

**AGENDA**  
**Municipal Services Committee**  
**July 23, 2012**  
**6:30 P.M. – Council Chambers**

1. **Call to Order & Roll Call**
2. **Establishment of Quorum**
3. **New Business**
  - a. **Resolution** - Authorizing the Mayor and City Clerk to Execute a Contract with North Suburban Asphalt Maintenance in an amount not to exceed \$87,120.00 for the 2012 Crack Fill Program
  - b. **Motion** – Authorizing City staff to proceed with the City Entrance Sign Project at various locations
  - c. **Resolution** – Accepting a proposal from Presta Constructions Inc for the concrete footing and walls in an amount not to exceed \$15,000.00 for the City’s Entrance signs
  - d. **Resolution** – Accepting a proposal from LaGrange Materials Inc for the concrete masonry units-concrete block hollow, in an amount not to exceed \$1,265.90 for the City’s Entrance signs
  - e. **Resolution** – Accepting a proposal from Les Moore & Company, LLC for the Cultured Stone-Shale Pro Fit Ledgestone PF8016 in an amount not to exceed \$11,650.00 for the City’s Entrance signs
  - f. **Resolution** – Accepting a proposal from Pro Masonry Express for the 36-inch Pier Caps in an amount not to exceed \$5,200.00 for the City’s Entrance signs
  - g. **Resolution** – Accepting a proposal from Pioneer Construction Inc. for the masonry work-placement of the concrete block and cultured stone in an amount not to exceed \$14,133.36 for the City’s Entrance signs
  - h. **Resolution** – Accepting a proposal from Meno Stone Company for the City’s stone monument signs in an amount not to exceed \$15,000.00 for the City’s Entrance Signs

- i. Resolution** – Accepting a proposal from Schramm Landscaping Inc. to supply selected plant species, planting and mulching for the landscaping in an amount not to exceed \$16,000.00 for the City’s Entrance signs
  - j. Motion** – Authorizing expenditures related to the City’s Entrance Sign Project for steel brackets, stone, asphalt, soil excavation analysis, dump fees, trucking and a contingency in an amount not to exceed \$8,800.00 for the City’s Entrance Signs
  - k. Resolution - Resolution** – Authorizing the purchase of one (1) new 2012 Ford F-150 Pick Up from Morrow Brothers Ford, Inc. in the amount of \$22,604.00
  - l. Minutes** – June 18, 2012 – Special Municipal Services Committee  
June 25, 2012 – Municipal Services Committee
  - m. Update** – Emerald Ash Borer
- 4. Director’s Report**
  - 5. Next scheduled meeting** – Monday, August 27, 2012.
  - 6. Adjournment**

**AGENDA MEMO**  
**Municipal Services Committee**  
**July 23, 2012**

**ISSUE STATEMENT**

A resolution authorizing the Mayor and City Clerk to execute a contract with North Suburban Asphalt Maintenance in an amount not to exceed \$91,476.00 for the 2012 Crack Fill Program.

**BACKGROUND/HISTORY**

The FY 12/13 Budget includes funds for the 2012 Crack Fill Program. Attached please find the Crack Sealing Schedule labeled as Attachment 1. Crack sealing is a routine maintenance treatment that will significantly delay roadway deterioration. The sealing material is applied into the cracks before they become too large and before the freeze-thaw cycles have an opportunity to shift the pavement and develop larger cracks (alligating). Flexible rubberized asphalt sealants bond to crack walls and move with the pavement, preventing water from entering the road base. The life of the road is extended and maintenance costs greatly reduced over time.

The scope of the program includes all cracks to be routed with a low dust mechanical router to a depth of ¾" and a width of 3". Upon completion of the routing, all dirt, debris, and water shall be removed from the cracks. The method of removal is completed by utilizing a blow pipe which blows compressed air from a pull behind conventional air compressor. The crack is then filled with a rubber sealant which is feathered to a width of approximately 3-inches in width. Attachment 1 is the proposed schedule for the Crack Fill Program.

Sealed bids were opened on July 12, 2012 at the Darien City Hall. Staff had received 2 competitive bids for the Crack Sealing Program. See attached bid tally labeled as Attachment 2. Staff is requesting a 5% pound contingency in the event additional cracks are identified in the field.

<b>VENDOR</b>	<b>BASE COST</b>	<b>CONTINGENCY</b>	<b>BID RESULTS WITH CONTINGENCY</b>
<b>North Suburban Asphalt Maintenance</b>	<b>\$87,120.00</b>	<b>\$4,356.00</b>	<b>\$91,476.00</b>
SKC Construction	\$90,420.00	\$4,521.00	\$94,941.00

The proposed Crack Sealing Program would be funded from the following FY12-13 Budget:

<b>ACCOUNT NUMBER</b>	<b>ACCOUNT DESCRIPTION</b>	<b>FY 12-13 BUDGET</b>	<b>YEAR TO DATE EXPENDED</b>	<b>PROPOSED EXPENDITURE</b>	<b>PROPOSED BALANCE</b>
25-35-4382	CRACK FILL PROGRAM	\$92,400.00	-0-	\$ 91,476.00	\$ 924.00

**STAFF RECOMMENDATION**

Staff recommends approval of the proposed resolution. The proposed vendor, North Suburban Asphalt Maintenance has provided services for the City of Darien in 2009, 2010 and 2011 with satisfactory results.

**ALTERNATE CONSIDERATION**

As directed by the Municipal Services Committee.

**DECISION MODE**

This item will be placed on the August 6, 2012 City Council agenda for formal consideration.

## 2012 CRACKFILL PROGRAM

## ATTACHMENT 1

ROAD	POUNDS	SUBDIVISION	LIMIT	LENGTH	ROAD REHAB	1ST Round Crack Fill	2nd Round Crack Fill
74th Place	125	Marion Hills S	83rd to Eleanor	1000	2009	2012	N/A
Eleanor Place	120	Marion Hills S	Elm to Janet	980	2009	2012	N/A
Eleanor Place	100	Marion Hills S	74th to Elm	440	2009	2012	N/A
Trenton Lane	100	Farmingdale Hts	67th to Albany	530	2009	2012	N/A
Albany Lane	194	Farmingdale Hts	Richmond to Trenton	350	2009	2012	N/A
Juniper Ln	700	Brookhaven one	Warwick to Stratford	600	2009	2012	N/A
Janet Ave	1000	Brookhaven one	Gale to dead End	1000	2009	2012	N/A
Warwick Dr	1000	Brookhaven one	Janet to 79th	1900	2009	2012	N/A
Concord Dr	600	Brookhaven one	Cass to Limit	600	2009	2012	N/A
Chalet Dr	1056	Brookhaven one	Concord to Concord	600	2009	2012	N/A
Emerson Dr	75	Farmingdale 5-9	73rd to 71st	1460	2009	2012	N/A
Whittier Dr	75	Farmingdale 5-9	73rd to Emerson	660	2009	2012	N/A
Judd St	100	Farmingdale Ridge	Fairview to Wilton	475	2009	2012	N/A
Wilton Rd	81	Farmingdale Ridge	Harper to Court Limit	1050	2009	2012	N/A
Harper Rd	50	Farmingdale Ridge	Exton to Wilton	450	2009	2012	N/A
Exton St	50	Farmingdale Ridge	Harper to Judd	550	2009	2012	N/A
Main St	75	Farmingdale Ridge	75th to Limit	1020	2009	2012	N/A
Meadow Ct	50	Farmingdale Village	Meadow to Limit	340	2009	2012	N/A
Pearson Dr	100	Farmingdale Village	Aster to Meadow	920	2009	2012	N/A
Aster Ln	567	Farmingdale Village	Pearson to Sandelwood	340	2009	2012	N/A
Chicory Ct	55	Farmingdale Village	Beller to Limit	700	2009	2012	N/A
Old Oak Pl	65	Carriage Green 1-2	Carriage Green to Limit	700	2009	2012	N/A
Old Oak Pl	80	Carriage Green 1-2	Carriage Green to Royal Oak	250	2009	2012	N/A
Royal Oak Rd	75	Carriage Green 1-2	Old Oak to Carriage Green	800	2009	2012	N/A
Evergreen Ct	50	Carriage Green 3	Evergreen to Limit	400	2009	2012	N/A
Pinehurst Dr	500	Pinehurst	Bailey to Lakeview	1510	2009	2012	N/A
Pine Bluff Ct	444	Pinehurst	Pinehurst to Limit	500	2009	2012	N/A
Pine Cove Ct	222	Pinehurst	Pinehurst to Limit	500	2009	2012	N/A
Pine View Ct	100	Pinehurst	Pinehurst to Limit	600	2009	2012	N/A
Pinehurst (CDS)	278	Pinehurst	Pinehurst to Limit	200	2009	2012	N/A
Adams St	278	Pine Parkway	Greenbriar to Iroquois	840	2009	2012	N/A
Regency Grove Dr	333	Regency Grove	Cass to Limit	2500	2009	2012	N/A
Adams St	300	Regency Grove	Regency Grove to End	300	2009	2012	N/A
Seminole Drive (CDS)	500	Hinsbrook	Seminole to Limit	400	2009	2012	N/A
Belair Drive	1300	Hinsbrook	Richmond to Beechnut	2200	2009	2012	N/A
Belair Dr (CDS)	190	Hinsbrook	Belair to Limit	500	2009	2012	N/A
Village Court	222	Hinsbrook	Seminole to Limit	500	2009	2012	N/A
Leonard Drive	611	Plainfield Highland	Plainfield to 72nd	1660	2009	2012	N/A
Honey Locust Ln	300	Farmingdale Ter N	Farmingdale to Sawyer	480	2009	2012	N/A
Clifford Rd	733	Farmingdale Village	Pitcher to Stewart	660	2008	2012	N/A
Pitcher Dr	500	Farmingdale Village	Ailsworth to Clifford	860	2008	2012	N/A
Stewart Rd	478	Farmingdale Village	Ailsworth to Clifford	860	2008	2012	N/A
71st	6500	farmingdale units5-9	Washington to Fairview	3770	2005	2012	N/A
Havens Dr	3000	Farmingdale Village	87th to Stewart	360	2006	2009	2012
Janet Avenue	3889	Marion Hills S	Clarendon to 83rd	2800	2006	2009	2012
Walnut Dr	1528	Farmingdale Ter W	942-Farmingdale	1100	2006	2009	2012
Walnut Dr	300	Brookhaven one	Warwick-942	200	2006	2009	2012
Exner Rd	525	Darien Club	Darien Club-Holly	465	2006	2009	2012
Holly Av	4583	Farmingdale 5-9	William to Wilcox	3300	2006	2009	2012
Exner Rd	2000	Farmingdale 5-9	Holly to 75th	3800	2006	2009	2012
Summit Rd	5000	Farmingdale 5-9	71st to Cleamens	2240	2006	2009	2012
Hillside Ct	3111	Farmingdale Village	Hillside to limit	300	2006	2009	2012
Harvest Pl	333	Farmingdale Village	Meadow to Beller	1230	2006	2009	2012
Royal Oak Rd	1367	Carriage Green 1-2	Carriage Greens to limit	600	2006	2009	2012
Laurel Ln	667	Carriage Green 1-2	Carriage Greens to limit	600	2006	2009	2012
Wildwood Ct	350	Regency Grove	Regency Grove to Limit	400	2006	2009	2012
Richmond Ave	444	Hinsbrook	67th to 72nd	3180	2006	2009	2012
Ironwood Ave	3333	Hinsbrook	69th to Beechnut	2100	2006	2009	2012
Hinsbrook Avenue	1867	Hinsbrook	Cass to Seminole	1450	2006	2009	2012
Beechnut Lane	1139	Hinsbrook	Hinsbrook to Belair	1750	2006	2009	2012
Farmingdale Dr	4600	Farmingdale Ter N	75th to 79th	2100	2006	2009	2012
High Point Circle	675	High point cir	Frontage to Limit	1050	2003	2008	2012
79Th ST	6933	Brookhaven	Cass to Sawyer	4160	2002	2008	2012
Pounds Required	65977						



RESOLUTION NO. \_\_\_\_\_

**A RESOLUTION AUTHORIZING THE MAYOR AND CITY CLERK TO EXECUTE A CONTRACT WITH NORTH SUBURBAN ASPHALT MAINTENANCE IN AN AMOUNT NOT TO EXCEED \$91,476.00 FOR THE 2012 CRACK FILL PROGRAM**

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, as follows:**

**SECTION 1:** The City Council of the City of Darien hereby authorizes the Mayor and City Clerk to execute a Contract with North Suburban Asphalt Maintenance in an amount not to exceed \$91,476.00 for the 2012 Crack Fill Program, a copy of which is attached hereto as "Exhibit A" and is by this reference expressly incorporated herein.

**SECTION 2:** This Resolution shall be in full force and effect from and after its passage and approval as provided by law.

**PASSED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

**AYES:** \_\_\_\_\_

**NAYS:** \_\_\_\_\_

**ABSENT:** \_\_\_\_\_

**APPROVED BY THE MAYOR OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

\_\_\_\_\_  
KATHLEEN MOESLE WEAVER, MAYOR

ATTEST:

\_\_\_\_\_  
JOANNE E. RAGONA, CITY CLERK

APPROVED AS TO FORM:

\_\_\_\_\_  
CITY ATTORNEY

Company	North Suburban Asphalt maintenance
Representative	Al Harnic
Address	P.O. Box 497 Park Ridge Ill
Telephone Office	847-696-1231
Telephone Mobile	847-456-6110
Facsimile	847-696-1319
E-Mail Address	Al@NorthSuburbanAsphalt.com

- (1) Sealed bids will be received in the office of the City of Darien until 10:00 o'clock A.M. on **Thursday, July 12, 2012**, for furnishing materials equipment and labor as required for the 2012 Crack Filling Program, at which time all bids will be publicly opened and read.
- (2) Sealed bids shall be submitted on the enclosed form and placed in a sealed envelope labeled as **Sealed Bid – 2012 Crack Filling Program**
- (3) The right is reserved by the City of Darien to reject any or all bids.

The effective date of these bids will be the date of the opening above. These bids will be placed on file and remain firm for 60 days.

The City reserves the right to re-advertise for new or additional bids if not satisfied with the original or revised bids on file. The original and revised bids shall remain in effect for the duration of the contract upon City Council approval, unless terminated in writing by the City to the awarded vendor.

The commencement of work shall begin by no later than August 13, 2012 and be completed by September 7, 2012.

It is understood that all materials are in compliance and approved by the Illinois Department of Transportation. The requirements of the Standard Specifications for Road and Bridge Construction adopted by the Department shall govern insofar as they apply.

The quantities of material shown are for information only and listed within Schedule A. They represent the best known estimate of material needed. The actual quantities purchased may be increased or decreased by any amount subject to any maximum quantities specified by the supplier. Submitted bids with limits or conditions shall be rejected.

Bidders will be required to certify that for all Work to be performed pursuant to the Contract Documents, at least the prevailing rate of wages as found and determined by the State of Illinois will be paid to all workers and employees working on the Project. A certified payroll will be required with each payout request.

All bids shall be accompanied by a bid deposit of 5% of the total bid amount. Bid deposits shall be in the form of a certified check, a bank cashier's check drawn on a responsible bank



doing business in the United States and shall be made payable to the City of Darien, or bid bond.

The bid deposit of all except the three lowest bidders on each contract will be returned within twenty (20) calendar days after the opening of the bids. The remaining bid deposits on each contract will be returned, with the exception of the accepted Bidder, after the contract is awarded. The bid deposit of the accepted Bidder will be returned after acceptance by the City of satisfactory performance bond where such bond is required or completion of contract where no performance bond is required.

MATERIALS SUMMARY			
Item	Quantity	Unit Price	Amount
Crack Routing & Filling	66,000 pounds	1.32	87,120
Total Cost			

The undersigned agrees to furnish any or all of the above materials upon which prices are bid at the above bid unit prices subject to the following conditions.

(1) It is understood and agreed that the current Standard Specifications for Road and Bridge Construction adopted by the Department of Transportation shall govern insofar as they may be applied and insofar as they do not conflict with the special provisions and supplemental specifications attached hereto.

(2) It is understood that quantities listed are approximate only and that they may be increased or decreased as needed to promptly complete the work at the above unit price bid.

(3) Delivery in total or partial shipments as ordered shall be made within the time specified in the special provisions or by the terms of acceptance at the point and in the manner specified in the "MATERIAL QUOTATIONS". If delivery on the job site is specified, it shall mean any place or places on the road designated by the awarding authority or its authorized representative.

(4) The undersigned firm certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois, nor has the firm made an admission of guilt of such conduct which is a matter of record, nor has an official, agent or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm. The undersigned firm further certifies that it is not barred from contracting with any unit of State or local government as a result of a violation of State laws prohibiting bid-rigging or bid-rotating.

Bidder North Suburban Asphalt Maint. By Al Hansen  
 Address P.O. Box 497 Park Ridge Title President  
 Telephone Office 847-696-1231 Fax 847-696-1314  
 E-mail al@NorthSuburbanAsphalt.com  
 Accepted By: Al Hansen Date: 7-12-2012  
 \_\_\_\_\_ Date: \_\_\_\_\_

# Contract

1. THIS AGREEMENT, made and concluded the \_\_\_\_\_ day of \_\_\_\_\_ between the \_\_\_\_\_ City of Darien acting by and through its City Council known as the party of the first part, and \_\_\_\_\_ his/their executors, administrators, successors or assigns, know as the party of the second part.

2. Witnesseth: That for and inconsideration of the payments and agreements mentioned in the Proposal hereto attached, to be made and performed by the party of the first part, the party of the second part agrees with said party of the first part as his/their own proper cost and expense to do all the work, furnish all materials and all labor necessary to complete the work in accordance with the plans and specifications hereinafter described, and in full compliance with all of the terms of this agreement and the requirements of the Engineer under it.

3. And it is also understood and agreed that the Notice to Contractors, Special Provisions and Proposal hereto attached are essential documents of this contract and are a part hereof.

4. IN WITNESS WHEREOF, the said parties have executed these presents on the date above mentioned.

Attest:  
\_\_\_\_\_  
City Clerk

(Seal)

The \_\_\_\_\_ of \_\_\_\_\_

By \_\_\_\_\_  
Mayor

*(If a Corporation)*

Corporate Name \_\_\_\_\_

By \_\_\_\_\_  
President Party of the Second Part

*(If a Co-Partnership)*

Attest:  
\_\_\_\_\_  
Secretary

Partners doing Business under the firm name of

\_\_\_\_\_  
Party of the Second Part

*(If an individual)*

\_\_\_\_\_  
Party of the Second Part

## 2012 CRACKFILL PROGRAM

## ATTACHMENT I

ROAD	POUNDS	SUBDIVISION	LIMIT	LENGTH	ROAD REHAB	1ST Round Crack Fill	2nd Round Crack Fill
74th Place	125	Marion Hills S	83rd to Eleanor	1000	2009	2012	N/A
Eleanor Place	120	Marion Hills S	Elm to Janet	980	2009	2012	N/A
Eleanor Place	100	Marion Hills S	74th to Elm	440	2009	2012	N/A
Trenton Lane	100	Farmingdale Hts	67th to Albany	530	2009	2012	N/A
Albany Lane	194	Farmingdale Hts	Richmond to Trenton	350	2009	2012	N/A
Juniper Ln	700	Brookhaven one	Warwick to Stratford	600	2009	2012	N/A
Janet Ave	1000	Brookhaven one	Gale to dead End	1000	2009	2012	N/A
Warwick Dr	1000	Brookhaven one	Janet to 79th	1900	2009	2012	N/A
Concord Dr	600	Brookhaven one	Cass to Limit	600	2009	2012	N/A
Chalet Dr	1056	Brookhaven one	Concord to Concord	600	2009	2012	N/A
Emerson Dr	75	Farmingdale 5-9	73rd to 71st	1460	2009	2012	N/A
Whittier Dr	75	Farmingdale 5-9	73rd to Emerson	660	2009	2012	N/A
Judd St	100	Farmingdale Ridge	Fairview to Wilton	475	2009	2012	N/A
Wilton Rd	81	Farmingdale Ridge	Harper to Court Limit	1050	2009	2012	N/A
Harper Rd	50	Farmingdale Ridge	Exton to Wilton	450	2009	2012	N/A
Exton St	50	Farmingdale Ridge	Harper to Judd	550	2009	2012	N/A
Main St	75	Farmingdale Ridge	75th to Limit	1020	2009	2012	N/A
Meadow Ct	50	Farmingdale Village	Meadow to Limit	340	2009	2012	N/A
Pearson Dr	100	Farmingdale Village	Aster to Meadow	920	2009	2012	N/A
Aster Ln	567	Farmingdale Village	Pearson to Sandelwood	340	2009	2012	N/A
Chicory Ct	55	Farmingdale Village	Beller to Limit	700	2009	2012	N/A
Old Oak Pl	65	Carriage Green 1-2	Carriage Green to Limit	700	2009	2012	N/A
Old Oak Pl	80	Carriage Green 1-2	Carriage Green to Royal Oak	250	2009	2012	N/A
Royal Oak Rd	75	Carriage Green 1-2	Old Oak to Carriage Green	800	2009	2012	N/A
Evergreen Ct	50	Carriage Green 3	Evergreen to Limit	400	2009	2012	N/A
Pinehurst Dr	500	Pinehurst	Bailey to Lakeview	1510	2009	2012	N/A
Pine Bluff Ct	444	Pinehurst	Pinehurst to Limit	500	2009	2012	N/A
Pine Cove Ct	222	Pinehurst	Pinehurst to Limit	500	2009	2012	N/A
Pine View Ct	100	Pinehurst	Pinehurst to Limit	600	2009	2012	N/A
Pinehurst (CDS)	278	Pinehurst	Pinehurst to Limit	200	2009	2012	N/A
Adams St	278	Pine Parkway	Greenbriar to Iroquois	840	2009	2012	N/A
Regency Grove Dr	333	Regency Grove	Cass to Limit	2500	2009	2012	N/A
Adams St	300	Regency Grove	Regency Grove to End	300	2009	2012	N/A
Seminole Drive (CDS)	500	Hinsbrook	Seminole to Limit	400	2009	2012	N/A
Belair Drive	1300	Hinsbrook	Richmond to Beechnut	2200	2009	2012	N/A
Belair Dr (CDS)	190	Hinsbrook	Belair to Limit	500	2009	2012	N/A
Village Court	222	Hinsbrook	Seminole to Limit	500	2009	2012	N/A
Leonard Drive	611	Plainfield Highland	Plainfield to 72nd	1660	2009	2012	N/A
Honey Locust Ln	300	Farmingdale Ter N	Farmingdale to Sawyer	480	2009	2012	N/A
Clifford Rd	733	Farmingdale Village	Pitcher to Stewart	660	2008	2012	N/A
Pitcher Dr	500	Farmingdale Village	Ailsworth to Clifford	860	2008	2012	N/A
Stewart Rd	478	Farmingdale Village	Ailsworth to Clifford	860	2008	2012	N/A
71st	6500	farmingdale units5-9	Washington to Fairview	3770	2005	2012	N/A
Havens Dr	3000	Farmingdale Village	87th to Stewart	360	2006	2009	2012
Janet Avenue	3889	Marion Hills S	Clarendon to 83rd	2800	2006	2009	2012
Walnut Dr	1528	Farmingdale Ter W	942-Farmingdale	1100	2006	2009	2012
Walnut Dr	300	Brookhaven one	Warwick-942	200	2006	2009	2012
Exner Rd	525	Darien Club	Darien Club-Holly	465	2006	2009	2012
Holly Av	4583	Farmingdale 5-9	William to Wilcox	3300	2006	2009	2012
Exner Rd	2000	Farmingdale 5-9	Holly to 75th	3800	2006	2009	2012
Summit Rd	5000	Farmingdale 5-9	71st to Cleamens	2240	2006	2009	2012
Hillside Ct	3111	Farmingdale Village	Hillside to limit	300	2006	2009	2012
Harvest Pl	333	Farmingdale Village	Meadow to Beller	1230	2006	2009	2012
Royal Oak Rd	1367	Carriage Green 1-2	Carriage Greens to limit	600	2006	2009	2012
Laurel Ln	667	Carriage Green 1-2	Carriage Greens to limit	600	2006	2009	2012
Wildwood Ct	350	Regency Grove	Regency Grove to Limit	400	2006	2009	2012
Richmond Ave	444	Hinsbrook	67th to 72nd	3180	2006	2009	2012
Ironwood Ave	3333	Hinsbrook	69th to Beechnut	2100	2006	2009	2012
Hinsbrook Avenue	1867	Hinsbrook	Cass to Seminole	1450	2006	2009	2012
Beechnut Lane	1139	Hinsbrook	Hinsbrook to Belair	1750	2006	2009	2012
Farmingdale Dr	4600	Farmingdale Ter N	75th to 79th	2100	2006	2009	2012
High Point Circle	675	High point cir	Frontage to Limit	1050	2003	2008	2012
79Th ST	6933	Brookhaven	Cass to Sawyer	4160	2002	2008	2012
Pounds Required	65977						

**AGENDA MEMO**  
**Municipal Services Committee**  
**July 23, 2012**

**ISSUE STATEMENT**

**Approval of a motion** authorizing City staff to proceed with the City's Entrance Sign Project at the following locations:

1. 75<sup>th</sup> Street west of Sawmill Creek - (fronting Hinsdale South High School-Westbound
2. Cass Avenue - 6800 Block-Southbound
3. Cass Avenue - North Frontage Rd (Hinswood Dr)-Northbound
4. Lemont Road - North Frontage Rd/Cheese Rd and Lemont Rd-Northbound
5. Plainfield/83<sup>rd</sup> Street - East of Woodward Ave-Darien/Woodridge jurisdiction
6. 87<sup>th</sup> Street-(Boughton Rd) and Ailsworth Drive-Eastbound
7. Plainfield Road - Fronting Crest Basin-Westbound
8. 75<sup>th</sup> Street - east of Lemont Road-Westbound

**BACKGROUND/HISTORY**

The 2012-13 Budget calls out for the removal and replacement of the City's Entrance Monument Signs located within DuPage County right of ways. The Budget called out for the replacement of up to 5 signs. To date the City has authorized an engineering agreement with Christopher B. Burke Engineering to prepare engineering plans for permitting through DuPage County. DuPage County is currently reviewing the permit application. The staff had recently solicited competitive quotes for the various components required for the entrance way signs. Upon review, the pricing was very favorable and staff is recommending that all 8 entrance way signs be constructed this year.

The entrance signs vary in size from 10-11 feet in width and are to be located at the following locations, see attached location maps labeled as 1-8:

1. 75<sup>th</sup> Street west of Sawmill Creek - (fronting Hinsdale South High School-Westbound-  
Overall Width is 11-feet
2. Cass Ave - 6800 Block-Southbound  
Overall Width is 10-feet
3. Cass Ave - North Frontage Rd (Hinswood Dr)-Northbound  
Overall Width is 11-feet
4. Lemont Rd - North Frontage Rd/Cheese Rd and Lemont Rd-Northbound  
Overall Width is 11-feet
5. Plainfield/83<sup>rd</sup> Street Rd - East of Woodward Ave-Darien/Woodridge jurisdiction  
Overall Width is 10-feet
6. 87<sup>th</sup> Street - (Boughton Rd) and Ailsworth Drive-Eastbound  
Overall Width is 10-feet
7. Plainfield Rd - Fronting Crest Basin-Westbound  
Overall Width is 11-feet
8. 75<sup>th</sup> Street - east of Lemont Road-Westbound  
Overall Width is 11-feet

Entranceway Monument Signs

July 23, 2012

Page 2

The monument signs would be constructed with a conventional footing with piers. The piers above the ground would be constructed with a concrete masonry unit (block) and with a cultured stone product identified as the Shale Pro Fit Ledgestone PF8016. The overall dimension for each pier would be 30-inches by 30-inches and a height of 6-foot. The arched monument sign would range in dimensions from 5-6 feet in width and a height of 52-inches and supported by the piers. The total width of the monument signs would range from 10-11 feet pier to pier. The project calls out for the City to be the general contractor and would be orchestrated in the following matter:

- The excavations and backfill for the monuments would be provided by the Municipal Services Department.
- The footings and piers would be completed by Presta Construction
- Staff would be purchasing the following components:
  - Concrete Block
  - Cultured Stone
  - Pier Caps
  - Monument Signs
  - Misc Steel
- The installation of the block, cultured stone, monument sign and pier caps would be completed by Pioneer Construction and assisted by City staff.
- The landscaping would be completed by Schramm Landscaping

Separate agenda memos address the abovementioned materials and services. References for the above vendors have been verified with satisfactory results.

The proposed expenditures would be from the following account:

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	FY 12-13 BUDGET	YEAR TO DATE TO BE EXPENDED	PROPOSED EXPENDITURE	PROPOSED BALANCE
25-35-4815	Welcome Sign Replacements May 7,2012	\$ 108,000.00	\$ 0	\$ 18,000.00	\$ 90,000.00
25-35-4815	Welcome Sign Replacements	\$ 108,000.00	\$ 18,000.00	\$ 90,000.00	**

\*\*See Attachment 2 for project cost summary.

**STAFF RECOMMENDATION**

The staff recommends approval of the motion to proceed with the City's Entrance Sign Project at the following locations:

1. 75<sup>th</sup> Street west of Sawmill Creek - (fronting Hinsdale South High School-Westbound
2. Cass Avenue - 6800 Block-Southbound
3. Cass Avenue - North Frontage Rd (Hinswood Dr)-Northbound
4. Lemont Road - North Frontage Rd/Cheese Rd and Lemont Rd-Northbound
5. Plainfield/83<sup>rd</sup> Street - East of Woodward Ave-Darien/Woodridge jurisdiction
6. 87<sup>th</sup> Street-(Boughton Rd) and Ailsworth Drive-Eastbound
7. Plainfield Road - Fronting Crest Basin-Westbound
8. 75<sup>th</sup> Street - east of Lemont Road-Westbound

**ALTERNATE CONSIDERATION**

As directed by the Municipal Services Committee.

**DECISION MODE**

This item will be placed on the August 6, 2012 City Council agenda for formal approval.

ENTRANCE WAY SIGNS-PROJECT COST ALLOCATIONS

DESCRIPTION												
Concrete Footing and Walls	Labor, material furning of footing and walls											
	Awarded Vendor	Presta Construction Inc		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
	No of Signs	Units Per Sign										
	No of Units	Unit Cost										
Option No 3-A 10-Foot Widths	3	3	\$ 1,850.00	\$ 1,850.00		\$ 5,550.00						\$ 5,550.00
Option No 4-A 11-Foot Widths	5	5	\$ 1,900.00	\$ 1,900.00				\$ 9,500.00				\$ 9,500.00
Concrete Block												
	Awarded Vendor	LaGrange Materials		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
	B	Units Per Sign										
		No of Signs	Unit Cost									
Option No 1 Hollow Block	510	105.00	\$ 1,559.80	\$ 163.78				\$ 795.30				
Option No 2 Hollow Block	633	105.00	\$ 1,559.80	\$ 163.78				\$ 987.35				
Option No 3 Hollow Block	739	105.00	\$ 1,559.80	\$ 163.78					\$ 1,152.69			
Option No 4 Hollow Block	850	105.00	\$ 1,489.29	\$ 156.38						\$ 1,265.90	\$ 1,265.90	
Option No 5 Solid Block	510	105.00	\$ 2,432.15	\$ 255.38				\$ 1,240.40				
Option No 6 Solid Block	633	105.00	\$ 2,432.15	\$ 255.38				\$ 1,539.55				
Option No 7 Solid Block	739	105.00	\$ 2,432.15	\$ 255.38					\$ 1,797.36			
Option No 8 Solid Block	850	105.00	\$ 2,340.47	\$ 245.75						\$ 1,989.40		
Cultured Stone												
	Shale Pro Fit LedgeStone PF8016 Las Moore & Co. LLC											
	Awarded Vendor	Las Moore & Co. LLC		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
	No of Signs	Units Per Sign										
		Sq Ft Flats	Corners	Linear Ft								
Option No 1 420 Sq. Ft. of Flats; 211 Linear feet of corners, mortar Bonding Agent	4	420	211.00	\$ 1,508.00				\$ 6,032.00				
Option No 2 530 Sq. Ft. of Flats; 264 Linear feet of corners, mortar Bonding Agent	5	530	264	\$ 1,501.00				\$ 7,505.00				
Option No 3 635 Sq. Ft. of Flats; 317 Linear feet of corners, mortar Bonding Agent	6	635	317	\$ 1,483.33				\$ 8,900.00				
Option No 4 742 Sq. Ft. of Flats; 369 Linear feet of corners, mortar Bonding Agent	7	742	369	\$ 1,460.71					\$ 10,225.00			
Option No 5 848 Sq. Ft. of Flats; 422 Linear feet of corners, mortar Bonding Agent	8	848	422	\$ 1,456.25						\$ 11,650.00	\$ 11,650.00	
Pier Caps												
	36-inch Square Pier Pro Masonry Express											
	Awarded Vendor	Pro Masonry Express		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
	No of Signs	Units Per Sign										
		No of Units	Unit Cost									
Option 4 36-inch Square Pier	2	4	\$ 325.00	\$ 650.00	\$ 1,300.00							
Option 5 36-inch Square Pier	3	6	\$ 325.00	\$ 650.00		\$ 1,950.00						
Option 6 36-inch Square Pier	4	8	\$ 325.00	\$ 650.00			\$ 2,600.00					
Option 7 36-inch Square Pier	5	10	\$ 325.00	\$ 650.00				\$ 3,250.00				
Option 8 36-inch Square Pier	6	12	\$ 325.00	\$ 650.00					\$ 3,900.00			
Option 9 36-inch Square Pier	7	14	\$ 325.00	\$ 650.00						\$ 4,550.00		
Option 10 36-inch Square Pier	8	16	\$ 325.00	\$ 650.00							\$ 5,200.00	\$ 5,200.00
Masonry Work												
	Installation of Block and Stone Pioneer Construction											
	Awarded Vendor	Pioneer Construction		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
	No of Signs	Units Per Sign										
		No of Units	Unit Cost									
Option No 1 Foundation and Piers	4	4	\$ 1,750.00	\$ 1,750.00			\$ 7,000.00					
Option No 2 Foundation and Piers	5	5	\$ 1,760.00	\$ 1,760.00				\$ 8,800.00				
Option No 3 Foundation and Piers	6	6	\$ 1,766.67	\$ 1,766.67					\$ 10,600.00			
Option No 4 Foundation and Piers	7	7	\$ 1,766.67	\$ 1,766.67						\$ 12,366.69		
Option No 5 Foundation and Piers	8	8	\$ 1,766.67	\$ 1,766.67							\$ 14,133.36	\$ 14,133.36



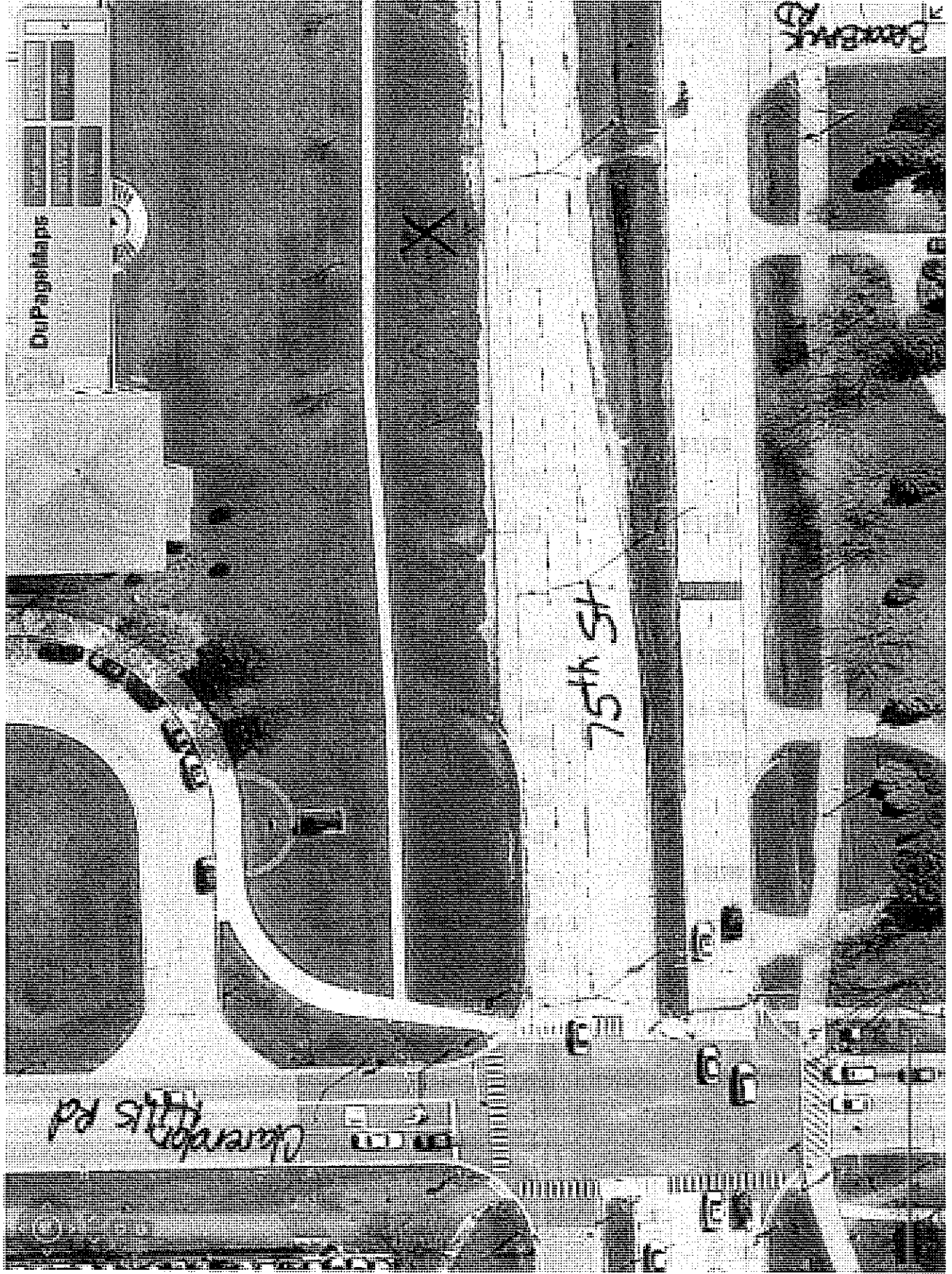
--	--	--	--	--	--	--	--	--	--	--	--	--

Monument Signs												
Signs	Awarded Vendor	Meno Stone		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
		No of Signs	Units Per Sign									
		No of Units	Unit Cost									
Option No 2												
3-Foot Width Monument Sign		3	\$ 1,700.00	\$ 1,700.00	\$ 5,100.00							\$ 5,100.00
Option No 3												
6-Foot Width Monument Sign		5	\$ 1,980.00	\$ 1,980.00				\$ 9,900.00				\$ 9,900.00

Landscaping												
Signs	Awarded Vendor	Schramm Landscaping		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
		No of Signs	Units Per Sign									
		No of Units	Unit Cost									
Option No 1												
Landscaping		4	\$ 2,000.00	\$ 2,000.00	\$ 8,000.00							
Option No 2												
Landscaping		5	\$ 2,000.00	\$ 2,000.00			\$ 10,000.00					
Option No 3												
Landscaping		6	\$ 2,000.00	\$ 2,000.00				\$ 12,000.00				
Option No 4												
Landscaping		7	\$ 2,000.00	\$ 2,000.00					\$ 14,000.00			
Option No 5												
Landscaping		8	\$ 2,000.00	\$ 2,000.00						\$ 16,000.00		\$ 16,000.00

Contingency												
Signs	Awarded Vendor	Steel-Excavation-Concrete		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
		No of Signs	Units Per Sign									
		No of Units	Unit Cost									
Option No 1												
Contingency		4	\$ 1,100.00	\$ 1,100.00	\$ 4,400.00							
Option No 2												
Contingency		5	\$ 1,100.00	\$ 1,100.00			\$ 5,500.00					
Option No 3												
Contingency		6	\$ 1,100.00	\$ 1,100.00				\$ 6,600.00				
Option No 4												
Contingency		7	\$ 1,100.00	\$ 1,100.00					\$ 7,700.00			
Option No 5												
Contingency		8	\$ 1,100.00	\$ 1,100.00						\$ 8,800.00		\$ 8,800.00

**TOTAL PROJECT COST** \$ 87,099.26

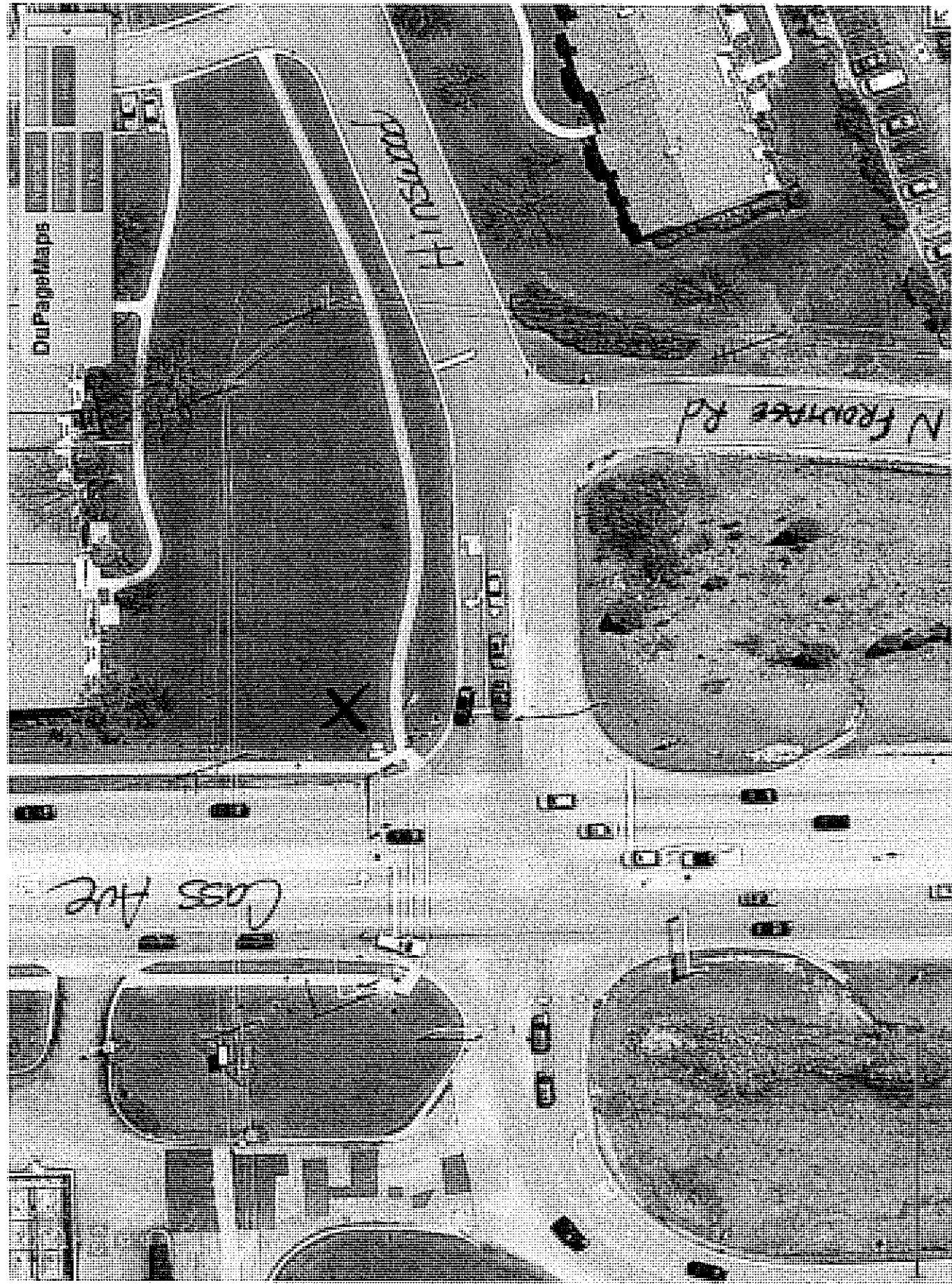


#1

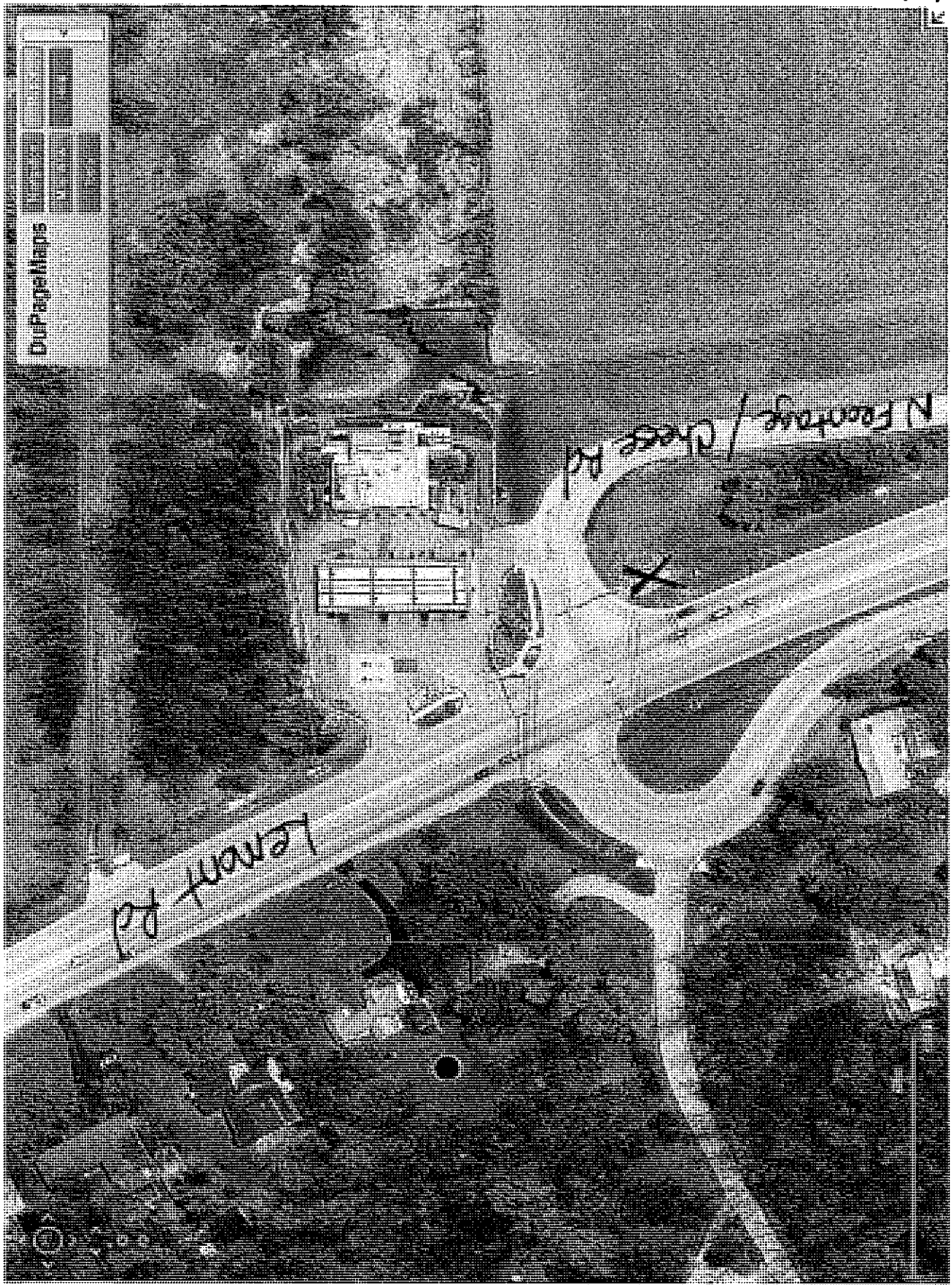
#2



#3

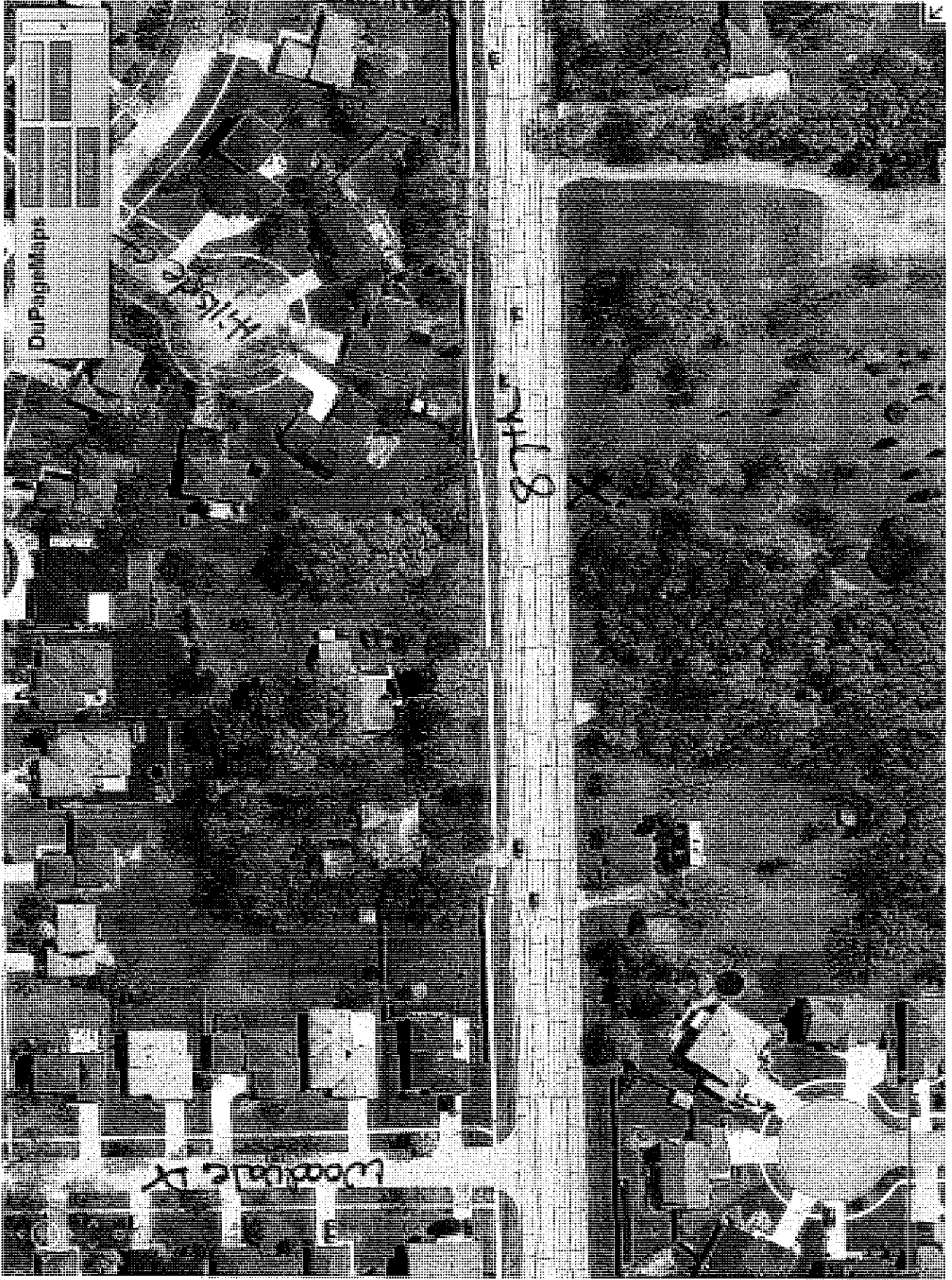


#4

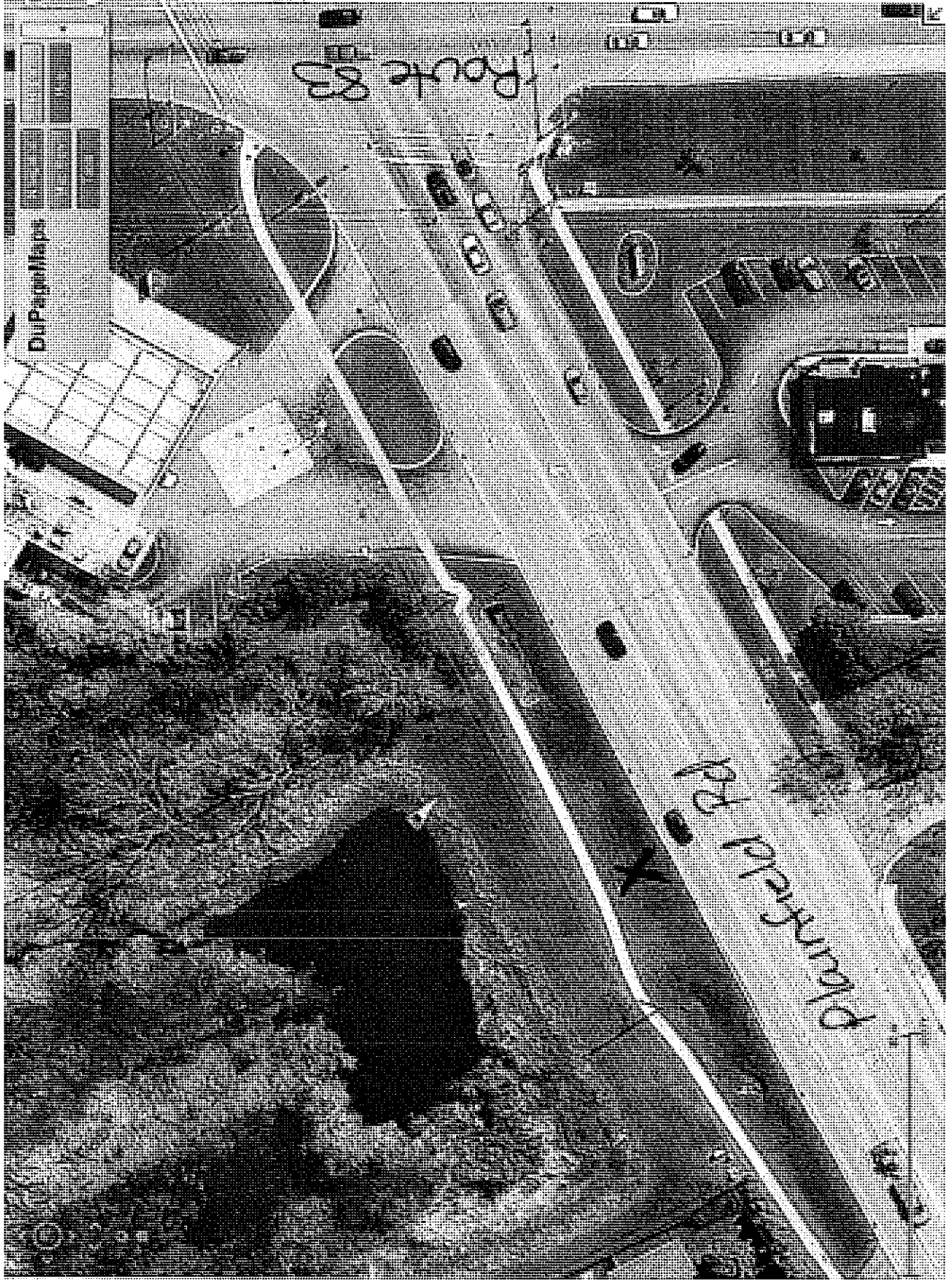


#5





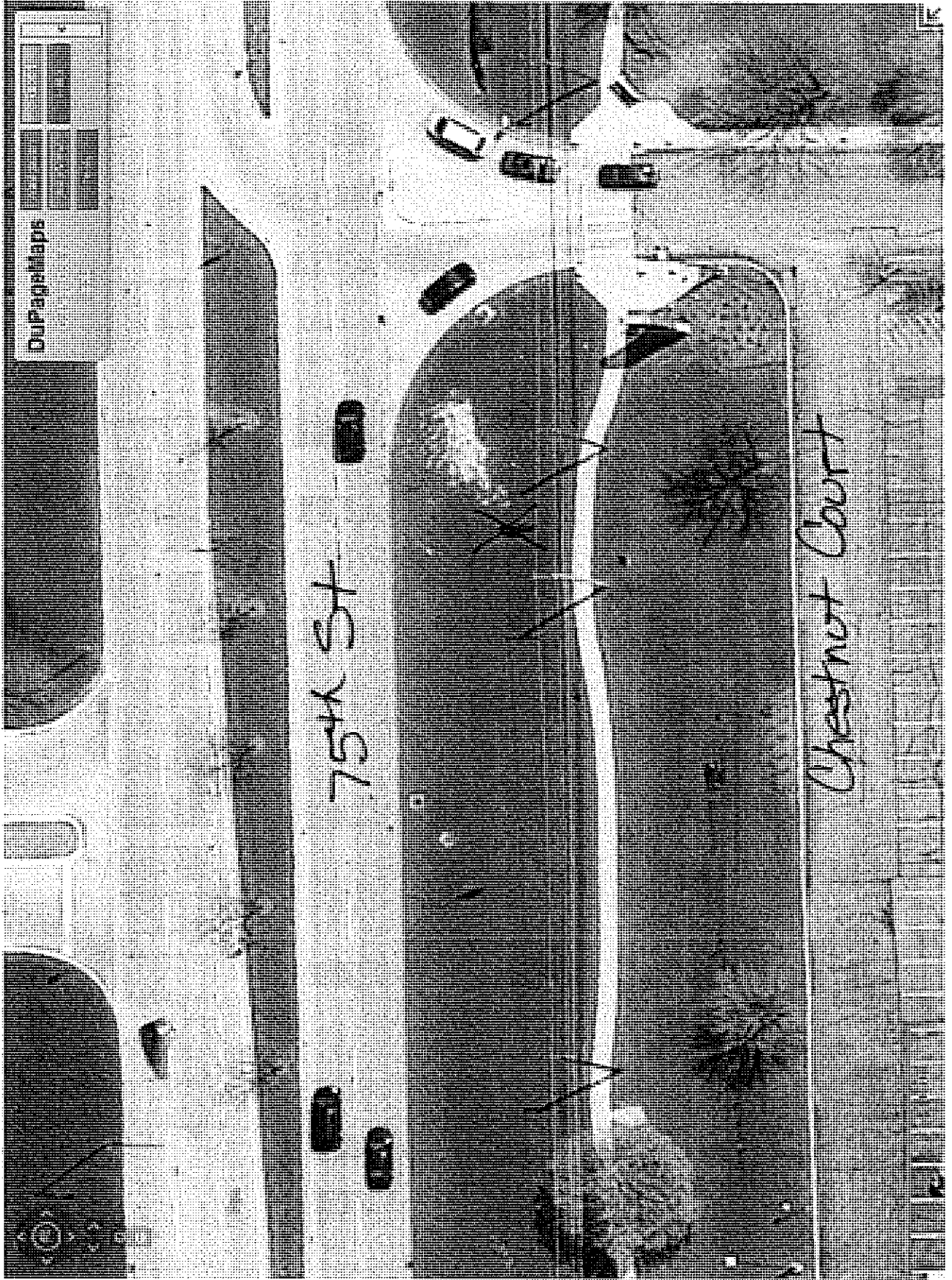
#6



#7



#8



**AGENDA MEMO**  
**Municipal Services Committee Meeting**  
**July 23, 2012**

**ISSUE STATEMENT**

A resolution accepting a proposal from Presta Construction Inc. for the concrete footing and walls in an amount not to exceed \$15,050.00 for the City's Entrance Signs.

**BACKGROUND/HISTORY**

The 2012-13 Budget calls out for the removal and replacement of the City Entrance Monument Signs located within DuPage County right of ways. The concrete footing and walls are integral to the sign monuments. City staff would be responsible for the excavation, removal of spoils and backfill. The vendor would be responsible for providing the labor and material to form the footing and walls, supplying, and placing the concrete at the following locations:

1. 75<sup>th</sup> Street west of Sawmill Creek - (fronting Hinsdale South High School-Westbound
2. Cass Avenue - 6800 Block-Southbound
3. Cass Avenue - North Frontage Rd (Hinswood Dr)-Northbound
4. Lemont Road - North Frontage Rd/Cheese Rd and Lemont Rd-Northbound
5. Plainfield/83<sup>rd</sup> Street - East of Woodward Ave-Darien/Woodridge jurisdiction
6. 87<sup>th</sup> Street-(Boughton Rd) and Ailsworth Drive-Eastbound
7. Plainfield Road - Fronting Crest Basin-Westbound
8. 75<sup>th</sup> Street - east of Lemont Road-Westbound

Competitive quotes were requested, and staff received three (3) competitive quotes, attached as Attachment A. The lowest competitive total cost quote was provided by Presta Construction Inc.

See Attachment 2 for the Cost Summary as presented in orange for Presta Construction.

The proposed expenditure would be from the following account:

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	FY 12-13 BUDGET	YEAR TO DATE TO BE EXPENDED	PROPOSED EXPENDITURE	PROPOSED BALANCE
25-35-4815	Welcome Sign Replacements May 7,2012	\$ 108,000.00	\$ 0	\$ 18,000.00	\$ 90,000.00
25-35-4815	Concrete Footing and Walls	N/A	\$ 18,000.00	\$ 15,050.00	\$ 74,950.00

**STAFF RECOMMENDATION**

The staff recommends approval of the resolution to proceed with the concrete footing and walls in an amount not to exceed \$15,050.00 for the City's Entrance Signs.

**ALTERNATE CONSIDERATION**

As directed by the Municipal Services Committee.

**DECISION MODE**

This item will be placed on the August 6, 2012 City Council agenda for formal approval.

**CITY OF DARIEN PUBLIC WORKS  
1702 PLAINFIELD ROAD  
DARIEN, IL 60561**

**Attachment A**

SEALED BID: 2012 Monument Signs - Concrete Footings-Walls

OPENING DATE/TIME: July 10, 2012 @ 10:00 a.m.

Option	DESCRIPTION	Unit Cost	Presta Construction		JB Concrete Contractor		Robert R Andreas & Sons Inc.		Concrete by Sennstrom (Rcvd July 11, 2012)	
			Unit Cost	Unit Cost	Unit Cost	Unit Cost	Unit Cost	Unit Cost		
<b>1</b>										
A	Construction of 4 Foundations for 4 sign locations 8-foot width	\$1,750.00	\$ 7,000.00	\$ 1,766.50	\$ 7,066.00	\$ 2,750.00	\$ 11,000.00	\$ 2,600.00	\$ 10,400.00	
B	Construction of 5 Foundations for 5 sign locations 8-foot width	\$1,480.00	\$ 7,400.00	\$ 1,722.40	\$ 8,612.00	\$ 2,650.00	\$ 13,250.00	\$ 2,600.00	\$ 13,000.00	
C	Construction of 6 Foundations for 6 sign locations 8-foot width	\$1,300.00	\$ 7,800.00	\$ 1,678.17	\$ 10,069.00	\$ 2,750.00	\$ 16,500.00	\$ 2,600.00	\$ 15,600.00	
	Sub-Total		\$ 22,200.00		\$ 25,747.00		\$ 40,750.00		\$ 39,000.00	
<b>2</b>										
A	Construction of 4 Foundations for 4 sign locations 9-foot width	\$1,800.00	\$ 7,200.00	\$ 1,783.75	\$ 7,135.00	\$ 2,875.00	\$ 11,500.00	\$ 2,700.00	\$ 10,800.00	
B	Construction of 5 Foundations for 5 sign locations 9-foot width	\$1,520.00	\$ 7,600.00	\$ 1,739.20	\$ 8,696.00	\$ 2,875.00	\$ 14,375.00	\$ 2,700.00	\$ 13,500.00	
C	Construction of 6 Foundations for 6 sign locations 9-foot width	\$1,333.33	\$ 8,000.00	\$ 1,694.50	\$ 10,167.00	\$ 2,875.00	\$ 17,250.00	\$ 2,700.00	\$ 16,200.00	
	Sub-Total		\$ 22,800.00		\$ 25,998.00		\$ 43,125.00		\$ 40,500.00	
<b>3</b>										
A	Construction of 4 Foundations for 4 sign locations 10-foot width	\$1,850.00	\$ 7,400.00	\$ 1,800.75	\$ 7,203.00	\$ 3,000.00	\$ 12,000.00	\$ 2,800.00	\$ 11,200.00	
B	Construction of 5 Foundations for 5 sign locations 10-foot width	\$1,560.00	\$ 7,800.00	\$ 1,755.80	\$ 8,779.00	\$ 3,000.00	\$ 15,000.00	\$ 2,800.00	\$ 14,000.00	
C	Construction of 6 Foundations for 6 sign locations 10-foot width	\$1,366.67	\$ 8,200.00	\$ 1,710.83	\$ 10,265.00	\$ 3,000.00	\$ 18,000.00	\$ 2,800.00	\$ 16,800.00	
	Sub-Total		\$ 23,400.00		\$ 26,247.00		\$ 45,000.00		\$ 42,000.00	
<b>4</b>										
A	Construction of 4 Foundations for 4 sign locations 11-foot width	\$1,900.00	\$ 7,600.00	\$ 1,818.00	\$ 7,272.00	\$ 3,125.00	\$ 12,500.00	\$ 2,900.00	\$ 11,600.00	
B	Construction of 5 Foundations for 5 sign locations 11-foot width	\$1,600.00	\$ 8,000.00	\$ 1,772.60	\$ 8,863.00	\$ 3,125.00	\$ 15,625.00	\$ 2,900.00	\$ 14,500.00	
C	Construction of 6 Foundations for 6 sign locations 11-foot width	\$1,400.00	\$ 8,400.00	\$ 1,727.00	\$ 10,362.00	\$ 3,125.00	\$ 18,750.00	\$ 2,900.00	\$ 17,400.00	
	Sub-Total		\$ 24,000.00		\$ 26,497.00		\$ 46,875.00		\$ 43,500.00	
	<b>Total</b>		\$ 92,400.00		\$ 104,489.00		\$ 175,750.00		\$ 165,000.00	



A79 Monument Signs													
A80	Awarded Vendor		Memo Stone										
A81	No of Signs	Units Per Sign		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure	
A82		No of Units	Unit Cost		2	3	4	5	6	7	8		
A83	Option No 2												
A85	5-Foot Width Monument Sign	3	3	\$ 1,700.00	\$ 1,700.00		\$ 3,100.00					\$ 5,100.00	
A86	Option No 3												
A87	6-Foot Width Monument Sign	3	3	\$ 1,980.00	\$ 1,980.00				\$ 9,900.00			\$ 9,900.00	
A88 Landscaping													
A89	Awarded Vendor		Schimmn Landscaping										
A90	No of Signs	Units Per Sign		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure	
A91		1			2	3	4	5	6	7	8		
A92		No of Units	Unit Cost										
A93	Option No 1												
A94	Landscaping	4	4	\$ 2,000.00	\$ 2,000.00		\$ 8,000.00						
A95	Option No 2												
A96	Landscaping	5	5	\$ 2,000.00	\$ 2,000.00			\$ 10,000.00					
A97	Option No 3												
A98	Landscaping	6	6	\$ 2,000.00	\$ 2,000.00				\$ 12,000.00				
A99	Option No 4												
A100	Landscaping	7	7	\$ 2,000.00	\$ 2,000.00					\$ 14,000.00			
A101	Option No 5												
A102	Landscaping	8	8	\$ 2,000.00	\$ 2,000.00						\$ 16,000.00	\$ 16,000.00	
A103 Contingency													
A104	Steel-Excavation-Concrete	No of Signs	Units Per Sign		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
A105			1			2	3	4	5	6	7	8	
A106			No of Units	Unit Cost									
A107	Option No 1												
A108	Contingency	4	4	\$ 1,100.00	\$ 1,100.00		\$ 4,400.00						
A109	Option No 2												
A110	Contingency	5	5	\$ 1,100.00	\$ 1,100.00			\$ 5,500.00					
A111	Contingency												
A112	Landscaping	6	6	\$ 1,100.00	\$ 1,100.00				\$ 6,600.00				
A113	Option No 4												
A114	Contingency	7	7	\$ 1,100.00	\$ 1,100.00					\$ 7,700.00			
A115	Option No 5												
A116	Contingency	8	8	\$ 1,100.00	\$ 1,100.00						\$ 8,800.00	\$ 8,800.00	
TOTAL PROJECT COST												\$ 87,099.26	

**RESOLUTION NO.** \_\_\_\_\_

**A RESOLUTION ACCEPTING A PROPOSAL FROM PRESTA CONSTRUCTION INC FOR THE CONCRETE FOOTING AND WALLS IN AN AMOUNT NOT TO EXCEED \$15,050.00 FOR THE CITY'S ENTRANCE SIGNS**

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, as follows:**

**SECTION 1:** The City Council of the City of Darien does hereby accept a proposal from Presta Constructions, Inc. for the concrete footing and walls in an amount not to exceed \$15,050.00 for the City's Entrance Signs, a copy of which is attached hereto as "Exhibit A" and is by this reference expressly incorporated herein.

**SECTION 2:** This Resolution shall be in full force and effect from and after its passage and approval as provided by law.

**PASSED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

**AYES:** \_\_\_\_\_

**NAYS:** \_\_\_\_\_

**ABSENT:** \_\_\_\_\_

**APPROVED BY THE MAYOR OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

\_\_\_\_\_  
KATHLEEN MOESLE WEAVER, MAYOR

ATTEST:

\_\_\_\_\_  
JOANNE E. RAGONA, CITY CLERK

APPROVED AS TO FORM:

\_\_\_\_\_  
CITY ATTORNEY

# CITY OF DARIEN

THIS FORM MUST BE COMPLETED AND RETURNED TO 1702 PLAINFIELD ROAD BY NO  
LATER THAN JULY 10, 2012 - 11 A.M.

ATTN: PUBLIC WORKS

QUESTIONS MAY BE DIRECTED TO MUNICIPAL SERVICES AT 630-353-8106

Submitted by: Pavonale Presta

Vendor Name: Presta Construction Inc

Address: 208 Cardinal Drive Plainfield IL

Date: 7-6-12

Phone #: 630 878-4418 Fax #: 630 529-7805

E-mail Address: Pat@PrestaConstruction.com

Authorized Signature: [Signature]

Option No. 1 - Construction of 4 Foundations for 4 sign locations  
8-FOOT WIDTH

Quote Amount: 7000<sup>00</sup>

Quote Amount in Writing: Seven Thousand <sup>00</sup>/<sub>100</sub> Dollars

Option No. 1 - Construction of 5 Foundations for 5 sign locations  
8-FOOT WIDTH

Quote Amount: 7400<sup>00</sup>

Quote Amount in Writing: Seventy-four hundred <sup>00</sup>/<sub>100</sub> Dollars

Option No. 1 - Construction of 6 Foundations for 6 sign locations  
8-FOOT WIDTH

Quote Amount: 7800<sup>00</sup>

Quote Amount in Writing: Seven eight hundred <sup>00</sup>/<sub>100</sub> Dollars

Foundation Work

Submitted by (Company Name): Presta Construction Inc.

Option No. 2 - Construction of 4 Foundations for 4 sign locations  
9-FOOT WIDTH

Quote Amount: \$ 7,200<sup>00</sup>

Quote Amount in Writing: Seventy-two hundred<sup>00</sup> dollars

Option No. 2 - Construction of 5 Foundations for 5 sign locations  
9-FOOT WIDTH

Quote Amount: \$ 7,600<sup>00</sup>

Quote Amount in Writing: Seventy-six hundred<sup>00</sup> dollars

Option No. 2 - Construction of 6 Foundations for 6 sign locations  
9-FOOT WIDTH

Quote Amount: \$ 8,000<sup>00</sup>

Quote Amount in Writing: Eight thousand<sup>00</sup> dollars

Option No. 3 - Construction of 4 Foundations for 4 sign locations  
10-FOOT WIDTH

Quote Amount: \$ 7,400<sup>00</sup>

Quote Amount in Writing: Seventy-four hundred<sup>00</sup> dollars

Option No. 3 - Construction of 5 Foundations for 5 sign locations  
10-FOOT WIDTH

Quote Amount: \$ 7,800<sup>00</sup>

Quote Amount in Writing: Seventy-eight hundred<sup>00</sup> dollars

Option No. 3 - Construction of 6 Foundations for 6 sign locations  
10-FOOT WIDTH

Quote Amount: \$ 8,200<sup>00</sup>

Quote Amount in Writing: Eighty-two hundred<sup>00</sup> dollars

Foundation Work

Submitted by (Company Name): Presta Construction Inc



Option No. 4 - Construction of 4 Foundations for 4 sign locations  
11-FOOT WIDTH

Quote Amount: \$2,600<sup>00</sup>

Quote Amount in Writing: Seven hundred and sixty dollars

Option No. 4 - Construction of 5 Foundations for 5 sign locations  
11-FOOT WIDTH

Quote Amount: \$8,000<sup>00</sup>

Quote Amount in Writing: Eight thousand dollars

Option No. 4 - Construction of 6 Foundations for 6 sign locations  
11-FOOT WIDTH

Quote Amount: \$400<sup>00</sup>

Quote Amount in Writing: Eighty-four hundred dollars

The vendor shall provide three references with phone numbers below and provide documentation that the vendor has been a mason for a minimal of 10 years:

1. Local 288 since 1979
2. Local 803 since 1979
3. Elmhurst Chicago Stone

Acceptance of Quote:

By: \_\_\_\_\_ Date: \_\_\_\_\_  
City of Darien

Authorized and Accepted:

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Foundation Work

Submitted by (Company Name): Presta Construction Inc

**AGENDA MEMO**  
**Municipal Services Committee Meeting**  
**July 23, 2012**

**ISSUE STATEMENT**

A resolution accepting a proposal from LaGrange Materials Inc for the concrete masonry units-concrete block hollow, in an amount not to exceed \$1,265.90 for the City's Entrance Signs.

**BACKGROUND/HISTORY**

The 2012-13 Budget calls out for the removal and replacement of the City's Entrance Monument Signs located within DuPage County right of ways. The concrete block is part of a structural component of the proposed signs. This would allow the City to purchase the required block for the following monument signs:

1. 75<sup>th</sup> Street west of Sawmill Creek - (fronting Hinsdale South High School-Westbound
2. Cass Avenue - 6800 Block-Southbound
3. Cass Avenue - North Frontage Rd (Hinswood Dr)-Northbound
4. Lemont Road - North Frontage Rd/Cheese Rd and Lemont Rd-Northbound
5. Plainfield/83<sup>rd</sup> Street - East of Woodward Ave-Darien/Woodridge jurisdiction
6. 87<sup>th</sup> Street-(Boughton Rd) and Ailsworth Drive-Eastbound
7. Plainfield Road - Fronting Crest Basin-Westbound
8. 75<sup>th</sup> Street - east of Lemont Road-Westbound

Competitive quotes were requested, and staff received three (3) competitive quotes, attached as Attachment A. The lowest competitive total cost quote was provided by LaGrange Materials Inc. See Attachment 2 for the Cost Summary as presented in blue (A10 – A28) for LaGrange Materials.

The proposed expenditure would be from the following account:

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	FY 12-13 BUDGET	YEAR TO DATE TO BE EXPENDED	PROPOSED EXPENDITURE	PROPOSED BALANCE
25-35-4815	Welcome Sign Replacements May 7,2012	\$ 108,000.00	\$ 0	\$ 18,000.00	\$ 90,000.00
25-35-4815	Concrete Footing and Walls	N/A	\$ 18,000.00	\$ 15,050.00	\$ 74,950.00
25-35-4815	Concrete Blocks	N/A	\$ 33,050.00	\$ 1,265.90	\$ 73,684.10

**STAFF RECOMMENDATION**

The staff recommends a resolution accepting a proposal from LaGrange Materials Inc for the concrete masonry units-concrete block hollow, in an amount not to exceed \$1,265.90 for the City's Entrance Signs.

2012 Concrete Block-Monument Signs

July 23, 2012

Page 2

**ALTERNATE CONSIDERATION**

As directed by the Municipal Services Committee.

**DECISION MODE**

This item will be placed on the August 6, 2012 City Council agenda for formal approval.

**CITY OF DARIEN PUBLIC WORKS  
 1702 PLAINFIELD ROAD  
 DARIEN, IL 60561**

**Attachment A**

SEALED BID: 2012 Monument Signs - Concrete Blocks

OPENING DATE/TIME: June 26, 2012 @ 11:00 a.m.

Option	DESCRIPTION	LaGrange Materials		Pro Masonry Express		Les Moore & Co., LLC	
1	510 Hollow concrete blocks	\$	795.50	\$	4,200.00	\$	1,225.00
2	850 Hollow concrete blocks	\$	1,265.90	\$	6,550.00	\$	1,936.00
3	510 Solid concrete blocks	\$	1,240.40	\$	5,085.00	\$	1,810.00
4	850 Solid concrete blocks	\$	1,988.40	\$	7,975.00	\$	3,005.00
	Total	\$	<b>5,290.20</b>	\$	<b>23,810.00</b>	\$	<b>7,976.00</b>



A79	Monument Signs	Signs											
A80		Awarded Vendor	Meno Stone										
A81		No of Signs	Units Per Sign		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
A82			1			2	3	4	5	6	7	8	
A83			No of Units	Unit Cost									
A84	Option No 2												
A85	5-Foot Width Monument Sign	3	3	\$ 1,700.00	\$ 1,700.00		\$ 5,100.00						\$ 5,100.00
A86	Option No 3												
A87	6-Foot Width Monument Sign	5	5	\$ 1,980.00	\$ 1,980.00				\$ 9,900.00				\$ 9,900.00
A88	Landscaping												
A89		Awarded Vendor	Schumma Landscaping										
A90		No of Signs	Units Per Sign		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
A91			1			2	3	4	5	6	7	8	
A92			No of Units	Unit Cost									
A93	Option No 1												
A94	Landscaping	4	4	\$ 2,000.00	\$ 2,000.00		\$ 8,000.00						
A95	Option No 2												
A96	Landscaping	5	5	\$ 2,000.00	\$ 2,000.00				\$ 10,000.00				
A97	Option No 3												
A98	Landscaping	6	6	\$ 2,000.00	\$ 2,000.00				\$ 12,000.00				
A99	Option No 4												
A100	Landscaping	7	7	\$ 2,000.00	\$ 2,000.00					\$ 14,000.00			
A101	Option No 5												
A102	Landscaping	8	8	\$ 2,000.00	\$ 2,000.00						\$ 16,000.00		\$ 16,000.00
A103	Contingency												
A104	Steel-Excavation-Concrete	No of Signs	Units Per Sign		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
A105			1			2	3	4	5	6	7	8	
A106			No of Units	Unit Cost									
A107	Option No 1												
A108	Contingency	4	4	\$ 1,100.00	\$ 1,100.00		\$ 4,400.00						
A109	Option No 2												
A110	Contingency	5	5	\$ 1,100.00	\$ 1,100.00				\$ 5,500.00				
A111	Contingency												
A112	Landscaping	6	6	\$ 1,100.00	\$ 1,100.00				\$ 6,600.00				
A113	Option No 4												
A114	Contingency	7	7	\$ 1,100.00	\$ 1,100.00					\$ 7,700.00			
A115	Option No 5												
A116	Contingency	8	8	\$ 1,100.00	\$ 1,100.00						\$ 8,800.00		\$ 8,800.00
<b>TOTAL PROJECT COST</b>												<b>\$ 87,099.26</b>	

SPEC. MAIL  
TY 7/20  
P 5  
20 = BAC-488  
810 B-95 = 16 P/12/12/12

THIS FORM MUST BE COMPLETED AND RETURNED TO 1702 PLAINFIELD ROAD  
BY NO LATER THAN JUNE 26, 2012 - 11 A.M.

ATTN: PUBLIC WORKS

QUESTIONS MAY BE DIRECTED TO MUNICIPAL SERVICES AT 630-353-8106

Submitted by: BOB OSTROM

Vendor Name: LA GRANGE MATERIALS, INC.

Address: 223 S. TILDEN AVE LA GRANGE, IL 60525

Date: JUNE 15, 2012

Phone #: 708-354-7200 Fax #: 708 354 7804

E-mail Address: lagrangematerial@aol.com

Authorized Signature: *Bob Ostrom*

Option No. 1 - 510 hollow concrete blocks - 8x8x16  
10 units of mortar mix  
Delivery

Quote Amount: \$ 795.50 (ASSUMING UNIT OF MORTAR IS A SINGLE BAG)

Quote Amount in Writing: SEVEN HUNDRED AND NINETY FIVE DOLLARS AND 50 CENTS

Option No. 2 - 850 hollow concrete blocks - 8x8x16  
12 units of mortar mix  
Delivery

Quote Amount: \$ 1265.90

Quote Amount in Writing: ONE THOUSAND TWO HUNDRED AND SIXTY FIVE DOLLARS  
AND NINETY CENTS

Option No. 3 - 510 solid concrete blocks - 8x8x16  
12 units of mortar mix  
Delivery

Quote Amount: \$ 1,240.40

Quote Amount in Writing: ONE THOUSAND TWO HUNDRED AND FORTY DOLLARS  
AND FORTY CENTS

Hollow Concrete Blocks

Submitted by (Company Name): LA GRANGE MATERIALS, INC.

Option No. 4 - 850 solid concrete blocks - 8x8x16  
12 units of mortar mix  
Delivery

Quote Amount: \$ 1988.40

Quote Amount in Writing: ONE THOUSAND NINE HUNDRED AND EIGHTY EIGHT  
DOLLARS AND FORTY CENTS.

The vendor shall provide three references with phone numbers below:

- 1. RICHARDS + WEYER CONST. 708 442 1919
- 2. MIDWEST MASONRY 847 362 2211
- 3. EARLY TIMES HOME SOLUTIONS 630-629 2090

Acceptance of Quote:

By: \_\_\_\_\_ Date: \_\_\_\_\_  
City of Darien

Authorized and Accepted:

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

Hollow Concrete Blocks

Submitted by (Company Name): \_\_\_\_\_



**AGENDA MEMO**  
**Municipal Services Committee Meeting**  
**July 23, 2012**

**ISSUE STATEMENT**

A resolution accepting a proposal from Les Moore & Company, LLC for the Cultured Stone-Shale Pro Fit LedgeStone PF8016 in an amount not to exceed \$11,650.00 for the City's Entrance Signs.

**BACKGROUND/HISTORY**

The 2012-13 Budget calls out for the removal and replacement of the City's Entrance Monument Signs located within DuPage County right of ways. The cultured stone will be set in place with a bonding agent to the concrete block. A mason will be installing the cultured stone and the mason services are covered under a separate agenda memo. The stone will be placed on all four exposed sides of the piers. The City will purchase the required stone for the following monument signs:

1. 75<sup>th</sup> Street west of Sawmill Creek - (fronting Hinsdale South High School-Westbound
2. Cass Avenue - 6800 Block-Southbound
3. Cass Avenue - North Frontage Rd (Hinswood Dr)-Northbound
4. Lemont Road - North Frontage Rd/Cheese Rd and Lemont Rd-Northbound
5. Plainfield/83<sup>rd</sup> Street - East of Woodward Ave-Darien/Woodridge jurisdiction
6. 87<sup>th</sup> Street-(Boughton Rd) and Ailsworth Drive-Eastbound
7. Plainfield Road - Fronting Crest Basin-Westbound
8. 75<sup>th</sup> Street - east of Lemont Road-Westbound

Competitive quotes were requested, and staff received two (2) competitive quotes, attached as Attachment A. Staff requested option pricing for completing up to 5 signs. Since the overall pricing for the monument signs was under the proposed budget cost, materials were increased to complete all eight (8) signs as presented. The lowest competitive total cost quote was provided by Les Moore & Company, LLC. See Attachment 2 for the Cost Summary as presented in purple (A29 – A42) for Les Moore & Company, LLC.

The proposed expenditure would be from the following account:

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	FY 12-13 BUDGET	YEAR TO DATE TO BE EXPENDED	PROPOSED EXPENDITURE	PROPOSED BALANCE
25-35-4815	Welcome Sign Replacements May 7,2012	\$ 108,000.00	\$ 0	\$ 18,000.00	\$ 90,000.00
25-35-4815	Concrete Footing and Walls	N/A	\$ 18,000.00	\$ 15,050.00	\$ 74,950.00
25-35-4815	Concrete Blocks	N/A	\$ 33,050.00	\$ 1,265.90	\$ 73,684.10
25-35-4815	Cultured Stone	N/A	\$ 34,315.90	\$ 11,650.00	\$ 62,034.10

**STAFF RECOMMENDATION**

Staff recommends approving a resolution accepting a proposal from Les Moore & Company, LLC for the Cultured Stone-Shale Pro Fit LedgeStone PF8016 in an amount not to exceed \$11,650.00 for the City's Entrance Signs.

**ALTERNATE CONSIDERATION**

As directed by the Municipal Services Committee.

**DECISION MODE**

This item will be placed on the August 6, 2012 City Council agenda for formal approval.

**CITY OF DARIEN PUBLIC WORKS  
1702 PLAINFIELD ROAD  
DARIEN, IL 60561**

**Attachment A**

SEALED BID: 2012 Monument Signs - Cultured Stone

OPENING DATE/TIME: June 26, 2012 @ 11:00 a.m.

		Pro Masonry Express		Les Moore & Co., LLC	
Option	DESCRIPTION				
<b>A. Pheasant Pro-Fit Apline LedgeStone CSV420117</b>					
1	420 Sq. Ft. of Flats; 211 Lineal feet of corners, mortar Bonding Agent		\$ 7,800.00		\$ 6,032.00
2	530 Sq. Ft. of Flats; 264 Lineal feet of corners, mortar Bonding Agent		\$ 9,490.00		\$ 7,505.00
3	635 Sq. Ft. of Flats; 317 Lineal feet of corners, mortar Bonding Agent		\$ 11,700.00		\$ 8,900.00
	Sub-Total		\$ 28,990.00		\$ 22,437.00
<b>B Gray Pro-Fit LedgeStone PF8018</b>					
1	420 Sq. Ft. of Flats; 211 Lineal feet of corners, mortar Bonding Agent		\$ 7,800.00		\$ 6,205.00
2	530 Sq. Ft. of Flats; 264 Lineal feet of corners, mortar Bonding Agent		\$ 9,490.00		\$ 7,725.00
3	635 Sq. Ft. of Flats; 317 Lineal feet of corners, mortar Bonding Agent		\$ 11,700.00		\$ 9,165.00
	Sub-Total		\$ 28,990.00		\$ 23,095.00
<b>C. Platinum Pro-Fit LedgeStone PF8017</b>					
1	420 Sq. Ft. of Flats; 211 Lineal feet of corners, mortar Bonding Agent		\$ 7,800.00		\$ 6,205.00
2	530 Sq. Ft. of Flats; 264 Lineal feet of corners, mortar Bonding Agent		\$ 9,490.00		\$ 7,725.00
3	635 Sq. Ft. of Flats; 317 Lineal feet of corners, mortar Bonding Agent		\$ 11,700.00		\$ 9,165.00
	Sub-Total		\$ 28,990.00		\$ 23,095.00
<b>D. Shale Pro-Fit LedgeStone PF8016</b>					
1	420 Sq. Ft. of Flats; 211 Lineal feet of corners, mortar Bonding Agent		\$ 7,800.00		\$ 6,205.00
2	530 Sq. Ft. of Flats; 264 Lineal feet of corners, mortar Bonding Agent		\$ 9,490.00		\$ 7,725.00
3	635 Sq. Ft. of Flats; 317 Lineal feet of corners, mortar Bonding Agent		\$ 11,700.00		\$ 9,165.00
	Sub-Total		\$ 28,990.00		\$ 23,095.00
	<b>Total</b>		<b>\$ 115,960.00</b>		<b>\$ 91,722.00</b>



A79 Monument Signs													
A80													
A81													
A82													
A83													
A84													
A85													
A86													
A87													
A88 Landscaping													
A89													
A90													
A91													
A92													
A93													
A94													
A95													
A96													
A97													
A98													
A99													
A100													
A101													
A102													
A103 Contingency													
A104													
A105													
A106													
A107													
A108													
A109													
A110													
A111													
A112													
A113													
A114													
A115													
A116													
TOTAL PROJECT COST													
	Monument Signs	Signs											
	Awarded Vendor	Memo Stone											
	No of Signs	Units Per Sign	Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure	
		1		2	3	4	5	6	7	8			
		No of Units	Unit Cost										
	Option No 2												
	5-Foot Width Monument Sign	3	\$ 1,700.00	\$ 1,700.00	\$ 5,100.00							\$ 5,100.00	
	Option No 3												
	6-Foot Width Monument Sign	5	\$ 1,980.00	\$ 1,980.00			\$ 9,900.00					\$ 9,900.00	
	Landscaping												
	Awarded Vendor	Schramm Landscaping											
	No of Signs	Units Per Sign	Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure	
		1		2	3	4	5	6	7	8			
		No of Units	Unit Cost										
	Option No 1												
	Landscaping	4	\$ 2,000.00	\$ 2,000.00		\$ 8,000.00							
	Option No 2												
	Landscaping	5	\$ 2,000.00	\$ 2,000.00			\$ 10,000.00						
	Option No 3												
	Landscaping	6	\$ 2,000.00	\$ 2,000.00				\$ 12,000.00					
	Option No 4												
	Landscaping	7	\$ 2,000.00	\$ 2,000.00					\$ 14,000.00				
	Option No 5												
	Landscaping	8	\$ 2,000.00	\$ 2,000.00						\$ 16,000.00		\$ 16,000.00	
	Contingency												
	Steel-Excavation-Concrete	No of Signs	Units Per Sign	Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure	
		1			2	3	4	5	6	7	8		
		No of Units	Unit Cost										
	Option No 1												
	Contingency	4	\$ 1,100.00	\$ 1,100.00		\$ 4,400.00							
	Option No 2												
	Contingency	5	\$ 1,100.00	\$ 1,100.00			\$ 5,500.00						
	Contingency												
	Landscaping	6	\$ 1,100.00	\$ 1,100.00				\$ 6,600.00					
	Option No 4												
	Contingency	7	\$ 1,100.00	\$ 1,100.00					\$ 7,700.00				
	Option No 5												
	Contingency	8	\$ 1,100.00	\$ 1,100.00						\$ 8,800.00		\$ 8,800.00	
	TOTAL PROJECT COST											\$ 87,099.26	

RESOLUTION NO. \_\_\_\_\_

**A RESOLUTION ACCEPTING A PROPOSAL FROM LES MOORE & COMPANY, LLC FOR THE CULTURED STONE-SHALE PRO FIT LEDGESTONE PF8016, IN AN AMOUNT NOT TO EXCEED \$11,650.00 FOR THE CITY'S ENTRANCE SIGNS**

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, as follows:**

**SECTION 1:** The City Council of the City of Darien does hereby accept a proposal from Les Moore & Company, LLC for the Cultured Stone-Shale Pro Fit Ledgestone PF8016, in an amount not to exceed \$11,650.00 for the City's Entrance Signs, a copy of which is attached hereto as "Exhibit A" and is by this reference expressly incorporated herein.

**SECTION 2:** This Resolution shall be in full force and effect from and after its passage and approval as provided by law.

**PASSED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

**AYES:** \_\_\_\_\_

**NAYS:** \_\_\_\_\_

**ABSENT:** \_\_\_\_\_

**APPROVED BY THE MAYOR OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

\_\_\_\_\_  
KATHLEEN MOESLE WEAVER, MAYOR

ATTEST:

\_\_\_\_\_  
JOANNE E. RAGONA, CITY CLERK

APPROVED AS TO FORM:

\_\_\_\_\_  
CITY ATTORNEY

THIS FORM MUST BE COMPLETED AND RETURNED TO 1702 PLAINFIELD ROAD BY NO LATER THAN JUNE 26, 2012 - 11 A.M.

ATTN: PUBLIC WORKS

QUESTIONS MAY BE DIRECTED TO MUNICIPAL SERVICES AT 630-353-8106

Submitted by: Nicholas Moore  
 Vendor Name: Les Moore & Co., LLC  
 Address: 500 W. Ninth St., Lockport, IL  
 Date: 6-26-12  
 Phone #: 815-838-3439 Fax #: 815-838-4439  
 E-mail Address: NGMOORE@SBCGLOBAL.NET  
 Authorized Signature: Nicholas Moore

**A. Pheasant Pro-Fit Alpine Ledgestone CSV420117**

Option No. 1 - 420 square feet of flats  
 211 lineal feet of corners  
 Mortar Bonding Agent  
 Delivery

Quote Amount: \$6,032.00

Quote Amount in Writing: Six Thousand Thirty Two Dollars  
Quote Includes Stone Veneer Mortar Mix - 93 bags

Option No. 2 - 530 square feet of flats  
 264 lineal feet of corners  
 Mortar Bonding Agent  
 Delivery

Quote Amount: \$7,505.00

Quote Amount in Writing: Seven Thousand Five Hundred Five Dollars  
Quote Includes Stone Veneer Mortar Mix - 93 bags

Option No. 3 - 635 square feet of flats  
 317 lineal feet of corners  
 Mortar Bonding Agent  
 Delivery

Quote Amount: \$8,900.00

Quote Amount in Writing: Eighty Nine Hundred Dollars  
Quote Includes Stone Veneer Mortar Mix - 112 bags  
 Cultured Stone

Submitted by (Company Name): Les Moore & Co., LLC

### B. Gray Pro-Fit Ledgestone PF8018

Option No. 1 - 420 square feet of flats  
 211 lineal feet of corners  
 Mortar Bonding Agent  
 Delivery

Quote Amount: \$ 6,205.00

Quote Amount in Writing: Six Thousand Two Hundred Five Dollars

Quote Includes Stone Veneer Mortar Mix - 73 bags

Option No. 2 - 530 square feet of flats  
 264 lineal feet of corners  
 Mortar Bonding Agent  
 Delivery

Quote Amount: \$ 7725.00

Quote Amount in Writing: Seventy Seven Hundred Twenty Five Dollars

Quote Includes Stone Veneer Mortar Mix - 93 bags

Option No. 3 - 635 square feet of flats  
 317 lineal feet of corners  
 Mortar Bonding Agent  
 Delivery

Quote Amount: \$ 9165.00

Quote Amount in Writing: Ninety One Hundred Sixty Five Dollars

Quote Includes Stone Veneer Mortar Mix - 112 bags

Cultured Stone

Submitted by (Company Name): Les Moore & Co., LLC



### C. Platinum Pro-Fit Ledgestone PF8017

Option No. 1 - 420 square feet of flats  
211 lineal feet of corners  
Mortar Bonding Agent  
Delivery

Quote Amount: \$ 6205.00

Quote Amount in Writing: Sixty Two Hundred Five Dollars

Quote Includes Stone Veneer Mortar Mix - 73 bags

Option No. 2 - 530 square feet of flats  
264 lineal feet of corners  
Mortar Bonding Agent  
Delivery

Quote Amount: \$ 7725.00

Quote Amount in Writing: Seventy Seven Hundred Twenty Five Dollars

Quote Includes Stone Veneer Mortar Mix - 93 bags

Option No. 3 - 635 square feet of flats  
317 lineal feet of corners  
Mortar Bonding Agent  
Delivery

Quote Amount: \$ 9165.00

Quote Amount in Writing: Ninety One Hundred Sixty Five Dollars

Quote Includes Stone Veneer Mortar Mix - 112 bags

Cultured Stone

Submitted by (Company Name): Les Moore & Co., LLC

### D. Shale Pro-Fit Ledgestone PF8016

Option No. 1 - 420 square feet of flats  
 211 lineal feet of corners  
 Mortar Bonding Agent  
 Delivery

Quote Amount: \$ 6,205.00

Quote Amount in Writing: Six Thousand Two Hundred Five Dollars  
Quote Includes Stone Veneer Mortar Mix - 73 bags

Option No. 2 - 530 square feet of flats  
 264 lineal feet of corners  
 Mortar Bonding Agent  
 Delivery

Quote Amount: \$ 7,725.00

Quote Amount in Writing: Seventy Seven Hundred Twenty Five Dollars  
Quote Includes Stone Veneer Mortar Mix - 93 bags

Option No. 3 - 635 square feet of flats  
 317 lineal feet of corners  
 Mortar Bonding Agent  
 Delivery

Quote Amount: \$ 9,165.00

Quote Amount in Writing: Ninety One Hundred Sixty Five Dollars  
Quote Includes Stone Veneer Mortar Mix - 112 bags

Cultured Stone

Submitted by (Company Name): Les Moore & Co., LLC

# *Les Moore & Company, LLC*

FACE BRICK \* STONE \* MASONRY MATERIALS \* COMMERCIAL DOORS  
500 W. Ninth Street Lockport, IL 60441  
VOICE: (815) 838-3439 FAX: (815) 838-4439

## Proposal

From: Nicholas Moore

July 13, 2012

City of Darien

Attn: Dan

We propose to supply Gray, Platinum or Shale Pro-Fit Ledgestone.

### Option No.4

742 square feet of flats

369 linear feet of corners

126 bags Specmix Stone Veneer Mortar Mix

Total \$ 10,725.00

### Option No.5

848 square feet of flats

422 linear feet of corners

145 bags Specmix Stone Veneer Mortar Mix

Total \$ 12,225.00

FOB: Darien Public Works ,1041 South Frontage Road, Darien

# *Les Moore & Company, LLC*

FACE BRICK \* STONE \* MASONRY MATERIALS \* COMMERCIAL DOORS  
500 W. Ninth Street Lockport, IL 60441  
VOICE: (815) 838-3439 FAX: (815) 838-4439

## **Proposal**

From: Nicholas Moore

July 13, 2012

City of Darien

Attn: Dan

We propose to supply Pheasant Pro-Fit Alpine LedgeStone.

### **Option No.4**

742 square feet of flats

369 linear feet of corners

126 bags Specmix Stone Veneer Mortar Mix

Total \$ 10,225.00

### **Option No.5**

848 square feet of flats

422 linear feet of corners

145 bags Specmix Stone Veneer Mortar Mix

Total \$ 11,650.00

FOB: Darien Public Works ,1041 South Frontage Road, Darien

The vendor shall provide three references with phone numbers below:

- 1. Instone 708-371-0660
- 2. Morris Sand & Gravel 815-942-9305
- 3. Imperial Glass Block 847-647-8770

**Acceptance of Quote:**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
City of Darien

**Authorized and Accepted:**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Cultured Stone

Submitted by (Company Name): Les Moore & Co., LLC

**AGENDA MEMO**  
**Municipal Services Committee Meeting**  
**July 23, 2012**

**ISSUE STATEMENT**

A resolution accepting a proposal from Pro Masonry Express for the 36-inch Pier Caps in an amount not to exceed \$5,200 for the City's Entrance Signs.

**BACKGROUND/HISTORY**

The 2012-13 Budget calls out for the removal and replacement of the City's Entrance Monument Signs located within DuPage County right of ways. The pier caps will be set atop of the piers with a bonding agent. The City staff and the mason will be setting the pier caps. This would allow the City to purchase 16 pier caps for the following monument signs:

1. 75<sup>th</sup> Street west of Sawmill Creek - (fronting Hinsdale South High School-Westbound
2. Cass Avenue - 6800 Block-Southbound
3. Cass Avenue - North Frontage Rd (Hinswood Dr)-Northbound
4. Lemont Road - North Frontage Rd/Cheese Rd and Lemont Rd-Northbound
5. Plainfield/83<sup>rd</sup> Street - East of Woodward Ave-Darien/Woodridge jurisdiction
6. 87<sup>th</sup> Street-(Boughton Rd) and Ailsworth Drive-Eastbound
7. Plainfield Road - Fronting Crest Basin-Westbound
8. 75<sup>th</sup> Street - east of Lemont Road-Westbound

Competitive quotes were requested, and staff received two (2) competitive quotes, attached as Attachment A. Staff requested option pricing for up to 10 pier caps to accommodate 5 signs. Since the overall pricing for the monument signs was under the proposed budget cost, materials were increased to complete all 8 signs based on the unit price cost. See Attachment 2 for the Cost Summary as presented in green (A43 – A61) for Pro Masonry Express.

The proposed expenditure would be from the following account:

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	FY 12-13 BUDGET	YEAR TO DATE TO BE EXPENDED	PROPOSED EXPENDITURE	PROPOSED BALANCE
25-35-4815	Welcome Sign Replacements May 7,2012	\$ 108,000.00	\$ 0	\$ 18,000.00	\$ 90,000.00
25-35-4815	Concrete Footing and Walls	N/A	\$ 18,000.00	\$ 15,050.00	\$ 74,950.00
25-35-4815	Concrete Blocks	N/A	\$ 33,050.00	\$ 1,265.90	\$ 73,684.10
25-35-4815	Cultured Stone	N/A	\$ 34,315.90	\$ 11,650.00	\$ 62,034.10
25-35-4815	Pier Caps	N/A	\$ 45,965.90	\$ 5,200.00	\$ 56,834.10

**STAFF RECOMMENDATION**

Staff recommends a resolution accepting a proposal from Pro Masonry Express for the 36-inch Pier Caps in an amount not to exceed \$5,200 for the City's Entrance Signs.

**ALTERNATE CONSIDERATION**

As directed by the Municipal Services Committee.

**DECISION MODE**

This item will be placed on the August 6, 2012 City Council agenda for formal approval.

**CITY OF DARIEN PUBLIC WORKS  
1702 PLAINFIELD ROAD  
DARIEN, IL 60561**

**Attachment A**

SEALED BID: 2012 Monument Signs - Pier Caps

OPENING DATE/TIME: June 26, 2012 @ 11:00 a.m.

Option	DESCRIPTION	Pro Masonry Express		Meno Stone Inc	
1	4 - 34-inch Square Pier, Epoxy for setting	\$ 300.00	\$ 1,200.00	\$ 250.00	\$ 1,000.00
2	5 - 34-inch Square Pier, Epoxy for setting	\$ 300.00	\$ 1,500.00	\$ 250.00	\$ 1,250.00
3	6 - 34-inch Square Pier, Epoxy for setting	\$ 300.00	\$ 1,800.00	\$ 250.00	\$ 1,500.00
	Sub-Total		\$ 4,500.00		\$ 3,750.00
4	4 - 36-inch Square Pier, Epoxy for setting	\$ 325.00	\$ 1,300.00	\$ 365.00	\$ 1,460.00
5	5 - 36-inch Square Pier, Epoxy for setting	\$ 325.00	\$ 1,625.00	\$ 365.00	\$ 1,825.00
6	6 - 36-inch Square Pier, Epoxy for setting	\$ 325.00	\$ 1,950.00	\$ 365.00	\$ 2,190.00
	Sub-Total		\$ 4,875.00		\$ 5,475.00





A79 Monument Signs												
A80 Awarded Vendor: Meno Stone												
A81 No of Signs, Units Per Sign, Cost Per Sign, Cost for No of Signs (2-8), Proposed Expenditure												
A82 Option No 2												
A85 5-Foot Width Monument Sign: 3 signs, 3 units/sign, \$1,700.00/unit, \$1,700.00/sign, \$5,100.00 total												
A86 Option No 3												
A87 6-Foot Width Monument Sign: 5 signs, 5 units/sign, \$1,980.00/unit, \$1,980.00/sign, \$9,900.00 total												
A88 Landscaping												
A89 Awarded Vendor: Schramm Landscaping												
A90 No of Signs, Units Per Sign, Cost Per Sign, Cost for No of Signs (2-8), Proposed Expenditure												
A91 Option No 1												
A92 Landscaping: 4 signs, 4 units/sign, \$2,000.00/unit, \$2,000.00/sign, \$8,000.00 total												
A95 Option No 2												
A96 Landscaping: 5 signs, 5 units/sign, \$2,000.00/unit, \$2,000.00/sign, \$10,000.00 total												
A97 Option No 3												
A98 Landscaping: 6 signs, 6 units/sign, \$2,000.00/unit, \$2,000.00/sign, \$12,000.00 total												
A99 Option No 4												
A100 Landscaping: 7 signs, 7 units/sign, \$2,000.00/unit, \$2,000.00/sign, \$14,000.00 total												
A101 Option No 5												
A102 Landscaping: 8 signs, 8 units/sign, \$2,000.00/unit, \$2,000.00/sign, \$16,000.00 total												
A103 Contingency												
A104 Steel-Excavation-Concrete												
A105 No of Signs, Units Per Sign, Cost Per Sign, Cost for No of Signs (2-8), Proposed Expenditure												
A106 Option No 1												
A108 Contingency: 4 signs, 4 units/sign, \$1,100.00/unit, \$1,100.00/sign, \$4,400.00 total												
A109 Option No 2												
A110 Contingency: 5 signs, 5 units/sign, \$1,100.00/unit, \$1,100.00/sign, \$5,500.00 total												
A111 Contingency												
A112 Landscaping: 6 signs, 6 units/sign, \$1,100.00/unit, \$1,100.00/sign, \$6,600.00 total												
A113 Option No 4												
A114 Contingency: 7 signs, 7 units/sign, \$1,100.00/unit, \$1,100.00/sign, \$7,700.00 total												
A115 Option No 5												
A116 Contingency: 8 signs, 8 units/sign, \$1,100.00/unit, \$1,100.00/sign, \$8,800.00 total												
<b>TOTAL PROJECT COST</b>											<b>\$ 87,029.26</b>	

**RESOLUTION NO.** \_\_\_\_\_

**A RESOLUTION ACCEPTING A PROPOSAL FROM PRO MASONRY EXPRESS INC FOR THE 36-INCH PEIR CAPS, IN AN AMOUNT NOT TO EXCEED \$5,200.00 FOR THE CITY'S ENTRANCE SIGNS**

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, as follows:**

**SECTION 1:** The City Council of the City of Darien does hereby accept a proposal from Pro Masonry Express Inc. for the 36-inch Pier Caps, in an amount not to exceed \$5,200.00 for the City's Entrance Signs, a copy of which is attached hereto as "Exhibit A" and is by this reference expressly incorporated herein.

**SECTION 2:** This Resolution shall be in full force and effect from and after its passage and approval as provided by law.

**PASSED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

**AYES:** \_\_\_\_\_

**NAYS:** \_\_\_\_\_

**ABSENT:** \_\_\_\_\_

**APPROVED BY THE MAYOR OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

\_\_\_\_\_  
KATHLEEN MOESLE WEAVER, MAYOR

ATTEST:

\_\_\_\_\_  
JOANNE E. RAGONA, CITY CLERK

APPROVED AS TO FORM:

\_\_\_\_\_  
CITY ATTORNEY

THIS FORM MUST BE COMPLETED AND RETURNED TO 1702 PLAINFIELD ROAD  
BY NO LATER THAN JUNE 26, 2012 - 11 A.M.

ATTN: PUBLIC WORKS

QUESTIONS MAY BE DIRECTED TO MUNICIPAL SERVICES AT 630-353-8106

Submitted by: MARTIN MRUGALA

Vendor Name: PRO MASONRY EXPRESS INC.

Address: 9 ACADIA ST. STRATFORD, CT 06107

Date: 6/21/12

Phone #: (733) 343 1371

Fax #: (670) 855 0929

E-mail Address: PRO MASONRY EXPRESS INC.

Authorized Signature: *M. Mruga*

Option No. 1 -  4 - 34-inch Square Pier  
Epoxy for setting  
Delivery

Quote Amount: \$ 1,200

Quote Amount in Writing: Twelve Hundred

Option No. 2 -  5 - 34-inch Square Pier  
Epoxy for setting  
Delivery

Quote Amount: \$ 1,500

Quote Amount in Writing: Fifteen Hundred

Option No. 3 -  6 - 34-inch Square Pier  
Epoxy for setting  
Delivery

Quote Amount: \$ 1,800

Quote Amount in Writing: Eighteen Hundred

Square Pier (CAP)  
Submitted by (Company Name): PRO MASONRY EXPRESS INC. 2

Option No. 4 - 4 36-inch Square Pier  
Epoxy for setting  
Delivery  
\$ 325<sup>00</sup> per unit

Quote Amount: \$1,300

Quote Amount in Writing: \_\_\_\_\_

Option No. 5 - 5 36-inch Square Pier NOT APPLICABLE  
Epoxy for setting  
Delivery  
\$325<sup>00</sup> per unit

Quote Amount: \$1,625

Quote Amount in Writing: \_\_\_\_\_

Option No. 6 - 6 36-inch Square Pier  
Epoxy for setting  
Delivery  
\$325<sup>00</sup> per unit

Quote Amount: \$1,950

Quote Amount in Writing: \_\_\_\_\_

The vendor shall provide three references with phone numbers below:

1. MIKE HODG (OWNER) (708) 774 5070
2. LOU PUG (PUG DEVELOPMENT) (847) 456 9793
3. JOE LADWIST (7CS CONSTRUCTION) (847) 987 4658

Acceptance of Quote:

By: \_\_\_\_\_ Date: \_\_\_\_\_  
City of Darien

Authorized and Accepted:

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

Square Pier (CAR)  
Submitted by (Company Name): PRO MASONRY EXPRESS 3  
WC.

**AGENDA MEMO**  
**Municipal Services Committee Meeting**  
**July 23, 2012**

**ISSUE STATEMENT**

A resolution accepting a proposal from Pioneer Construction Inc. for the masonry work-  
placement of the concrete block and cultured stone in an amount not to exceed \$14,133.36 for  
the City's Entrance Signs.

**BACKGROUND/HISTORY**

The 2012-13 Budget calls out for the removal and replacement of the City Entrance Monument  
Signs located within DuPage County right of ways. The masonry work would include the  
installation of the concrete blocks and cultured stone. The vendor will also be combining efforts to  
install the pier caps and the monument signs. The vendor would be responsible for providing the  
labor and equipment to complete the work at the following locations:

1. 75<sup>th</sup> Street west of Sawmill Creek - (fronting Hinsdale South High School-Westbound
2. Cass Avenue - 6800 Block-Southbound
3. Cass Avenue - North Frontage Rd (Hinswood Dr)-Northbound
4. Lemont Road - North Frontage Rd/Cheese Rd and Lemont Rd-Northbound
5. Plainfield/83<sup>rd</sup> Street - East of Woodward Ave-Darien/Woodridge jurisdiction
6. 87<sup>th</sup> Street-(Boughton Rd) and Ailsworth Drive-Eastbound
7. Plainfield Road - Fronting Crest Basin-Westbound
8. 75<sup>th</sup> Street - east of Lemont Road-Westbound

Competitive quotes were requested, and staff received four (4) competitive quotes, attached as  
Attachment A. Staff requested options for pricing to complete the masonry task for up to 5  
signs. Since the overall pricing for the monument signs was under the proposed budget cost, the  
masonry task was increased to complete all 8 signs. The lowest competitive total cost quote was  
provided by Pioneer Construction Inc. See Attachment 2 for the Cost Summary as presented in  
taupe (A62 – A78) for Pioneer Construction.

The proposed expenditure would be from the following account:

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	FY 12-13 BUDGET	YEAR TO DATE TO BE EXPENDED	PROPOSED EXPENDITURE	PROPOSED BALANCE
25-35-4815	Welcome Sign Replacements May 7,2012	\$ 108,000.00	\$ 0	\$ 18,000.00	\$ 90,000.00
25-35-4815	Concrete Footing and Walls	N/A	\$ 18,000.00	\$ 15,050.00	\$ 74,950.00
25-35-4815	Concrete Blocks	N/A	\$ 33,050.00	\$ 1,265.90	\$ 73,684.10
25-35-4815	Cultured Stone	N/A	\$ 34,315.90	\$ 11,650.00	\$ 62,034.10
25-35-4815	Pier Caps	N/A	\$ 45,965.90	\$ 5,200.00	\$ 56,834.10

25-35-4815	Masonry	N/A	\$ 51,165.90	\$ 14,133.36	\$ 42,700.74
------------	---------	-----	--------------	--------------	--------------

**STAFF RECOMMENDATION**

Staff recommends approval of the resolution accepting a proposal from Pioneer Construction Inc. for the masonry work-placement of the concrete block and cultured stone in an amount not to exceed \$14,133.36 for the City's Entrance Signs.

**ALTERNATE CONSIDERATION**

As directed by the Municipal Services Committee.

**DECISION MODE**

This item will be placed on the August 6, 2012 City Council agenda for formal approval.







A79	Monument Signs	Signs	Memo Stone										
A80		Awarded Vendor											
A81		No of Signs	Units Per Sign	Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
A82					2	3	4	5	6	7	8		
A83			No of Units	Unit Cost									
A84	Option No 2												
A85	5-Foot Width Monument Sign	3	3	\$ 1,700.00	\$ 1,700.00	\$ 5,100.00							\$ 5,100.00
A86	Option No 3												
A87	6-Foot Width Monument Sign	5	5	\$ 1,980.00	\$ 1,980.00			\$ 9,900.00					\$ 9,900.00
A88	Landscaping												
A89		Awarded Vendor	Schramm Landscaping										
A90		No of Signs	Units Per Sign	Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
A91			1		2	3	4	5	6	7	8		
A92			No of Units	Unit Cost									
A93	Option No 1												
A94	Landscaping	4	4	\$ 2,000.00	\$ 2,000.00	\$ 8,000.00							
A95	Option No 2												
A96	Landscaping	5	5	\$ 2,000.00	\$ 2,000.00			\$ 10,000.00					
A97	Option No 3												
A98	Landscaping	6	6	\$ 2,000.00	\$ 2,000.00				\$ 12,000.00				
A99	Option No 4												
A100	Landscaping	7	7	\$ 2,000.00	\$ 2,000.00					\$ 14,000.00			
A101	Option No 5												
A102	Landscaping	8	8	\$ 2,000.00	\$ 2,000.00						\$ 16,000.00	\$ 16,000.00	
A103	Contingency												
A104	Steel Excavation-Concrete	No of Signs	Units Per Sign	Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
A105			1		2	3	4	5	6	7	8		
A106			No of Units	Unit Cost									
A107	Option No 1												
A108	Contingency	4	4	\$ 1,100.00	\$ 1,100.00	\$ 4,400.00							
A109	Option No 2												
A110	Contingency	5	5	\$ 1,100.00	\$ 1,100.00			\$ 5,500.00					
A111	Contingency												
A112	Landscaping	6	6	\$ 1,100.00	\$ 1,100.00				\$ 6,600.00				
A113	Option No 4												
A114	Contingency	7	7	\$ 1,100.00	\$ 1,100.00					\$ 7,700.00			
A115	Option No 5												
A116	Contingency	8	8	\$ 1,100.00	\$ 1,100.00						\$ 8,800.00	\$ 8,800.00	
<b>TOTAL PROJECT COST</b>												<b>\$ 87,099.26</b>	

RESOLUTION NO. \_\_\_\_\_

**A RESOLUTION ACCEPTING A PIONEER CONSTRUCTION INC FOR THE MASONRY WORK-PLACEMENT OF THE CONCRETE BLOCK AND CULTURED STONE, IN AN AMOUNT NOT TO EXCEED \$14,133.36 FOR THE CITY'S ENTRANCE SIGNS**

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, as follows:**

**SECTION 1:** The City Council of the City of Darien does hereby accept a proposal from Pioneer Construction Inc. for the masonry work-placement of the concrete block and cultured stone, in an amount not to exceed \$14,133.36 for the City's Entrance Signs, a copy of which is attached hereto as "Exhibit A" and is by this reference expressly incorporated herein.

**SECTION 2:** This Resolution shall be in full force and effect from and after its passage and approval as provided by law.

**PASSED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

**AYES:** \_\_\_\_\_

**NAYS:** \_\_\_\_\_

**ABSENT:** \_\_\_\_\_

**APPROVED BY THE MAYOR OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

\_\_\_\_\_  
KATHLEEN MOESLE WEAVER, MAYOR

ATTEST:

\_\_\_\_\_  
JOANNE E. RAGONA, CITY CLERK

APPROVED AS TO FORM:

\_\_\_\_\_  
CITY ATTORNEY

THIS FORM MUST BE COMPLETED AND RETURNED TO 1702 PLAINFIELD ROAD BY NO LATER THAN JUNE 26, 2012 - 11 A.M.  
ATTN: PUBLIC WORKS  
QUESTIONS MAY BE DIRECTED TO MUNICIPAL SERVICES AT 630-353-8106

Submitted by: EDWARD SZARANSKI

Vendor Name: PIONEER CONSTRUCTION INC.

Address: 968 STONEHEDGE LN PAL IL

Date: 6-25-12

Phone #: 847-542-8382

Fax #: 847-705-5582

E-mail Address: PIONEERCONSTRUCTIONINC@YAHOO.COM

Authorized Signature: [Signature]

Option No. 1 - Construction of 8 Piers for 4 sign locations

Quote Amount: \$ 7,000<sup>00</sup>

Quote Amount in Writing: SEVEN THOUSAND DOLLARS,

Option No. 2 - Construction of 10 Piers for 5 sign locations

Quote Amount: \$ 8,800<sup>00</sup>

Quote Amount in Writing: EIGHT THOUSAND EIGHT HUNDRED DOLLARS,

Option No. 3 - Construction of 12 Piers for 6 sign locations

Quote Amount: \$ 10,600<sup>00</sup>

Quote Amount in Writing: TEN THOUSAND SIX HUNDRED DOLLARS,

Masonry Work

Submitted by (Company Name): PIONEER CONSTRUCTION INC

The vendor shall provide three references with phone numbers below and provide documentation that the vendor has been a mason for a minimal of 10 years:

- 1. WALTER DANIELS CONST. 773-775-0170
- 2. HAGGE CONSTRUCTION 630-904-4200
- 3. CARLSON BROTHERS BUILDERS 773-237-2269

Acceptance of Quote:

By: \_\_\_\_\_ Date: \_\_\_\_\_  
City of Darien

Authorized and Accepted:

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Masonry Work

Submitted by (Company Name): PIONEER CONSTRUCTION INC

**AGENDA MEMO**  
**Municipal Services Committee Meeting**  
**July 23, 2012**

**ISSUE STATEMENT**

A resolution accepting a proposal from Meno Stone Company for the City's stone monument signs in an amount not to exceed \$15,000 for the City's Entrance Signs.

**BACKGROUND/HISTORY**

The 2012-13 Budget calls out for the removal and replacement of the City's Entrance Monument Signs located within DuPage County right of ways. The pre-cast stone monuments will be set and secured between the pillars. Attached and labeled as Attachment 1 please find the detail for the sign. The City staff and the mason will be setting the monument signs. The purchase would allow the City to purchase 8 monument signs (5 signs at a width of 6-foot and 3 signs at a width of 5-foot) for the following locations:

1. 75<sup>th</sup> Street west of Sawmill Creek - (fronting Hinsdale South High School-Westbound
2. Cass Avenue - 6800 Block-Southbound
3. Cass Avenue - North Frontage Rd (Hinswood Dr)-Northbound
4. Lemont Road - North Frontage Rd/Cheese Rd and Lemont Rd-Northbound
5. Plainfield/83<sup>rd</sup> Street - East of Woodward Ave-Darien/Woodridge jurisdiction
6. 87<sup>th</sup> Street-(Boughton Rd) and Ailsworth Drive-Eastbound
7. Plainfield Road - Fronting Crest Basin-Westbound
8. 75<sup>th</sup> Street - east of Lemont Road-Westbound

Competitive quotes were requested, and staff received one quote, attached as Attachment A. Staff had contacted the invited competitors and inquired why they did not provide a quote. Responses ranged from that they would be utilizing Meno Stone as their supplier and others replied that the signs were too large for them to handle. Staff requested options for pricing for various sizes. Since the overall pricing for the monument signs was under the proposed budget cost, materials were increased to complete all 8 signs and based on the unit price cost as presented in Attachment 2 for the Cost Summary as presented in blue (A79 – A87) for Meno Stone Company.

The proposed expenditure would be from the following account:

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	FY 12-13 BUDGET	YEAR TO DATE TO BE EXPENDED	PROPOSED EXPENDITURE	PROPOSED BALANCE
25-35-4815	Welcome Sign Replacements May 7,2012	\$ 108,000.00	\$ 0	\$ 18,000.00	\$ 90,000.00
25-35-4815	Concrete Footing and Walls	N/A	\$ 18,000.00	\$ 15,050.00	\$ 74,950.00
25-35-4815	Concrete Blocks	N/A	\$ 33,050.00	\$ 1,265.90	\$ 73,684.10
25-35-4815	Cultured Stone	N/A	\$ 34,315.90	\$ 11,650.00	\$ 62,034.10

25-35-4815	Pier Caps	N/A	\$ 45,965.90	\$ 5,200.00	\$ 56,834.10
25-35-4815	Masonry	N/A	\$ 51,165.90	\$ 14,133.36	\$ 42,700.74
25-35-4815	Precast Masonry Signs	N/A	\$ 65,299.26	\$ 15,000.00	\$ 27,700.74

**STAFF RECOMMENDATION**

The staff recommends a resolution accepting a proposal from Meno Stone Company for the City's stone monument signs in an amount not to exceed \$15,000 for the City's Entrance Signs.

**ALTERNATE CONSIDERATION**

As directed by the Municipal Services Committee.

**DECISION MODE**

This item will be placed on the August 6, 2012 City Council agenda for formal approval.

**CITY OF DARIEN PUBLIC WORKS  
1702 PLAINFIELD ROAD  
DARIEN, IL 60561**

**Attachment A**

SEALED BID: 2012 Monument Signs

OPENING DATE/TIME: June 26, 2012 @ 11:00 a.m.

Option	DESCRIPTION	Unit	Pioneer Construction		Unit Cost
			Unit Cost	Unit Cost	
1	Sign 4 x 4 x 3.6	1	\$ 1,420.00	\$ 1,420.00	\$ -
2	Sign 5 x 4 x 3.6	1	\$ 1,700.00	\$ 1,700.00	\$ -
3	Sign 6 x 4 x 3.6	1	\$ 1,980.00	\$ 1,980.00	\$ -
4	Sign 7 x 4 x 3.6	1	\$ 2,260.00	\$ 2,260.00	
5	Sign 8 x 4 x 3.6	1	\$ 2,540.00	\$ 2,540.00	
					\$ -



THICKNESS 4" EAST STONE  
WITH REBAR (COATED)  
BACK - SMOOTH FINISH

2" ROUND OVER  
FRONT & BACK

ETCHED BORDER  
3/4" DEPTH X 3/4"

10" - 12"

2" Width Max  
Letters to Fit Width of Sign

3" - 5" Letters  
Sandblasted with an Epoxy  
Paint Coat Black

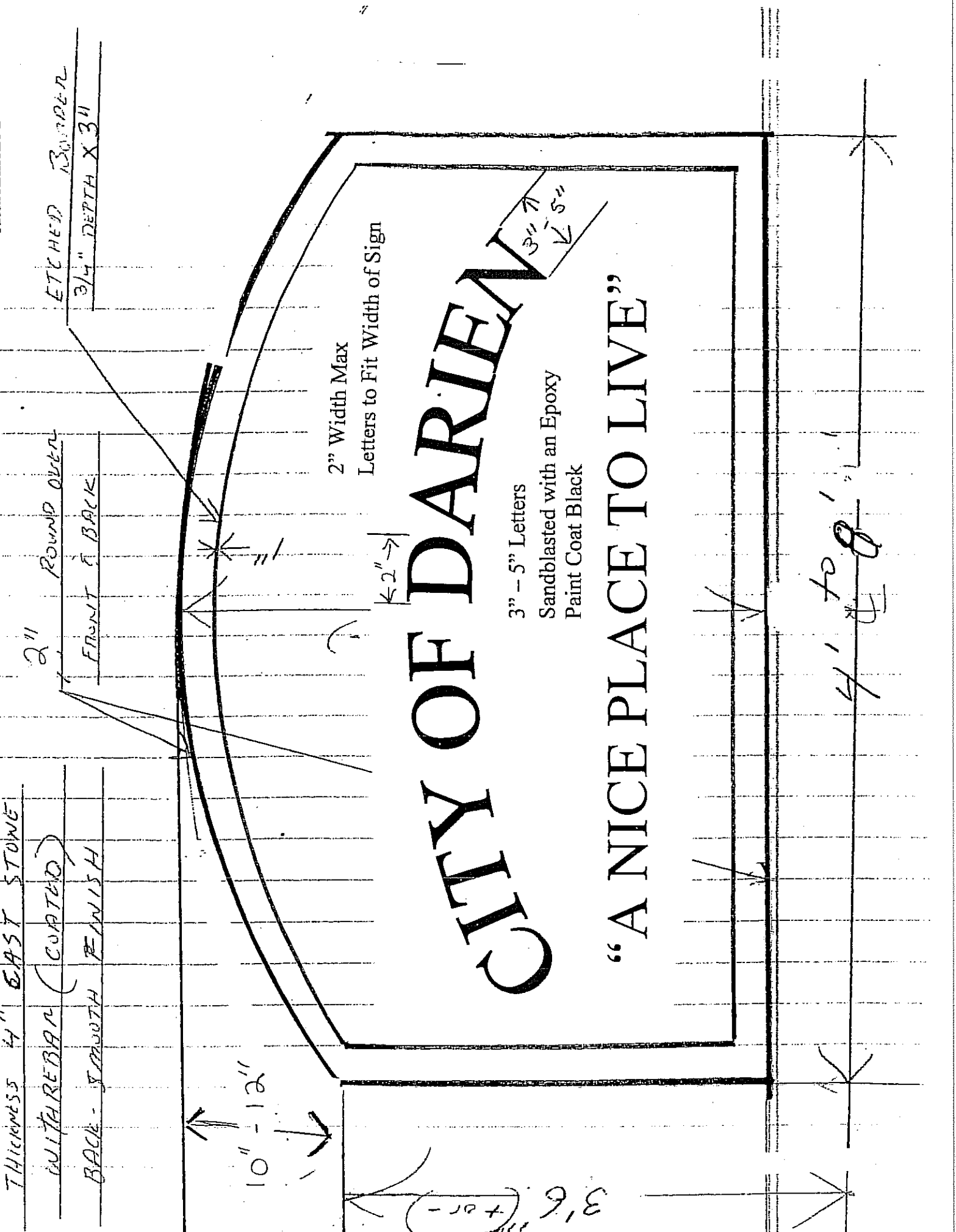
CITY OF DARIEN  
"A NICE PLACE TO LIVE"

2"

3" - 5" Letters  
Sandblasted with an Epoxy  
Paint Coat Black

4' to 8'

3' 6" (+ or -)





A79	Monument Signs	Signs	Memo Stone										
A80		Awarded Vendor											
A81		No of Signs	Units Per Sign	Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
A82			1		2	3	4	5	6	7	8		
A83		No of Units	Unit Cost										
A84	Option No 2												
A85	5-Foot Width Monument Sign	3	3	\$ 1,700.00	\$ 1,700.00		\$ 5,100.00					\$ 5,100.00	
A86	Option No 3												
A87	6-Foot Width Monument Sign	5	5	\$ 1,980.00	\$ 1,980.00			\$ 9,900.00				\$ 9,900.00	
A88	Landscaping												
A89		Awarded Vendor	Schramm Landscaping										
A90		No of Signs	Units Per Sign	Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure	
A91			1		2	3	4	5	6	7	8		
A92		No of Units	Unit Cost										
A93	Option No 1												
A94	Landscaping	4	4	\$ 2,000.00	\$ 2,000.00		\$ 8,000.00						
A95	Option No 2												
A96	Landscaping	5	5	\$ 2,000.00	\$ 2,000.00			\$ 10,000.00					
A97	Option No 3												
A98	Landscaping	6	6	\$ 2,000.00	\$ 2,000.00				\$ 12,000.00				
A99	Option No 4												
A100	Landscaping	7	7	\$ 2,000.00	\$ 2,000.00					\$ 14,000.00			
A101	Option No 5												
A102	Landscaping	8	8	\$ 2,000.00	\$ 2,000.00						\$ 16,000.00	\$ 16,000.00	
A103	Contingency												
A104	Steel-Excavation-Concrete	No of Signs	Units Per Sign	Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure	
A105			1		2	3	4	5	6	7	8		
A106		No of Units	Unit Cost										
A107	Option No 1												
A108	Contingency	4	4	\$ 1,100.00	\$ 1,100.00		\$ 4,400.00						
A109	Option No 2												
A110	Contingency	5	5	\$ 1,100.00	\$ 1,100.00			\$ 5,500.00					
A111	Contingency												
A112	Landscaping	6	6	\$ 1,100.00	\$ 1,100.00				\$ 6,600.00				
A113	Option No 4												
A114	Contingency	7	7	\$ 1,100.00	\$ 1,100.00					\$ 7,700.00			
A115	Option No 5												
A116	Contingency	8	8	\$ 1,100.00	\$ 1,100.00						\$ 8,800.00	\$ 8,800.00	
<b>TOTAL PROJECT COST</b>												<b>\$ 87,099.26</b>	

**RESOLUTION NO.** \_\_\_\_\_

**A RESOLUTION ACCEPTING A PROPOSAL FROM MENO STONE COMPANY FOR THE CITY'S TONE MONUMENT SIGNS IN AMOUNT NOT TO EXCEED \$15,000.00 FOR THE CITY'S ENTRANCE SIGNS**

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, as follows:**

**SECTION 1:** The City Council of the City of Darien does hereby accept a proposal from Meno Stone Company for the City's tone monument signs in an amount not to exceed \$15,000.00 for the City's Entrance Signs, a copy of which is attached hereto as "Exhibit A" and is by this reference expressly incorporated herein.

**SECTION 2:** This Resolution shall be in full force and effect from and after its passage and approval as provided by law.

**PASSED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

**AYES:** \_\_\_\_\_

**NAYS:** \_\_\_\_\_

**ABSENT:** \_\_\_\_\_

**APPROVED BY THE MAYOR OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

\_\_\_\_\_  
KATHLEEN MOESLE WEAVER, MAYOR

**ATTEST:**

\_\_\_\_\_  
JOANNE E. RAGONA, CITY CLERK

**APPROVED AS TO FORM:**

\_\_\_\_\_  
CITY ATTORNEY



**AGENDA MEMO**  
**Municipal Services Committee Meeting**  
**July 23, 2012**

**ISSUE STATEMENT**

A resolution accepting a proposal from Schramm Landscaping Inc. to supply selected plant species, planting and mulching for the landscaping in an amount not to exceed \$16,000.00 for the City's Entrance Signs.

**BACKGROUND/HISTORY**

The 2012-13 Budget calls out for the removal and replacement of the City Entrance Monument Signs located within DuPage County right of ways. The landscaping consists of the vendor to provide various plant species, planting and mulching of 15-foot radius at each sign location and as per the attachment labeled as Attachment 1. City staff would be responsible for the watering. The vendor would be responsible for providing the labor and material to complete the landscaping at the following locations:

1. 75<sup>th</sup> Street west of Sawmill Creek - (fronting Hinsdale South High School-Westbound
2. Cass Avenue - 6800 Block-Southbound
3. Cass Avenue - North Frontage Rd (Hinswood Dr)-Northbound
4. Lemont Road - North Frontage Rd/Cheese Rd and Lemont Rd-Northbound
5. Plainfield/83<sup>rd</sup> Street - East of Woodward Ave-Darien/Woodridge jurisdiction
6. 87<sup>th</sup> Street-(Boughton Rd) and Ailsworth Drive-Eastbound
7. Plainfield Road - Fronting Crest Basin-Westbound
8. 75<sup>th</sup> Street - east of Lemont Road-Westbound

Competitive quotes were requested, and staff received four (4) competitive quotes, attached as Attachment A. Staff requested options for landscaping up to five (5) signs. Since the overall pricing for the monument signs was under the proposed budget costs, landscaping was increased to include all eight (8) signs. The lowest competitive total cost quote was provided by Schramm Landscaping Inc. References for the vendor was verified with satisfactory results. Please see Attachment 2 for the Cost Summary as presented in gray (A88 – A102) for Schramm Landscaping.

The proposed expenditure would be from the following account:

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	FY 12-13 BUDGET	YEAR TO DATE TO BE EXPENDED	PROPOSED EXPENDITURE	PROPOSED BALANCE
25-35-4815	Welcome Sign Replacements May 7,2012	\$ 108,000.00	\$ 0	\$ 18,000.00	\$ 90,000.00
25-35-4815	Concrete Footing and Walls	N/A	\$ 18,000.00	\$ 15,050.00	\$ 74,250.00
25-35-4815	Concrete Blocks	N/A	\$ 33,050.00	\$ 1,265.90	\$ 73,684.10
25-35-4815	Cultured Stone	N/A	\$ 34,315.90	\$ 11,650.00	\$ 62,034.10

25-35-4815	Pier Caps	N/A	\$ 45,965.90	\$ 5,200.00	\$ 56,834.10
25-35-4815	Masonry	N/A	\$ 51,165.90	\$ 14,133.36	\$ 42,700.74
25-35-4815	Precast Masonry Signs	N/A	\$ 65,299.26	\$ 15,000.00	\$ 27,700.74
25-35-4815	Landscaping	N/A	\$ 80,299.26	\$ 16,000.00	\$ 11,700.74

**STAFF RECOMMENDATION**

The staff recommends accepting a proposal from Schramm Landscaping Inc. to supply selected plant species, planting and mulching for the landscaping in an amount not to exceed \$16,000.00 for the City's Entrance Signs.

**ALTERNATE CONSIDERATION**

As directed by the Municipal Services Committee.

**DECISION MODE**

This item will be placed on the August 6, 2012 City Council agenda for formal approval.

**PLANT LIST:**

- 6 HYDRANGEAS 'ANNABELLE'
- 8 BOXWOODS 'GREEN VELVET'
- 5 ROSES 'NEARLY WILD'

WHITE FLOWERS  
 GREEN ALL YEAR  
 PINK

**PERENNIALS:**

- 14 GRASS 'KARL FORESTER' 4-6'
- 9 SEDUM 'AUTUMN FIRE' 24"
- 12 BLACKKEYED SUSANS 30-36"
- 14 DWARF DAISY 'SNOWCAP' 15- 18"
- 14 DAYLILIES MINI STELLA 15"
- 14 PURPLE CONEFLOWERS 36"

PINK TURNING BRONZE  
 YELLOW  
 WHITE  
 YELLOW REBLOOMS  
 ROSE-PURPLE

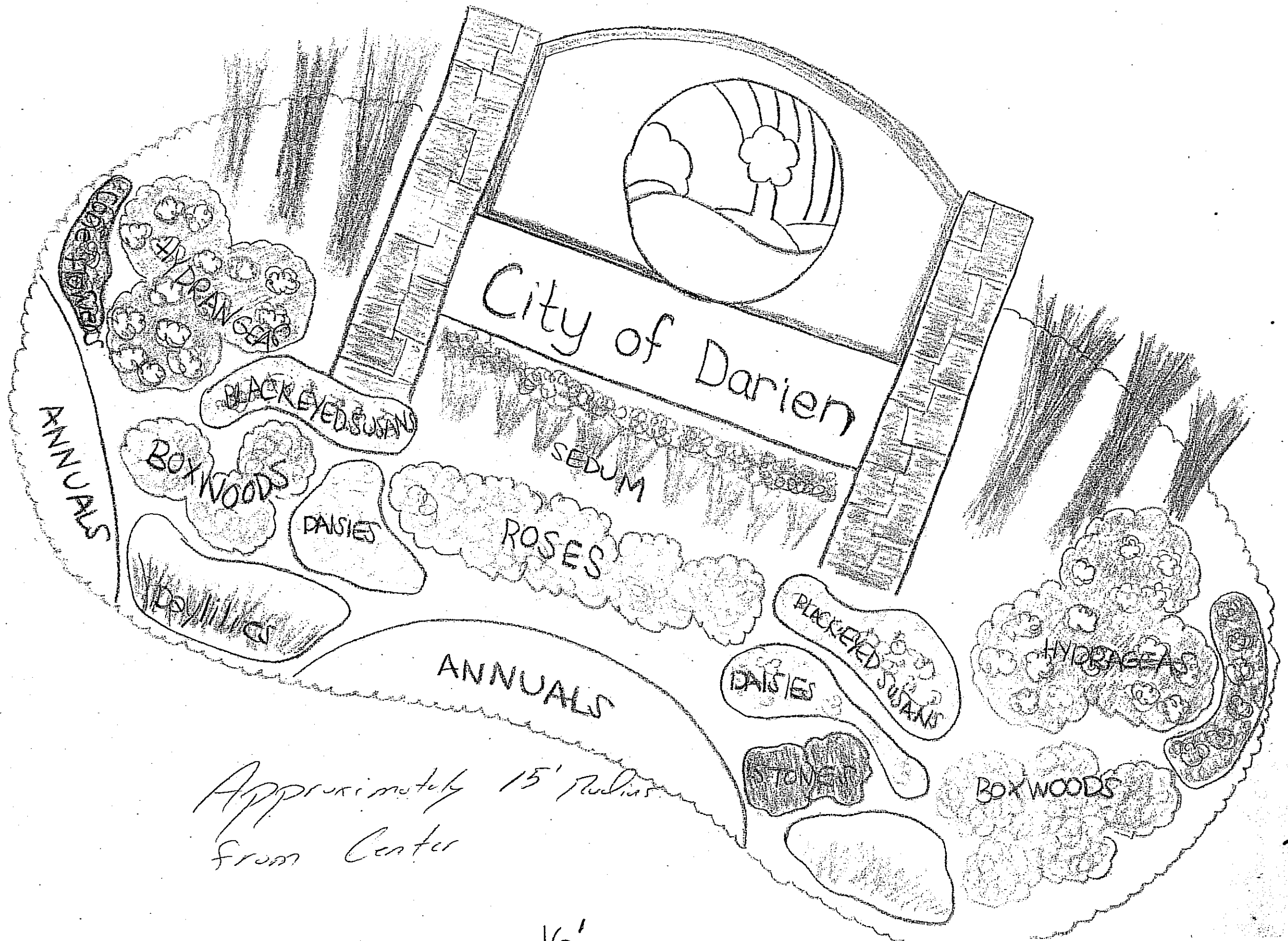
(SIDES AND BACK OF :  
 AUGUST - SEPTEMBER  
 JULY - SEPTEMBER  
 JUNE - AUGUST  
 JUNE - SEPTEMBER  
 JULY - SEPTEMBER

**SIGN:**

CITY OF DARIEN WITH LOGO IN ARCHED MIDDLE SECTION  
 MORTARED FLAGSTONE SMOOTH BRICKS FOR POSTS  
 WIDTH OF SIGN: 8'- 1/5'  
 LOGO IN CEMENT WITH NICE EDGE

- BRICK PILLARS 6' TALL
- PILLARS WIDTH 3' x 3'
- CAST STONE CAPS ON PILLARS





Approximately 15' Radius  
From Center

**CITY OF DARIEN PUBLIC WORKS  
1702 PLAINFIELD ROAD  
DARIEN, IL 60561**

**Attachment A**

SEALED BID: 2012 Monument Signs - Landscaping

OPENING DATE/TIME: June 26, 2012 @ 11:00 a.m.

Option	DESCRIPTION	Schramm Landscaping		Fox Chase Landscaping Ltd		Country Landscape & Supply Inc		Beary Landscaping	
1	Landscaping for 4 signs	\$ 8,000.00		\$ 13,672.00		\$ 13,187.00		\$ 10,044.00	
2	Landscaping for 5 signs	\$ 10,000.00		\$ 16,740.00		\$ 16,483.75		\$ 12,555.00	
3	Landscaping for 6 signs	\$ 12,000.00		\$ 19,808.00		\$ 19,780.50		\$ 15,066.00	
		\$ -		\$ -		\$ -		\$ -	



A79	Monument Signs	Signs	Memo Stone										
A89		Awarded Vendor			Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
A81		No of Signs	Units Per Sign	1		2	3	4	5	6	7	8	
A82													
A83			No of Units	Unit Cost									
A84	Option No 2												
A85	5-Foot Width Monument Sign	3	3	\$ 1,700.00	\$ 1,700.00		\$ 5,100.00						\$ 5,100.00
A86	Option No 3												
A87	6-Foot Width Monument Sign	5	5	\$ 1,980.00	\$ 1,980.00				\$ 9,900.00				\$ 9,900.00
A88	Landscaping												
A89		Awarded Vendor	Schramm Landscaping		Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
A90		No of Signs	Units Per Sign	1		2	3	4	5	6	7	8	
A91													
A92			No of Units	Unit Cost									
A93	Option No 1												
A94	Landscaping	4	4	\$ 2,000.00	\$ 2,000.00		\$ 8,000.00						
A95	Option No 2								\$ 10,000.00				
A96	Landscaping	5	5	\$ 2,000.00	\$ 2,000.00								
A97	Option No 3												
A98	Landscaping	6	6	\$ 2,000.00	\$ 2,000.00				\$ 12,000.00				
A99	Option No 4												
A100	Landscaping	7	7	\$ 2,000.00	\$ 2,000.00					\$ 14,000.00			
A101	Option No 5												
A102	Landscaping	8	8	\$ 2,000.00	\$ 2,000.00						\$ 16,000.00		\$ 16,000.00
A103	Contingency												
A104	Steel-Excavation-Concrete	No of Signs	Units Per Sign	1	Cost Per Sign	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Cost for No of Signs	Proposed Expenditure
A105						2	3	4	5	6	7	8	
A106			No of Units	Unit Cost									
A107	Option No 1												
A108	Contingency	4	4	\$ 1,100.00	\$ 1,100.00		\$ 4,400.00						
A109	Option No 2								\$ 5,500.00				
A110	Contingency	5	5	\$ 1,100.00	\$ 1,100.00								
A111	Contingency												
A112	Landscaping	6	6	\$ 1,100.00	\$ 1,100.00				\$ 6,600.00				
A113	Option No 4												
A114	Contingency	7	7	\$ 1,100.00	\$ 1,100.00					\$ 7,700.00			
A115	Option No 5												
A116	Contingency	8	8	\$ 1,100.00	\$ 1,100.00						\$ 8,800.00		\$ 8,800.00
<b>TOTAL PROJECT COST</b>												<b>\$ 87,099.26</b>	

RESOLUTION NO. \_\_\_\_\_

**A RESOLUTION ACCEPTING A PROPOSAL FROM SCHRAMM LANDSCAPING INC. TO SUPPLY SELECTED PLANT SPECIES, PLANTING AND MULCHING FOR THE LANDSCAPING IN AN AMOUNT NOT TO EXCEED \$16,000.00 FOR THE CITY'S ENTRANCE SIGNS**

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, as follows:**

**SECTION 1:** The City Council of the City of Darien does hereby accept a proposal from Schramm Landscaping Inc to supply selected plant species, planting and mulching for the landscaping in an amount not to exceed \$16,000.00 for the City's Entrance Signs, a copy of which is attached hereto as "Exhibit A" and is by this reference expressly incorporated herein.

**SECTION 2:** This Resolution shall be in full force and effect from and after its passage and approval as provided by law.

**PASSED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

**AYES:** \_\_\_\_\_

**NAYS:** \_\_\_\_\_

**ABSENT:** \_\_\_\_\_

**APPROVED BY THE MAYOR OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

\_\_\_\_\_  
KATHLEEN MOESLE WEAVER, MAYOR

ATTEST:

\_\_\_\_\_  
JOANNE E. RAGONA, CITY CLERK

APPROVED AS TO FORM:

\_\_\_\_\_  
CITY ATTORNEY

THIS FORM MUST BE COMPLETED AND RETURNED TO 1702 PLAINFIELD ROAD BY NO LATER THAN JUNE 26, 2012 - 11 A.M. ATTN: PUBLIC WORKS QUESTIONS MAY BE DIRECTED TO MUNICIPAL SERVICES AT 630-353-8106

Submitted by: ERV SCHRAMM

Vendor Name: SCHRAMM LANDSCAPING

Address: 326 W 57<sup>TH</sup> ST. HINSDALE IL 60521

Phone #: 630 655 2646 Fax #: 630 655 7089

E-mail Address: INFO @ SCHRAMM LANDSCAPING . COM

Authorized Signature: EW Sch

Option No. 1 Landscaping for 4 sign locations

Quote Amount: \$ 8,000<sup>00</sup> / \$ 2,000<sup>00</sup> PER SIGN

Quote Amount in Writing: EIGHT THOUSAND

Option No. 2 - Landscaping for 5 sign locations

Quote Amount: \$ 10,000<sup>00</sup>

Quote Amount in Writing: TEN THOUSAND

Option No. 3 - Landscaping for 6 sign locations

Quote Amount: \$ 12,000

Quote Amount in Writing: TWELVE THOUSAND

The vendor shall provide three references with phone numbers below:

- 1. THE HIDDEN GARDENS 630 655 8283
- 2. TAMELINGS INC 630 323 7171
- 3. HINSDALE NURSERY 630 323 1411

Acceptance of Quote:

By: \_\_\_\_\_ Date: \_\_\_\_\_  
City of Darien

Authorized and Accepted:

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Landscaping

**AGENDA MEMO**  
**Municipal Services Committee Meeting**  
**July 23, 2012**

**ISSUE STATEMENT**

A motion authorizing expenditures related to the City's Entrance Sign Project for steel brackets, stone, asphalt, soil excavation analysis, dump fees, trucking and a contingency in an amount not to exceed \$8,800.00 for the City's Entrance Signs.

**BACKGROUND/HISTORY**

The 2012-13 Budget calls out for the removal and replacement of the City's Entrance Monument Signs located within DuPage County right of ways. The project calls out for the City to be the general contractor and competitive quotes were secured for the various materials and selective outsourcing. There are additional expenditures that will be required and are described below including a contingency. Please note that all of the extraordinary items, excluding the steel were bid out earlier this year. Below and attached is a summary of the proposed extraordinary expenditures as they relate to the Monument Sign Project:

Steel Brackets	\$1,500
Stone	\$1,405
Asphalt	\$ 885
Analytical Testing	\$1,400
Dump Fees	\$ 220
Trucking	\$ 390
Miscellaneous-Lump Sum	<u>\$3,000</u>
<b>Total Extraordinary Expenses</b>	<b>\$8,800</b>

The proposed expenditure would be from the following account:

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	FY 12-13 BUDGET	YEAR TO DATE TO BE EXPENDED	PROPOSED EXPENDITURE	PROPOSED BALANCE
25-35-4815	Welcome Sign Replacements May 7,2012	\$ 108,000.00	\$ 0	\$ 18,000.00	\$ 90,000.00
25-35-4815	Concrete Footing and Walls	N/A	\$ 18,000.00	\$ 15,050.00	\$ 74,250.00
25-35-4815	Concrete Blocks	N/A	\$ 33,050.00	\$ 1,265.90	\$ 73,684.10
25-35-4815	Cultured Stone	N/A	\$ 34,315.90	\$ 11,650.00	\$ 62,034.10
25-35-4815	Pier Caps	N/A	\$ 45,965.90	\$ 5,200.00	\$ 56,834.10
25-35-4815	Masonry	N/A	\$ 51,165.90	\$ 14,133.36	\$ 42,700.74
25-35-4815	Precast Masonry Signs	N/A	\$ 65,299.26	\$ 15,000.00	\$ 27,700.74

25-35-4815	Landscaping	N/A	\$ 80,299.26	\$ 16,000.00	\$ 11,700.74
25-35-4815	Misc and Contingency	N/A	\$ 96,299.26	\$ 8,800.00	\$ 2,900.74

**STAFF RECOMMENDATION**

The staff recommends a motion authorizing expenditures related to the City's Entrance Sign Projects in an amount not to exceed \$8,800 for soil excavation analysis, dump fees, trucking, steel brackets, and a contingency in an amount not to exceed \$8,000.00 for the City's Entrance Signs.

**ALTERNATE CONSIDERATION**

As directed by the Municipal Services Committee.

**DECISION MODE**

This item will be placed on the August 6, 2012 City Council agenda for formal approval.



<b>JOB LOCATION</b>	<b>Monument Signage</b>				
<b>DESCRIPTION</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>TOTAL COST</b>	<b>ACTUAL UNITS</b>
CONCRETE FOOTING AND WALLS	3	EACH	\$ 1,850.00	\$ 5,550.00	-
	5	EACH	\$ 1,900.00	\$ 9,500.00	
CONCRETE BLOCK & MORTAR	850	EACH	\$ 2.34047	\$ 1,265.90	-
CULTURED STONE-SHALE PRO FIT LEDGESTONE	8	EACH	\$ 1,456.25	\$ 11,650.00	-
PIER CAPS	16	EACH	\$ 325.00	\$ 5,200.00	-
MASONRY WORK	8	EACH	\$ 2,125.00	\$ 14,133.36	
MONUMENT SIGNS	3	EACH	\$ 1,700.00	\$ 5,100.00	-
	5	EACH	\$ 1,980.00	\$ 9,900.00	
LANDSCAPING	8	EACH	\$ 2,000.00	\$ 16,000.00	
<b>TOTAL MATERIAL AND OUTSOURCED COSTS</b>				<b>\$ 78,299.26</b>	
STEEL	1	LUMP SUM	\$ 1,500.00	\$ 1,500.00	
STONE GRADE CA-7	99.36	TON	\$ 14.15	\$ 1,405.94	-
TOTAL LENGTH (FT)=	100				
WIDTH (FT)=	6.52				
AREA (SY)=	72				-
PAVING	1	LUMP SUM	\$ 800.00	\$ 885.00	
ANALYTICAL TESTING	1	LUMP SUM	\$ 1,400.00	\$ 1,400.00	
DUMP FEES	4	PER LOAD	\$ 55.00	\$ 220.00	
TOTAL LENGTH (FT)=	100		\$ -		-
WIDTH (FT)=	4				-
AREA (CY)=	52				
TRUCKING	5	HOURLY	\$ 78.00	\$ 390.00	-
<b>MISCELLANEOUS COST</b>				<b>\$ 5,800.94</b>	
<b>SUB TOTAL COST</b>				<b>\$ 84,100.20</b>	
<b>CONTINGENCY</b>	<b>1</b>	<b>LUMP SUM</b>		<b>\$ 3,000.00</b>	
<b>TOTAL MISCELLANEOUS AND CONTINGENCY COST</b>				<b>\$ 8,800.94</b>	
<b>TOTAL MATERIAL AND OUTSOURCE COST</b>				<b>\$ 87,100.20</b>	
ENGINEERING	1	LUMP SUM		\$ 18,000.00	
<b>TOTAL ESTIMATED COST</b>				<b>\$ 105,100.20</b>	
<b>FYE 13 BUDGET</b>				<b>\$ 108,000.00</b>	

**AGENDA MEMO**  
**Municipal Services Committee**  
**July 23, 2012**

**ISSUE STATEMENT**

A resolution authorizing the purchase of one new 2012 Ford F-150 Pick Up, from Morrow Brothers Ford, Inc. in the amount of \$22,604.00.

**BACKGROUND/HISTORY**

The proposed truck is to be utilized primarily to support the Street Division serving as a chipping, storm sewer repair crew vehicle, flag and banner follow unit, parts and material retrieval unit and to be utilized by assigned project employees for the ditch and concrete projects.

The proposed vehicle would be replacing unit 600, 1994 Ford F-250 pickup truck with a 144,666 miles. The vehicle also has ongoing mechanical problems, including severe exterior rusting. Attached please find the history of the vehicle for maintenance and repairs.

Staff contacted the State of Illinois Joint Purchasing Program and received their information on utility trucks and pricing. The bid price for the truck reflects the State Joint Purchase Price. The bid specifications are for Ford to manufacture, install, and deliver the specified truck to the City. The FYE13 Budget included funding for the proposed vehicle.

The proposed expenditure would be expended from the following line account:

<b>ACCOUNT NUMBER</b>	<b>ACCOUNT DESCRIPTION</b>	<b>FY 12-13 BUDGET</b>	<b>PROPOSED EXPENDITURE</b>	<b>PROPOSED BALANCE</b>
01-30-4815	CAPITAL PURCHASES TRUCK REPL UNIT 600	\$25,000.00	\$ 22,604.00	\$ 2,396.00
01-30-4815	CAPITAL PURCHASES TRUCK DECALS	N/A	\$ 600.00	\$ 1,796.00

**STAFF RECOMMENDATION**

Staff recommends approval a resolution authorizing the purchase of one new 2012 Ford F-150 Pick Up, from Morrow Brothers Ford, Inc. in the amount of \$22,604.00.

**ALTERNATE DECISION**

As directed by the Municipal Services Committee.

**DECISION MODE**

This item will be placed on the August 6, 2012 City Council agenda for formal consideration.

CITY OF DARIEN  
Repair Transaction Cost Detail

Equipment#	Repair Order#	Date	Meter(1)	Shop Loc/ Rep Class	Rep Reason/ Rep Site			
600	0000017965	01/10/00	78670	01/01	08/01			
	<u>Group-System</u>			<u>Mech/Vendor</u>	<u>Work Acc</u>	<u>Part(\$)</u>	<u>Labor(\$)</u>	<u>Hours</u>
	01-PMA - PREV. MAINT.			001	A	7.34	28.00	1.00
600	0000019036	04/26/94	72379	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	6.25	14.00	0.50
600	0000019037	01/20/95	7786	01/01	08/01			
	01-PMA - PREV. MAINT.			002	A	9.20	7.50	0.50
600	0000019038	01/20/95	7786	01/01	08/01			
	02-17 - TIRES,TUBES,ETC					11.50	0.00	0.00
600	0000019039	05/30/95	12072	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	12.42	14.00	0.50
600	0000019040	09/08/95	16168	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	9.40	14.00	0.50
600	0000019041	09/08/95	16168	01/01	08/01			
	01-PMB - PREV. MAINT.			001	B	0.00	14.00	0.50
600	0000019042	12/18/95	19852	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	13.75	14.00	0.50
600	0000019043	03/15/96	22757	01/01	08/01			
	01-PMA - PREV. MAINT.			002	A	8.98	7.50	0.50
600	0000019044	03/15/96	22757	01/01	08/01			
	01-PMC - PREV. MAINT.			001	C	11.69	14.00	0.50
600	0000019045	04/22/96	24102	01/02	01/04			
	02-17 - TIRES,TUBES,ETC					244.95	0.00	0.00
600	0000019046	06/05/96	25473	01/01	08/01			
	01-PMA - PREV. MAINT.			002	A	8.98	7.50	0.50
600	0000019047	07/05/96	26773	01/03	01/01			
	06-35 - BATTERY			001		89.85	14.00	0.50
600	0000019048	09/19/96	29430	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	13.75	14.00	0.50
600	0000019049	01/03/97	32608	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	16.33	14.00	0.50
600	0000019050	01/03/97	32608	01/01	08/01			
	01-PMB - PREV. MAINT.			001	B	121.69	28.00	1.00
600	0000019051	04/02/97	36056	01/01	08/01			
	01-PMA - PREV. MAINT.			002	A	8.99	7.50	0.50
600	0000019052	08/04/97	41140	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	17.40	14.00	0.50
600	0000019053	08/04/97	41140	01/01	08/01			
	01-PMD - PREV. MAINT.			001	D	30.57	28.00	1.00
600	0000019054	08/25/97	40409	01/01	08/01			
	03-10 - WIPERS/WASHERS					40.00	0.00	0.00
600	0000019055	11/12/97	45383	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	9.40	14.00	0.50
600	0000019056	02/03/98	49086	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	9.50	14.00	0.50

CITY OF DARIEN  
Repair Transaction Cost Detail

Equipment#	Repair Order#	Date	Meter(1)	Shop Loc/ Rep Class	Rep Reason/ Rep Site			
600	0000019057	02/03/98	49086	01/01	08/01			
	<u>Group-System</u>							
	01-PMB - PREV. MAINT.			<u>Mech/Vendor</u>	<u>Work Acc</u>	<u>Part(\$)</u>	<u>Labor(\$)</u>	<u>Hours</u>
				001	B	0.00	14.00	0.50
600	0000019058	05/07/98	52802	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	9.40	14.00	0.50
600	0000019059	06/10/98	53966	01/01	08/01			
	01-PMC - PREV. MAINT.			001	C	12.27	28.00	1.00
600	0000019060	09/04/98	57409	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	9.40	14.00	0.50
600	0000019061	10/05/98	58543	01/02	01/01			
	06-35 - BATTERY			001		69.44	14.00	0.50
600	0000019062	12/02/98	61129	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	13.75	14.00	0.50
600	0000019063	03/11/99	65640	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	9.40	14.00	0.50
600	0000019064	03/11/99	65640	01/01	08/01			
	01-PMB - PREV. MAINT.			001	B	105.69	112.00	4.00
600	0000019065	06/11/99	69570	01/01	08/01			
	01-PMA - PREV. MAINT.			001	A	9.40	14.00	0.50
600	0000019066	09/22/99	74460	00/01	08/01			
	01-PMA - PREV. MAINT.			001	A	9.40	14.00	0.50
600	0000019067	09/22/99	74460	00/01	08/01			
	02-17 - TIRES,TUBES,ETC					446.00	0.00	0.00
600	0000023747	04/05/00	82375	01/01	08/01			
	01-PMA - PREV. MAINT.			001		7.07	14.00	0.50
	01-PMC - PREV. MAINT.			001		15.72	28.00	1.00
	01-PMD - PREV. MAINT.			001		74.39	56.00	2.00
600	0000023791	05/19/00	83970	01/01	08/01			
	01-PMB - PREV. MAINT.			001		0.00	28.00	1.00
	02-17 - TIRES,TUBES,ETC			001		0.00	14.00	0.50
600	0000023835	07/17/00	86020	01/01	08/01			
	01-PMA - PREV. MAINT.			001		7.37	14.00	0.50
600	0000023871	08/09/00	86974	01/02	08/02			
	01-PMA - PREV. MAINT.			001		20.00	28.00	1.00
600	0000024016	12/05/00	91260	01/01	08/01			
	01-PMA - PREV. MAINT.			001		8.50	14.00	0.50
600	0000024184	05/10/01	91506	/02	04/01			
	07-46 - BELTS			002		21.69	7.50	0.50
600	0000024403	10/26/01	91850	/02	04/01			
	01-PMB - PREV. MAINT.			001		161.27	112.00	4.00
600	0000024526	02/15/02	92025	/01	08/01			
	01-PMA - PREV. MAINT.			001		8.60	28.00	1.00
600	0000025425	03/18/04	93070	/02	04/01			
	01-PMA - PREV. MAINT.			001		8.60	14.00	0.50
	09-64 - AUGERS & V-BOXS			001		66.68	56.00	2.00
	07-42 - COOLING SYS			001		78.82	42.00	1.50

CITY OF DARIEN  
Repair Transaction Cost Detail

Equipment#	Repair Order#	Date	Meter(1)	Shop Loc/ Rep Class	Rep Reason/ Rep Site			
600	0000025527	06/10/04	93230	/02	04/01			
	<u>Group-System</u>			<u>Mech/Vendor</u>	<u>Work Acc</u>	<u>Part(\$)</u>	<u>Labor(\$)</u>	<u>Hours</u>
	06-32 - CRANKING SYS			001		124.64	28.00	1.00
600	0000025979	07/06/05	94084	/01	08/01			
	01-PMB - PREV. MAINT.			002		140.05	30.00	2.00
600	0000026358	03/13/06	95840	/01	08/01			
	07-46 - BELTS			001		13.25	28.00	1.00
600	0000026401	04/19/06	96180	/01	08/01			
	01-PMA - PREV. MAINT.			001		11.01	14.00	0.50
	06-32 - CRANKING SYS			001		128.50	14.00	0.50
600	0000027084	11/20/06	99970	/01	08/01			
	01-PMA - PREV. MAINT.			001		9.77	14.00	0.50
	02-17 - TIRES,TUBES,ETC			001		8.00	14.00	0.50
600	0000027245	04/24/07	102470	/02	04/01			
	04-12 - AXEL REAR			001		225.64	112.00	4.00
600	0000027334	06/13/07	103540	/01	08/01			
	01-PMA - PREV. MAINT.			002		14.82	7.50	0.50
600	0000027422	09/05/07	105490	/02	01/01			
	04-13 - BRAKES			001		12.77	28.00	1.00
600	0000027447	09/27/07	106115	/01	08/01			
	04-15 - STEERING			002		46.12	60.00	4.00
600	0000027537	11/16/07	107170	/01	08/01			
	01-PMA - PREV. MAINT.			001		14.82	14.00	0.50
600	0000027745	03/06/08	109331	/01	08/01			
	01-PMB - PREV. MAINT.			002		0.00	7.50	0.50
600	0000027938	06/11/08	111185	/01	08/01			
	01-PMA - PREV. MAINT.			002		13.31	7.50	0.50
600	0000027945	06/17/08	111349	/01	08/01			
	03-06 - DOORS			002		104.10	30.00	2.00
600	0000027950	06/18/08	111350	/01	08/01			
	06-33 - IGNITION SYS			001		57.30	28.00	1.00
600	0000027982	07/28/08	111520	/01	08/01			
	07-47 - TUNE UP			002		279.28	45.00	3.00
600	0000028188	12/30/08	114025	/01	08/01			
	01-PMA - PREV. MAINT.			001		15.27	28.00	1.00
	01-PMC - PREV. MAINT.			001		57.82	28.00	1.00
	04-13 - BRAKES			001		17.80	28.00	1.00
600	0000028226	01/26/09	114334	/01	08/01			
	02-17 - TIRES,TUBES,ETC			002		236.66	30.00	2.00
600	0000028230	01/23/09	114244	/01	08/01			
	06-32 - CRANKING SYS			002		119.94	15.00	1.00
600	0000028471	08/04/09	118462	/01	08/01			
	01-PMA - PREV. MAINT.			001		14.66	14.00	0.50
600	0000028661	12/30/09	120740	01/02	01/01			
	03-06 - DOORS			002		54.97	30.00	2.00
600	0000028693	01/21/10	121200	01/01	08/01			



RESOLUTION NO. \_\_\_\_\_

**A RESOLUTION AUTHORIZING THE PURCHASE OF ONE (1) NEW 2012 FORD F-150 PICK UP FROM MORROW BROTHERS FORD, INC. IN THE AMOUNT OF \$22,604.00**

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, as follows:**

**SECTION 1:** The City Council of the City of Darien does hereby authorize the purchase of one (1) new 2012 Ford F-150 Pick Up from Morrow Brothers Ford, Inc. in the amount of \$22,604.00, a copy of which is attached hereto as "Exhibit A" and is by this reference expressly incorporated herein.

**SECTION 2:** This Resolution shall be in full force and effect from and after its passage and approval as provided by law.

**PASSED BY THE CITY COUNCIL OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

**AYES:** \_\_\_\_\_

**NAYS:** \_\_\_\_\_

**ABSENT:** \_\_\_\_\_

**APPROVED BY THE MAYOR OF THE CITY OF DARIEN, DU PAGE COUNTY, ILLINOIS, this 6<sup>th</sup> day of August 2012.**

\_\_\_\_\_  
KATHLEEN MOESLE WEAVER, MAYOR

ATTEST:

\_\_\_\_\_  
JOANNE E. RAGONA, CITY CLERK

APPROVED AS TO FORM:

\_\_\_\_\_  
CITY ATTORNEY

Truck # 600

0 \* \*

15,230 +  
149 +  
185 +  
225 +  
230 +  
290 +  
235 +  
1,480 +  
160 +  
95 +  
90 +  
425 +  
325 +  
595 +  
490 +  
90 +  
15 +  
170 +  
90 +  
275 +  
595 +  
785 +  
380 +

# STATE OF ILLINOIS JOINT PURCHASE CONTRACT # 4016059 2012 FORD F-150 TRUCKS

DERING AGENCY: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_ CELL # \_\_\_\_\_

RD FLEET # \_\_\_\_\_ PURCHASE ORDER# \_\_\_\_\_

ANITY \_\_\_\_\_ COST EACH \$ \_\_\_\_\_

DRESS: \_\_\_\_\_

TY: \_\_\_\_\_

P: \_\_\_\_\_ TAX EXEMPT #: E999

ONE: \_\_\_\_\_ FAX: \_\_\_\_\_

TOTAL ORDER COST \$ \_\_\_\_\_

PLEASE MAIL ORDER TO:  
MORROW BROTHERS FORD, INC.  
RR 2 BOX 120  
GREENFIELD, IL 62044

FAX ORDERS TO:  
1-217-368-3517  
EMAIL ORDERS TO:  
[r-wellen@dealeremail.com](mailto:r-wellen@dealeremail.com)

\*QUESTIONS PLEASE CALL 1-217-368-3037 ASK FOR RICHIE\*

PLEASE SUMMIT THIS FORM WITH YOUR ORDER

023.....

22,604 0

Stamp → 600

\$ 23,204



## 2012 Ford Truck Pricing

- F-150 4x2 REGULAR CAB 8' BED 3.7L V-6 FFV E-85.....\$15,230.00
- EXTENDED CAB W/QUARTER DOORS AND 6.5' BED.....ADD.....\$1,485.00
- EXTENDED CAB W/QUARTER DOORS AND 8' BED.....ADD.....\$1,985.00
- CREW CAB W/4 FULL SIZE DOORS AND 5' 6" BED.....ADD.....\$4,885.00
- CREW CAB W/4 FULL SIZE DOORS AND 6' 6" BED.....ADD.....\$5,165.00
- 4x4 OPTION FOR REGULAR CAB.....ADD.....\$2,425.00
- 4x4 OPTION FOR EXTENDED CAB.....ADD.....\$2,755.00
- 4x4 OPTION FOR CREW CAB.....ADD.....\$3,885.00
- 5.0L V-8 FFV E-85 ENGINE.....ADD.....\$600.00
- 3.5L V-6 ECO BOOST 365HP.....ADD.....\$1,860.00

### New Municipal License/Title/TRP/Documentation

- TOTAL LICENSING FEES.....\$149.00

### Color Options

- VERMILLION RED CLEARCOAT.....E4
- DARK BLUE PEARL CLEARCOAT METALLIC.....DX
- INGOT SILVER CLEARCOAT METALLIC.....UX
- TUXEDO BLACK CLEARCOAT METALLIC.....UH
- OXFORD WHITE CLEARCOAT.....YZ
- STERLING GRAY CLEARCOAT METALLIC.....UJ
- GREEN GEM METALLIC.....W6
- SCHOOL BUS YELLOW.....XX

### SPECIAL PAINT

- VSO MONOTONE PAINT.....ADD.....\$480.00

### INTERIOR OPTIONS

- 40/20/40 VINYL BENCH SEAT W/FOLDING CONSOLE.....NO CHARGE
- 40/20/40 CLOTH BENCH W/FOLDING CONSOLE.....NO CHARGE
- CLOTH CAPTAINS CHAIRS 4X4.....EXTENDED & CREW CAB.....\$380.00

## STANDARD EQUIPMENT

- 6750-7200LB GVW
- 145" WHEEL BASE
- CARGO BOX TIE DOWN HOOKS
- AUTOMATIC TRANSMISSION
- (5) P235/75R/17 TIRES
- POWER STEERING
- POWER ANTI-LOCK BRAKES
- 750 CCA BATTERY
- 135-155 AMP ALTERNATOR
- TINTED GLASS
- REAR STEP BUMPER
- AIR CONDITIONING
- VINYL BENCH SEAT
- INTERMITTENT WIPERS
- AM/FM STEREO
- DUAL AIR BAGS
- DOME/CARGO BED LIGHT
- CUP HOLDERS
- FULL INSTRUMENTATION
- 26 GALLON FUEL TANK

## OPTIONAL EQUIPMENT

<input type="checkbox"/> ELECTRONIC LOCKING REAR AXLE.....	\$440.00
<input checked="" type="checkbox"/> CRUISE CONTROL/TILT WHEEL.....	\$185.00
<input checked="" type="checkbox"/> SLIDING REAR WINDOW.....	\$225.00
<input checked="" type="checkbox"/> FACTORY TRAILER BRAKE CONTROLLER.....	\$230.00
<input checked="" type="checkbox"/> TRAILER TOW PACKAGE.....	\$290.00
<input checked="" type="checkbox"/> TRAILER TOW MIRRORS.....	\$235.00
<input type="checkbox"/> 3.55 AXLE RATIO.....	\$50.00
<input type="checkbox"/> 3.73 AXLE RATIO.....	\$50.00
<input type="checkbox"/> 17" ALUMINUM WHEELS.....	\$475.00
<input type="checkbox"/> P265..... ALL SEASON OR ALL TERRAIN.....	\$325.00
<input type="checkbox"/> P255 TIRE UPGRADE ALL SEASON..... 4X2 ONLY.....	\$325.00
<input type="checkbox"/> LT 245 TIRES..... ALL SEASON 4X2..... ALL TERRAIN 4X4.....	\$300.00
<input type="checkbox"/> SKID PLATES.....	\$140.00
<input type="checkbox"/> POWER WINDOWS/LOCKS/MIRRORS..... REGULAR CAB.....	\$880.00
<input type="checkbox"/> POWER WINDOWS/LOCKS/MIRRORS..... EXT./CREW CAB.....	\$1,080.00
<input checked="" type="checkbox"/> H/D PAYLOAD PKG. 8200# GVWR..... 8FT BED ONLY.....	\$1,480.00

## OPTIONAL EQUIPMENT CONT.

<input type="checkbox"/>	FLOOR CARPET.....	\$155.00
<input checked="" type="checkbox"/>	REAR WINDOW DEFROSTER.....	\$160.00
<input type="checkbox"/>	AM/FM/CD.....	\$290.00
<input checked="" type="checkbox"/>	36 GALLON FUEL TANK.....	\$95.00
<input type="checkbox"/>	DAYTIME RUNNING LIGHTS.....	\$45.00
<input checked="" type="checkbox"/>	ENGINE BLOCK HEATER.....	\$90.00
<input checked="" type="checkbox"/>	BLACK FULL LENGTH PLATFORM RUNNING BOARDS.....	\$360.00
<input checked="" type="checkbox"/>	BLACK OR <u>STAINLESS TUBULAR FULL LENGTH CAB STEPS</u> .....	\$425.00
<input type="checkbox"/>	PICK UP BOX SIDE ACCES STEP.....	\$375.00
<input type="checkbox"/>	CHROME BUMPERS.....	\$175.00
<input checked="" type="checkbox"/>	FRONT TOW HOOKS 4X2.....	\$325.00
<input type="checkbox"/>	FORD SYNC COMMUNICATIONS.....	\$880.00
<input type="checkbox"/>	REMOTE START.....	\$590.00
<input type="checkbox"/>	INTEGRATED TAILGATE STEP.....	\$375.00
<input type="checkbox"/>	BED LINER.....	\$295.00
<input checked="" type="checkbox"/>	SPRAY IN BED LINER.....	\$595.00
<input checked="" type="checkbox"/>	RUST PROOF/UNDERCOAT.....	\$490.00
<input checked="" type="checkbox"/>	FLOOR MATS.....	\$90.00
<input checked="" type="checkbox"/>	EXTRA KEY INCLUDES PROGRAMMING.....	\$15.00
<input checked="" type="checkbox"/>	FIRE EXTINGUISHER W/MOUNT.....	\$170.00
<input checked="" type="checkbox"/>	BACK UP ALARM.....	\$90.00
<input type="checkbox"/>	SERVICE MANUAL.....	\$275.00
<input checked="" type="checkbox"/>	DELIVERY SINGLE UNIT.....	\$275.00
<input type="checkbox"/>	DELIVERY MULTIPLE UNITS.....	\$225.00

## TRUCK BODY AND EQUIPMENT OPTIONS

### A.R.E PICKUP TOPPERS

<input type="checkbox"/>	A.R.E. FIBERGLASS CAP TOPPER.....	\$1,975.00
	-CAB HIGH, SIDE WINDOWS, 3 <sup>RD</sup> BRAKE LIGHT	
<input type="checkbox"/>	SLIDING FRONT WINDOW FOR ABOVE TOPPER.....	\$125.00
<input type="checkbox"/>	SWING UP SIDE WINDOWS FOR ABOVE WINDOW.....	\$185.00
<input type="checkbox"/>	WEDGE TOP FOR ABOVE TOPPER.....	\$195.00
<input type="checkbox"/>	DELETE SIDE WINDOWS FOR ABOVE TOPPER.....	NO CHARGE
<input type="checkbox"/>	FIBERGLASS TONNEAU COVER.....	\$1,875.00

## TRUCK BODY AND EQUIPMENT OPTIONS CONT.

### TOOL BOXES

**\*INDUSTRIAL GRADE, TOUGHCOAT LINED, DUAL KEY LOCKS, H/D ALUMINUM**

- TREAD PLATE ALUMINUM CROSS BOX.....\$695.00
- TREAD PLATE ALUMINUM SIDE BOX(LEFT).....\$585.00
- TREAD PLATE ALUMINUM SIDE BOX(RIGHT).....\$585.00

### LIFTGATES

- LIFTGATE 1300LB CAPACITY.....\$2,890.00  
-DUAL CYLINDER DRIVE  
-STEEL PLATFORM 55"X27" w/4" TAPPER
- OPTIONAL PLATFORM FOR ABOVE LIFT GATE 55"X38" W/4" TAPPER \$190.00
- ALUMINUM PLATFORM IN LIEU OF STEEL.....\$780.00

### SAFETY LIGHTING

**\*INCLUDES ALL PARTS, LABOR, AND INSTALLATION\***

- UNITY POST MOUNT SPOT LIGHT.....\$295.00
- UNITY POST MOUNT LED SPOT LIGHT.....\$495.00  
-2000 LUMENS; 124,000 CANDELA; 5 YEAR WARRANTY
- WHELEN HAND HELD SPOT/WORK LIGHT.....\$290.00
- WHELEN 4 CORNER STROBE KIT (2) FRONT, (2) REAR.....\$595.00
- WHELEN 4 CORNER LED VERTEX KIT.....\$635.00
- WHELEN LED TRAFFIC ADVISOR.....\$785.00
- WHELEN L31 SUPER LED AMBER BEACON.....\$380.00
- WHELEN RESPONDER LP LED MINI BAR.....\$480.00
- WHELEN 4 STROBE MINI EDGE.....\$880.00
- WHELEN LIBERTY 14 HEAD LED.....\$2,480.00  
-INCLUDES: ALLEY LIGHTS, WORK LIGHTS, TRAFFIC ADVISOR
- TRAC RACK GLASS PROTECTOR.....\$390.00
- \*NO HOLES DRILLED LIGHT MOUNT\*.....\$195.00  
*\*RECOMMENDED FOR LIGHT MOUNTING\**

### F.Y.I.

## WE STOCK THE FOLLOWING GOVERNMENT VEHICLES

- \*CROWN VICTORIA POLICE INTERCEPTORS**
- \*SELECT F-SERIES TRUCKS**
- \*EXPLORER**
- \*SSV EXPEDITIONS**
- \*FOCUS, FUSION, TAURUS**

**MINUTES  
CITY OF DARIEN  
MUNICIPAL SERVICES COMMITTEE  
SPECIAL MEETING  
June 18, 2012**

**PRESENT:** Joseph Marchese – Chairperson, Alderman Ted Schauer, Dan Gombac - Director

**ABSENT:** Alderman Halil Avci.

**ESTABLISH QUORUM**

Chairperson Marchese called the meeting to order at 5:30 p.m. at the City Hall – City Council Chambers, Darien, Illinois and declared a quorum present,

**NEW BUSINESS**

- A. 2601 75<sup>th</sup> Street, Grand Dukes – Petitioner seeks approval of a Special use for an eating establishment within the B-2 Zoning District.**

Mr. Dan Gombac – Director reported that this in reference to PZC 2012-08 and is a special use for an eating establishment. He reported that the petitioner Mr. Andrias Bucas was present. Mr. Gombac stated that the property is located at 2601 75<sup>th</sup> Street and is within a B-2 community shopping center district with the restaurant next to Mi Hacienda.

Mr. Gombac reported that in 2003 the City Council granted a variation for parking setback which would go along with the existing property. He reported that the property contains Mi Hacienda and the proposed Grand Dukes. Mr. Gombac stated that the west half is being renovated and the restaurant use will have 26 seats and occupy 25% of the space. He reported that parking is not an issue and that staff does not object to the proposed use. Mr. Gombac reported that the PZC held a public hearing and recommended approval.

Mr. Gombac reported that he received an email from Alderman Avci questioning the food preparation. Mr. Gombac stated that the food will be prepared off site and brought to the Darien site. He stated that the City does not oversee any food-related issues including storage, and preparation and that it is strictly enforced through the DuPage County Health Department.

The petitioner, Mr. Andrias Bucas stated that most of the food preparation will be done at their site in Lemont. He stated that there would be some minor cooking at the Darien site.

**Alderman Schauer made a motion, and it was seconded by Alderman Marchese that based upon the information presented, the request associated with PZC 2012-08 is in conformance with the standards of the Darien City Code and move that the Municipal Services Committee recommend approval to the City Council as presented.**

Upon voice vote, **THE MOTION CARRIED** unanimously 2-0.

Mr. Gombac reported that this would be forwarded to the City Council for approval.

There was no one in the audience wishing to present public comment.

**ADJOURNMENT**

With no further business before the Commission, Alderman Schauer made a motion and it was seconded by Alderman Marchese to adjourn. Upon voice vote, **THE MOTION CARRIED** unanimously and the meeting adjourned at 6:45 p.m.

**RESPECTFULLY SUBMITTED:**

---

**Elizabeth Lahey**  
Secretary

---

**Joseph Marchese**  
Chairman

---

**Halil Avcı**  
Alderman

---

**Ted Schauer**  
Alderman

**MINUTES  
CITY OF DARIEN  
MUNICIPAL SERVICES COMMITTEE  
June 25, 2012**

**PRESENT:** Joseph Marchese – Chairperson, Alderman Halil Avci, Alderman Ted Schauer, Dan Gombac - Director, Elizabeth Lahey-Secretary

**ABSENT:** None.

**ESTABLISH QUORUM**

Chairperson Marchese called the meeting to order at 6:30 p.m. at the City Hall – City Council Chambers, Darien, Illinois and declared a quorum present,

**NEW BUSINESS**

- A. Resolution – Accepting a proposal from HD Supply Inc. for water main repair clamps, brass, fittings and utility tools as required for the maintenance of the water system for a period of June 1, 2012 through April 30, 2013.**

Mr. Dan Gombac – Director reported that during the year, staff utilizes water main repair clamps and various fittings for the water system. He reported that the total estimated costs for the water main clamps, brass, fittings and utility tool clamps would not exceed \$20,000.

There was no one in the audience wishing to present public comment.

- B. Resolution – Accepting a proposal from Water Products, Inc. for the Clow Eddy Fire Hydrant repair parts as required for a period of June 1, 2012 through April 30, 2013.**

Mr. Dan Gombac – Director reported that during the year the Water Department requires the use of manufacturer specified fire hydrant repair parts for fire hydrant repairs. He reported that Clow Eddy is one of various fire hydrants in Darien. He further reported that the total estimated costs for the Clow Eddy Fire Hydrant repair parts would not exceed \$8,000.

There was no one in the audience wishing to present public comment.

- C. Resolution – Accepting a proposal from East Jordan Iron Works Inc. for the East Jordan Fire Hydrant repair parts as required for a period of June 1, 2012 through April 30, 2013.**

Mr. Dan Gombac, Director reported that during the year the Water Department requires the use of manufacturer specified fire hydrant repair parts for fire hydrant repairs. He reported that the He reported that East Jordan is one of various fire hydrants in Darien. The total estimated costs for the specified East Jordan Iron Works Fire Hydrant repair parts would not exceed \$8,000.

There was no one in the audience wishing to present public comment.

**D. Resolution – Accepting a proposal from Ziebell Water Service Products, Inc. for the Traverse City Fire Hydrant repair parts as required for a period of June 1, 2012 through April 30, 2013.**

Mr. Gombac reported that the Traverse City fire hydrants are no longer manufactured and many of the parts are unavailable. The pricing between HD Supply and Ziebell was very competitive on a line-by-line comparison whereas on the total price Ziebell was the lowest competitive price. The Staff reviews the total cost of the parts and availability and will compare the purchase to a new fire hydrant. Mr. Gombac reported the staff had requested Ziebell to review the competitors pricing and has adjusted the pricing to meet the competitors. Mr. Gombac reported that the repair parts would not exceed \$8,000.

There was no one in the audience wishing to present public comment.

**E. Resolution – Accepting a proposal from HD Supply Waterworks Inc. for US Pipe Fire Hydrant repair parts as required for a period of June 1, 2012 through April 30, 2013.**

Mr. Gombac reported that the City has very few US Pipe Fire Hydrants. He reported that the manufacturer parts are only distributed through specified territories thus resulting in Staff securing one quote only. He further reported that the repair parts would not exceed \$8,000.

There was no one in the audience wishing to present public comment.

**F. Resolution – Accepting a proposal from East Jordan Iron Works for East Jordan Fire Hydrants with valves as required for a period of June 1, 2012 through April 30, 2013.**

Mr. Gombac reported that staff replaces several fire hydrants per year due to accidents or the repair parts exceed the cost of a new fire hydrant. He stated that East Jordan Iron Works provided the lowest competitive quote and that the costs would not exceed \$6,500.

There was no one in the audience wishing to present public comment.

**G. Resolution – Accepting a proposal from Ziebell Water Service Products Inc. for the Waterous Pacer Fire Hydrant repair parts as required for period of June 1, 2012 through April 30, 2013.**

Mr. Dan Gombac, Director reported that during the year the Water Department requires the use of manufacturer specified fire hydrant repair parts for fire hydrant repairs. He reported that the Waterous Pacer Fire Hydrant is one of various fire hydrants in Darien. Mr. Gombac reported that the repair parts for the Waterous Pacer Fire Hydrant would not exceed \$8,000.

There was no one in the audience wishing to present public comment.



**H. Resolution – Accepting a proposal from HD Supply Waterworks Inc. for the Mueller Super Centurion Fire Hydrant repair parts as required for a period of June 1, 2012 through April 30, 2013.**

Mr. Dan Gombac, Director reported that during the year the Water Department requires the use of manufacturer specified fire hydrant repair parts for fire hydrant repairs. He reported that the Mueller Super Centurion Fire Hydrant is one of various fire hydrants in Darien. Mr. Gombac reported that the repair parts for the Mueller Super Centurion Fire Hydrant would not exceed \$8,000.

Alderman Schauer questioned if parts are kept in stock in the event of a break.

Mr. Gombac reported that staff keeps a limited stock on hand. In the event of an item required after hours staff maintains a list of after hour vendor contacts. In regards to fire hydrants, Mr. Gombac reported that staff looks at each hydrant and what the costs will be prior to ordering parts.

Chairperson Marchese questioned if staff has looked at replacing all the old hydrants.

Mr. Gombac reported that Staff has forwarded the item for budget consideration and funding has not been provided on a larger scale. Staff has the ability to remove and replace approximately 3-4 fire hydrants per year.

Alderman Avci questioned how the parts are received.

Mr. Gombac reported that all vendors provide quick service via their own shipping trucks, common carrier or parcel service. In most cases Staff also has the opportunity to pick up the material pending the urgency.

There was no one in the audience wishing to present public comment.

**Alderman Schauer made a motion and it was seconded by Alderman Avci to approve Items A-H of the agenda as presented.**

**Upon voice vote, THE MOTION CARRIED unanimously 3-0.**

**I. Ordinance – Approval of an amendment to the Darien Stormwater and Flood Plain Management Ordinance, Section 6B-1 of the City Code.**

Mr. Dan Gombac reported that on April 24, 2012 the DuPage County Board amended the DuPage County Countywide Stormwater and Flood Plain Ordinance. He reported that in order to be in compliance that all communities are required by state law to adopt the minimal standards of the Ordinance.

Mr. Gombac summarized the updates through the agenda memo as presented.

There was no one in the audience wishing to present public comment.

**Alderman Avci made a motion and it was seconded by Alderman Schauer to approve an amendment to the Darien Stormwater and Flood Plain Management Ordinance, Section 6B-1 of the City Code.**

**Upon voice vote, THE MOTION CARRIED unanimously 3-0.**

**J. Resolution – Authorize the purchase of one (1) new Cannon Image Pro IPF760 and one (1) new Kip 700 from Clifford-Wald in the amount of \$13,795.00.**

Mr. Dan Gombac reported that the printer/color copier works side by side and would be linked to the server allowing Staff the ability to print black and white or color maps which are used to show projects for budget purposes and storyboards for the public as well as field plans for the City. He reported that staff will also realize a cost savings by printing the documents in-house versus outsourcing.

Mr. Gombac reported that the old equipment will be declared surplus after the install of the proposed equipment.

There was no one in the audience wishing to present public comment.

Alderman Avci inquired to whether the equipment would be utilized by the Police Department. Director Gombac informed the Committee that he would follow up with Chief Brown regarding the equipment and potential use.

**Alderman Avci made a motion and it was seconded by Alderman Schauer authorizing the purchase of one (1) new Canon Image Pro IPF760 and one (1) new KIP 700 from Clifford-Wald in the amount of \$13,795.00.**

**Upon voice vote, THE MOTION CARRIED unanimously 3-0.**

**K. Minutes – May 29, 2012 – Municipal Services Committee**

**Alderman Avci made a motion and it was seconded by Alderman Schauer to approve the May 29, 2012 Meeting Minutes.**

**Upon voice vote, THE MOTION CARRIED unanimously 3-0.**

### **DIRECTOR'S REPORT**

#### **a. Emerald Ash Borer**

Mr. Dan Gombac provided an update on the Emerald Ash Borer (EAB) and provided a cost analysis of applying the chemical product Tree-Age to prevent EAB. Mr. Gombac reported that the proposed insecticide Tree-Age has been 99.82% effective on Emerald Ash Borer. The program would involve multi cycle and future budget commitments.

Alderman Schauer questioned if the chemical will work.

Mr. Gombac reported that the company guarantees that it is 99.82% effective.

Alderman Avci questioned the lifeline of the treated tree.

Mr. Gombac reported that the lifeline number was unknown.

Alderman Schauer stated that an active approach should be taken to replace the trees.

Mr. Gombac reported that \$10,000 has been budgeted for removal and limited treatment applications of the Emerald Ash Borer. He stated that he is working on getting testimonials before moving forward.

The proposed item will be forwarded to the City Administrator for review and funding mechanisms. The Staff will update the Committee with a follow up summary report.

#### NEXT MEETING

Chairperson Marchese announced that the next meeting is scheduled for Monday, July 23, 2012 at 6:30 p.m.

#### ADJOURNMENT

**With no further business before the Commission, Alderman Schauer made a motion and it was seconded by Alderman Avci to adjourn. Upon voice vote, THE MOTION CARRIED unanimously and the meeting adjourned at 7:35 p.m.**

**RESPECTFULLY SUBMITTED:**

\_\_\_\_\_  
**Elizabeth Lahey**  
Secretary

\_\_\_\_\_  
**Joseph Marchese**  
Chairman

\_\_\_\_\_  
**Halil Avci**  
Alderman

\_\_\_\_\_  
**Ted Schauer**  
Alderman



# CITY OF DARIEN

In the County of DuPage and the State of Illinois  
Incorporated 1969

TO: Municipal Services Committee  
Bryon Vana-City Administrator

FROM: Daniel Gombac, Municipal Services Director

DATE: July 23, 2012

SUBJECT: Emerald Ash Borer-Executive Summary Update-Program Treatment Cost Analysis

## **EXECUTIVE SUMMARY**

### **Background**

The Emerald Ash Borer (EAB) is an invasive species from Asia that arrived in the United States in wood packing material. The pest was first detected in Michigan in 2002 and has subsequently spread to Canada and a number of other states including northern Illinois. The pest kills all species of North American ash trees and has killed an estimated 30 million trees to date. To date, the EAB has affected 12 Ash trees in the City of Darien. When it comes to the potential devastation of EAB, there is a lot at stake for the City. There are an estimated 2600 ash trees in the City's parkways and makes up an estimated 30% of urban trees.

This updated plan identifies new strategies based on the science that has been advanced since the original response plan was developed several years ago. With this new information and plan, staff is being proactive to the long-term management of the EAB.

### **Effectiveness**

The effectiveness of the Tree-Age product is well above the 92 percentile. Attached and labeled as Attachment D is a study conducted through the International Society of Arboriculture. The study evaluates the effectiveness of injections and drenching during a period of 2005-2010.

When the researchers talk about percent effectiveness they are referring to number of larvae controlled. For example, say it takes 1000 larvae to kill a tree over time. Inject the tree in 2012 and kill 990 of the insects who tried to feed leaving only 10. If the 2nd year was only 92 % effective, there would still not be enough larvae to kill the tree.

Regarding the analysis for 3 cycles/applications or in 6 years, it is highly anticipated that the EAB would be eradicated due to the food chain being depleted. This assumes that all untreated ash trees within private residences, neighboring towns, forest preserves have died off due to not being treated.

Attached and labeled as Attachment E is an additional study conducted for insecticide options for protecting ash trees. The study was conducted through the Ohio State University, Michigan State University, Purdue University, University of Wisconsin-Madison, and University of Illinois.

Attached please find two colored brochures provided through Arborjet providing information on management and treatment facts for the Emerald Ash Borer.

### **The Response Plan**

The staff has devised a response plan for emerald ash borer, or EAB. The plan was created through updated industry information and the proposed plan includes a program to apply the Tree-Age insecticide. The plan is based on the application of the abovementioned insecticide once every two years for three cycles.

### **Goal**

The goal of the Department is to treat the entire City owned inventory of healthy ash trees. The City will also continue to educate residents with private property trees and review potential treatment programs. The City will also work with the Darien Park District to establish goals. The Staff is cognizant to the fact that there will be Ash trees that will not be able to be saved and will require removal. The goal of the department was to begin the treatment in April of 2013, pending budget allocation.

### **Objective**

The objective of the plan is to eliminate the destructive effects of EAB on Darien's Ash trees. Ash trees are a quality of life benefit and provide a cost benefit of approximately \$185.00 per year, based upon a 20-inch diameter tree.

### **Program Costs**

Attached is a cost analysis spreadsheet labeled as Attachment A. The analysis provides cost comparisons as they relate to treatments, removals, benefits, and a program cost summary. Staff is requesting to move forward with the program as outlined under Column B-F Rows 22-27. The cost for the program has been estimated as follows:

Cycle 1 Year 2012/13	\$179,400.00
Cycle 2 Year 2014/15	\$176,200.00
Cycle 3 Year 2016/17	<u>\$176,200.00</u>
Total Cost over 6 years	\$531,800.00

The proposed funding for the program was not budgeted for FYE13. Staff is currently reviewing fund balances through the Capital Projects Fund and Motor Fuel Tax Funds. Staff has been in contact with IDOT regarding the use of MFT funds for EAB. The MFT funds may not be currently used for the insecticide treatment of parkway trees. The Illinois Department of Transportation will be discussing the proposed funding use during the next several months for MFT funding consideration. This item has been discussed with the City Administrator and will be forwarded for Budget consideration at the October workshop.

Please let me know if there are any further questions or comments.

Below, please find the summary descriptions as they relate to the attached spreadsheet.

**Spreadsheet Summary Descriptions**

Column B - Rows 2-9 *Inventory* Identifies 5 tree sections. The City is broken down into 5 quadrants for tree maintenance programs. See Map labeled as Attachment B.

Column C - Rows 2-9 Identifies the *Total No of Trees* per section

Column D - Rows 2-9 Identifies the *No of Ash Trees* per section

Column E - Rows 2-9 Identifies the *Difference of Other Tree Species*

Column F - Rows 2-9 Identifies the *Percentage of Ash Trees to Total Trees* per section

Column G - Rows 2-9 Identifies the *Total Tree Diameter Inches* (Diameter By Height-DBH) of ash trees per section. The measurement is based on a window survey and limited ash trees have been field measured.

Column H - Rows 2-10 Identifies the amount of *Tree-Age Application Rate* in liters required to treat the tree for the first cycle per section.

Column I - Rows 2-9 Identifies the *Cost Per Liter* per section for the first cycle.

Column J - Rows 2-9 Identifies the total no of *Arbor Plugs* required to be placed into the tree after the injection

Column K - Rows 2-9 Identifies the costs for the plugs

The following items relate to equipment required to complete the program.

Column B - Rows 11-16 Identifies the *Equipment Required* and is considered a one-time expense with the exception of the needles and cleaner.

Column C - Rows 11-16 Identifies the *Quantity Required*

Column D - Rows 11-16 Identifies the *Unit Cost* for each item

Column E - Rows 11-16 Identifies the *Total Cost* for each item

The following items relate to the labor force required to complete the program. Staff has reviewed outsourcing the service and has determined that with the City Arborist on staff and the ability to hire on a temporary employee there is an economy of executing the program in-house. The City Arborist would be committed to leading and performing the applications with the assistance of a temporary employee. The following items relate to the workforce required to complete the program.

Column B - Rows 17-18 Identifies the *Workforce Summary* required

Column C - Rows 17-18 Identifies the totals for the *No of Trees* targeted

Column D - Rows 17-18 Identifies the *Hours Per Tree* for the application

Column E - Rows 17-18 Identifies the *Total Hours Required* for the program

Column F - Rows 17-18 Identifies the *No of Working Weeks Required* for the program

Column F - Rows 17-18 Identifies the *No of Working Days Required* for the program

The next item reviews the cost of the treatment program. The program will require a total of three applications/cycles. The application/cycle shall be applied once every two years. The program would be scheduled as follows:

Cycle 1 - 2012/13 Application

Cycle 2 - 2014/15 Application

Cycle 3 - 2016/17 Application

The following items relate to the Cost Summary required to complete the multi-cycle program and would be completed In-House by staff.

Column B - Rows 22-27 Identifies the items required to complete the program and include equipment, supplies and temporary labor.

Column C - Rows 22-27 Identifies the costs to complete the program for Cycle 1 and is anticipated to be completed in 2012 or 2013. Cycle 1 cost is estimated at \$179,400

Column D - Rows 22-27 Identifies the costs to complete the program for Cycle 2 and is anticipated to be completed in 2014 or 2015. Cycle 2 cost is estimated at \$176,200

Column E - Rows 22-27 Identifies the costs to complete the program for Cycle 3 and is anticipated to be completed in 2016 or 2017. Cycle 3 cost is estimated at \$176,200

Column F- Rows 22-27 Identifies the costs to complete the program for Cycles 1-3 at a total cost of approximately \$531,800

The next item relates to the benefits of mature Ash trees and provides the following benefits:

- Stormwater
- Electricity
- Air Quality
- Property Values
- Natural Gas
- CO2

The average Ash tree in the city provides a cost benefit of approximately \$185.00 per year. The following items relate to the Cost Benefit of Ash Trees.

Column B - Rows 28-29 Identifies the Cost Benefit of Ash Trees and Support Documentation. The Support Documentation is labeled as Attachment C.

Column C - Rows 28-29 Identifies the *No of Trees*

Column D - Rows 28-29 Identifies the *Cost Benefit Per Tree*

Column E - Rows 28-29 Identifies the *Total Cost Benefit*

The next item compares removal costs if an EAB infestation affected the City of Darien. The following exercise demonstrates the cost of removal, restoration and replacement costs.

Column B - Row 31-38 *Removal Costs* Identifies 5 tree sections. The City is broken down into 5 quadrants for tree maintenance programs.

Column C - Rows 31-38 Identifies the *Total No of Ash Trees* per section

Column D - Rows 31-38 Identifies the *Total Tree Diameter Inches* (Diameter By Height-DBH) of ash trees per section. The measurement is based on a window survey and limited ash trees have been field measured.

Column E - Rows 31-38 Identifies the *Removal Cost* based upon a current contract unit price of \$30.00 per inch.

Column F - Rows 31-38 Identifies the *Stump Grinding Cost* based upon a current contract unit price of \$90.00 per stump.

Column G - Rows 31-38 Identifies the *Landscaping Restoration Cost* as lump sum cost of \$50.00 per location.

Column H - Rows 31-38 Identifies the *Replacement Cost for a 4-inch Caliper Tree* at a unit cost of \$350.00 per location.

Column I - Rows 31-38 Identifies the *Total Replacement Cost* for each section.

Column J - Rows 31-38 Identifies the *5 Year Total Replacement Cost* based on a yearly cost.

The next item provides program Outsourcing costs of the 3 cycles based on the existing inventory. Again, each cycle is completed once every two years. Below is the breakdown of the spreadsheet.

Column B - Rows 40-47 *Inventory* Identifies 5 tree sections. The City is broken down into 5 quadrants for tree maintenance programs.

Column C - Rows 40-47 Identifies the *No of Ash Trees* per section



Column D - Rows 40-47 Identifies the *Total Tree Diameter Inches* (Diameter By Height-DBH) of ash trees per section. The measurement is based on a window survey and limited ash trees have been field measured.

Column E - Rows 40-47 Identifies the *Treatment Cost* per section

Column F - Rows 40-47 Identifies the *Cycle One Cost 2012/13*

Column G - Rows 40-47 Identifies the *Cycle Two Cost 2014/15*

Column H - Rows 40-47 Identifies the *Cycle Three Cost 2016/17*

Column I - Row 47 Identifies the *Total Outsourced Program Cost* over the life of the program.

A	B	C	D	E	F	G	H	I	J	K
2	Inventory	Total No of Trees	No of Ash Trees	Difference (Other Tree Species)	Percentage of Ash Trees to Total Trees	Total Tree Diameter Inches (DBH) (Average is 20 inch DBH)	Tree-Age Chemical-Application Rate 48.2 Milliliters Per Inch	Cost Per Liter	Arbor Plugs - 9 Per Tree	Plug Costs
3							5.40	\$ 494.00		\$ 0.45
4	Section No 1	1594	20	1574	1.25%	400.00	2,160.00	\$ 1,067.04	\$ 180.00	\$ 81.00
5	Section No 2	1869	631	1238	33.76%	12,620.00	68,148.00	\$ 33,665.11	\$ 5,679.00	\$ 2,555.55
6	Section No 3	1577	507	1070	32.15%	10,140.00	54,756.00	\$ 27,049.46	\$ 4,563.00	\$ 2,053.35
7	Section No 4	1994	659	1335	33.05%	13,180.00	71,172.00	\$ 35,158.97	\$ 5,931.00	\$ 2,668.95
8	Section No 5	1922	796	1126	41.42%	15,920.00	85,968.00	\$ 42,468.19	\$ 7,164.00	\$ 3,223.80
9	Totals	8956	2613	6343	29.18%	52,260.00	282,204.00	\$ 139,408.78	\$ 23,517.00	\$ 10,582.65
10	Liters Required						282.20			

11	Equipment Costs	Quantity	Unit Cost	Total Cost
12	Arborjet Hydraulic Kit	1	\$ 2,900.00	\$ 2,900.00
13	Secondary Air Pack	1	\$ 255.00	\$ 255.00
14	Arborjet Viper Needle (2 Pack)	1	\$ 28.45	\$ 28.45
15	Clean-Jet Cleaner	12	\$ 7.92	\$ 95.04
16	Total Equipment Cost			\$ 3,278.49

17	Workforce Summary	No of Trees	Hours Per Tree	Total Hours Required	No of Working Weeks Required	No of Working Days Required
18	City Arborist	2613	0.5	1306.5	32.6625	163.31

19	Labor-Temp	No of Temp Help	Total Hours Required	Rate of Pay	Unit	Total Cost
20	Temporary Helper	1	1306.5	20	Hourly	26,130.00

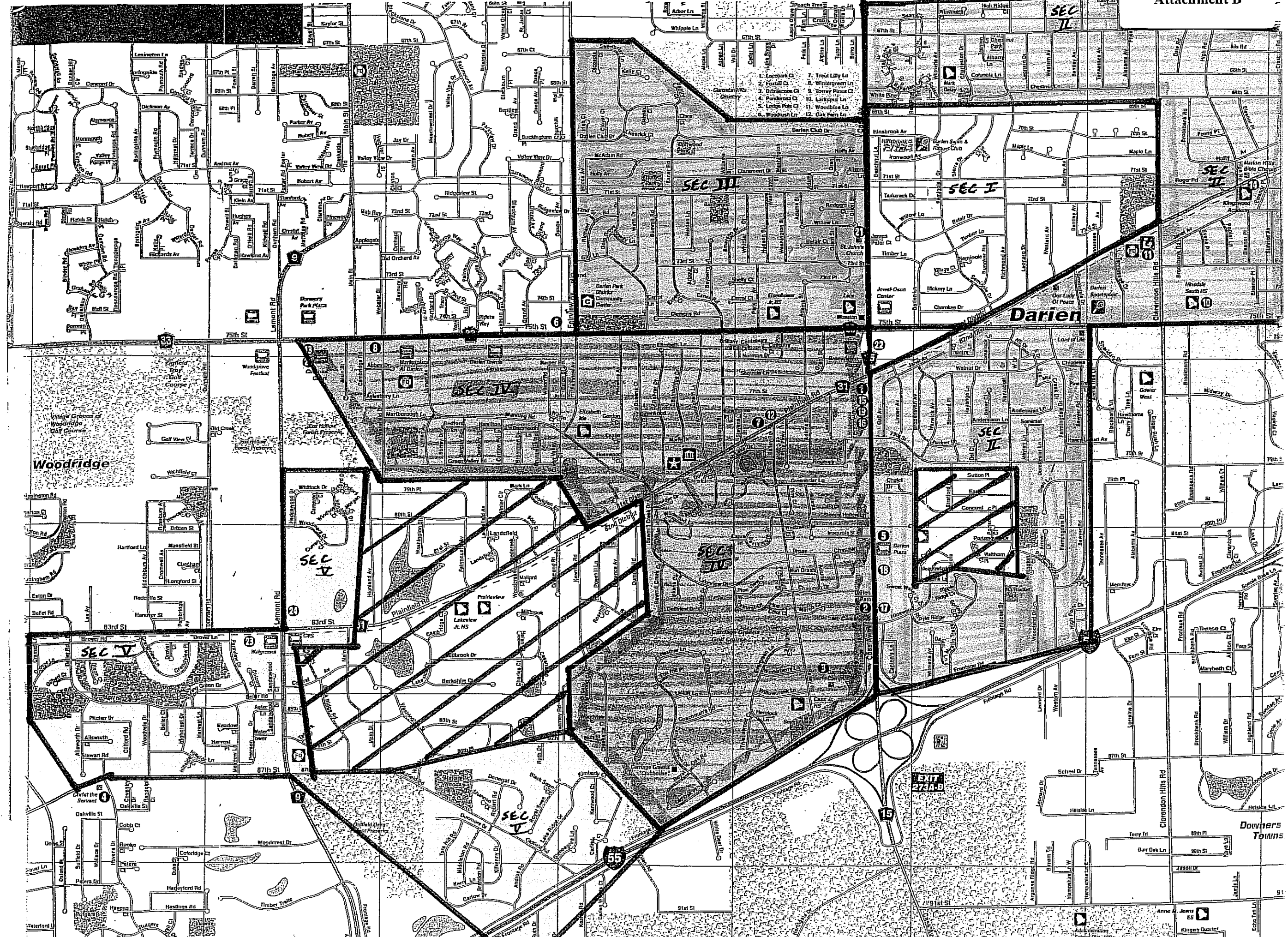
21	Proposed In House program					YEAR 2019
22	Cost Summary for 2013-2019	Cycle 1-Year 1 2013	Cycle 2 - Year 3 2015	Cycle 3 - Year 5 2017	Total Program Cost	TO BE DETERMINED
23	Insecticide	\$ 139,408.78	\$ 139,408.78	\$ 139,408.78	\$ 418,226.33	
24	Plugs	10582.65	\$ 10,582.65	\$ 10,582.65	\$ 31,747.95	
25	Equipment	\$ 3,278.49	\$ -	\$ -	\$ 3,278.49	
26	Labor-Temporary Help	\$ 26,130.00	\$ 26,130.00	\$ 26,130.00	\$ 78,390.00	
27	Cost	\$ 179,399.92	\$ 176,121.43	\$ 176,121.43	\$ 531,642.77	

28	Cost benefit of Ash Trees	No of Trees	Cost Benefit Per Tree	Total Cost Benefit
29	See Supporting Documentation	2,613.00	\$ 185.00	\$ 483,405.00

30	B	C	D	E	F	G	H	I	J	K
31	Removal Costs	No of Ash Trees	Total Tree Diameter Inches (DBH) (Average is 20 inch DBH)	Removal Cost	Stump Grinding Cost	Restoration Cost	Replacement Cost 4-inch Calliper	Total Replacement Cost	5 Year Replacement Cost Cost per Year	
32				\$ 30.00	\$ 90.00	\$ 50.00	\$ 350.00			
33	Section No 1	20	400.00	\$ 12,000.00	\$ 1,800.00	\$ 1,000.00	\$ 7,000.00	\$ 21,800.00	\$ 4,360.00	
34	Section No 2	631	12,620.00	\$ 378,600.00	\$ 56,790.00	\$ 31,550.00	\$ 220,850.00	\$ 687,790.00	\$ 137,558.00	
35	Section No 3	507	10,140.00	\$ 304,200.00	\$ 45,630.00	\$ 25,350.00	\$ 177,450.00	\$ 552,630.00	\$ 110,526.00	
36	Section No 4	659	13,180.00	\$ 395,400.00	\$ 59,310.00	\$ 32,950.00	\$ 230,650.00	\$ 718,310.00	\$ 143,662.00	
37	Section No 5	796	15,920.00	\$ 477,600.00	\$ 71,640.00	\$ 39,800.00	\$ 278,600.00	\$ 867,640.00	\$ 173,528.00	
38	Totals	2613	52260	\$ 1,567,800.00	\$ 235,170.00	\$ 130,650.00	\$ 914,550.00	\$ 2,848,170.00	\$ 569,634.00	

39	OUTSOURCED COSTS							
40	Inventory	No of Ash Trees	Total Tree Diameter Inches (DBH) (Average is 20 inch DBH)	Treatment Cost	Cycle One 2013 Cost	Cycle Two 2015 Cost	Cycle Three 2017 Cost	Total Program Cost
41				\$ 5.50		\$ 5.50	\$ 5.50	
42	Section No 1	20	400	\$ 2,200.00	\$ 2,200.00	\$ 2,200.00	\$ 2,200.00	
43	Section No 2	631	12,620	\$ 69,410.00	\$ 69,410.00	\$ 69,410.00	\$ 69,410.00	
44	Section No 3	507	10,140	\$ 55,770.00	\$ 55,770.00	\$ 55,770.00	\$ 55,770.00	
45	Section No 4	659	13,180	\$ 72,490.00	\$ 72,490.00	\$ 72,490.00	\$ 72,490.00	
46	Section No 5	796	15,920	\$ 87,560.00	\$ 87,560.00	\$ 87,560.00	\$ 87,560.00	
47	Totals	2613	52260	\$ 287,430.00	\$ 287,430.00	\$ 287,430.00	\$ 287,430.00	\$ 862,290.00

Tree Trm Sections



Downers Towns

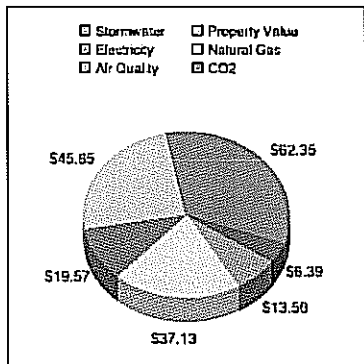


[Home](#) [Calculate another tree](#)

# National Tree Benefit Calculator

Beta

Overall Benefits Stormwater Property Value Energy Air Quality CO2 About the model



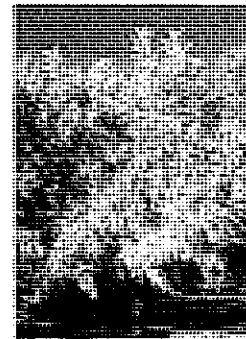
**Breakdown of your tree's benefits**  
Click on one of the tabs above for more detail

This 20 inch Ash provides overall benefits of: **\$185 every year.**

While some functional benefits of trees are well documented, others are difficult to quantify (e.g., human social and communal health). Trees' specific geography, climate, and interactions with humans and infrastructure is highly variable and makes precise calculations that much more difficult. Given these complexities, the results presented here should be considered initial approximations—a general accounting of the benefits produced by urban street-side plantings.

Benefits of trees do not account for the costs associated with trees' long-term care and maintenance.

If this tree is cared for and grows to 25 inches, it will provide **\$219** in annual benefits.



Ash  
Fraxinus spades



The National Tree Benefit Calculator was conceived and developed by Casey Trees and Davey Tree Expert Co.

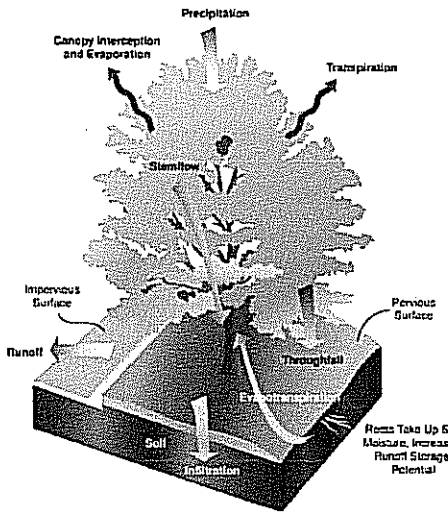


[Home](#) [Calculate another tree](#)

## National Tree Benefit Calculator

Beta

Overall Benefits	Stormwater	Property Value	Energy	Air Quality	CO2	About the model
------------------	------------	----------------	--------	-------------	-----	-----------------



**Your 20 inch Ash will intercept 2,301 gallons of stormwater runoff this year.**

Urban stormwater runoff (or "non-point source pollution") washes chemicals (oil, gasoline, salts, etc.) and litter from surfaces such as roadways and parking lots into streams, wetlands, rivers and oceans. The more impervious the surface (e.g., concrete, asphalt, rooftops), the more quickly pollutants are washed into our community waterways. Drinking water, aquatic life and the health of our entire ecosystem can be adversely affected by this process.

Trees act as mini-reservoirs, controlling runoff at the source. Trees reduce runoff by:

- Intercepting and holding rain on leaves, branches and bark
- Increasing infiltration and storage of rainwater through the tree's root system
- Reducing soil erosion by slowing rainfall before it strikes the soil

For more information visit: [The Center for Urban Forest Research](#)



The National Tree Benefit Calculator was conceived and developed by  
[Casey Trees](#) and [Davey Tree Expert Co.](#)



[Home](#) [Calculate another tree](#)

# National Tree Benefit Calculator

Beta

Overall Benefits

Stormwater

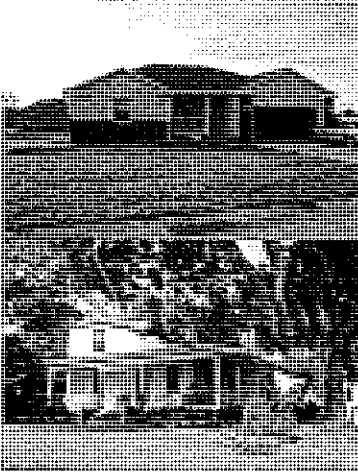
Property Value

Energy

Air Quality

CO2

About the model



Located in front of a single family home, this 20 inch Ash will raise the property value by \$46 this year.

Trees in front of single family homes have a greater property value benefit than those in front of multi-family homes, parks or commercial properties. Real estate agents have long known that trees can increase the "curb appeal" of properties thereby increasing sale prices. Research has verified this by showing that home buyers are willing to pay more for properties with ample versus few or no trees.

This model uses a tree's Leaf Surface Area (LSA) to determine increases in property values. That's a researcher's way of saying that a home with more trees (and more LSA) tends to have a higher value than one with fewer trees (and lower LSA). The values shown are annual and accumulate incrementally over time because each tree typically adds more leaf surface area each growing season. The amount of that increase depends on the type of tree – some add more, some less.

The 20 Inch Ash you selected will add 190 square feet of LSA this year. In subsequent years it will add more, and the property value will increase accordingly.

For more information visit: [The Center for Urban Forest Research](#)



The National Tree Benefit Calculator was conceived and developed by Casey Trees and Davey Tree Expert Co.

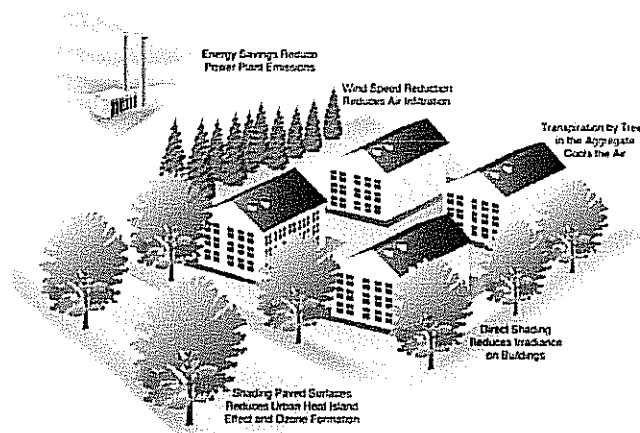


[Home](#) [Calculate another tree](#)

## National Tree Benefit Calculator

Beta

Overall Benefits	Stormwater	Property Value	Energy	Air Quality	CO2	About the model
------------------	------------	----------------	--------	-------------	-----	-----------------



**Your 20 inch Ash will conserve 258 Kilowatt / hours of electricity for cooling and reduce consumption of oil or natural gas by 38 therm(s).**

Trees modify climate and conserve building energy use in three principal ways (see figure at left):

- Shading reduces the amount of heat absorbed and stored by buildings.
- Evapotranspiration converts liquid water to water vapor and cools the air by using solar energy that would otherwise result in heating of the air.
- Tree canopies slow down winds thereby reducing the amount of heat lost from a home, especially where conductivity is high (e.g., glass windows).

Strategically placed trees can increase home energy efficiency. In summer, trees shading east and west walls keep buildings cooler. In winter, allowing the sun to strike the southern side of a building can warm interior spaces. If southern walls are shaded by dense evergreen trees there may be a resultant increase in winter heating costs.

For more information visit: [The Center for Urban Forest Research](#)



The National Tree Benefit Calculator was conceived and developed by  
[Casey Trees](#) and [Davey Tree Expert Co.](#)

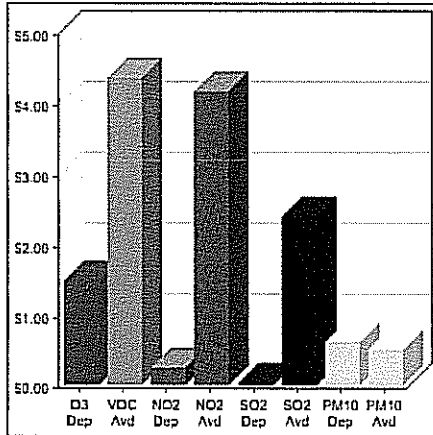


[Home](#) [Calculate another tree](#)

## National Tree Benefit Calculator

Beta

Overall Benefits Stormwater Property Value Energy **Air Quality** CO2 About the model



"Dep" stands for deposition. This is your tree absorbing or intercepting pollutants. "Avd" stands for avoided. This is your tree lessening the need for creation of these pollutants in the first place by reducing energy production needs.

Air quality benefits of your 20 inch Ash shown in the graph at left.

Air pollution is a serious health threat that causes asthma, coughing, headaches, respiratory and heart disease, and cancer. Over 150 million people live in areas where ozone levels violate federal air quality standards; more than 100 million people are impacted when dust and other particulate levels are considered "unhealthy." We now know that the urban forest can mitigate the health effects of pollution by:

- Absorbing pollutants like ozone, nitrogen dioxide and sulfur dioxide through leaves
- Intercepting particulate matter like dust, ash and smoke
- Releasing oxygen through photosynthesis
- Lowering air temperatures which reduces the production of ozone
- Reducing energy use and subsequent pollutant emissions from power plants

It should be noted that trees themselves emit biogenic volatile organic compounds (BVOCs) which can contribute to ground-level ozone production. This may negate the positive impact the tree has on ozone mitigation for some high emitting species (e.g. Willow Oak or Sweetgum). However, the sum total of the tree's environmental benefits always trumps this negative.

For more information visit: [The Center for Urban Forest Research](#)



The National Tree Benefit Calculator was conceived and developed by Casey Trees and Davey Tree Expert Co.





[Home](#) [Calculate another tree](#)

## National Tree Benefit Calculator

Beta

Overall Benefits

Stormwater

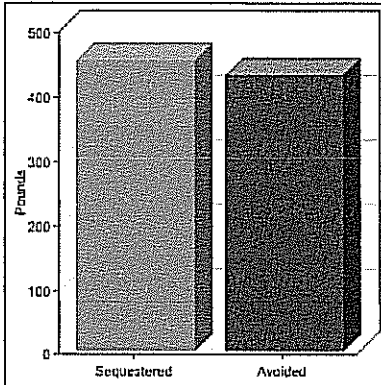
Property Value

Energy

Air Quality

CO2

About the model



This year your 20 inch Ash tree will reduce atmospheric carbon by 887 pounds.

How significant is this number? Most car owners of an "average" car (mid-sized sedan) drive 12,000 miles generating about 11,000 pounds of CO2 every year. A flight from New York to Los Angeles adds 1,400 pounds of CO2 per passenger. Trees can have an impact by reducing atmospheric carbon in two primary ways (see figure at left):

- They sequester ("lock up") CO2 in their roots, trunks, stems and leaves while they grow, and in wood products after they are harvested.
- Trees near buildings can reduce heating and air conditioning demands, thereby reducing emissions associated with power production.

Combating climate change will take a worldwide, multifaceted approach, but by planting a tree in a strategic location, driving fewer miles, or replacing business trips with conference calls, it's easy to see how we can each reduce our individual carbon "footprints."

For more information visit: [The Center for Urban Forest Research](#)



The National Tree Benefit Calculator was conceived and developed by  
[Casey Trees](#) and [Davey Tree Expert Co.](#)



[Home](#)   [Calculate another tree](#)

## National Tree Benefit Calculator

*Beta*

Overall Benefits

Stormwater

Property Value

Energy

Air Quality

CO2

About the model



The Tree Benefit Calculator allows anyone to calculate a first-order approximation of the benefits individual street-side trees provide. This tool is based on I-Tree's street tree assessment tool called **STREETS**. With minimal inputs of location, species and tree size, users will get an understanding of the environmental and economic value trees provide on an annual basis.

The Tree Benefit Calculator is intended to be simple and accessible. As such, this tool should be considered a starting point for understanding trees' value in the community rather than a scientific accounting of precise values. For more detailed information on urban and community forest assessments, visit the [I-Tree](#) website.

#### Credits:

- The National Tree Benefit Calculator was conceived and developed by [Casey Trees](#) and [Davey Tree Expert Co.](#)
- This tool is powered by I-Tree; the data generating the results comes from the I-Tree Tools CD ROM: <http://www.itreetools.org/>
- Significant text and graphical content was originally published by the USDA Forest Service's Center for Urban Forest Research through their [Tree Guide](#) series of publications. Credit should be given to authors of these publications.
- Facts about personal carbon production based on driving and flying courtesy of [Conservation International](#)
- For questions about this tool, contact [Mike Alonzo](#) (Casey Trees) or [Scott Maco](#) (Davey Tree Expert Co.)



The National Tree Benefit Calculator was conceived and developed by  
[Casey Trees](#) and [Davey Tree Expert Co.](#)





## Multiple-year Protection of Ash Trees from Emerald Ash Borer with a Single Trunk Injection of Emamectin Benzoate, and Single-year Protection with an Imidacloprid Basal Drench

David R. Smitley, Joseph J. Daccola, and David L. Cox

**Abstract.** Green ash (*Fraxinus pennsylvanica* Marsh.) street trees ranging in size from 25 to 45 cm dbh were trunk injected with emamectin benzoate at rates of 0.10–0.60 g ai/2.54 cm dbh at three Michigan, U.S., locations in 2005 or 2006. Tree health was monitored by annual canopy thinning and dieback ratings for up to four years after a single treatment. Branch samples were collected in the autumn and the bark removed to count emerald ash borer larvae for most treatments over the same period of time. A single trunk injection treatment of emamectin benzoate at the 0.1, 0.2, or 0.4 g ai rate gave 100% control of emerald ash borer larvae in 98 of 99 treated trees for 2–3 years. Canopy ratings for treated trees remained similar for 2–4 years following trunk injection, while >50% of the control trees died during the same period of time. Ash trees that received a combination of an imidacloprid trunk injection and an imidacloprid basal drench or an annual imidacloprid basal drench had similar canopy ratings, but more larvae were found in branches from trees receiving the annual basal drench.

**Key Words.** *Agrilus planipennis*; Ash; Emerald Ash Borer; Emamectin Benzoate; *Fraxinus*; Trunk Injection.

Emerald ash borer (EAB), *Agrilus planipennis* Fairmaire (Coleoptera: Buprestidae) is native to China, Korea, Taiwan, Japan, Russia, and Mongolia (Hnack et al. 2002; Bray et al. 2007). It was first discovered in North America in 2002 after urban ash trees near Detroit, Michigan, U.S., were observed to decline and die at an unprecedented rate (Cappaert et al. 2005; Smitley et al. 2008). As of March 2010, EAB has been found in 13 U.S. states (Michigan, Ohio, Indiana, Illinois, Pennsylvania, Kentucky, Wisconsin, West Virginia, Maryland, Virginia, Missouri, Minnesota, and New York), and two Canadian provinces (Ontario and Québec) (USDA 2010). Unfortunately, EAB is causing nearly 100% mortality of ash (*Fraxinus* spp.) trees in any growing environment unless they are treated with efficacious insecticides (Cappaert et al. 2005; Poland and McCullough 2006; Smitley et al. 2008). As EAB continues to spread, an increasing number of municipalities and private property owners face difficult decisions about the removal of ash trees or investment in insecticide treatment of selected trees. Trunk injections of imidacloprid or emamectin benzoate, and basal soil applications of imidacloprid were adequately efficacious against emerald ash borer when applied every year, but little information is available on more than one year of control following a single treatment (Cappaert et al. 2005; Herms et al. 2009; Smitley et al. 2010). Up until this time, very few private property owners and a small proportion of municipalities have chosen to treat ash shade trees with insecticides, most likely because they believe insecticide treatments are more expensive than tree removal, or are not reliable for saving ash trees. During the past five years, trunk injections of emamectin benzoate have dramatically changed the cost/benefit analysis for treating ash trees to protect them from EAB. Data presented in this paper detail extremely efficacious and consistent protection

over multiple years from a single application. This results in a lower annual cost than previous treatments, less injury to trees, and improved environmental safety because all of the insecticide is contained within the tree, with the exception of any residue that may be found in shed leaves (Kreutzweiser et al. 2008).

### MATERIALS AND METHODS

Trunk injection of emamectin benzoate was evaluated for control of EAB larvae for 2–4 years following a single treatment of green ash (*Fraxinus pennsylvanica* Marsh.) street trees at three locations: Troy, East Lansing, and Adrian, Michigan. Emamectin benzoate treatments were compared with a control (nontreated) treatment at each location, and also with a standard treatment (imidacloprid trunk injection plus imidacloprid basal soil drench) at the Adrian site. Efficacy against EAB larvae was determined by collecting branch samples each autumn and removing the bark to count larvae and new galleries. Branches were pruned from the upper one-third of the tree canopy between September 15 and November 4 each year. Three branches, at least 1.0 m long and with a diameter between 4 and 12 cm, were removed from each tree by city arborists using a bucket truck, while additional crew provided assistance from the ground. Branches in this size range were chosen because in previous surveys the greatest density of EAB larvae was found in branches with a diameter of 8–12 cm (Marshall et al. 2009). All of the trees in this study were healthy at the start of testing, dead branches were rarely encountered with the exception of the control trees. When the canopy thinning of control trees exceeded 65% in July, some branches of these trees were found to be entirely dead during branch sampling in autumn. In September and early October, dead branches were

avoided by only sampling branches with live leaves. In late October or early November, after leaf abscission, dead branches in control trees were avoided by scraping a patch of bark before cutting a branch to make sure it was alive. In some cases when it was not possible to find three live branches, only one or two branches were sampled. If no live branches were found then the tree was excluded from branch sampling and the number of replications was reduced accordingly. The first live branch found in the upper one-third canopy with a diameter of 4–12 cm was removed, and the remaining two branches were chosen to be as far away as possible from the first branch, and from each other, to maintain canopy balance. Bark splits and emergence holes were not considered in branch sampling. Branch samples were dropped to the ground where side branches and twigs were removed.

The branches were bundled and labeled for transport to Michigan State University's Entomology Field Research Farm in East Lansing for processing. When branches were processed, a 0.65 m-long section in the center of each branch was marked for scraping. The circumference of each branch was recorded at both ends of the scraped area. Surface area of each branch sample was determined by averaging the circumference of both ends, and using the formula for the surface area of a cylinder ( $L \times \pi R$ ). EAB galleries and larvae were counted after clamping branch sections between the ends of a modified saw-horse and removing the bark with a drawknife and chisel. Branch samples were processed in a heated shed at the Entomology Field Research Farm. Annual canopy thinning and dieback ratings were made in July each year by comparing the canopy of each tree with photographs in various stages of decline from 0% (healthy) to 100% (dead) in 10% increments (Smitley et al. 2008). Each tree was rated by two or three individuals and averaged across observations to obtain an annual defoliation rating. When study trees were rated at >90% canopy thinning and dieback in July, they were excluded from branch sampling, and the trees were removed by the city during the winter.

Treatment means were compared at each test site using the general linear models procedure (PROC GLM) of SAS 9.1 (SAS 2003). Levene's test was used as part of the GLM procedure to test for homogeneity of variance. Percent data were transformed to arcsine square root ( $x$ ) before analysis. Means were separated at the  $P = 0.05$  level using Tukey's option in the MEANS statement. This performs a Tukey's studentized range test (HSD) when group sizes are equal and a Tukey-Kramer test when group sizes are unequal (SAS 2003).

### Troy Site 2005–2006

Street trees in a neighborhood in the northern part of Troy, MI, were used for this test. These trees were between 12 and 26-years-old and ranged in size from 18–61 cm diameter at breast height (dbh). The mean dbh was 35.6 cm. Trees in this test were planted and maintained by the City of Troy. The trees were located between the street and the sidewalk, and were spaced a minimum 15 m apart and in no case did they overlap. Tree trunks were measured and marked with a metal tag during the final two weeks of April 2005. Lawns in the neighborhood were well-maintained and received natural rainfall, but very few were irrigated. Trees were grouped into 10 blocks of six trees based on location in the neighborhood. Each treatment was replicated 10 times with each replicate consisting of an individual tree. The treatments at this site consisted of five rates (0.10, 0.20, 0.40, 0.48, and 0.60

g ai/2.54 cm dbh) of emamectin benzoate formulated by Arborjet, Inc. (Woburn, MA, U.S.) and Syngenta Crop Protection, Inc. (Greensboro, NC, U.S.) as a 4.0 % ME. All trees receiving an emamectin treatment were trunk-injected on May 25, 2005 using the Arborjet Tree IV™ system. The formulated insecticide was diluted 1:1 with water and put into a bottle pressurized to 3.16 kg/cm<sup>2</sup> before being injected through four evenly spaced sites on the lower trunk of each test tree. All treated trees received a single trunk injection treatment on May 25, 2005, with the exception of trees receiving the 0.1 g ai/2.54 cm rate, which were injected again May 23, 2006, at the same rate. Control trees were not injected or treated with any insecticide. Canopy thinning and dieback ratings were made for each tree on June 27, 2005, and June 15, 2006, as previously described. Upper branches were sampled using a bucket truck in October 2005, and the bark scraped as described.

### East Lansing Site, 2005–2009

Green ash street trees in East Lansing, MI, between 14 and 28-years-old with a trunk diameter between 25 and 61 cm (mean = 35.6 cm) were maintained by the City of East Lansing. Trees were located between the street and the sidewalk in seven different neighborhoods and spaced a minimum of 15 m apart to prevent canopy overlap. Tree trunks were measured and marked with a metal tag during the first week of August 2005. Study trees were located in well-maintained lawns, but very few were irrigated. Treatments were replicated 10 times with individual tree replicates. A description of each of the four treatments in this test follows, including the formulation, type of application, rate, and application date.

(1) TREE-lige (emamectin benzoate, Syngenta Crop Protection, Inc.) was applied once at 10 ml/2.54 cm dbh (0.4 g ai) on September 27, 2005. To apply using the Arborjet Tree IV system, emamectin benzoate was diluted 1:1 with water and the solution was placed into a single pressurized 3.16 kg/cm<sup>2</sup> bottle connected to four injection needles. At four evenly-spaced distances around the trunk at a height of 20–40 cm above the ground, four holes were drilled into the sapwood and a plastic septum (Arborjet #4 plug) was inserted, through which needles were placed for injection. (2) Emamectin benzoate was applied once in spring 2007 at 2.5 ml/2.54 cm (0.1 g ai) dbh. Trunk injections were made with the Arborjet QUIK-jet™ micro-injector. The number of injection sites was determined by the formula: trunk cm dbh/5.08. Undiluted emamectin benzoate was injected in equal amounts through plastic septa. A rate of 0.1 g ai/2.54 cm dbh was injected on May 21, 2007. (3) Emamectin benzoate was trunk injected in spring 2007 at 5 ml/2.54 cm dbh (0.2 g ai). Injections were made once on May 21, 2007 with the micro-injector as previously described. One tree was dropped from the test after the first year because the homeowner applied an additional insecticide treatment. (4) Control treatment, these trees were not treated.

Annually in early July, and as previously described, canopy thinning and dieback ratings were made for each tree. When branch sampling was included, the branches were pruned from the upper one-third of the tree canopy between September 19 and 26, 2006, October 8 and 12, 2007, or November 4 and 10, 2008. Branches were collected, the bark removed, and EAB larvae counted as previously described.

### Adrian Site, 2006–2009

Green ash street trees in Adrian, MI, between 14 and 28-years-old and from 15–65 cm dbh (mean dbh = 43 cm in 2008), were selected for this test. Test trees were located between the street and the sidewalk in five different neighborhoods. All of the green ash street trees in these neighborhoods were used in the study if they had at least a 15 cm dbh, appeared to be relatively healthy (less than 25% canopy thinning and dieback in September 2005), and were spaced at least 15 m apart. Tree trunks were measured and marked with a metal tag during the first week of September 2005. Study trees were located in low-maintenance lawns, and very few were irrigated. Each treatment was replicated 10 times with each replicate consisting of an individual tree. Four insecticide treatments and two control treatments were evaluated from June 2006 to July 2009. A description of each treatment follows, including the formulation, type of application, rate, and application date.

(1) Emamectin benzoate was applied once at 10 ml/2.54 cm dbh (0.4 g ai) on June 22, 2006. Trunk injections were made as previously described in the East Lansing test. (2) Emamectin benzoate, trunk injected as described in treatment (1). The only difference among these two treatments is that branch samples were collected and scraped to count larvae for treatment (1) but not for treatment (2).

Unlike the previous two studies sites, (3) Imidacloprid 75 WP, was applied as a basal drench at a rate of 1.42 g ai/2.54 cm dbh. Annual treatments consisted of the appropriate amount of imidacloprid mixed in 5.7 l of water and poured around the base of the tree within 70 cm of the trunk on June 27, 2006, May 24, 2007, and June 3, 2008. (4) Imidacloprid 5% SL, formulated by Arborjet and Bayer, was trunk-injected using the Arborjet Tree IV system at a rate of 0.2 g ai/2.54 cm trunk dbh. The formulated insecticide was diluted 1:1 with water and put into a bottle pressurized to 3.16 kg/cm<sup>2</sup> before being injected through four sites on the lower trunk of each test tree on June 22, 2006. In addition, trees in treatment (4) also received an imidacloprid basal drench at a rate of 1.42 g ai/2.54 cm dbh on June 6, 2007, and June 10, 2008. Trees in treatments (5) and (6) were left as untreated controls.

Canopy thinning and dieback ratings were made for each tree in early July of each year as previously described. Upper branches from trees in three treatments were collected between October 15 and 19, 2007. The bark was removed and EAB larvae counted as previously described.

### RESULTS

Results from all three locations indicate a single trunk injection treatment of ash trees up to 45 cm dbh in size, made in May or June with emamectin benzoate at 0.1–0.4 g ai/2.54 cm dbh consistently gives nearly 100% control of EAB larvae even under intense pressure from EAB. Control trees declined rapidly at test sites due to EAB infestation, going from canopy thinning ratings of 19% to 54% in one year at Troy, 15% to 58% in four years at East Lansing, and from 15% to 87% in three years at Adrian, while canopy thinning ratings for ash trees that were trunk-injected with emamectin remained similar throughout the test period.

The death and removal of some trees decreased the number of replications in the third and fourth year of this study at the East Lansing and Adrian sites. Two trees at the Troy site and one tree at each of the East Lansing and Adrian sites were prematurely removed by city arborists during the winter by mistake. The av-

erage area of bark sampled per tree was 1067 cm<sup>2</sup>, and ranged from 691 cm<sup>2</sup> to 3,741 cm<sup>2</sup>, depending on the size of the tree.

### Troy Site, 2005–2006

Green ash street trees in Troy were of a uniform size at the beginning of the test in June 2005 (29.2–30.5 ± 6.5 cm dbh) (Table 1). Initial tree health ratings as measured by canopy thinning were also similar, with no differences among treatments with the exception of trees receiving the highest rate of emamectin benzoate. Ash trees in that treatment started the test in June 2005 with a significantly higher level of canopy thinning (41.5 ± 26.0%) compared with control trees (19.0 ± 14.7%). This happened despite a random assignment of trees to treatments.

All rates of emamectin benzoate (0.1–0.6 g ai/2.54 cm dbh) were extremely effective when applied as a trunk injection in late May 2005. No larvae were found in any of the branch samples (30 branch sections per treatment) collected in October 2005, despite evidence of a moderate level of EAB tunneling injury from the year before (11.2 old galleries/m<sup>2</sup>) and intense pressure from EAB in 2005 (59.2 live larvae/m<sup>2</sup> in control trees). Complete protection of ash trees from the trunk injections of emamectin at all tested rates in May 2005 was expressed the following summer (July 2006) in canopy thinning ratings that were as good or better than the initial ratings in June 2005 (16.7%–34.3% canopy thinning). Meanwhile, control trees declined rapidly in response to the extensive damage caused by 59.2 larvae/m<sup>2</sup>, deteriorating to a mean rating of 59.2% canopy thinning and dieback in June 2006 (Table 1).

### East Lansing Site, 2005–2009

Trees in the East Lansing site were of similar in size (28–38 ± 10 cm dbh) as those evaluated in Troy, but trunk injection treatments were initiated at an earlier stage of EAB infestation, when trees were still in excellent health based on average ratings of 7% to 17% canopy thinning (Table 2). EAB density increased four-fold in control trees from autumn 2007 to autumn 2008, going from 6.9±9.4 to 28.7±21.5 larvae/m<sup>2</sup>, respectively. In stark contrast, no larvae were found in branch samples collected from trees that were trunk injected with emamectin benzoate three years earlier at a rate of 0.4 g ai/2.54 cm in September 2005. The same trees continued looking healthy through August 2009, when they were rated as having 13.8 ± 14.1% canopy thinning, compared to a mean rating of 58.1 ± 33.2% for control trees (Table 2). Emamectin trunk injections made in May 2007 at the 0.1 or 0.2 g ai/2.54 cm dbh rate also provided excellent protection, with no EAB larvae being found in branches collected from treated trees in October 2007 or October 2008.

### Adrian Site, 2006–2009

Green ash street trees in all treatments were healthy at the beginning of the test in July 2006 (14.2%–16% canopy thinning, Table 3). Trees in the two control treatments remained healthy in 2007 (10.3%–12% canopy thinning), but declined rapidly in 2008 (58.3%–64% canopy thinning and dieback) in response to intense pressure from EAB. Nearly all the ash trees in both control treatments were dead by July 2009 (84.6%–89.5% canopy thinning and dieback). During the same time period (2006–2009), trees that were trunk-injected with emamectin benzoate at 0.4 g ai/2.54 cm dbh in June 2006 remained healthy (Table 3). Trees

receiving an annual basal drench of imidacloprid or a combination of imidacloprid basal drenches and an imidacloprid trunk injection also remained healthy during the test. Canopy ratings made in July 2009 and branch samples in October 2008 indicate ash trees receiving a single trunk injection of emamectin benzoate were well-protected for at least two years. Some EAB larvae were found in branch samples from one emamectin-treated tree in October 2007, but no larvae were found in any samples from emamectin treated trees in October 2008 (Table 3).

## DISCUSSION

The authors of the study did not determine how important adult mortality was compared with larval mortality for trunk-injected trees in this study. However, when the bark was removed from branches in September and October live larvae in the emamectin-treated trees were not found, while dead EAB larvae were rarely found, suggesting that adult mortality, reduced egg-laying, and mortality of young larvae are the most likely mechanisms of EAB control. Also, no EAB larvae were located

in emamectin-treated trees, even when the trees were surrounded by heavily infested ash (28–45 EAB larvae/m<sup>2</sup>). It is likely that under these conditions some EAB females would fly from surrounding ash to deposit eggs on the study trees, yet no larvae in the emamectin treated trees were found. This suggests emamectin is toxic to EAB larvae that tunnel into treated trees.

Trunk injections of emamectin benzoate reduced the density of EAB larvae found in treated trees by nearly 100% compared with control trees at all three sites. In the longest-running test at the East Lansing site, a single trunk injection of emamectin benzoate at the 0.4 g ai/2.54 cm dbh rate applied to ash trees with a 41 cm dbh gave 100% control of EAB larvae for three years. This suggests ash trees of this size could be adequately protected by making a trunk injection treatment at the 0.4 g ai rate once every three or four years. Our results also showed trunk injections at the 0.1 or 0.2 g ai/per 2.54 cm dbh rate gave excellent protection of 38 cm dbh trees for two years. Ash trees could be protected with trunk injections made at the 0.1 g ai rate once every two years. This is half the amount of ai that would be required to treat trees once every four years at the 0.4 ai rate.

**Table 1. Troy, Michigan: emerald ash borer larval density in green ash street trees and canopy thinning ratings of the same trees for 1.5 years after trunk injection of emamectin benzoate at rates of 0.10–0.60 g ai/2.54 cm dbh. Data are means  $\pm$  SD. Each treatment has 10 replications unless indicated otherwise under mean  $\pm$  SD as (n).**

Treatment	Treatment Dates	2005 dbh (cm)	2005 Canopy thinning (%)	2005 Larvae per m <sup>2</sup>	2006 Canopy thinning (%)
Emamectin 0.10 g/2.54 cm dbh	5-25-05 + 5-23-06	30.0 $\pm$ 3.6	16.5 $\pm$ 13.4 A	0 $\pm$ 0 A	16.7 $\pm$ 8.8
Emamectin 0.20 g/2.54 cm dbh	5-25-05	30.0 $\pm$ 3.6	25.0 $\pm$ 11.1 AB	0 $\pm$ 0 A	26.7 $\pm$ 25.0
Emamectin 0.40 g/2.54 cm dbh	5-25-05	30.5 $\pm$ 5.8	30.8 $\pm$ 22.1 AB	0 $\pm$ 0 A	28.2 $\pm$ 27.9
Emamectin 0.48 g/2.54 cm dbh	5-25-05	26.4 $\pm$ 6.4	26.8 $\pm$ 13.2 AB	0 $\pm$ 0 A	21.0 $\pm$ 14.5
Emamectin 0.60 g/2.54 cm dbh	5-25-05	30.4 $\pm$ 6.5	41.5 $\pm$ 26.0 B	0 $\pm$ 0 A	34.3 $\pm$ 40.2 (9)
Control	-	29.6 $\pm$ 4.8	19.0 $\pm$ 14.7 A	59.2 $\pm$ 72.0 B	54.3 $\pm$ 33.9 (9)

Means followed by the same letter are not significantly different at  $P = 0.05$ , by the Tukey-Kramer test.

**Table 2. East Lansing, Michigan: emerald ash borer larval density in green ash street trees and canopy thinning ratings of the same trees for one to three years after a single trunk injection of emamectin benzoate at a rate of 0.4 g ai/ inch dbh on September 27, 2005, or at 0.2 or 0.1 ai/2.54 cm dbh on May 21, 2007. Data are means  $\pm$  SD. Each treatment has 10 replications unless indicated otherwise under the mean  $\pm$  SD by (n).**

Treatment	Treatment Dates	2006 dbh (cm)	2006 canopy Thinning (%)	2007 canopy thinning	2007 Larvae per m <sup>2</sup>	2008 canopy Thinning (%)	2008 larvae per m <sup>2</sup>	2009 canopy thinning (%)
Emamectin trunk injection 0.4 g ai/inch dbh	Sept. 2005	29.9 $\pm$ 11.4	7.3 $\pm$ 8.9	12.8 $\pm$ 14.8	0 $\pm$ 0 A	19.3 $\pm$ 17.9A	0 $\pm$ 0 A	13.8 $\pm$ 14 A
Emamectin trunk injection 0.2 g ai/inch dbh	May 2007	29.2 $\pm$ 4.1	11.8 $\pm$ 1.6	17.3 $\pm$ 13.5 (9)	0 $\pm$ 0 A (9)	12.8 $\pm$ 8.8 A (9)	0 $\pm$ 0 A (9)	13.1 $\pm$ 13.3 A (9)
Emamectin trunk injection 0.1 g ai/inch dbh	May 2007	38.2 $\pm$ 7.3	17.0 $\pm$ 10.5	11.4 $\pm$ 15.9	0 $\pm$ 0 A	29.8 $\pm$ 29.4 A	0 $\pm$ 0 A (6)	10.4 $\pm$ 9.1 A (7)
Control	-	28.7 $\pm$ 10.6	16.0 $\pm$ 21.0	28.5 $\pm$ 27.9	6.9 $\pm$ 9.4 B	51.3 $\pm$ 30.2 B	28.7 $\pm$ 21.5 B	58.1 $\pm$ 33.2 B

**Table 3.** Adrian, Michigan: emerald ash borer larval density in green ash street trees and canopy thinning ratings of the same trees for 3–4 years after a single trunk injection of emamectin benzoate on June 22, 2006. Data are means  $\pm$  SD. Each treatment has 10 replications unless shown under the mean  $\pm$  SD as (n).

Treatment	Treatment dates	2008 dbh (cm)	2006 canopy thinning (%)	2007 canopy thinning (%)	2007 larvae per m <sup>2</sup>	2008 canopy thinning (%)	2008 larvae per m <sup>2</sup>	2009 canopy thinning (%)
Emamectin trunk injection 0.4 g ai/inch dbh	June 2006	45.0 $\pm$ 8.1 A*	14.4 $\pm$ 3.1 A	11.1 $\pm$ 6.0 A	-	12.3 $\pm$ 10.4 A	-	7.2 $\pm$ 6.7 A
Emamectin trunk injection 0.4 g ai/inch dbh	June 2006	43.1 $\pm$ 12.2 A	16.0 $\pm$ 5.0 A	11.6 $\pm$ 6.5 A	2.4 $\pm$ 7.1 A	13.0 $\pm$ 12.7 A (9)	0 $\pm$ 0 A (9)	20.0 $\pm$ 8.0 A
Imidacloprid trunk injection + soil imidacloprid	June 2007 + June 2007, 2008	38.4 $\pm$ 9.8 A	14.9 $\pm$ 3.6 A	12.0 $\pm$ 4.9 A	-	13.5 $\pm$ 12.0 A	-	23.9 $\pm$ 10.1 A
Soil imidacloprid	June 2006, 2007, 2008	39.6 $\pm$ 15.0 A	14.2 $\pm$ 5.7 A	8.4 $\pm$ 4.0 A	3.6 $\pm$ 6.8 A	33.0 $\pm$ 25.8 AB	5.7 $\pm$ 5.6 AB (4)	30.3 $\pm$ 22.0 A
Control 1	-	43.4 $\pm$ 16.9 A	-	12.0 $\pm$ 15.1 A	-	58.3 $\pm$ 26.5 BC	23.6 $\pm$ 39.4 B (8)	89.5 $\pm$ 13.4 B
Control 2	-	41.7 $\pm$ 11.2 A	15.6 $\pm$ 5.4 A	10.3 $\pm$ 7.0 A	6.2 $\pm$ 6.6 A	64.0 $\pm$ 29.3 C	27.7 $\pm$ 28.9 B (7)	84.6 $\pm$ 12.0 B

\* Means followed by the same letter are not significantly different at  $P = 0.05$ , by the Tukey-Kramer test.

Ash trees receiving an annual basal drench of imidacloprid or a combination of an imidacloprid basal drench and an imidacloprid trunk injection also appeared healthy as determined by canopy thinning ratings at the end of the Adrian test, but significantly more EAB larvae (5.7 per m<sup>2</sup>) were found in imidacloprid-treated trees compared with emamectin benzoate-treated trees (0.0 per m<sup>2</sup>).

Protection of ash trees for 2–4 years following a single insecticide treatment completely changes the prognosis for ash street trees and shade trees in North America after invasion of emerald ash borer. Up until this time, insecticide treatment was reserved for only the most valuable trees because of the high cost of making frequent trunk injections. The multiple-year protection documented in this study reduces the projected cost of saving ash trees by at least 50%, bringing treatments well within the range of many homeowners and some cities or other municipalities. For example, one can compare the cost of hiring an arborist to treat a 31.4 cm dbh ash tree with annual trunk injections of IMA-jet (imidacloprid) at the 8 ml/2.54 cm dbh rate, to the cost of hiring the same arborist to treat every other year or every fourth year with TREE-äge (emamectin benzoate) at the 0.4 g ai/2.54 cm dbh rate. At the time of this writing the cost of the imidacloprid insecticide to the arborist is USD \$23.92 per year, the cost of the emamectin benzoate insecticide is \$26.13 per year when treating every third year, and \$17.42 when treating every fourth year. Labor costs vary depending on the arborist, the number and size of trees being treated, and the location of the property. If one adds a labor charge of \$50.00 per treatment-visit for the 31.4 cm dbh tree, then the total average cost per year over a three-year period would be \$73.92/year for annual imidacloprid trunk injections, \$51.13/year for emamectin benzoate injections made every third year, and \$34.09/year for emamectin benzoate injections made every fourth year. This brings the cost of trunk injections into a much more practical range for homeowners, especially when weighed against the cost of tree removal which may be more than \$1,500 for a large tree (62.8 cm dbh).

Data from Troy, East Lansing, and Adrian, MI, indicate most of the ash trees in cities along the leading edge of the contiguous EAB invasion front will perish within five years of when the first trees are found to die from EAB. This was certainly true for Troy, MI, and much of the Detroit Metropolitan area where the first ash trees began to die in 2004. By 2009 all of the ash trees were dead except ones that were protected with insecticide treatments or where young trees have sprouted from the stumps of dead ones. Sprouting ash trees and the germination of ash seed will guarantee the survival of EAB, but populations will be much smaller after the initial five to eight-year period when unprotected ash trees perish. This means the remaining ash trees will be easier to protect with insecticides.

**Acknowledgments.** We appreciate the assistance of Terrance Davis for supervising the field research, and the Cities of Troy, East Lansing, and Adrian, for assisting with branch sampling. This research was partially supported by Arborjet, Inc., Syngenta Crop Science, and the Michigan Agricultural Experiment Station.

#### LITERATURE CITED

- Bray, A.M., L.S. Bauer, R.A. Hauck, T. Poland, and J.J. Smith. 2007. Invasion Genetics of Emerald Ash Borer (*Agrilus planipennis* Fairmaire) in North America. In: Proceedings from the Third Workshop on Genetics of Bark Beetles and Associated Microorganisms, B. Bentz, A. Cognato, and K. Raffa (Eds.).
- Cappuert, D., D.G. McCullough, T.M. Poland, and N.W. Siegert. 2005. Emerald ash borer in North America: a research and regulatory challenge. *American Entomologist* 51:152–165.
- Hauck, R.A., E. Jendek, H. Liu, K.R. Marchant, T.R. Petrice, T.M. Poland, and H. Ye. 2002. The emerald ash borer: a new exotic pest in North America. *Newsletter of the Michigan Entomological Society* 47:1–5.
- Herns, D.A., D.G. McCullough, D.R. Smitley, C.S. Snodgrass, R.C. Williamson, and P.L. Nixon. 2009. Insecticide options for protecting ash trees from emerald ash borer. *North Central IPM Center Bulletin*. 12 pp.

- Kreutzweiser, D.R., K.R. Good, D.I. Chartrand, T.A. Scarr, and D.G. Thompson. 2008. Are leaves that fall from imidacloprid-treated maple trees to control Asian longhorned beetles toxic to non-target decomposer organisms? *Journal of Environmental Quality* 37:639-646.
- Marshall, J.M., A.J. Storer, I. Fraser, and V.C. Mastro. 2009. A predictive model for the detection of *Agrilus planipennis* larvae in ash trees. *Entomologia Experimentalis et Applicata* 133:1-16.
- Poland, T.M., and D.G. McCullough. 2006. Emerald ash borer: invasion of the urban forest and the threat to North America's ash resource. *Journal of Forestry* 104:118-124.
- SAS 2003. SAS 9.1. SAS Institute Inc. Cary, NC.
- Smitley, D., T. Davis, and E. Rebeck. 2008. Progression of ash canopy thinning and dieback outward from the initial infestation of emerald ash borer (Coleoptera: Buprestidae) in Southeast Michigan. *Journal of Economic Entomology* 101:1643-1650.
- Smitley, D.R., E.J. Rebeck, R.N. Royalty, T.W. Davis, and K.F. Newhouse. 2010. Protection of individual ash trees from emerald ash borer (Coleoptera: Buprestidae) with basal soil applications of imidacloprid. *Journal of Economic Entomology* 103:119-126.
- USDA APHIS. 2010. Cooperative Emerald Ash Borer Project. <[http://www.emeraldashborer.info/files/MultiState\\_EABpos.pdf](http://www.emeraldashborer.info/files/MultiState_EABpos.pdf)>.

David R. Smitley (corresponding author)  
Department of Entomology  
Michigan State University  
East Lansing, MI 48824, U.S.  
smitley@msu.edu

Joseph J. Daccola  
Arborjet, Inc.  
99 Blueberry Hill Road  
Woburn, MA 01801, U.S.  
joedaccola@arborjet.com

David L. Cox  
Syngenta Crop Protection, Inc.  
14446 Huntington Rd  
Madera, CA 93636, U.S.  
david.cox@syngenta.com

**Résumé.** Des frênes de Pennsylvanie (*Fraxinus pennsylvanica* Marsh.) de rue de 25 à 45 cm de DHP ont été injectés au tronc avec du benzoate d'émamectine à des taux de 0,1 à 0,6 g d'ingrédient actif par 2,54 cm de DHP, et ce au Michigan en 2005 ou 2006. La condition de santé des arbres a été suivie en regard des taux de densité de la cime et de dépérissement jusqu'à quatre ans après un traitement unique. Des échantillons de branches ont été récoltés en automne et l'écorce enlevée pour faire un décompte des larves d'agrile du frêne pour la plupart des traitements durant la même période. Une injection unique dans le tronc de benzoate d'émamectine à des taux de 0,1 ou 0,4 g d'ingrédient actif a produit un contrôle à 100% des larves d'agrile du frêne sur 98 des 99 arbres traités durant une période de 2 à 3 ans. Les cimes sont demeurées similaires chez les arbres traités durant une période de 2 à 4 ans après l'injection dans le tronc tandis que plus de 50% des arbres témoins moururent au cours de la même période. Les frênes qui ont reçu une combinaison d'imidacloprid par injection dans le tronc et par injection dans le sol ou par injection annuelle dans le sol avaient des cimes similaires, mais plus de larves ont été découvertes dans les branches des arbres qui recevaient des injections annuelles dans le sol.

**Zusammenfassung.** Grüne Eschen als Straßenbäume in der Größe von 25-45 cm Stammdurchmesser wurden im Stamm mit Emamectin Benzoat in Raten von 0,10-0,60 g ai/2,54 cm Stammdurchmesser an drei verschiedenen Standorten in Michigan, U.S. injiziert. Die Baumgesundheit wurde überwacht durch jährliches Ausdünnen der Krone und Bewertung der Totholzabfuhr für bis zu 4 Jahren nach einer Behandlung. Im Herbst wurden Astproben gesammelt und bei den meisten Behandlungen auch die Rinde entfernt, um die Larven des Eschenbohrers im gleichen Zeitraum zu zählen. Eine einzelne Stamminjektion mit Emamectin Benzoat mit Raten von 0,1, 0,2 und 0,4 g ai ergab eine 100% Kontrolle der Larven in 98 von 99 behandelten Bäumen in 2-3 Jahren. Die Kronenbewertung bei behandelten Bäumen blieb über für 2-4 Jahre nach der Behandlung gleich, während >50% der kontrollierten Bäume im gleichen Zeitraum abstarben. Eschen, die eine Kombination aus Imidacloprid-Stamm-Injektion und Imidacloprid-Wurzelauflauf oder einen jährlichen Imidacloprid-Wurzelauflauf erhielten, hatten ähnliche Kronenbilder, aber es wurden mehr Larven in Ästen von Bäumen gefunden, die einen jährlichen Imidacloprid-Wurzelauflauf erhielten.

**Resumen.** Árboles de fresno (*Fraxinus pennsylvanica* Marsh.) de tamaños de 25 a 45 cm de DAP fueron inyectados al tronco con benzoato de emamectina a tasas de 0.10 - 0.60 g/2.54 cm de DAP en tres localidades de Michigan en 2005 y 2006. Fue monitoreada la salud de los árboles por muerte descendente y aclareos de copa anuales por cuatro años después del tratamiento. Se colectaron muestras de ramas en el otoño y la corteza removida para contar las larvas del barrenador esmeralda del fresno para los tratamientos en el mismo periodo. Un solo tratamiento de inyección al tronco de benzoato de emamectina a una tasa de 0.1, 0.2 o 0.4 g dio 100% de control de larvas del barrenador esmeralda del fresno en 98 de 99 árboles tratados para 2-3 años. Los estados de las copas para los árboles tratados permanecieron similares para 2-4 años después de la inyección, mientras que >50% de los árboles tratados murió durante el mismo periodo de tiempo. Los fresnos que recibieron una combinación de una inyección al tronco de imidacloprid y una zanja basal de imidacloprid o un tratamiento anual de zanja con imidacloprid tuvo estados de copa similares, pero se encontraron más larvas en ramas de árboles que recibieron zanjas anuales.

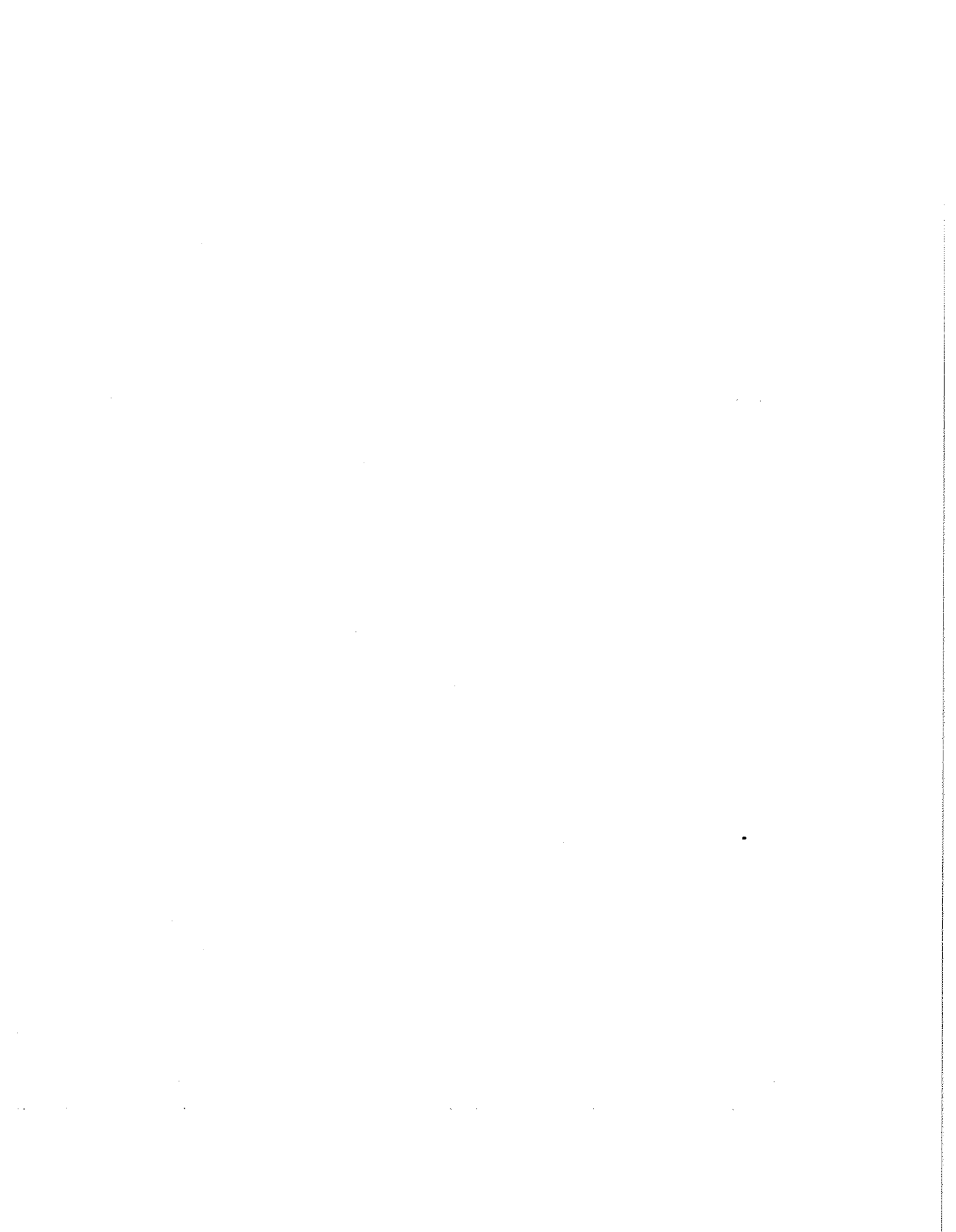


# Insecticide Options for Protecting Ash Trees from Emerald Ash Borer

North Central  
**IPM**  
Center

Daniel A. Herms  
Deborah G. McCullough  
David R. Smitley  
Clifford S. Sadof  
R. Chris Williamson  
Philip L. Nixon

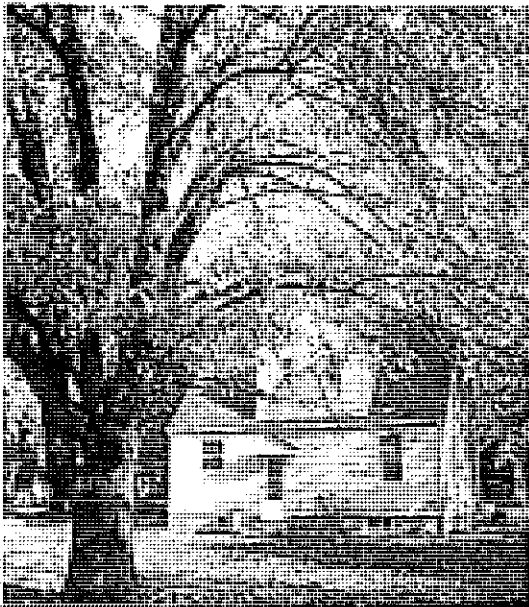




---

# Insecticide Options for Protecting Ash Trees from Emerald Ash Borer

---



Daniel A. Herms<sup>1</sup>, Deborah G. McCullough<sup>2</sup>,  
David R. Smitley<sup>3</sup>, Clifford S. Sadof<sup>4</sup>, R. Chris Williamson<sup>5</sup>,  
and Philip L. Nixon<sup>6</sup>

<sup>1</sup>Professor, Department of Entomology, Ohio Agricultural Research and Development Center, The Ohio State University, Wooster, OH 44691

<sup>2</sup>Professor, Department of Entomology and Department of Forestry, Michigan State University, East Lansing, MI 48824

<sup>3</sup>Professor, Department of Entomology, Michigan State University, East Lansing, MI 48824

<sup>4</sup>Professor, Department of Entomology, Purdue University, West Lafayette, IN 47907

<sup>5</sup>Associate Professor, University of Wisconsin-Madison and University of Wisconsin Cooperative Extension, Madison, WI 53706


<sup>6</sup>Extension Entomologist, Department of Natural Resources and Environmental Sciences, University of Illinois at Urbana-Champaign, Urbana, IL 61801

---

## Contents

Answers to Frequently Asked Questions. ....	3
What options do I have for treating my ash trees? .....	3
I know my tree is already infested with EAB. Will insecticides still be effective? .....	3
My ash tree looks fine but my county is quarantined for EAB. Should I start treating my tree?.....	4
I realize that I will have to protect my ash trees from EAB for several years. Is it worth it? .....	4
Insecticide Options for Controlling EAB .....	5
Using Insecticides to Control EAB .....	6
Soil-Applied Systemic Insecticides .....	6
Trunk-Injected Systemic Insecticides .....	7
Noninvasive, Systemic Basal Trunk Sprays .....	7
Protective Cover Sprays .....	7
How Effective Are Insecticides for Control of EAB? .....	8
Soil-Applied Systemic Insecticides .....	8
Trunk-Injected Systemic Insecticides .....	9
Emamectin benzoate .....	9
Imidacloprid .....	9
Noninvasive Basal Trunk Sprays with Dinotefuran .....	10
Protective Cover Sprays .....	10
Acknowledgements. ....	10
Key Points and Summary Recommendations .....	11

# Insecticide Options for Protecting Ash Trees from Emerald Ash Borer



Emerald ash borer (*Agrilus planipennis* Fairmaire), an invasive insect native to Asia, has killed tens of millions of ash trees in urban, rural and forested settings. This beetle was first discovered in 2002 in southeast Michigan and Windsor, Ontario. As of June 2009, emerald ash borer (EAB) infestations were known to be present in 12 states and two Canadian provinces. Many homeowners, arborists and tree care professionals want to protect valuable ash trees from EAB. Scientists have learned much about this insect and methods to protect ash trees since 2002. This bulletin is designed to answer frequently asked questions and provide the most current information on insecticide options for controlling EAB.

## Answers to Frequently Asked Questions

What options do I have for treating my ash trees?

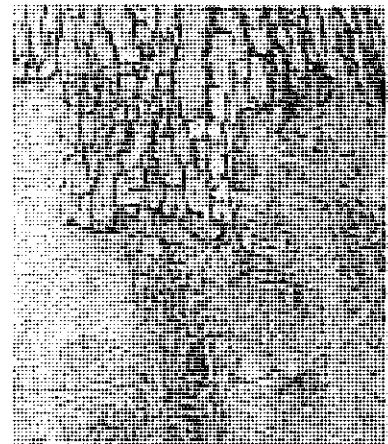
If you elect to treat your ash trees, there are several insecticide options available and research has shown that treatments can be effective. Keep in mind, however, that controlling insects that feed under the bark with insecticides has always been difficult. This is especially true with EAB because our native North American ash trees have little natural resistance to this pest. In university trials, some insecticide treatments were effective in

some sites, but the same treatments failed in other sites. Furthermore, in some studies conducted over multiple years, EAB densities continued to increase in individual trees despite annual treatment. Some arborists have combined treatments to increase the odds of success (e.g., combining a cover spray with a systemic treatment).

Our understanding of how EAB can be managed successfully with insecticides has increased substantially in recent years. The current state of this understanding is detailed in the bulletin. It is important to note that research on management of EAB remains a work in progress. Scientists from universities, government agencies and companies continue to conduct intensive studies to understand how and when insecticide treatments will be most effective.

I know my tree is already infested with EAB. Will insecticides still be effective?

If a tree has lost more than 50 percent of its canopy, it is probably too late to save the tree. Studies have shown that it is best to begin using insecticides while ash trees are still relatively healthy. This is because most of the insecticides used for EAB control act systemically — the insecticide must be transported within the tree. In other words, a tree must be healthy enough to carry a systemic



insecticide up the trunk and into the branches and canopy. When EAB larvae feed, their galleries injure the phloem and xylem that make up the plant's circulatory system. This interferes with the ability of the tree to transport nutrients and water, as well as insecticides. As a tree becomes more and more infested, the injury becomes more severe. Large branches or even the trunk can be girdled by the larval galleries.

Studies have also shown that if the canopy of a tree is already declining when insecticide treatments are initiated, the condition of the tree may continue to deteriorate during the first year of treatment. In many cases, the tree canopy will begin to improve in the second year of treatment. This lag in the reversal of canopy decline probably reflects the time needed for the tree to repair its vascular system after the EAB infestation has been reduced.

My ash tree looks fine but my county is quarantined for EAB. Should I start treating my tree?

Scientists have learned that ash trees with low densities of EAB often have few or no external symptoms of infestation. Therefore, if your property is within a county that has been quarantined for EAB, your ash trees are probably at risk. Similarly, if your trees are outside a quarantined county but are still within 10-15 miles of a known EAB infestation, they may be at risk. If your ash trees are more than 15 miles beyond this range, it is probably too early to begin insecticide treatments. Treatment programs that begin too early are a waste of money. Remember, however, that new EAB infestations have been discovered every year since 2002 and existing EAB populations will build and spread over time. Stay up to date with current EAB quarantine maps and related information at [www.emeraldashborer.info](http://www.emeraldashborer.info). You can use the links in this Web site to access specific information for individual states. When an EAB infestation is detected in a state or county for the first time, it will be added to these maps. Note, however, that once an area has been quarantined, EAB surveys generally stop, and further spread of EAB in that area will not be reflected on future maps.

I realize that I will have to protect my ash trees from EAB for several years. Is it worth it?

The economics of treating ash trees with insecticides for EAB protection are complicated. Factors that can be considered include the cost of the insecticide and expense of application, the size of the trees, the likelihood of success, and potential costs of removing and replacing the trees. Until recently, insecticide products had to be applied every year. A new product that is effective for two years or even longer (emamectin benzoate) has altered the economics of treating ash trees. As research progresses, costs and methods of treating trees will continue to change and it will be important to stay up to date on treatment options.

Benefits of treating trees can be more difficult to quantify than costs. Landscape trees typically increase property values, provide shade and cooling, and contribute to the quality of life in a neighborhood. Many people are sentimental about their trees. These intangible qualities are important and should be part of any decision to invest in an EAB management program.

It is also worth noting that the size of EAB populations in a specific area will change over time. Populations initially build very slowly, but later increase rapidly as more trees become infested. As EAB populations reach their peak, many trees will decline and die within one or two years. As untreated ash trees in the area succumb, however, the local EAB population will decrease substantially. Scientists do not yet have enough experience with EAB to know what will happen over time to trees that survive the initial wave of EAB. Ash seedlings and saplings are common in forests, woodlots, and right-of-ways, however, and it is unlikely that EAB will ever completely disappear from an area. That means that ash trees may always be at some risk of being attacked by EAB, but it seems reasonable to expect that treatment costs could eventually decrease as pest pressure declines after the EAB wave has passed.

## Insecticide Options for Controlling EAB

Insecticides that can effectively control EAB fall into four categories: (1) systemic insecticides that are applied as soil injections or drenches; (2) systemic insecticides applied as trunk injections; (3) systemic insecticides applied as lower trunk sprays; and (4) protective cover sprays that are applied to the trunk, main branches, and (depending on the label) foliage.

Insecticide formulations and application methods that have been evaluated for control of EAB are listed in Table 1. Some are marketed for use by homeowners while others are intended for use only by professional applicators. The "active ingredient" refers to the compound in the product that is actually toxic to the insect.

Formulations included in Table 1 have been evaluated in multiple field trials conducted by the authors. Inclusion of a product in Table 1 does not imply that it is endorsed by the

**Table 1.** Insecticide options for professionals and homeowners for controlling EAB that have been tested in multiple university trials. Some products may not be labeled for use in all states. Some of the listed products failed to protect ash trees when they were applied at labeled rates. Inclusion of a product in this table does not imply that it is endorsed by the authors or has been consistently effective for EAB control. See text for details regarding effectiveness.

Insecticide Formulation	Active Ingredient	Application Method	Recommended Timing
<i>Professional Use Products</i>			
Merit® (75WP, 75WSP, 2F)	Imidacloprid	Soil injection or drench	Mid-fall and/or mid- to late spring
Xytect™ (2F, 75W5P)	Imidacloprid	Soil injection or drench	Mid-fall and/or mid- to late spring
IMA-jet®	Imidacloprid	Trunk injection	Early May to mid-June
Imicide®	Imidacloprid	Trunk injection	Early May to mid-June
TREE-äge™	Emamectin benzoate	Trunk injection	Early May to mid-June
Inject-A-Cide B®	Bidrin®	Trunk injection	Early May to mid-June
Safari™ (20 SG)	Dinotefuran	Systemic bark spray	Early May to mid-June
Astro®	Permethrin	Preventive bark and foliage cover sprays	2 applications at 4-week intervals; first spray should occur when black locust is blooming (early May in southern Ohio to early June in mid-Michigan)
Onyx™	Bifenthrin		
Tempo®	Cyfluthrin		
Sevin® SL	Carbaryl		
<i>Homeowner Formulation</i>			
Bayer Advanced™ Tree & Shrub Insect Control	Imidacloprid	Soil drench	Mid-fall or mid- to late spring



authors or has been consistently effective for EAB control. Please see the following sections for specific information about results from these trials. Results of some tests have also been posted on [www.emeraldashborer.info](http://www.emeraldashborer.info).

Strategies for the most effective use of these insecticide products are described below. It is important to note that pesticide labels and registrations change constantly and vary from state to state. It is the legal responsibility of the pesticide applicator to read, understand and follow all current label directions for the specific pesticide product being used.

## Using Insecticides to Control EAB

### Soil-Applied Systemic Insecticides

Systemic insecticides applied to the soil are taken up by the roots and translocated throughout the tree. The most widely tested soil-applied systemic insecticide for control of EAB is imidacloprid, which is available under several brand names for use by professional applicators and homeowners (see Table 1). All imidacloprid formulations can be applied as a drench by mixing the product with water, then pouring the solution directly on the soil around the base of the trunk. Dinotefuran was recently labeled for use against EAB as a soil treatment (in addition to its use as a basal trunk spray discussed below). Studies to test its effectiveness as a soil treatment are currently underway in Michigan and Ohio.

Imidacloprid soil applications should be made when the soil is moist but not saturated. Application to water-logged soil can result in poor uptake if the insecticide becomes excessively diluted and can also result in puddles of insecticide that could wash away, potentially contaminating surface waters and storm sewers. Insecticide uptake will also be limited when soil is excessively dry. Irrigating the soil surrounding the base of the tree before the insecticide application can improve uptake.

The application rates for the homeowner product (Bayer Advanced™ Tree & Shrub Insect Control) and professional formulations

of imidacloprid are very similar. Homeowners apply the same amount of active ingredient that professionals apply. However, there are certain restrictions on the use of homeowner formulations that do not apply to professional formulations. Homeowner formulations of imidacloprid can be applied only as a drench. It is not legal to inject these products into the soil, although some companies have marketed devices to homeowners specifically for this purpose. Homeowners are also restricted to making only one application per year. Several generic products containing imidacloprid are available to homeowners, but the formulations vary and the effectiveness of these products has not yet been evaluated in university tests.

Soil drenches offer the advantage of requiring no special equipment for application other than a bucket or watering can. However, imidacloprid can bind to surface layers of organic matter, such as mulch or leaf litter, which can reduce uptake by the tree. Before applying soil drenches, it is important to remove, rake or pull away any mulch or dead leaves so the insecticide solution is poured directly on the mineral soil.

Imidacloprid formulations labeled for use by professionals can be applied as a soil drench or as soil injections. Soil injections require specialized equipment, but offer the advantage of placing the insecticide under mulch or turf and directly into the root zone. This also can help to prevent runoff on sloped surfaces. Injections should be made just deep enough to place the insecticide beneath the soil surface (2-4 inches). Soil injections should be made within 18 inches of the trunk where the density of fine roots is highest. As you move away from the tree, large radial roots diverge like spokes on a wheel and studies have shown that uptake is higher when the product is applied at the base of the trunk. There are no studies that show that applying fertilizer with imidacloprid enhances uptake or effectiveness of the insecticide.

Optimal timing for imidacloprid soil injections and drenches is mid-April to mid-May, depending on your region. Allow four to six weeks for uptake and distribution of the insecticide within the tree. In southern Ohio, for example, you would apply the product by





mid-April; in southern Michigan, you should apply the product by early to mid-May. When treating larger trees (e.g., with trunks larger than 12 inches in diameter), treat on the earlier side of the recommended timing. Large trees will require more time for uptake and transportation of the insecticide than will small trees. Recent tests show that imidacloprid soil treatments can also be successful when applied in the fall.

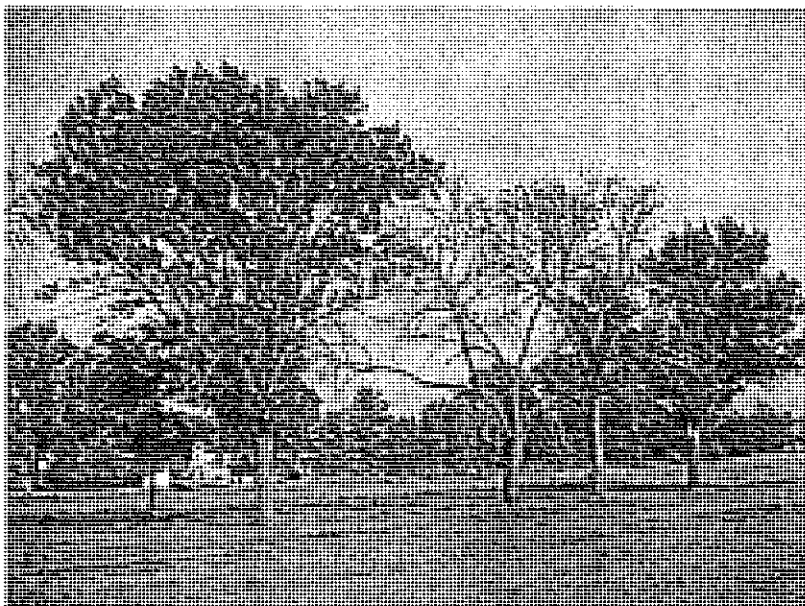
### Trunk-Injected Systemic Insecticides

Several systemic insecticide products can be injected directly into the trunk of the tree including formulations of imidacloprid and emamectin benzoate (see Table 1). An advantage of trunk injections is that they can be used on sites where soil treatments may not be practical or effective, including trees growing on excessively wet, compacted or restricted soil environments. However, trunk injections do wound the trunk, which may cause long-term damage, especially if treatments are applied annually.

Products applied as trunk injections are typically absorbed and transported within the tree more quickly than soil applications. Allow three to four weeks for most trunk-injected products to move through the tree. Optimal timing of trunk injections occurs after trees have leafed out in spring but before EAB eggs have hatched, or generally between mid-May and mid-June. Uptake of trunk-injected insecticides will be most efficient when trees are actively transpiring. Best results are usually obtained by injecting trees in the morning when soil is moist but not saturated. Uptake will be slowed by hot afternoon temperatures and dry soil conditions.

### Noninvasive, Systemic Basal Trunk Sprays

Dinotefuran is labeled for application as a noninvasive, systemic bark spray for EAB control. It belongs to the same chemical class as imidacloprid (neonicotinoids) but is much more soluble. The formulated insecticide is sprayed on the lower five to six feet of the trunk using a common garden sprayer and low pressure. Research has shown that the insecticide penetrates the bark and moves systemically throughout the rest of the tree.



Dinotefuran can be mixed with surfactants that may facilitate its movement into the tree, particularly on large trees with thick bark. However, in field trials, adding a surfactant did not consistently increase the amount of insecticide recovered from the leaves of treated trees.

**Healthy ash trees that have been protected with insecticides growing next to untreated ash trees killed by EAB.**

The basal trunk spray offers the advantage of being quick and easy to apply and requires no special equipment other than a garden sprayer. This application technique does not wound the tree, and when applied correctly, the insecticide does not enter the soil.

### Protective Cover Sprays

Insecticides can be sprayed on the trunk, branches and (depending on the label) foliage to kill adult EAB beetles as they feed on ash leaves, and newly hatched larvae as they chew through the bark. Thorough coverage is essential for best results. Products that have been evaluated as cover sprays for control of EAB include some specific formulations of permethrin, bifenthrin, cyfluthrin and carbaryl (see Table 1).

Protective cover sprays are designed to prevent EAB from entering the tree and will have no effect on larvae feeding under the bark. Cover sprays should be timed to occur when most adult beetles are feeding and beginning to lay eggs. Adult activity can be difficult to monitor because there are no





EAB adults must feed on foliage before they become reproductively mature.

effective pheromone traps for EAB. However, first emergence of EAB adults generally occurs between 450-550 degree days (starting date of January 1, base temperature of 50°F), which corresponds closely with full bloom of black locust (*Robinia pseudoacacia*). For best results, consider two applications, one at 500 DD<sub>50</sub> (as black locust approaches full bloom) and a second spray four weeks later.

## How Effective Are Insecticides for Control of EAB?

Extensive testing of insecticides for control of EAB has been conducted by researchers at Michigan State University (MSU) and The Ohio State University (OSU). Results of some of the MSU trials are available at [www.emeraldashborer.info](http://www.emeraldashborer.info).

### Soil-Applied Systemic Insecticides

Efficacy of imidacloprid soil injections for controlling EAB has been inconsistent; in some trials EAB control was excellent, while others yielded poor results. Differences in application protocols and conditions of the trials have varied considerably, making it difficult to reach firm conclusions about sources of variation in efficacy. For example, an MSU study found that low-volume soil injections of imidacloprid applied to small trees averaging 4 inches in DBH (diameter of the trunk at breast height) using the Kioritz applicator (a hand-held device for making low-volume injections) provided good control at one site. However, control was poor at another site where the same application protocols were used to treat larger trees (13-inch DBH). Imidacloprid levels may have been too low in the larger trees to provide adequate control. Higher pest pressure at the second site also may have contributed to poor control in the large trees.

In the same trials, high-pressure soil injections of imidacloprid (applied in two concentric rings, with one at the base of the tree and the other halfway to the drip line of the canopy) provided excellent control at one site. At another site, however, soil injections applied using the same rate, timing and application

method were completely ineffective, even though tree size and infestation pressure were very similar. It should be noted that recent studies have shown that imidacloprid soil injections made at the base of the trunk result in more effective uptake than applications made on grid or circular patterns under the canopy.

Imidacloprid soil drenches have also generated mixed results. In some studies conducted by MSU and OSU researchers, imidacloprid soil drenches have provided excellent control of EAB. However, in other studies, control has been inconsistent. Experience and research indicate that imidacloprid soil drenches are most effective on smaller trees and control of EAB on trees with a DBH that exceeds 15 inches is less consistent.

This inconsistency may be due to the fact that application rates for systemic insecticides are based on amount of product per inch of trunk diameter or circumference. As the DBH of a tree increases, the amount of vascular tissue, leaf area and biomass that must be protected by the insecticide increases exponentially. Consequently, for a particular application rate, the amount of insecticide applied as a function of tree size is proportionally decreased as trunk diameter increases. Hence, the DBH-based application rates that effectively protect relatively small trees can be too low to effectively protect large trees. Some systemic insecticide products address this issue by increasing the application rate for large trees.

In an OSU study with larger trees (15- to 22-inch DBH), Xytect™ (imidacloprid) soil drenches provided consistent control of EAB when applied experimentally at twice the rate that was allowed at that time. Recently, the Xytect™ label was modified to allow the use of this higher rate, which we now recommend when treating trees larger than 15-inch DBH. Merit® imidacloprid formulations, however, are not labeled for application at this high rate. Therefore, when treating trees greater than 15-inch DBH with Merit® soil treatments, two applications are recommended, either in the fall and again in the spring, or twice in the spring, about four weeks apart (for example in late April and again in late May). This is not an option for Bayer Advanced™ Tree and Shrub Insect Control and other

homeowner formulations of imidacloprid, which are limited by the label to one application per year. Homeowners wishing to protect trees larger than 15-inch DBH should consider having their trees professionally treated.

Treatment programs must comply with any limits specified on the label regarding the maximum amount of insecticide that can be applied per acre during a given year.

#### Trunk-Injected Systemic Insecticides

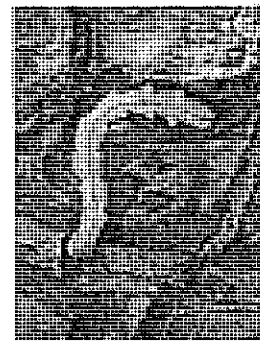
**Emamectin benzoate** • In several intensive studies conducted by MSU and OSU researchers, a single injection of emamectin benzoate in mid-May or early June provided excellent control of EAB for at least two years, even under high pest pressure. For example, in a highly-replicated study conducted on trees ranging in size from 5- to 20-inch DBH at three sites in Michigan, untreated trees had an average of 68 to 132 EAB larvae per m<sup>2</sup> of bark surface, which represents high pest pressure. In contrast, trees treated with emamectin benzoate had, on average, only 0.2 larvae per m<sup>2</sup>, a reduction of > 99 percent. When additional trees were felled and debarked two years after the emamectin benzoate injection, there were still virtually no larvae in the treated trees, while adjacent, untreated trees at the same sites had hundreds of larvae.

In two OSU studies conducted in Toledo with street trees ranging in size from 15- to 25-inch DBH, a single application of emamectin benzoate also provided excellent control for two years. There was no sign of canopy decline in treated trees and very few emergence holes, while the canopies of adjacent, untreated trees exhibited severe decline and extremely high numbers of emergence holes.

One study suggests that a single injection of emamectin benzoate may even control EAB for three years. Additional studies to further evaluate the long-term effectiveness of emamectin benzoate are underway. To date, this is the only product that controls EAB for more than one year with a single application. In addition, in side-by-side comparisons with other systemic products (neonicotinoids), emamectin benzoate was more effective.

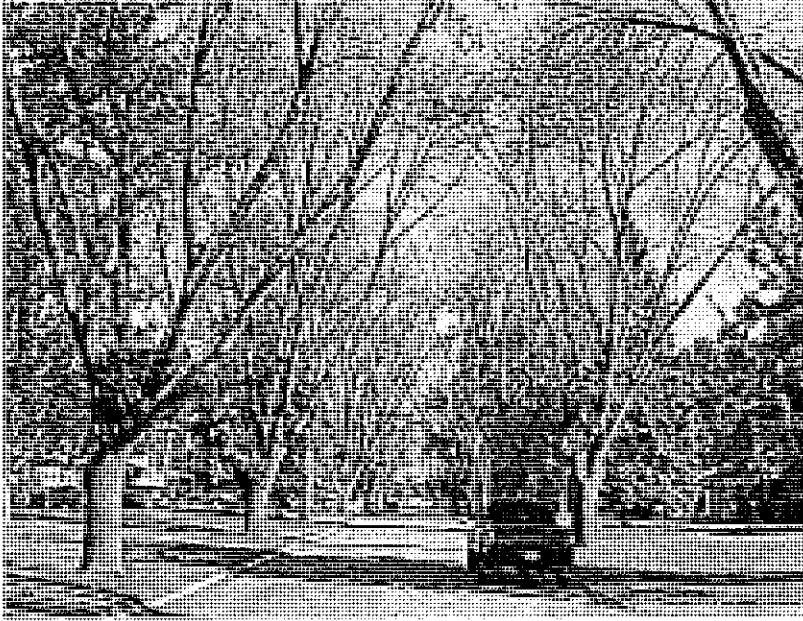
**Imidacloprid** • Trunk injections with imidacloprid products have provided varying degrees of EAB control in trials conducted at different sites in Ohio and Michigan. In an MSU study, larval density in trees treated with Imicide® injections were reduced by 60 percent to 96 percent, compared to untreated controls. There was no apparent relationship between efficacy and trunk diameter or infestation pressure. In another MSU trial, imidacloprid trunk injections made in late May were more effective than those made in mid-July, and IMA-jet® injections provided higher levels of control than did Imicide®, perhaps because the IMA-jet® label calls for a greater amount of active ingredient to be applied on large trees. In an OSU study in Toledo, IMA-jet® provided excellent control of EAB on 15- to 25-inch trees under high pest pressure when trees were injected annually. However, trees that were injected every other year were not consistently protected.

In a discouraging study conducted in Michigan, ash trees continued to decline from one year to the next despite being injected in both years with either Bidrin (Inject-A-Cide B®) or imidacloprid. The imidacloprid treatments consisted of two consecutive years of Imicide® (10% imidacloprid) applied using Mauget® micro-injection capsules, or an experimental 12% formulation of imidacloprid in the first year followed by Pointer™ (5% imidacloprid) in the second year with both applied using the Wedgle™ Direct-Inject™ System. All three treatment regimes suppressed EAB infestation levels in both years, with Imicide® generally providing best control under high pest pressure in both small (six-inch DBH) and larger (16-inch DBH) caliper trees. However, larval density increased in treated and untreated trees from one year to the next. Furthermore, canopy dieback increased by at least 67 percent in all treated trees (although this was substantially less than the amount of dieback observed in untreated trees). Even consecutive years of these treatments only slowed ash decline under severe pest pressure. In another MSU study, ACECAP® trunk implants (active ingredient is acephate) did not adequately protect large trees (greater than 15-inch DBH) under high pest pressure.



EAB larvae damage the vascular system of the tree as they feed, which interferes with movement of systemic insecticides in the tree.





### Noninvasive Basal Trunk Sprays with Dinotefuran

Studies to date indicate that systemic basal trunk sprays with dinotefuran are about as effective as imidacloprid treatments. MSU and OSU studies have evaluated residues in leaves from trees treated with the basal trunk spray. Results show that the dinotefuran effectively moved into the trees and was translocated to the canopy at rates similar to those of other trunk-injected insecticides, and faster than other soil-applied neonicotinoid products.

As with imidacloprid treatments, control of EAB with dinotefuran has been variable in research trials. In an MSU study conducted in 2007 and 2008, dinotefuran trunk sprays reduced EAB larval density by approximately 30 percent to 60 percent compared to the heavily infested untreated trees. The treatment was effective for only one year and would have to be applied annually. In general, control is better and more consistent in smaller trees than in large trees, but more research is needed with larger trees. Studies to address the long-term effectiveness of annual dinotefuran applications for control of EAB are underway.

### Protective Cover Sprays

MSU studies have shown that applications of Onyx™, Tempo® and Sevin® SL provided good control of EAB, especially when the insecticides were applied in late May and again in early July. Acephate sprays were less effective. BotaniGard® (*Beauveria bassiana*) was also ineffective under high pest pressure. Astro® (permethrin) was not evaluated against EAB in these tests, but has been effective for controlling other species of wood borers and bark beetles.

In another MSU study, spraying Tempo® just on the foliage and upper branches or spraying the entire tree were more effective than simply spraying just the trunk and large branches. This suggests that some cover sprays may be especially effective for controlling EAB adults as they feed on leaves in the canopy. A single, well-timed spray was also found to provide good control of EAB, although two sprays may provide extra assurance given the long period of adult EAB activity.

It should be noted that spraying large trees is likely to result in a considerable amount of insecticide drift, even when conditions are ideal. Drift and potential effects of insecticides on non-target organisms should be considered when selecting options for EAB control.

### Acknowledgements

Production and distribution of this bulletin were supported in part by cooperative agreements from the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (USDA-APHIS) and the U.S. Forest Service, Northeastern Area, Forest Health Protection. This bulletin may not necessarily express the views of the USDA.



## Key Points and Summary Recommendations

- ≠ Insecticides can effectively protect ash trees from EAB.
- ≠ Unnecessary insecticide applications waste money. If EAB has not been detected within 10-15 miles, your trees are at low risk. Be aware of the status of EAB in your location. Current maps of known EAB populations can be found at [www.emeraldashborer.info](http://www.emeraldashborer.info). Remember, however, that once a county is quarantined, maps for that county are no longer updated.
- ≠ Trees that are already infested and showing signs of canopy decline when treatments are initiated may continue to decline in the first year after treatment, and then begin to show improvement in the second year due to time lag associated with vascular healing. Trees exhibiting more than 50 percent canopy decline are unlikely to recover even if treated.
- ≠ Emamectin benzoate is the only product tested to date that controls EAB for more than one year with a single application. It also provided a higher level of control than other products in side-by-side studies.
- ≠ Soil drenches and injections are most effective when made at the base of the trunk. Imidacloprid applications made in the spring or the fall have been shown to be equally effective.
- ≠ Soil injections should be no more than 2-4 inches deep, to avoid placing the insecticide beneath feeder roots.
- ≠ To facilitate uptake, systemic trunk and soil insecticides should be applied when the soil is moist but not saturated or excessively dry.
- ≠ Research and experience suggest that effectiveness of insecticides has been less consistent on larger trees. Research has not been conducted on trees larger than 25-inch DBH. When treating very large trees under high pest pressure, it may be necessary to consider combining two treatment strategies.
- ≠ Xytect™ soil treatments are labeled for application at a higher maximum rate than other imidacloprid formulations, and we recommend that trees larger than 15-inch DBH be treated using the highest labeled rate. Merit® imidacloprid formulations are not labeled for use at this higher rate. When treating larger trees with Merit® soil treatments, best results will be obtained with two applications per year. Imidacloprid formulations for homeowners (Bayer Advanced™ Tree & Shrub Insect Control and other generic formulations) can be applied only once per year.
- ≠ Homeowners wishing to protect trees larger than 15-inch DBH should consider having their trees professionally treated.
- ≠ Treatment programs must comply with any label restrictions on the amount of insecticide that can be applied per acre in a given year.





**The Cooperative Emerald Ash Borer Program**

For more information and to order  
additional copies of this bulletin:

[www.emeraldashborer.info/](http://www.emeraldashborer.info/)

**The Ohio State University EAB Outreach Team**

[www.ashalert.osu.edu](http://www.ashalert.osu.edu)

**Purdue Extension**

[www.entm.purdue.edu/eab/](http://www.entm.purdue.edu/eab/)

**University of Wisconsin**

[www.entomology.wisc.edu/emeraldashborer/](http://www.entomology.wisc.edu/emeraldashborer/)

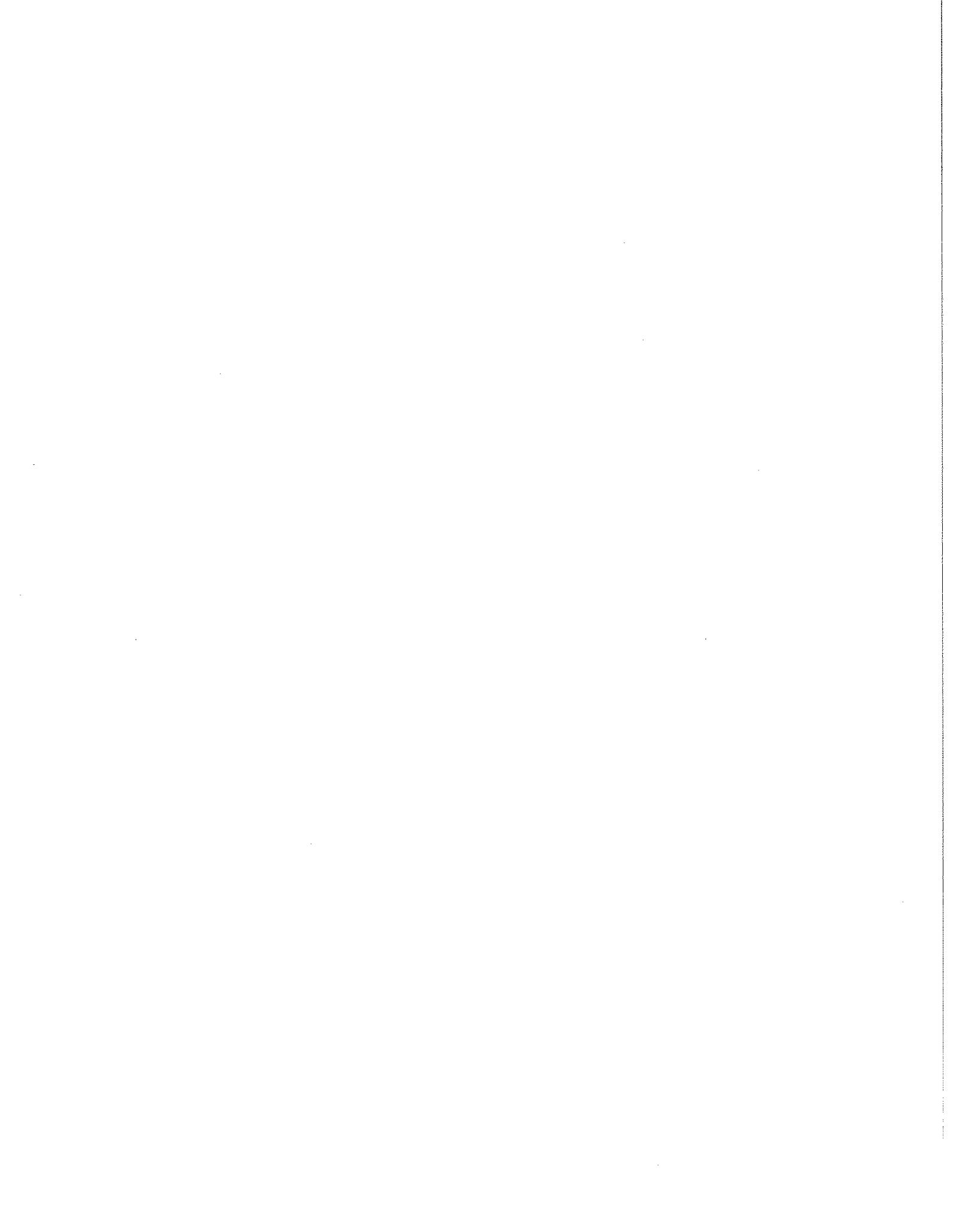
**University of Illinois**

[ipm.illinois.edu/landturf/insects/](http://ipm.illinois.edu/landturf/insects/)

**University of Minnesota**

[www.extension.umn.edu/issues/eab/](http://www.extension.umn.edu/issues/eab/)





June 2009

Bibliographic Citation: Herms DA, McCullough DG, Smitley DR, Sadof C, Williamson RC, and Nixon PL. 2009. Insecticide options for protecting ash trees from emerald ash borer. North Central IPM Center Bulletin. 12 pp.