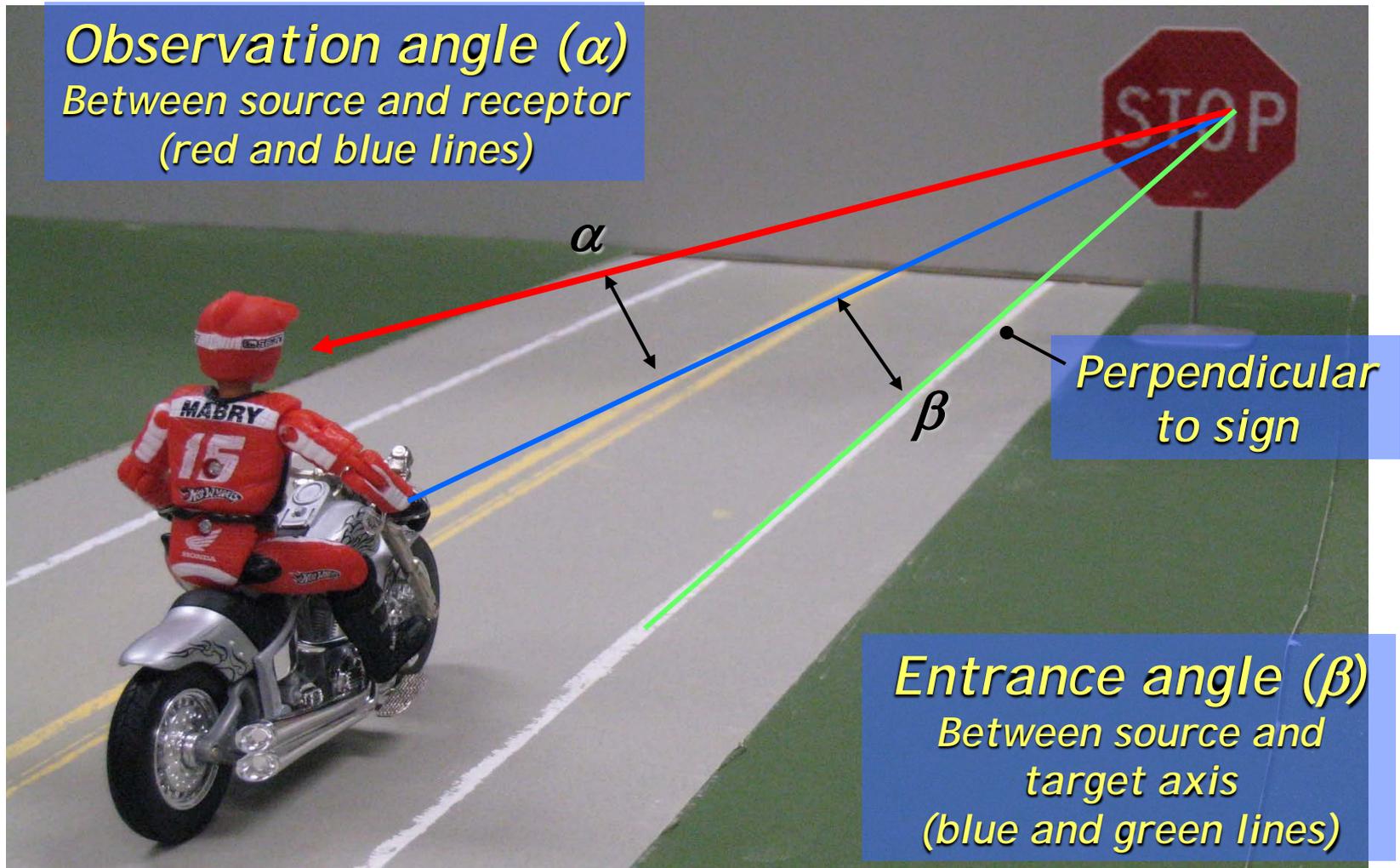
Informal Definition

- A ratio of the amount of light returned from a sign versus the amount hitting the sign
- A way to measure the efficiency of a material



$$\frac{\text{Light OUT of sign}}{\text{Light INTO sign}} = \text{Retroreflectivity}$$

Key Geometry Angles



Retroreflective Signs



Daytime signing here is complimentary

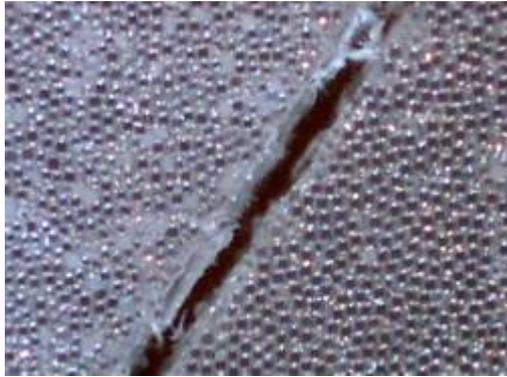


Nighttime signing here is necessary

Why Create Minimums?



Sign Sheeting Materials



Engineering Grade



***Hi-Intensity
Beaded***



Microprismatic



FHWA Retroreflective Sheeting Identification Guide – September 2005

Notes: ASTM Types are shown as stated by the manufacturers using ASTM D4956-04 "type" designations. Agencies should verify that the sheeting they use complies with their specifications or ASTM D4956. FHWA does not endorse or approve any material nor does it determine type category(s) for materials. This side of the Sheeting ID Guide is for rigid surfaces only. The other side is for flexible surfaces and non-signing applications.



Retroreflective Sheeting Materials for Rigid Sign Surfaces Made with Glass Beads

Example of Sheeting (Shown to scale)									
ASTM Type	I	II	II	III	III	III	III	III	III
Manufacturer	See note A	Avery Dennison®	Nippon Carbide	3M™	ATSM, Inc.	Avery Dennison®	Kiwalite®	LG Lite	Nippon Carbide
Brand Name	Engineer Grade	Super Engineer Grade	Super Engineer Grade	High Intensity	High Intensity	High Intensity	High Intensity	High Intensity	High Intensity
Series Number	Several	T-2000	15000 17000 18000	2800 3800	ASTM HI	T-5500	22000	LH8000 LH8100	N500 N800
NOTES:	A								

Retroreflective Sheeting Materials for Rigid Sign Surfaces Made with Prisms

Example of Sheeting (Shown to scale)									
ASTM Type	III, IV	III, IV, X	VII, VIII, X	VIII	IV, VIII	IX	IX	X	Unassigned
Manufacturer	Avery Dennison®	3M™	3M™	Avery Dennison®	Nippon Carbide	3M™	Avery Dennison®	Nippon Carbide	3M™
Brand Name	High Intensity Prismatic	High Intensity Prismatic	Diamond Grade™ LDP	MVP Prismatic	Crystal Grade	Diamond Grade™ VIP	Omni-View™	Crystal Grade	Diamond Grade™ DG3
Series Number	T-6500	3930	3970	T-7500	94000 (IV) 92000 (VIII)	3990	T-9500	93000	4000
NOTES:	B	B	B,D		B,C			C	

A – All the manufacturers listed on the other side of this guide (except Reflexite) provide Engineer Grade sheeting. Engineer Grade sheeting is uniform without any patterns or identifying marks. Visually, it is indistinguishable from lower quality grades (i.e., utility and commercial grades).

B – These materials can be classified as different ASTM Types.

C – These materials are visually indistinguishable from one another.

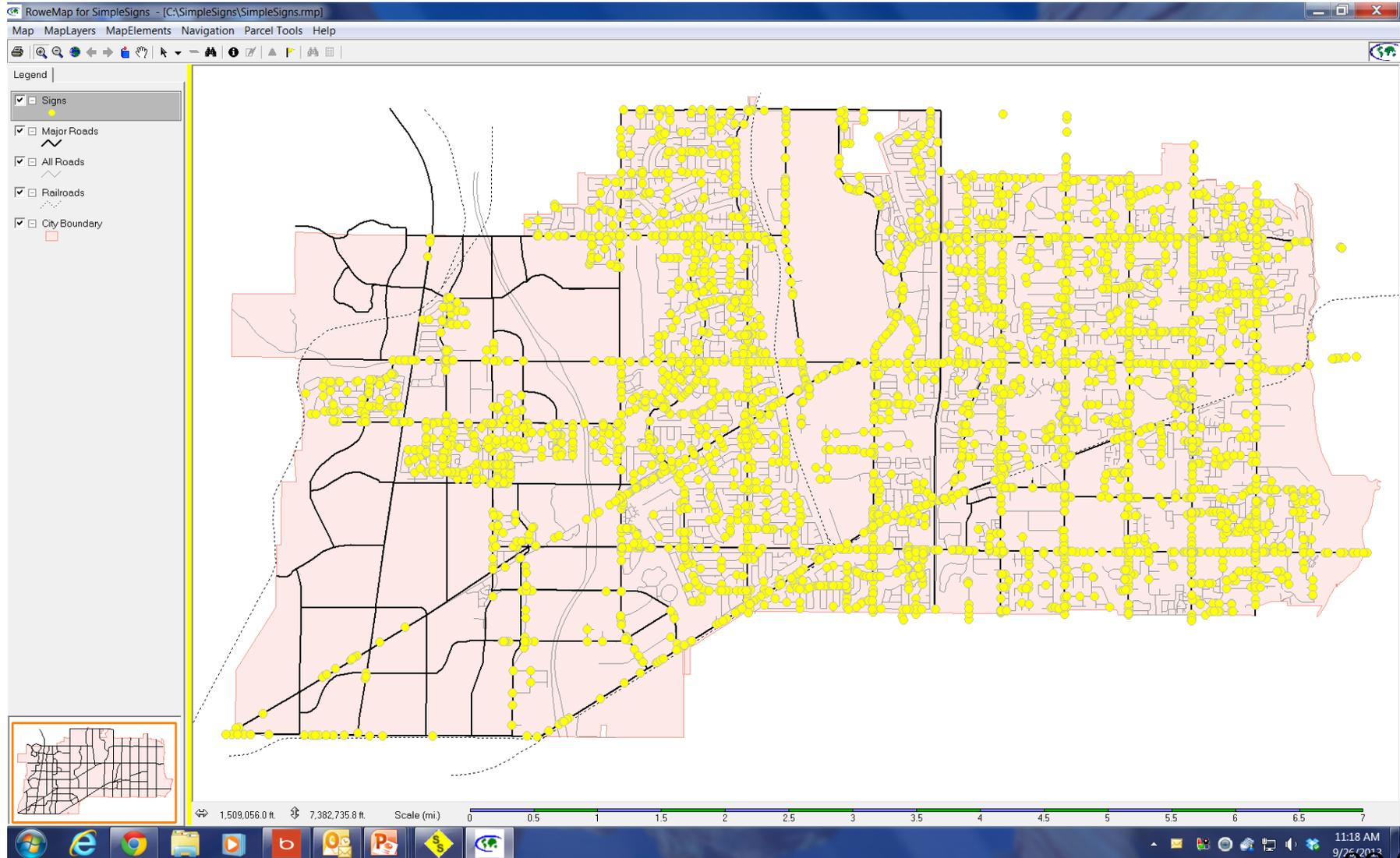
D – The arrow or "water mark" on this product is no longer included with new productions.

Preparation Process

- Collect inventory information and condition for analysis – in progress
- Select maintenance method(s)
- Budget to implement method
- Implement maintenance method(s)
- Budget for future sign replacement



SimpleSigns Software



Inspection & Retro Reading



School Zones and Striping



Crosswalk Upgrades

- High Visibility Crosswalks
- Double-sided – visible from both directions
- Rapid Rectangular Flashing Beacon
- Pedestrian Activated



Graffiti

Graffiti abatement

1.50 employees

Have averaged 50 “tags” a month
this fiscal year...

- Joint effort which included communication with Police and Code Enforcement



Before



Pressure Washer & Chemical Remover

After



Graffiti Abatement Resources

Call: **END-GRAF** 801 363-4723

nwhite@slco.org

Trans-Jordan Landfill Re-use Shed

Our HHW area contains a reuse shed that is open to the public, Monday through Saturday 7:00am to 5:00 pm. The reuse shed contains all types of paint, household chemicals as well as lawn and garden chemicals that are still useable and available free to the public.

10873 South Bacchus Hwy (U-111)

South Jordan UT 84095

Office - (801) 569-8994



Special Projects

Concrete pads, fence repairs, etc.



Painted a standard color used in our graffiti program for quick coverage if graffiti occurs. New LED soffit lighting was installed around the building to discourage vandalism.

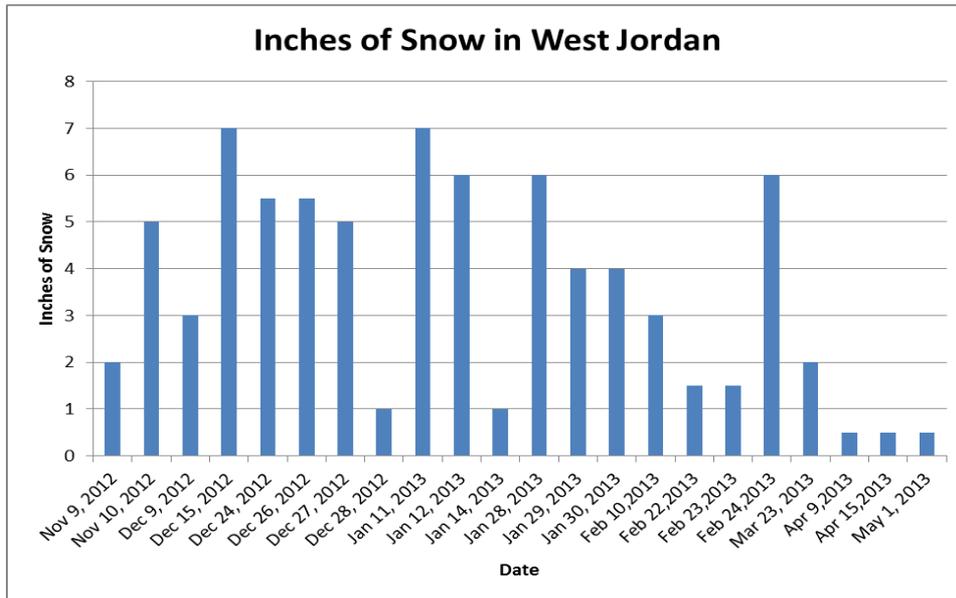
Snow removal

- 845 lane miles
 - A typical lane width is considered to be 12ft but does vary depending on the type of road and the location as some municipalities may vary.
- Vehicles
 - (8) 10-wheelers
 - (3) Bobtail trucks
 - (1) 1-ton trucks – one to be replaced
 - (6) pickup trucks
 - (2) Loaders
 - (2) backhoes
- Salt storage capacity:
 - ****One location****
 - Approximately 1,500 ton capacity
 - Last year we used over 5,700 tons of salt!



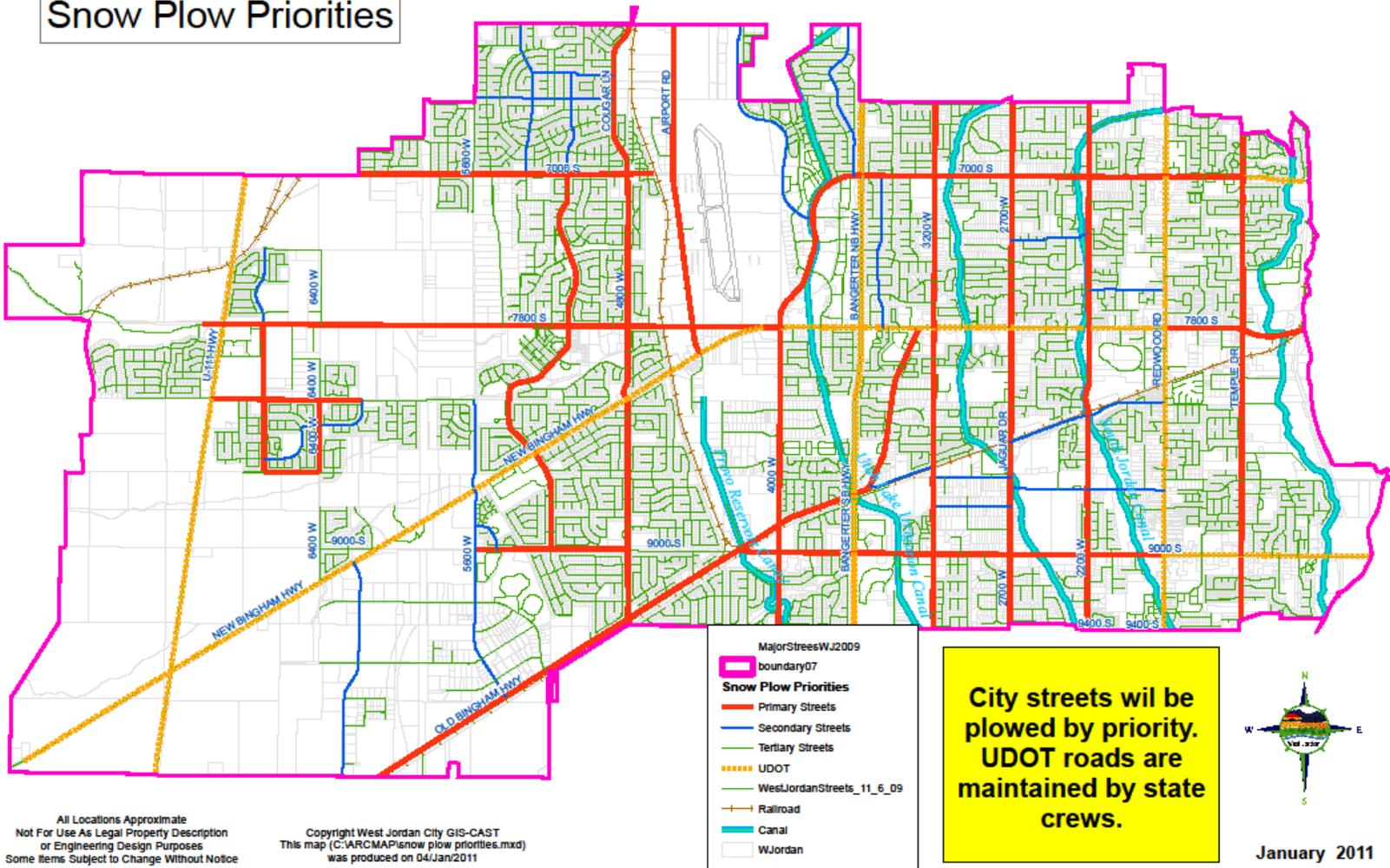
Snow Removal

- 22 measured events last year
- West Jordan experienced a total of 82” of snow during the winter of 2012/2013 which was an increase of approximately 390% in total snow over the year prior
- During the winter of 2012/2013 the Streets Division spent a total of \$279,830.91 of a budget consisting of \$258,440 on snow removal materials and supplies which resulted in an expenditure of 108.28% of the budget. The city obtains bids for salt and the price this past season was \$22.72 per ton



****\$3.73 Annual Snow Removal (Streets & Parks) per capita****

City of West Jordan Snow Plow Priorities



City streets will be plowed by priority. UDOT roads are maintained by state crews.



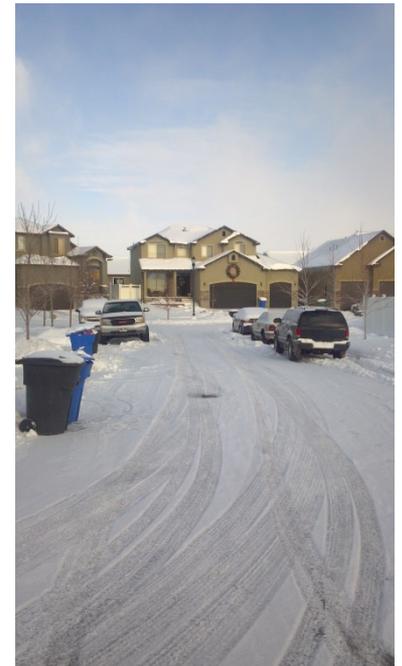
January 2011

All Locations Approximate
Not For Use As Legal Property Description
or Engineering Design Purposes
Some Items Subject to Change Without Notice

Copyright West Jordan City GIS-CAST
This map (C:\ARCMAPI\snow plow priorities.mxd)
was produced on 04/Jan/2011

Snow Removal

- Challenges
 - Safety
 - Worst conditions
 - Hours behind the wheel
 - Nights, weekends and holidays
 - Street parking
 - Limited staff
 - Only two Streets employees on-call
 - Each storm is unique
 - Equipment breakdowns
 - Traffic/distance and salter capacities
 - Work orders don't stop – in fact streetlight and sign damage often increase
 - Congestion in the shop...



Christmas 2009





6200 South



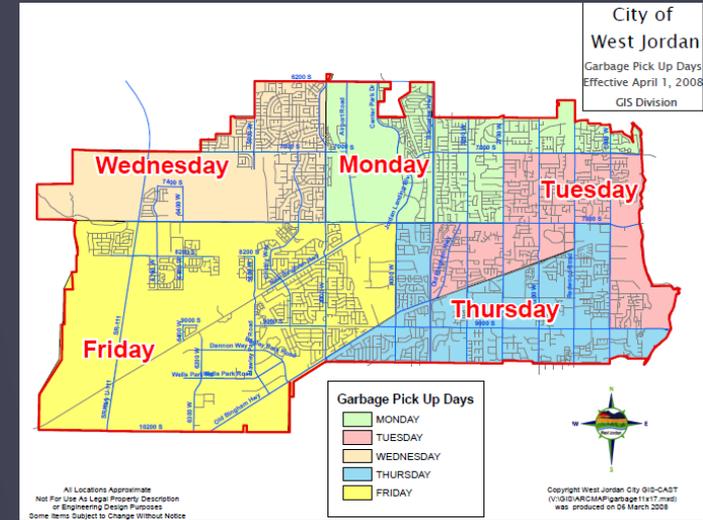


Review Streets Equipment in the Shop



39/39 8:10 – Review equipment in the shop until 8:30pm

Solid Waste Services



Household Waste
Single Stream Recycling
Green Waste



Neighborhood Dumpsters
Glass Drop Off Recycling

Solid Waste

****1.75 ~employees****

Over 23,400 customers

Nearly 74,000 containers to maintain

8:30 pm

Solid Waste

Customers with one garbage can: 23,427

Customers with extra garbage can: 3,139

Recycling cans: 23,616

Staff has continued the educational effort with great results

Green waste cans: 23,639

Approximately 215 dumpsters per month

Staff provides support

Glass recycling

Quarterly e-waste and document shredding



**For Information, Questions, Missed Pick
Up, or Complaints**

Please call ACE Disposal at 801-363-9995

Green Waste - What happens after it leaves your curb



Curbside pickup of green waste.

Wood

Grass Clippings

Leaves

Branches



Loads are transported to Trans Jordan Green Waste facility for processing.



Spotters remove contamination by hand
*If loads are highly contaminated, they must be transported to the landfill.



Contamination removed from load



Grinding operation



Screening process

Windrow machine for compost process



Unscreened

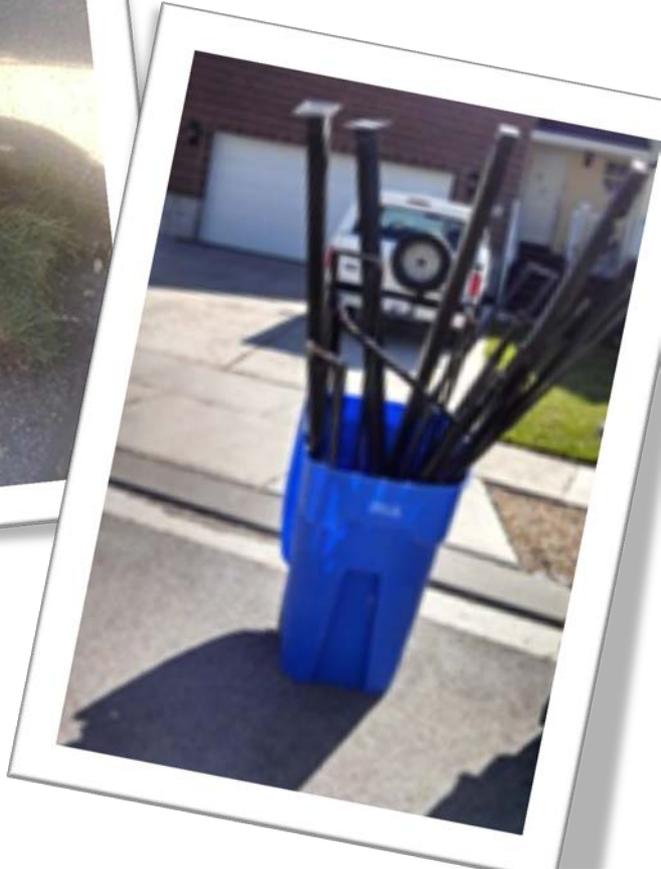
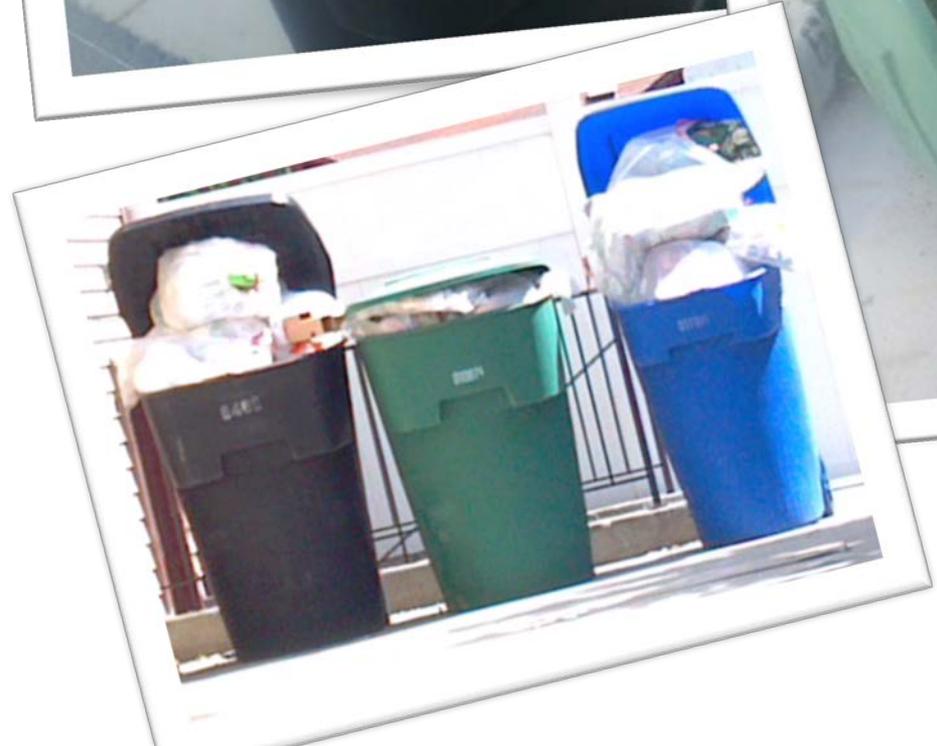
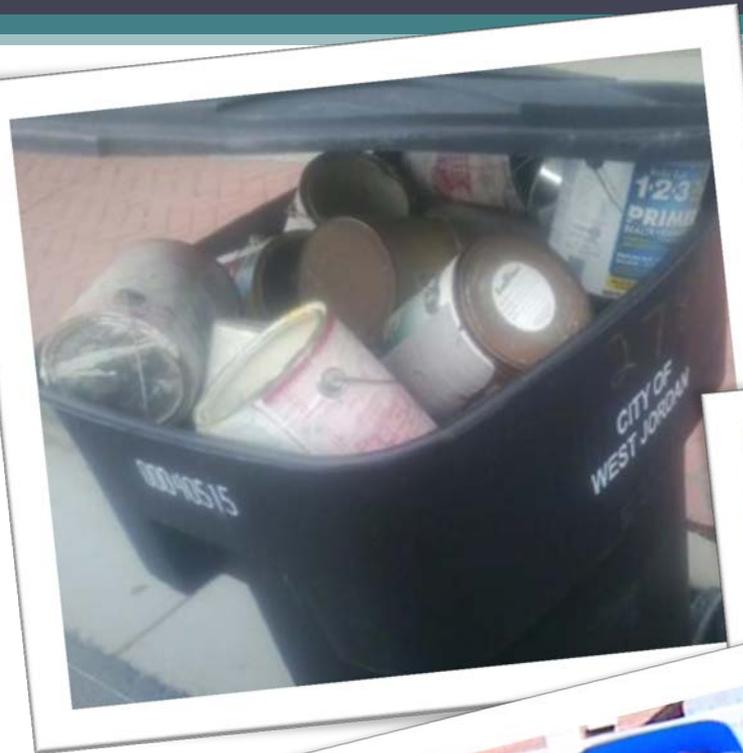


Fine Screen



Compost

Contamination Issues



Recycling - How It Works

http://www.youtube.com/watch?feature=player_detailpage&v=tv4zkBHuGck



Neighborhood Dumpster Program

- Green Waste
- Solid Waste – every 120 days



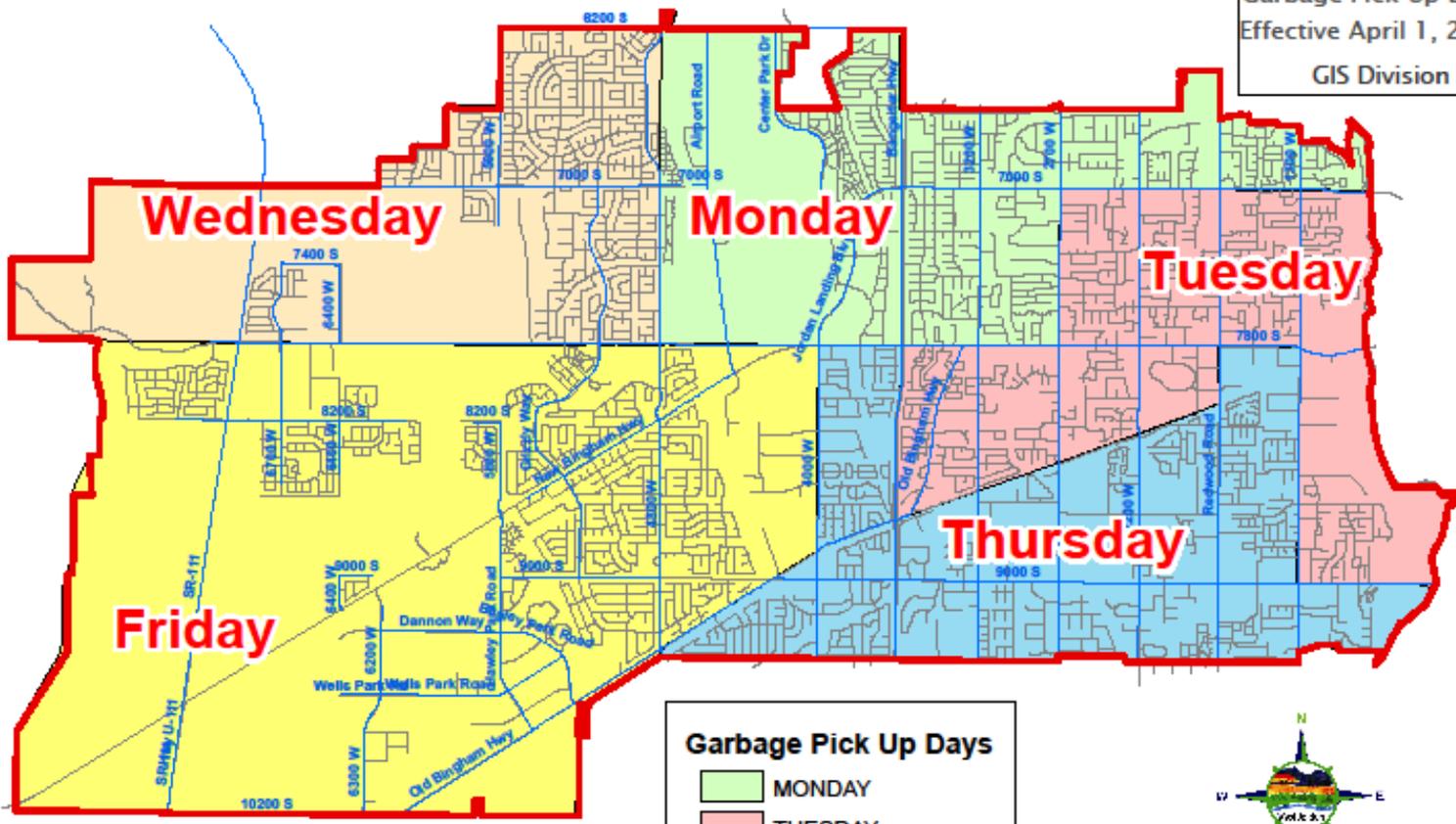
DO NOT PARK
NO HAZARDOUS WASTES ACCEPTED

CAUTION **CAUTION**

FALLING HAZARD
DO NOT CLIMB IN, ON OR OCCUPY THIS CONTAINER FOR ANY PURPOSE. INJURY FROM SLIPPING OR FALLING MAY OCCUR.

TIPPING HAZARD
CONTAINER MUST BE PLACED ON FIRM, LEVEL SURFACE. TILTED OR UNEVENLY LOADED CONTAINER COULD RESULT IN SERVICE INJURY OR DEATH.

City of
West Jordan
Garbage Pick Up Days
Effective April 1, 2008
GIS Division



Garbage Pick Up Days

- MONDAY
- TUESDAY
- WEDNESDAY
- THURSDAY
- FRIDAY



All Locations Approximate
Not For Use As Legal Property Description
or Engineering Design Purposes
Some Items Subject to Change Without Notice

Copyright West Jordan City GIS-CAST
(V:\GIS\ARCMAP\garbage11x17.mxd)
was produced on 06 March 2008

Glass recycling

Two Locations

- 7750 S. 6400 W.
- 7950 S. 1825 West



West Jordan RECYCLES GLASS

**ALL COLORS
NO SEPARATION REQUIRED**

These glass collection sites are for West Jordan residents only. No businesses.



Glass Recycling Locations

Parking lot behind Fire Station #52

7950 S. 1825 W.

Dead end road next to Fire Station #55

7725 S. 6440 W.

801-355-0334 ■ WWW.MOMENTUMRECYCLING.COM



**NO
Garbage**



**NO
Porcelain**



**NO
Ceramic**



**NO
Plate Glass
Windows**



**NO
Light Bulbs**



**NO
Cardboard**

Glass Recycling

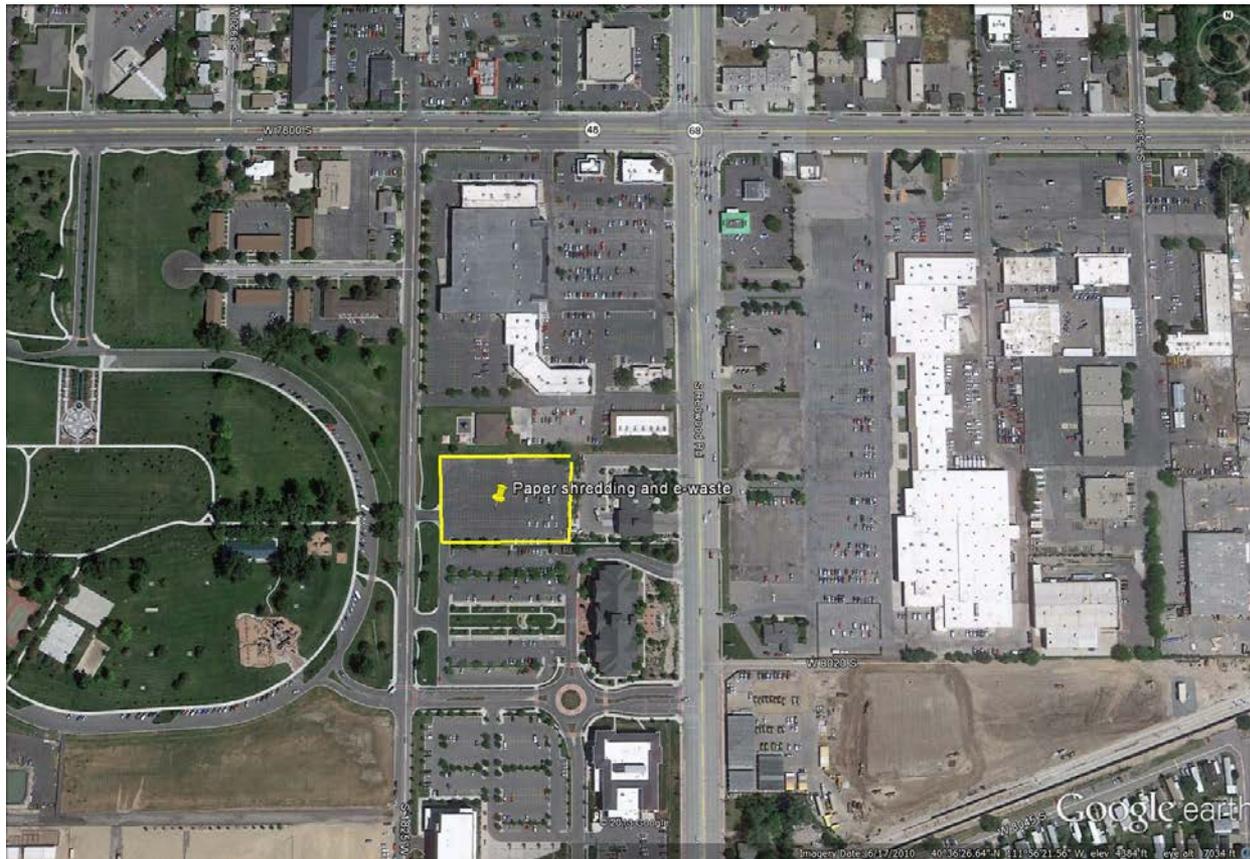


These recycled glass products, commonly known as "cullet," are produced to be used as:

- Fiberglass insulation
- Abrasive media
- Filtration media
- Cement / pozzolan replacement
- Porous pavement
- Bottle manufacturing
- Roofing granules
- Aggregate / filler



Next eWaste and Document Shredding Event: November 2, 2013 10am - noon 7950 S. 1825 West



Citizen Assistance

- **Report vandalism and theft – Call 911**

- Street light wire theft
- Backflow preventer theft

- Report issues in need of attention during business hours
(801) 569-5700

Emergency Issues:

- Water On-call: (801) 330-4528
- Sewer/Storm Drain (801) 330-4198
- Streets On-call: (801) 301-4565
- Parks On-call: (801) 301-1833

Graffiti Abatement Resources

Salt Lake County

Call: **END-GRAF** 801 363-4723

nwhite@slco.org

Trans-Jordan Landfill Re-use Shed

Our HHW area contains a reuse shed that is open to the public, Monday through Saturday 7:00am to 5:00 pm. The reuse shed contains all types of paint, household chemicals as well as lawn and garden chemicals that are still useable and available free to the public.

10873 South Bacchus Hwy (U-111)

South Jordan UT 84095

Office - (801) 569-8994

Emergency Preparedness



<http://beready.utah.gov/beready/index.html>

Questions?

Tim Peters

Office: (801) 569-5722

Cell: (801) 381-8112

E-mail: timp@wjordan.com



Timothy J. Peters, MBA

Public Services Manager
City of West Jordan
8030 South 4000 West
West Jordan, UT 84088

Office: (801) 569-5722

Fax: (801) 569-5709

timp@wjordan.com

www.wjordan.com