

When and How to Contract Tree Work

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Municipal Arborist

City of Bowling Green, Ohio

The City of Bowling Green, Ohio

- City Population: 29,636
- Located in Northwest Ohio, 20 miles south of Toledo
- Seat of Wood County
- Home to Bowling Green State University
- Municipal-owned Electric system (generation includes 4 commercial wind turbines)
- City provides high quality services while maintaining a caring, small town climate

Objectives

- Developing Urban Forestry Program
- Resources – Funding, Labor, & Equipment
- Future Challenges & Opportunities

Developing an Urban Forestry Plan

- Proactive Urban Forestry
- Mitigate Priority Trees
- Plan & Organize Routine Maintenance of Trees
- Plant the Right Tree in the Right Place especially under Utilities
- Long-term Planning on Infrastructure Upgrades

Mitigate Priority Trees



Plan & Organize Routine Maintenance

Query Site Listing by Area - Work History

Report Date: 1/19/2006
Report Time: 11:04 AM

Bowling Green, OH: Query Site Listing by Area - Work History
For Qry: 0162, Routine_LG Maintenance

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ACRT: GMW

Location	Th	Area	T/C	Item	DBH	COND	MAINT	WIRES	CLEAR	HDSCP	Inventory Date	By	Site ID
Area: ADA AVE													
121 ADA AVE													
	S	318	2	MAPLE NORWAY -CR	12	FAIR	ROUTI	LOWMU	TRAFF	SIDEW	5/24/2005	MR	11080
126 ADA AVE	S	318	3	ARBOR/ITAE	11	FAIR	ROUTI	LOWMU			5/24/2005	MR	11084
138 ADA AVE	S	318	1	MAPLE NORWAY -	11	FAIR	ROUTI		TRAFF	SIDEW	5/24/2005	MR	11086
202 ADA AVE	S	318	1	MAPLE NORWAY	11	FAIR	ROUTI		TRAFF	SIDEW	5/24/2005	MR	11087
215 ADA AVE	S	318	1	MAPLE SILVER	6	GOOD	ROUTI	LOW	TRAFF	SIDEW	5/24/2005	MR	11089
Area: ADAMS ST													
125 ADAMS ST													
315 ADAMS ST	S	026	1	HAWTHORN, OTHER	8	FAIR	ROUTI	LOW			9/2/2004	JK	315
	S	026	1	ARBOR/ITAE	12	FAIR	ROUTI	LOW			9/3/2004	JK	412
	S	026	2	ARBOR/ITAE	12	POOR	ROUTI	LOW			9/3/2004	JK	413
				<u>Work Date</u>	<u>Work Type</u>	<u>Work Cat</u>	<u>Crew ID</u>	<u>Man Hrs</u>	<u>Cost</u>				
				7/22/2005	PRUNE	R	EL1	0.5	36.21				
Area: ALEXANDRIA BLVD													
ALEXANDRIA BV MDN													
	S	092	1	CRA BAPPLE	4	GOOD	ROUTI				9/17/2004	JK	2050
	S	092	3	CRA BAPPLE	4	GOOD	ROUTI				9/17/2004	JK	2052
Area: ARLINGTON CT													
16 ARLINGTON CT													
	S	034	3	MAPLE SUGAR	13	POOR	ROUTI	HIGH			9/3/2004	JK	456
14 ARLINGTON CT	S	034	1	MAPLE NORWAY	11	FAIR	ROUTI				9/3/2004	JK	504
16 ARLINGTON CT	S	034	1	MAPLE NORWAY	7	POOR	ROUTI				9/3/2004	JK	505
	S	034	2	MAPLE NORWAY	15	FAIR	ROUTI				9/3/2004	JK	506

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Plant the Right Tree in the Right Place

- City removed large tree planted under powers and replace with compatible utility trees such as Japanese Tree Lilac and Serviceberry Trees.



Long-term Planning on Infrastructure Upgrades



Developing an Urban Forestry Plan

- **Resources** – City Personnel, City Arborists & Foresters in Ohio and US, ODNR Urban Foresters.
- **Windshield Survey** – Tree Population based on linear miles in City. City of Bowling Green had approximately 100 miles, drove 20 miles (East Side – 10 miles & West Side 10 Miles). Estimated tree population 6600 trees based on 66 trees per mile in Windshield Survey.

Developing an Urban Forestry Plan

- Develop Tree Pruning & Removal Specification for Street & Park Trees.
- Develop Tree Pruning & Removal Specification for Utility Line Clearance for Municipal Facilities.
- Create Tree Planting Specifications for City Trees.
- Create a Master Tree Planting List

Resources - Funding

- Administration Support
- Mayor
- City Council
- Tree Commission
- Citizens
- Locals Schools
- Donations



Resources - Funding

- Stable Long-term Budgets
- General Fund
- Utilities Funds
- Assessments
- Subdivision Ordinance



Resources - Funding

- Grants
- USFS – ODNR
Division Of
Forestry
- Ohio EPA
- Community
Development Block
Grant
- Home Depot



Resources - Labor

- Storm Damage
- Priority Tree
- EAB Ash Removals
- Routine Maintenance
- Tree Planting
- Tree Care
- Line Clearance



Resources – Storm Damage



- Storm with 100 MPH Winds.
- 80 Large Mature Trees Uprooted throughout the City.
- Six Months to get rid of all the tree debris.
- City has assistance from other Northwest Ohio Communities.
- Hired Specialized Contractors with cranes and log trucks.

Resources – Priority Trees

- 7500 City Trees in Bowling Green.
- Removal 1 – 197 Trees (2.6%)
- Removal 2 – 73 Trees (0.97%)
- Prune 1 – 159 Trees (2.1%)
- Prune 2 – 332 Trees (4.4%)
- Total Trees – 819 (1.1%)



Resources – Priority Trees

- Specialized Crews
- Certified Arborist on Crew.
- Line Clearance Certified.
- Crane Operators.
- Heavy Equipment Operators.
- Spent \$103,000 from 2004 to 2007



Resources – Priority Trees

- Removal 1 – 16 Trees in 2007
- Removal 2 – 4 Trees in 2007
- Prune 1 – 4 Trees in 2007
- Prune 2 – 11 Trees in 2007



Resources - EAB

- EAB Mitigation Plan
- Remove 662 Ash Trees in 10 years to stabilize budgets.
- Dead & Diseased
- Infrastructure & Utility
- In-House Crews for Medium & Small Trees.
- Contractors for Large Ash Trees.



Resources – Routine Maintenance

- 7500 Trees GPS
- 1500 Trees per Year over 5 Year Cycle.
- Contracted Work in first two years to get on cycle.
- In House Crews Hired in July 2007.



Resources – Routine Maintenance

- Train Prune Trees in Subdivision
- Hired Summer Help and Trained.
- Pruned 1200 Trees in 2006.
- Pruned 350 in 2007.



Resources – Tree Planting

- In House Crews for Small projects
- Contract Out 100% of Tree Planting.
- Planting 300-400 Trees per Year.
- In House Crews water trees.



Resources – Tree Care

- City Park Gypsy Moth Suppression Plan
- Contracted the BT Application.
- Contracted the Fertilization.
- In House Crew performed the Burlap Treatment.



Resources – Tree Care

- Sevin Application
- Bayer Application
- Fertilization & Micronutrients
- Air Spade
- Sidewalk Program
- Research Projects



Resources – Line Clearance

- Municipal Electric System
- 100% Contracted Out to Certified Line Clearance Contractors.
- AEP
- FirstEnergy
- 100% Contracted



Future Challenges

- Reactive Urban Forestry Program
- Weather Events Cause Major Tree Failure and Property Damage.
- High Costs Associated with Tree Failure.



Future Challenges

- Trees not planted to ANSI Nursery Standards.
- Trees were stressed and impacted by insects, disease, too much water, drought.
- Trees not maintained after planting.
- Drought – 2002, 2005, 2007



Future Challenges

- Invasive Species
- European Elm Flea Weevil
- Hemlock Woolly Adelgid – NE Ohio
- Red Oaks in Western Ohio??
- Beech Decline in Northeast US



Future Opportunities

- Competitively bid tree planting and tree maintenance.
- New Specifications for Tree Planting and Tree Maintenance.
- Created the State of Ohio first Emerald Ash Borer Mgmt Plan in 2005.
- Coordinate with all City Departments on tree planting and landscaping.
- Presentations to organizations in the City.
- Created a new Arborist Website!

Future Opportunities

- Diversify the Urban Forest
- Educate the Public and School Children on Urban Forestry (EAB)
- Long-term Planning for Capital Projects.
- Coordinate across all City Departments
- Common Ground



Tree Commission Educational Seminars



TC Arbor Day Program



Future Opportunities



Future Opportunities



Bellard & Raney Renovation



New Tools for EAB Detection

Train Pointers for EAB Detection



Borer Buzzards for EAB Detection



Tree Quiz

- Utility Tree
- Dead Tree
- Banded Tree
- Tagged Tree



Tree Quiz

- **Utility Pole**
- Dead Tree
- Banded Tree
- Tagged Tree



Arborist Division Staff -2007



Special Thanks

- Stephanie Miller, Regional Urban Forester for Northwest Ohio
- Marianne Prue, EAB Urban Forester
- Lola Lewis, Regional Urban Forester for Northeast Ohio
- Drew Todd, State Urban Forestry Coordinator
- Dr. Daniel Herms, Ohio State University Extension

Questions?

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