



**Dedicated but Unmaintained County Roads
(DBUCR) Program
CIP No. 501117**

*Ardwick Drive, Waycroft Way and Golf Lane
Improvement*



January 2014

**Montgomery County Department of Transportation
Division of Transportation Engineering**

**100 Edison Park Drive, Fourth Floor
Gaithersburg, Maryland 20878**

TABLE OF CONTENTS

I.	INTRODUCTION	2
II.	BACKGROUND	
	1. Background of DBUCR Policy	2
	2. Background of DBUCR Roads and Public Information	2
III.	EXISTING CONDITION	
	1. Roadway	3
	2. Traffic and Road Characteristics	5
	3. Drainage	5
	4. Utilities and Streetlights	8
	5. Trees	8
IV.	CONCEPTUAL DESIGN	
	1. Roadway	8
	2. Stormwater Management & Drainage	9
	3. Utilities and Streetlights	10
	4. Trees	11
V.	PROJECT SCHEDULE	11
VI.	PROJECT COST ESTIMATE	11

APPENDICES

Appendix A	List of DBUCR Roads
Appendix B	Application submitted by the Wickford Community Association
Appendix C	Aerial GIS Map with Soil and Drainage Boundaries
Appendix D	Stormwater Management Concept for Closed Section Design
Appendix E	Proposed Typical Section
Appendix F	Standard No. MC-301.03 Residential Driveway Open Section Road
Appendix G	List of Affected Properties
Appendix H	Itemized Construction Cost Estimate for Open Section Design
Appendix I	Itemized Construction Cost Estimate for Closed Section Design
Appendix J	Design, Property Acquisition and Construction Management Cost Estimate

I. INTRODUCTION

Montgomery County Department of Transportation (MCDOT), Division of Transportation Engineering prepared this report for Wickford Community Association which is comprised of the residents on Ardwick Drive, Waycroft Way and Golf Lane in Rockville for the DBUCR program. A majority of the residents in Wickford Community signed a petition requesting their roads to be evaluated as a part of the DBUCR program.

This report describes an overview of the DBUCR program, the existing conditions of the three roads, conceptual design, project schedule, and a budgetary cost estimate for the project.

II. BACKGROUND

1. Background of DBUCR Policy

The following is a chronological order for the establishment of the DBUCR policy:

- The County Council appropriated funds in Fiscal Year (FY) 2008 Capital Budget for developing the DBUCR policy.
- July 2007-June 2008 (FY 2008)-Community stakeholders and representative from the County met periodically and developed the policy.
- September, 2009-the County Executive transmitted a draft policy to the County Council.
- October, 2009 – County Council Transportation and Environment (T&E) Committee reviewed and commented on the draft policy.
- December, 2009-the DBUCR Policy was adopted.
- January, 2010-The County Executive recommended the Capital Improvement Program (CIP) budget for the DBUCR program.
- May, 2010-The County Council approved CIP for DBUCR.

2. Background of DBUCR Roads and Public Information

MCDOT compiled the list of DBUCR roads from a report by Montgomery County Civic Federation and the County's inventory utilizing the latest State Highway Administration (SHA) MAARS Report, Geographic Information System (GIS) map/aerial photos, existing subdivision plats, existing deeds, and status of the County maintenance by the County's depots. As a result of the research, a total of fifty nine roads within the County have been identified as the DBUCR roads. The list is included in Appendix A.

As required by the DBUCR policy, two public information meetings were held for the property owners who reside adjacent to the identified DBUCR roads. The two public information meetings were held to provide every affected property owner an opportunity to attend one of the public information meetings to understand the program better and address any of their concerns regarding the program. The meetings were held on September 22, 2010 and October 12, 2010.

The DBUCR program divides into the following four categories:

1. Self Build/Self Maintain
2. Self Build/County Maintain
3. County Build/County Maintain
4. No Build (Do Nothing)

MCDOT received an application from Wickford Community Association on September 26, 2012. The application is included in Appendix B.

The plats related to the Wickford community original subdivision are dated from 1948 to 1959.

III. EXISTING CONDITION

MCDOT developed a plan sheet from an aerial photo for Ardwick Drive, Waycroft Way and Golf Lane to assist in the existing conditions assessment. MCDOT also conducted a site visit to Wickford Community on November 21, 2013.

1. Roadway

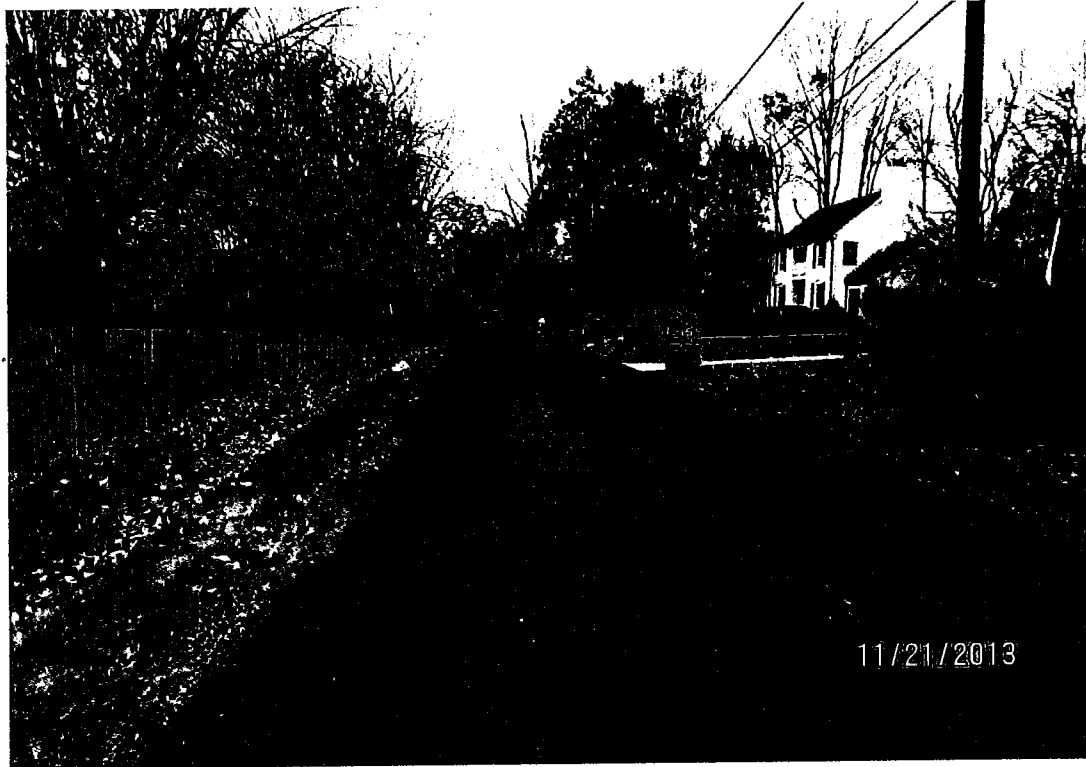
Ardwick Drive is approximately 1,150 feet long with its width varying from 16 feet to 19.5 feet. Waycroft Way is approximately 1,400 feet long with its varying width from 16 feet to 24 feet. Golf Lane is approximately 850 feet long with its varying width from 16 feet to 19 feet. All three roads were paved by WSSC in spring, 2012. The roads are open section. Some locations have grass ditches on both sides, and some locations do not have any ditches. The roads have a slight crown in the middle.



Ardwick Drive



Waycroft Way



Golf Lane

2. Traffic and Road Characteristics

The roads are Tertiary Residential Streets with no cut-through traffic from near-by arterial roads. Typical numbers of residential vehicle trips are generated from the neighborhoods. Access from Golf Lane across North Bethesda Trail is currently prohibited. There are also no existing sidewalks along the roads.

3. Drainage

The drainage areas are delineated in aerial GIS map in Appendix C. There are four main drainage areas within the project site. The runoff from the four drainage areas drains into the outfall riprap at the south side of Golf Lane near the entrance of Ardwick Drive and Waycroft Way. The rip-rap extends further out into the Georgetown Preparatory School campus. The drainage areas are composed of Glenelg Silt Loam and Urban Land as shown on the aerial map.

Some stormwater flows into the existing grass ditches along the road. However, some parts of the community do not have grass ditches along the road. The runoff along Waycroft Way flows into the existing curb-inlet at north of the intersection of Waycroft Way and Wickford Drive. There is a culvert at the downstream in each of Drainage Areas No. 2-4. The stormwater from the three culverts flows into a box with a grate on top in the median of

Ardwick Drive and Waycroft Way. Then the stormwater flows out into the outfall to the existing rip-rap in the Georgetown Preparatory campus.



Upstream of Culvert at the Intersection of Ardwick Drive and Waycroft Way



Downstream of Ardwick Drive and Waycroft Way



Culvert at the Downstream of Golf Lane



Rip-Rap from Downstream of Golf Lane into the Georgetown Preparatory Campus

4. Utilities and Streetlights

MCDOT investigated existing utilities within the project site.

There are water and sewer facilities provided by WSSC. In spring 2012, WSSC replaced water mains and repaved the roads after their replacement work. There are also facilities by Washington Gas Company in the community. There are PEPCO utility poles within the project site.

There are currently no street lights along the roads.

5. Trees

There is a wide range of size of trees in the community. Some of them are 24" and greater in the diameter of trunk. Some of those major trees may be impacted by the construction of the proposed flat bottom grass ditch along the both sides of the road.

IV. CONCEPTUAL DESIGN

1. Roadway

The proposed typical section for Ardwick Drive, Waycroft way and Golf Lane Improvement is shown in Appendix E.

MCDOT standard width for a Tertiary Residential Street is 20 feet. In retrofit situations, MCDOT accepts 18 feet wide roadway with a 20 feet minimum clearance. The 20 feet minimum clearance is required for adequate access for emergency vehicles. For the roadway widening, MCDOT proposes to increase the width to 18 feet at minimum with at least of one foot of clearance on both sides of the road for emergency vehicles access.

MCDOT took pavement core samples from Ardwick Drive, Waycroft Way and Golf Lane on December 2, 2013. The pavement core sample locations are shown on the map in Appendix C. Based on the core samples, Golf Lane has adequate pavement thickness. The thickness of existing pavement is only 4.75" on Ardwick Drive and is 4.5" on Waycroft Way. The County proposes 1.5" of overlay surface in bituminous concrete for Ardwick Drive and Waycroft Way. For the proposed roadway widening portions on Ardwick Drive, Waycroft Way and Golf Lane, the County proposes 6" of bituminous concrete. MCDOT standard for pavement thickness is 6" for Tertiary Residential Street.

The existing storm drain pipe with 15" diameter Corrugated Metal Pipe (CMP) from the northwest corner of the intersection of Ardwick Drive and Golf Lane to the junction box in the median and another existing storm drain pipe with 15" diameter CMP from the northeast corner of the intersection of Waycroft Way and Golf Lane to the same junction box will be replaced with 15" Reinforced Concrete Pipes (RCP). The existing storm pipe from intersection of Ardwick Drive and Waycroft Way to the junction box will be replaced with 21" RCP.

There are a total number of forty four driveways that are adjacent to the roads. Each of the forty four driveways will have a new culvert pipe be installed under it based on the County's Standard No. MC-301.03. The standard is included in Appendix F.

Closed Section Design

For the closed section design, a combination of curb inlets and yard inlets are proposed. The storm drain schematic for the closed section design is included in Appendix D. The locations of curb inlets, yard inlets and manholes are noted in the schematic drawing. A combination of High Density Polyethylene (HDPE) pipe and RCP in the range of 15" to 30" of diameter are proposed.

3. Utilities and Streetlights

Based on the field observations, MCDOT estimated that two PEPCO poles within the project site would have to be relocated. One location is between House No 1113 and 1117 on Waycroft Way and the other location is southeast corner of Wickford Drive and Waycroft Way. The cost was added to the construction cost estimate. During the design phase, prior rights will be investigated by the County's Property Acquisition Section to determine whether the County or PEPCO would be responsible for the relocation cost. MCDOT will be coordinate with PEPCO to determine any need for the relocation of the utility poles. Two existing fire hydrants will have to be relocated and the top of existing sewer manhole will to be reset as a result of the paving. The County's construction contractor will perform any relocation work on the facilities by WSSC. One gas valve by Washington Gas will have to be vertically adjusted as well. Any relocations of the Washington Gas Company facilities are done by the gas company prior to starting of the construction.

Streetlights can be added to the scope of the project upon the community's request.



Pavement Core Samples

Core Number	Core Location	Core Thickness	Subgrade Type
1	5409 Golf Lane	9.5" Total 4.25" HMA Multiple Layers *5.25" bottom layer raveled apart	Soil
2	11108 Waycroft Way	4.5" HMA Surface Layer	Aggregate
3	11028 Ardwick Drive	4.75" HMA Surface Layer	Aggregate
4	5509 Golf Lane	10"+ Total 6.5" HMA Multiple Layers *3.5"+ bottom layer raveled apart	Unknown

2. Stormwater Management & Drainage

MCDOT provides the Warwick Community a choice between an open-section road with two feet wide flat bottom swales for drainage and a closed-section road with curb and gutter along the both sides of the roads. The following are stormwater management and drainage concept for each design.

Open Section Design

The existing yard inlet at the northeast corner of the intersection of Waycroft Way and Golf Lane will be replaced with a new yard inlet that meets MCDOT standard. The junction box in the median of Ardwick Drive and Waycroft Way will also be replaced with a yard inlet that meets MCDOT standard.

4. Trees

Trees will be impacted by the roadway project. The number of trees impacted will be defined as more information is obtained in the engineering design phase. During the design phase, impacts to trees will be studied. MCDOT will replace an equal number of the trees that will be removed as a part of the project. However, the County cannot guarantee that the same species of trees will be planted in place of removed trees. The landscaping cost has been added to the construction cost estimate.

V. PROJECT SCHEDULE

The following is a **tentative schedule** based upon the assumption that the County Executive and the County Council will approve the funding for Ardwick Drive, Waycroft Way and Golf Lane in the upcoming CIP budget request for FY17-23. The County's fiscal year starts in July 1. The County's FY 17 starts on July 1, 2016.

Phase	Duration	Starting Date	Ending Date
Design	12 months	July, 2016	June, 2017
Property Acquisition	9 months	July, 2017	March, 2018
Construction	3 months	April, 2018	June, 2018

MCDOT included the property acquisition phase in case easements are needed for road reconstruction. The minimum duration for the property acquisition phase is nine months.

VI. PROJECT COST ESTIMATE

A total project cost has been estimated for budgetary basis. The total project cost is **\$451,000** for the open section design and **\$733,000** for the closed section design. As shown in Appendix F, there are a total number of forty five affected properties. The total project cost will be equally divided among the forty five properties. Each household will be responsible for paying the County approximately **\$9,000** for the open section design and **\$15,000** for the closed section after deduction of the County's participation cost which is 10% of the total project cost.

Open Section Design

County's Participation Cost
 $\$451,000 \times 0.1 = \$45,100$

Individual Affected Property Household Cost
 $(\$451,000 - \$45,100) / 45 = \$9,020$ (Say \$9,000)

Closed Section Design

County's Participation Cost

\$733,000 X 0.1 = \$73,300

Individual Affected Property Household Cost

$(\$733,000 - \$73,300) / 45 = \$14,660$ (Say \$15,000)

Each project cost includes design, property acquisition and construction cost. The design cost includes a geotechnical report, permit fees for stormwater management concept and erosion and sediment control, a topographic and boundary survey, and engineering design cost. See appendices I through J for cost breakdown.

Open Section Design

Design	\$43,000
Construction Management	\$77,000
Land	\$6,000
Construction Materials & Labor	\$325,000
Total Project Cost	\$451,000

Closed Section Design

Design	\$43,000
Construction Management	\$77,000
Land	\$6,000
Construction Materials & Labor	\$607,000
Total Project Cost	\$733,000

APPENDIX A

List of DBU Roads

Updated : September 22, 2010

No.	Road Name	Starting Point (Miles)	Ending Point (Miles)	Total (Miles)	Town
1	AITCHESON LA	0.22 (North of Riding Stable Road)	0.70	0.48	LAUREL
2	ANCHORAGE DR	MACARTHUR BLVD	0.13	0.13	BETHESDA
3	ANCHORAGE PL.	BOLLING LA	ANCHORAGE DR/0.08	0.08	BETHESDA
4	ANDERSON ST.	0.1 (Northwest of Octagon Lane)	0.18	0.08	SILVER SPRING
5	ARDWICK DR	GOLF LA.	WAYCROFT WAY/0.22	0.22	ROCKVILLE
6	ATTLEBORO RD	NORWOOD RD	DUXBURY DR/0.25	0.25	SILVER SPRING
7	AUTH LA	0.09 (South of Hermleigh Road)	0.13	0.04	SILVER SPRING
8	BELFAST RL	KINGSGATE RD.	0.15	0.15	POTOMAC
9	BELLE COTE DR	KRUHM RD	0.42	0.42	BURTONSVILLE
10	BENTLEY RD	0.36 (North of Olney Sandy Spring Road)	0.50	0.14	OLNEY
11	BIRCHCREST LA	FREDERICK RD	0.22	0.22	CLARKSBURG
12	BISHOP DR	WINTHROP DR	0.05	0.05	SILVER SPRING
13	BLANTON RD	GOOD HOPE RD	0.15	0.15	SILVER SPRING
14	BOLLING LA	ANCHORAGE DR	ANCHORAGE PL./0.11	0.11	BETHESDA
15	BRATTON DR	SUNSET DR	BRATTON CT/0.09	0.09	ROCKVILLE
16	BROOKS RD	RIDGE DR	KIRK LA/0.15	0.15	ROCKVILLE
17	CARNAGIE AVE	NEEDWOOD RD	0.12	0.12	DERWOOD
18	CINDY LA	SEVEN LOCKS RD	0.08	0.08	BETHESDA
19	CIRCLE DR	RIDGE DR/0.68	GLEN MILL RD/1.02	0.34	ROCKVILLE
20	CLOVER LA	PERSIMMON TREE RD	0.06	0.06	POTOMAC
21	CREST HILL LA	0.22 (South of Briggs Chaney Road)	0.51	0.29	SILVER SPRING
22	CROWFOOT LA	COPLEY LA	0.09	0.09	SILVER SPRING
23	DOMINION DR	0.2 (North of Olney Sandy Spring Road)	0.25	0.05	SANDY SPRING
24	DUXBURY RD	ATTLEBORO RD	0.14	0.14	SILVER SPRING
25	ECKMOOR RD	ELDRID DR	0.05	0.05	SILVER SPRING
26	EMORY ST	MUNCASTER MILL RD	0.07	0.07	GAITHERSBURG
27	ERSKINE AVE	GLENALLAN AVE	WALLACE AVE/0.10	0.10	SILVER SPRING
28	FAWSETT RD	MACARTHUR BLVD	0.29	0.29	POTOMAC
29	GARDNER PL	CHAPELGATE RD	0.11	0.11	GERMANTOWN
30	GARRETT RD	REDLAND RD/0.00	0.21	0.21	DERWOOD
31	GARY RD	0.31 (North of River Road)	0.35	0.04	POTOMAC
32	GOLF LA	MIDDLESHERE PL/0.10	0.28	0.18	ROCKVILLE
33	HAW LA	EDNOR RD	0.21	0.21	SILVER SPRING
34	HAWHILL END	WILDEN LA/0.07	0.13	0.06	POTOMAC

35	HEIL RD	NEW HAMPSHIRE AVE	0.15	0.15	SILVER SPRING
36	HILLER WAY	ROCKVILLE PIKE	0.10	0.10	ROCKVILLE
37	HILLSDALE DR	HILLSDALE DR/.06	0.10	0.04	KENSINGTON
38	KINGSGATE RD	ROCK RUN DR	0.15	0.15	POTOMAC
39	KIRK LA	BROOK RD	0.04	0.04	OLNEY
40	LONG BRANCH PKWY	DEARBORN AVE	0.06	0.06	SILVER SPRING
41	MAPLE RIDGE CT	HOLLY RIDGE ROAD	0.15	0.15	ROCKVILLE
42	MERRICK RD	WILSON LA	0.13	0.13	BETHESDA
43	MOULTRIE PKWY	LOGAN DR	0.06	0.06	POTOMAC
44	OLD ORCHARD RD	0.38 (South of Ednor Road)	0.52	0.14	SILVER SPRING
45	OLNEY LA	BREADY RD	0.26	0.26	OLNEY
46	OVERHILL RD	GARRETT RD	0.21	0.21	DERWOOD
47	PEMBROKE RD	BRADLEY RD	0.14	0.14	BETHESDA
48	POE RD	0.12 (South of Bradley Blvd)	0.16	0.04	BETHESDA
49	POPLAR HILL ROAD	PAREV TERR	0.70	0.70	GERMANTOWN
50	SILVERWOOD LA	MARYLAND AVE	0.21	0.21	BETHESDA
51	STONE RD	KIRK LA	0.09	0.09	OLNEY
52	SUNCREST AVE	FREDERICK RD	0.18	0.18	CLARKSBURG
53	UNITY LA	GLEN MILL RD	0.31	0.31	POTOMAC
54	UPLAND DR	GOOD HOPE RD	0.17	0.17	SILVER SPRING
55	WAYCROFT WAY	GOLF LA	0.27	0.27	ROCKVILLE
56	WILLOW LA	PINETREE ROAD	0.25	0.25	ROCKVILLE
57	WINDSWEPT LA	NEW HAMPSHIRE AVE	0.67	0.67	BRINKLOW
58	WINNPENNY LA	CAPE MAY RD	0.07	0.07	SILVER SPRING
59	WINTHROP DR	PIPING ROCK DR	BISHOP RD	0.06	SILVER SPRING

APPENDIX B

Application Submitted by Wickford Community Association

September 1, 2012

Director, Department of Transportation
Montgomery County, Maryland

Dear Sir:

The community of Wickford, located in Montgomery County in postal code 20852, is requesting that the Department of Transportation perform a preliminary engineering study of our roads under the provisions of the Dedicated But Un-maintained (DBU) program. There are 43 homes that would be impacted by the program. Enclosed are petitions signed by 31 property owners which represent more than the 60% of the impacted properties needed to request the study. All but one of the property owners who we were able to contact during our canvassing efforts signed the petition. Please note that the introductory text for the petition incorrectly states that there are 44 impacted properties. One of properties (11018 Waycroft Way) is counted in that 44 total. However, the property is completely on a County maintained road.

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Wickford has maintained its own roads since the community was established in the early 1950's and maintains a road fund for purposes of maintaining the roads. Currently the community has a rather charming rural, village like ambience. There are no street lights or sidewalks, and residents walk the streets and their dogs in what is essentially a big cul-de sac, where many folks stop and chat with their neighbors. Maintaining our own streets does impose a financial burden on the community and issues regarding funding for the roads are often topics for lively discussion at our annual Wickford Community Association meeting. The potential for County maintenance has been discussed frequently over the years. At one time there was the perception and concern that County assumption of maintenance would mean sacrificing green lawns, shrubbery and tress for sidewalks, gutters and such to meet County standards. Our understanding is that now, under current policies, the County assuming maintenance would not necessarily drastically change the rural character of the community. In any case, we realize that only the preliminary engineering study can answer that question. This spring the WSSC repaved almost all of our roads as a result of installing new water pipes throughout the community. Because of this action by WSSC, the roads are in much better shape than they have been in years. We believe that the costs for County improvements may be less than it would otherwise have been and that now is an appropriate time to request the study.

We understand that there is no cost to the community for the study. However, we also understand that if 60% of the impacted property owners approve the proposed project, that the affected property owners would be responsible to pay 90% of the total project cost.

Please let me know if you would like any additional information regarding this request. My contact information is David L. Comis, 11005 Waycroft Way, Rockville, MD 20852 240-669-8315 (h).

Sincerely,

David L. Comis

David L. Comis,
President, Wickford Community Association

RECEIVED
DOT

SEP 26 2012

DIVISION OF TRANSPORTATION
ENGINEERING

Attachments:

Petition for Road Study for Wickford Community (8)

Petition for Road Study for Wickford Community

We the undersigned do hereby request that Montgomery County Department of Transportation perform a study to determine the cost and viability of making improvements to and assuming maintenance for those roads in the Wickford Community that are not currently maintained by the County in accordance with the County's Dedicated But Unmaintained (DBU) County Roads Policy.

Specifically this includes #11008/#11015 to #11116/11113 Ardwick Drive; #5401 to #5509 Golf Lane; and #11000/#11005 to #11112/#11117 Waycroft Way, as well as two properties on Wickford Drive (#5425 and #5430) that border both Waycroft Way and Wickford Drive for a total of 44 Affected Property Owners.

We understand that:

1. The study will result in an estimate of project costs. There is no cost to the community for the study.
2. Sixty percent of the Affected Property Owners have to request the study.
3. The results of the study, when complete, will be reviewed with the community.
4. The community will have another opportunity to determine whether or not to proceed based on the project cost. Sixty percent of the Affected Property Owners have to approve going forward with the project.
5. If the Community decides to proceed, the project will compete for funding with other projects in the County's bi-ennial CIP budget
6. If the project is funded and the project is built, the Affected Property owners will be obligated to reimburse the County's expenses, less the County's contribution, as explained in the County's Dedicated but Unmaintained County Roads Policy.

Name (Printed)	Address	Signature	Date
✓ 1. NANCY WEISS	5405 GOLF LANE	Nancy Weiss	7/10/12
✓ 2. ANN MARIE BLAND	5501 GOLF LANE	Ann Marie Bland	7/10/12
✓ 3. LOU BOLAND	11011 WAYCROFT WAY	Lou Boland	7/10/12
✓ 4. DANIEL GOLDEN	5430 WICKFORD DR.	Daniel Golden	7-10-12
✓ 5. DAVID L. COMIS	11005 WAYCROFT WAY	David L. Comis	7-10-12
6. DICK DEEGAN	5411 GOLF LANE	Dick Deegan	7/10/12
✓ 6. DICK DEEGAN	5413 GOLF LANE	Dick Deegan	7/10/12
✓ 7. ROBERT RODRIGUEZ	5509 GOLF LANE (RODRIGUEZ)	Robert Rodriguez	7/10/12
8. [Name]	[Address]	[Signature]	[Date]
9. [Name]	[Address]	[Signature]	[Date]
✓ 8. DAVID SAUTER	5409 GOLF LANE	David Sauter	7/17/2012
✓ 9. ROBERT RODRIGUEZ	11113 ARDWICK DR. (ARRO)	Robert Rodriguez	7.10.12

Petition for Road Study for Wickford Community

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Name (Printed)	Address	Signature	Date
✓ 1. Pappert	1105 Ardwick Dr	[Signature]	7/10/12
✓ 2. Wilson	11021 Ardwick Dr	John H. Wilson	7/11/12
✓ 3. Kohnsman	11029 Ardwick Dr	[Signature]	other she
✓ 4. Reed	11031 Ardwick Dr	Russ N Reed	7/11/12
✓ 5. Patterson	11101 Ardwick Dr	[Signature]	7/11/12
✓ 6. Levi	11105 Ardwick Dr	Amerson W Levi	7/13/2012
✓ 7. White	11109 Ardwick Dr		
✓ 8. Prep (lao)	11113 Ardwick Dr		
9. Kohnsman			
10.			

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Name (Printed)	Address	Signature	Date
✓ 1.	Donald & Catharine Robinson 11027 Ardwick Dr.	<i>Catharine Robinson</i> Donald L. Robinson	July 16, 2012
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3. The results of the study, when complete, will be reviewed with the community.
4. The community will have another opportunity to determine whether or not to proceed based on the project cost. Sixty percent of the Affected Property Owners have to approve going forward with the project.
5. If the Community decides to proceed, the project will compete for funding with other projects in the County's bi-ennial CIP budget
6. If the project is funded and the project is built, the Affected Property owners will be obligated to reimburse the County's expenses, less the County's contribution, as explained in the County's Dedicated but Unmaintained County Roads Policy.

Name (Printed)	Address	Signature	Date
1. GEORGINA B. PERDUE	11000 WAYCROFT	<i>[Signature]</i>	7/8/12
✓ 2. Christine Cheson	11028 Waycroft Way	<i>[Signature]</i>	7/9/12
✓ 3. BARBARA WALSH	11100 WAYCROFT WAY	<i>[Signature]</i>	7/9/12
✓ 4. James Hansell	11112 Waycroft Way	<i>[Signature]</i>	7/4/12
✓ 5. MARY EMAGUIRE	11012 Waycroft Way	<i>[Signature]</i>	7/9/12
✓ 6. Joseph P. Collins, Sr	11008 WAYCROFT WAY	<i>[Signature]</i>	7/10/12
7.			
8.			
9.			
10.			

Petition for Road Study for Wickford Community

We the undersigned do hereby request that Montgomery County Department of Transportation perform a study to determine the cost and viability of making improvements to and assuming maintenance for those roads in the Wickford Community that are not currently maintained by the County in accordance with the County's Dedicated But Unmaintained (DBU) County Roads Policy.

Specifically this includes #11008/#11015 to #11116/11113 Ardwick Drive; #5401 to #5509 Golf Lane; and #11000/#11005 to #11112/#11117 Waycroft Way, as well as two properties on Wickford Drive (#5425 and #5430) that border both Waycroft Way and Wickford Drive for a total of 44 Affected Property Owners.

We understand that:

1. The study will result in an estimate of project costs. There is no cost to the community for the study.
2. Sixty percent of the Affected Property Owners have to request the study.
3. The results of the study, when complete, will be reviewed with the community.
4. The community will have another opportunity to determine whether or not to proceed based on the project cost. Sixty percent of the Affected Property Owners have to approve going forward with the project.
5. If the Community decides to proceed, the project will compete for funding with other projects in the County's bi-ennial CIP budget
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Name (Printed)	Address	Signature	Date
✓ 1. Smith Will	11116 Ardwick	<i>[Signature]</i>	7-15-12
✓ 2. Will	11112 Ardwick	<i>[Signature]</i>	7-15-12
✓ 3. CAREY	11108 Ardwick	Christine Carey	7-15-12
✓ 4. ZINGONE	11104 Ardwick	<i>[Signature]</i>	7-25-12
✓ 5. LAUX	11100 Ardwick	<i>[Signature]</i>	7-15-12
✓ 6. ASSETT	11028 Ardwick		
✓ 7. SZCZUR	11022 Ardwick	<i>[Signature]</i>	7-18-12
✓ 8. LUSSO/FARRI	11016 Ardwick	<i>[Signature]</i>	7-25-12
✓ 9. NEAL	11008 Ardwick	(See other sheet)	
10. GARIN	11008		

Petition for Road Study for Wickford Community

We the undersigned do hereby request that Montgomery County Department of Transportation perform a study to determine the cost and viability of making improvements to and assuming maintenance for those roads in the Wickford Community that are not currently maintained by the County in accordance with the County's Dedicated But Unmaintained (DBU) County Roads Policy.

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6. If the project is funded and the project is built, the Affected Property owners will be obligated to reimburse the County's expenses, less the County's contribution, as explained in the County's Dedicated but Unmaintained County Roads Policy.

Name (Printed)	Address	Signature	Date
✓ 1. CLAUDIA NEAL	11008 ARDWICK DR	<i>Claudia Neal</i>	7-13-12
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			


Petition for Road Study for Wickford Community

We the undersigned do hereby request that Montgomery County Department of Transportation perform a study to determine the cost and viability of making improvements to and assuming maintenance for those roads in the Wickford Community that are not currently maintained by the County in accordance with the County's Dedicated But Unmaintained (DBU) County Roads Policy.

Specifically this includes #11008/#11015 to #11116/11113 Ardwick Drive; #5401 to #5509 Golf Lane; and #11000/#11005 to #11112/#11117 Waycroft Way, as well as two properties on Wickford Drive (#5425 and #5430) that border both Waycroft Way and Wickford Drive for a total of 44 Affected Property Owners.

We understand that:

1. The study will result in an estimate of project costs. There is no cost to the community for the study.
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5. If the Community decides to proceed, the project will compete for funding with other projects in the County's bi-ennial CIP budget
6. If the project is funded and the project is built, the Affected Property owners will be obligated to reimburse the County's expenses, less the County's contribution, as explained in the County's Dedicated but Unmaintained County Roads Policy.

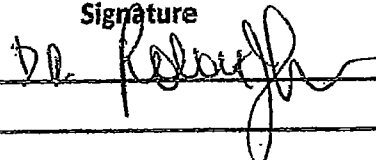
Name (Printed)	Address	Signature	Date
✓ 1. DENNIS CRASSIA	11101 Waycroft Way		9-15-12
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

We the undersigned do hereby request that Montgomery County Department of Transportation perform a study to determine the cost and viability of making improvements to and assuming maintenance for those roads in the Wickford Community that are not currently maintained by the County in accordance with the County's Dedicated But Unmaintained (DBU) County Roads Policy.

Specifically this includes #11008/#11015 to #11116/11113 Ardwick Drive; #5401 to #5509 Golf Lane; and #11000/#11005 to #11112/#11117 Waycroft Way, as well as two properties on Wickford Drive (#5425 and #5430) that border both Waycroft Way and Wickford Drive for a total of 44 Affected Property Owners.

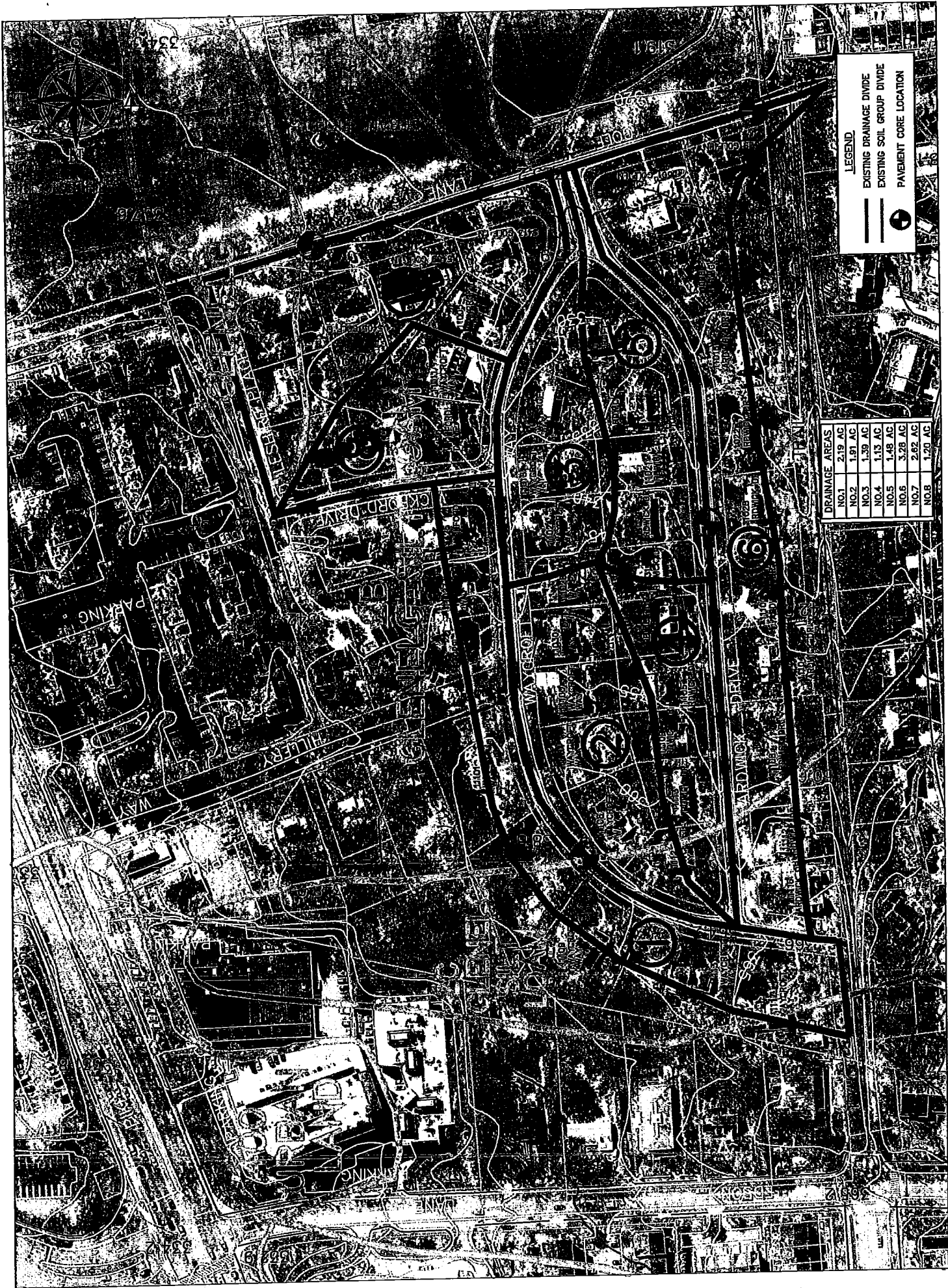
We understand that:

1. The study will result in an estimate of project costs. There is no cost to the community for the study.
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5. If the Community decides to proceed, the project will compete for funding with other projects in the County's bi-ennial CIP budget
6. If the project is funded and the project is built, the Affected Property owners will be obligated to reimburse the County's expenses, less the County's contribution, as explained in the County's Dedicated but Unmaintained County Roads Policy.

Name (Printed)	Address	Signature	Date
1.	Bob + Claudia Linnahan 5425		8/10/12
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

APPENDIX C

Aerial GIS Map with Soil and Drainage Boundaries



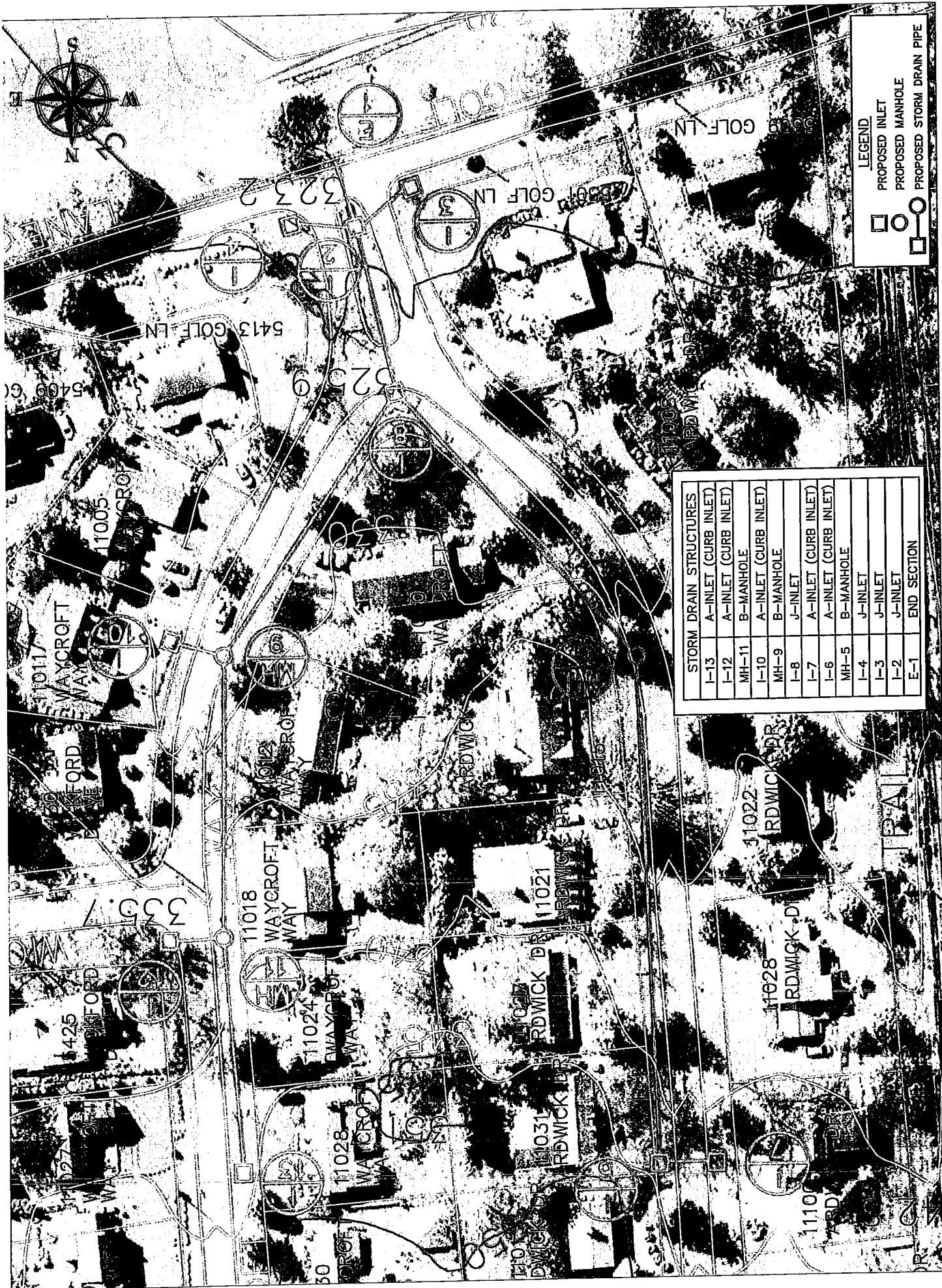
DBU-ARDWICK DR, GOLF LN & WAYCROFT WAY

SCALE: NOT TO SCALE

JANUARY 2014

APPENDIX D

Stormwater Management Concept for Closed Section Design



LEGEND

- PROPOSED INLET
- PROPOSED MANHOLE
- PROPOSED STORM DRAIN PIPE

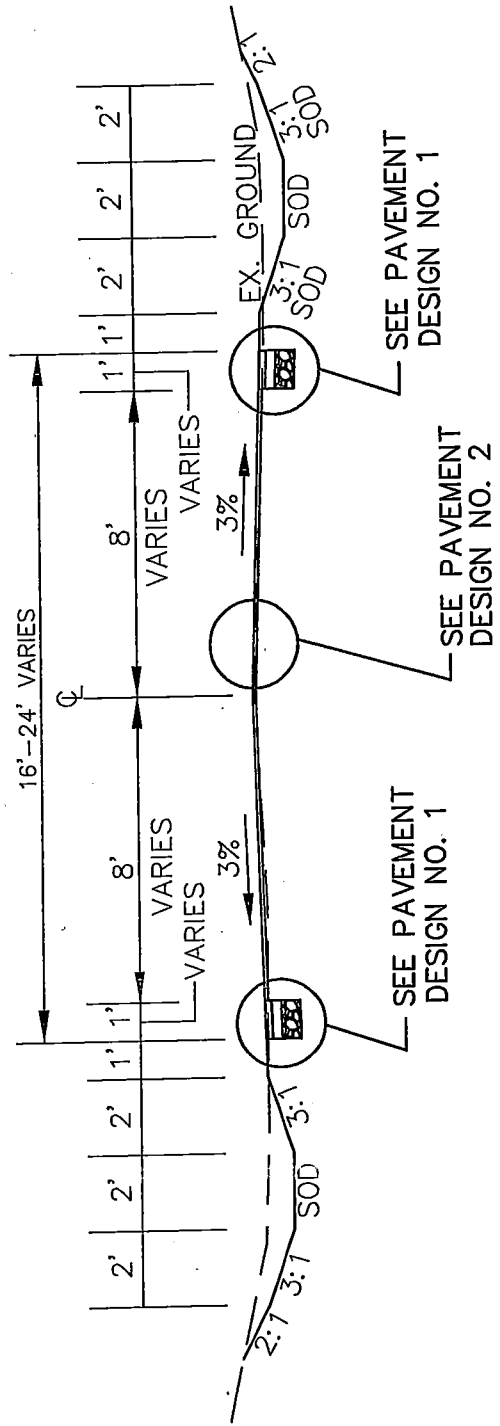
STORM DRAIN STRUCTURES	
I-13	A-INLET (CURB INLET)
I-12	A-INLET (CURB INLET)
MH-11	B-MANHOLE
I-10	A-INLET (CURB INLET)
MH-9	B-MANHOLE
I-8	J-INLET
I-7	A-INLET (CURB INLET)
I-6	A-INLET (CURB INLET)
MH-5	B-MANHOLE
I-4	J-INLET
I-3	J-INLET
I-2	J-INLET
E-1	END SECTION

SCALE: NOT TO SCALE JANUARY 2014

DBU-ARDWICK DR, GOLF LN & WAYCROFT WAY

APPENDIX E

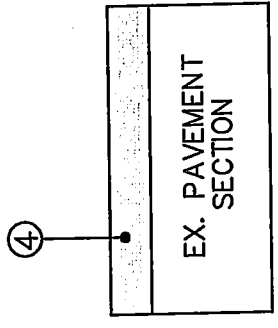
Proposed Typical Section



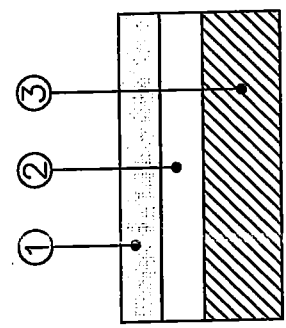
SEE PAVEMENT DESIGN NO. 1

SEE PAVEMENT DESIGN NO. 2

SEE PAVEMENT DESIGN NO. 1



2. OVERLAY PAVEMENT DESIGN
NOT TO SCALE



1. PAVEMENT WIDENING DESIGN
NOT TO SCALE

- ① 3" HMA SUPERPAVE FOR SURFACE (TWO EQUAL LAYERS)
- ② 3" HMA SUPERPAVE FOR BASE
- ③ APPROVED SUBGRADE
- ④ 1 1/2" HMA SUPERPAVE FOR SURFACE

NOTE
HMA: HOT MIX ASPHALT

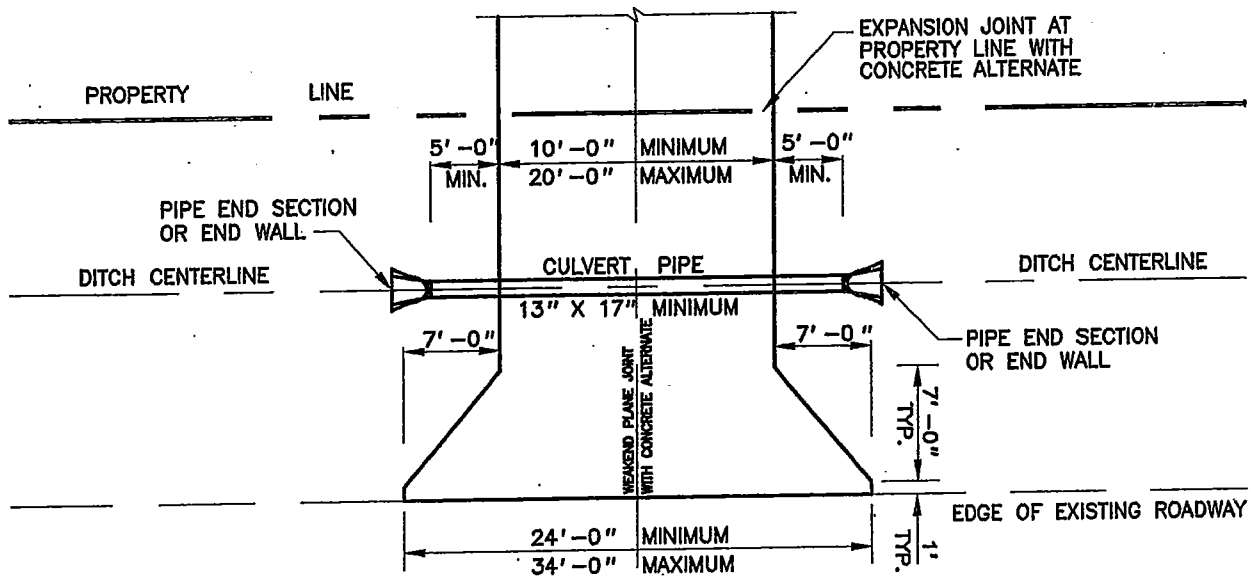
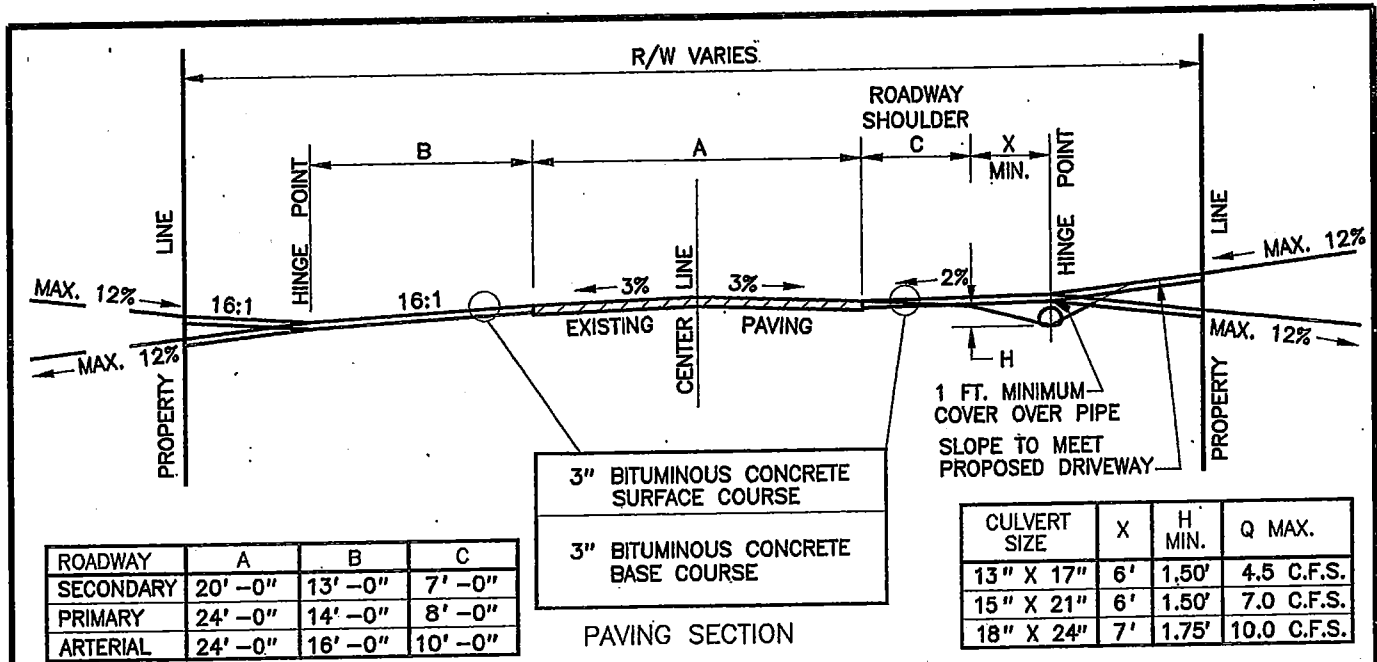
TYPICAL SECTION

ARDWICK DRIVE, WAYCROFT WAY
AND GOLF LANE
IMPROVEMENT

SCALE 1"=5' JANUARY 2014

APPENDIX F

Standard No. MC-301.03
Residential Driveway Open Section Road



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. DITCH IS TO BE DESIGNED FOR A MAXIMUM Q. OF 12 C.F.S., A MAXIMUM V. OF 5 F.P.S. AND A DEPTH OF FLOW OF ONE FOOT. DEPTH OF FLOW MAY EXCEED ONE FOOT FOR CULVERT APPROACH HEAD REQUIREMENTS, WITH A MAXIMUM ALLOWABLE OF 6" ABOVE THE CROWN OF PIPE.
4. END SECTIONS ARE TO BE FASTENED TO THE FIRST CORRUGATION AND FITTED TO FORM A TIGHT CONNECTION. THE PIPE SHALL NOT PROJECT INTO THE END SECTION.
5. SPECIAL CARE MUST BE TAKEN TO PROVIDE PROPER COMPACTION OF BACKFILL AROUND THE CULVERT PIPE AND THE END SECTION.

P:\DIT\STD\MC30103 6-24-94 9:34:23 am EST

APPROVED <u>JAN 5/95</u> <small>DATE</small>	REVISED <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
 DIRECTOR, DEPT. OF TRANS.	RESIDENTIAL DRIVEWAY OPEN SECTION ROAD	
 CHIEF, DIV. OF ENG. SERVICES	STANDARD NO. MC-301.03	

APPENDIX G

List of Affected Properties

List of Affected Property Properties

Address	Owner's Name
11015 ARDWICK DR	PAPPERT WILLIAM T & S
11021 ARDWICK DR	WILSON JOHN J & M J
11027 ARDWICK DR	KUHNSMAN DONALD L ET AL TR
11031 ARDWICK DR	REED RICHARD N JR TRUSTEE
11101 ARDWICK DR	PATTERSON CHRISTOPHER ET AL
11105 ARDWICK DR	LEVI AMIRAM W & JOSEPHINE
11109 ARDWICK DR	WHITE JEAN C
11113 ARDWICK DR	GEORGETOWN PREPARATORY SCHOOL INC
11116 ARDWICK DR	WILL MARY KATHERINE REILLY TR
11112 ARDWICK DR	WILL WILLIAM K & MARY K REILLY-WILL
11108 ARDWICK DR	CAREY MICHAEL B & CHRISITINE F
11104 ARDWICK DR	ZINGONE GERALD & L A
11100 ARDWICK DR	LAUX JOHN C & MARY L
11028 ARDWICK DR	ASEFF JOHN N & J C
11022 ARDWICK DR	SZCZUR JOHN J & D M
11016 ARDWICK DR	LUSSO PAOLO ET AL
11112 WAYCROFT WAY	HANSELL ANDREA GOODMAN
11108 WAYCROFT WAY	COLLINS JOSEPH P JR & DENISE J
11104 WAYCROFT WAY	LEVI AMIRAM W & JOSEPHINE
11100 WAYCROFT WAY	WALSH THOMAS E JR & B B
11030 WAYCROFT WAY	STENTZ JON W
11028 WAYCROFT WAY	CHESON BRUCE D & C M
11024 WAYCROFT WAY	MAYO WILLIAM M & MARILYN D
11018 WAYCROFT WAY	MUTH ROY W 2ND & V B
11012 WAYCROFT WAY	MAGUIRE MARY F TRUSTEE
11000 WAYCROFT WAY	PERDUE ROBERT E JR & G P
11121 WAYCROFT WAY	SULLIVAN PAUL D & B B
11117 WAYCROFT WAY	SULLIVAN PAUL D & B B
11113 WAYCROFT WAY	KHALILI HOMAYOON & FAYYAZI ELHAM
11109 WAYCROFT WAY	CASSIDY ANDREW G & S B
11105 WAYCROFT WAY	FEGAN JAMES G ET AL TR
11101 WAYCROFT WAY	CASSIDY DENNIS M & M C
11029 WAYCROFT WAY	TROIANO TONI E TR
11027 WAYCROFT WAY	FRAZIER ROBERT T & K C
5425 WICKFORD DR	LINEHAN, ROBERT & CLAUDIA M MEER
5430 WICKFORD DR	GOLDEN DANIEL P ET AL TR
11011 WAYCROFT WAY	BOLAND LOUIS J JR
11005 WAYCROFT WAY	COMIS LEORA E TRUSTEE

5509 GOLF LN
5501 GOLF LN
5413 GOLF LN

GEORGETOWN PREP SCHOOL INC
BOLAND JOHN L & ANN M
DEEGAN RICHARD F ET AL TR
CORPORATION OF THE ROMAN CATHOLIC
CLERGYMEN
WEISS DANIEL L & N C
ANDERS ALLEN KENT TR ET AL

5409 GOLF LN
5405 GOLF LN
5401 GOLF LN

Total Number of Affected Properties: 45

APPENDIX H

Itemized Construction Cost Estimate for Open Section Design

C. I. P. WORK ORDER CONTRACT PRICING

Ardwick Drive, Waycroft Way & Golf Lane - EE per Work Order Contract					
No.	DESCRIPTION	QUANT.	UNIT	UNIT PRICE	AMOUNT
1001	CLEARING	42	CH	\$150.00	\$6,300.00
1002	UNCLASSIFIED GRUBBING EXCAVATION	4,003	CY	\$5.00	\$20,015.00
1007	ARROW PANELS	40	UD	\$1.00	\$40.00
1008	TEMPORARY TRAFFIC SIGNS	144	SF	\$12.00	\$1,728.00
1023	FLAGGER	320	HR	\$20.00	\$6,400.00
1032	CRUSHER RUN AGGREGATE CR-6 FOR MAINTENANCE OF TRAFFIC	300	TONS	\$4.00	\$1,200.00
1034	CONSTRUCTION STAKEOUT	40	CH	\$80.00	\$3,200.00
2001	UNCLASSIFIED ROADWAY EXCAVATION	302	CY	\$20.00	\$6,040.00
3006	CLASS IV OR CLASS V 15 INCH REINFORCED CONCRETE PIPE	68	LF	\$12.48	\$848.64
3008	CLASS IV OR CLASS V 21 INCH REINFORCED CONCRETE PIPE	116	LF	\$21.58	\$2,503.28
3036	21 INCH X 15 INCH CORRUGATED METAL PIPE ARCH, 16 GAUGE	1,276	LF	\$17.86	\$22,789.36
3046	"J" INLET MCDOT STANDARD No. MC-506.01	8	VF	\$265.60	\$2,124.80
3053	M.S.H.A. CONCRETE MIX No. 2, MIX No. 3, MIX No. 6, SOLID MASONRY AND/OR PRECAST CONCRETE FOR MISCELLANEOUS STRUCTURES	3	CY	\$440.00	\$1,320.00
3060	M.S.H.A. STANDARD No. MD-368.01 END SECTION FOR 21 INCH REINFORCED CONCRETE PIPE	1	EA	\$434.60	\$434.60
3095	SILT FENCE	6,780	LF	\$1.00	\$6,780.00
3096	REMOVE AND RESET SILT FENCE	6,780	LF	\$1.00	\$6,780.00
3098	STABILIZED CONSTRUCTION ENTRANCE	19	TONS	\$10.00	\$190.00
3099	REHABILITATE STABILIZED CONSTRUCTION ENTRANCE	19	TONS	\$1.00	\$19.00
4004	SUBFOUNDATION CONCRETE USING M.S.H.A. CONCRETE MIX No. 1	81	CY	\$95.00	\$7,695.00
5003	HOT MIX ASPHALT BASE PAVEMENT FOR ROADWAYS: SUPERPAVE 25.0 MM, PG 64-22	41	TONS	\$70.00	\$2,870.00
5004	HOT MIX ASPHALT SURFACE PAVEMENT FOR ROADWAYS: SUPERPAVE 12.5 MM, PG 64-22	311	TONS	\$75.00	\$23,325.00
6002	COMBINATION CONCRETE CURB & GUTTER (ANY TYPE)	67	LF	\$25.00	\$1,675.00
6007	7 INCH DEPTH PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS	7,098	SF	\$3.25	\$23,068.50
6033	REMOVE AND RESET/RELOCATE EXISTING FENCE (ANY SIZE, ANY TYPE)	212	SF	\$6.75	\$1,431.00
6042	STONE, BRICK, OR SOLID MASONRY FOR THE RELOCATION OF EXISTING SIGNS, MAILBOXES, DECORATIVE DRIVEWAY ENTRANCE WALLS, TREE WELLS, ETC.	12	SF	\$50.00	\$600.00
6043	REMOVE & RESET/RELOCATE EXISTING MAIL BOX (ANY SIZE, ANY TYPE)	42	EA	\$25.00	\$1,050.00
7014	SODDING	6,038	SY	\$4.00	\$24,152.00
7017	SELECTIVE TREE TRIMMING: 6¼ INCHES IN CALIPER OR LARGER	32	CH	\$150.00	\$4,800.00
7018	SELECTIVE TREE FELLING AND REMOVAL: 6¼ INCHES IN CALIPER OR LARGER	40	CH	\$550.00	\$22,000.00
7019	ADDITIONAL WATERING OF SOD, PLANTS, AND SEEDED AREAS	12	1000 GAL.	\$10.00	\$120.00
7020	TREE ROOT PRUNING	5,447	LF	\$1.00	\$5,447.00

C. I. P. WORK ORDER CONTRACT PRICING

8003	RELOCATE EXISTING GROUND MOUNTED SIGN USING NEW SUPPORTS	8	SF	\$12.00	\$96.00
8009	ADJUST EXISTING MANHOLES (ANY SIZE, ANY TYPE) TO FINISHED GRADE: DOWN 6 INCHES OR UP 12 INCHES	1	EA	\$330.00	\$330.00
8013	ADJUST EXISTING WASHINGTON GAS VALVE BOX TO FINISHED GRADE (ANY SIZE, ANY TYPE)	1	EA	\$100.00	\$100.00
8015	RELOCATION OF EXISTING FIRE HYDRANT	3	EA	\$200.00	\$600.00
Subtotal					\$208,072.18
30% Contingency					\$62,421.65
Non WO Contract Items (PEPCO& Streetlights)					\$49,600.00
Landscaping Cost					\$ 5,000.00
Total					\$325,093.83
					\$325,000.00

S:\PROJECTS\Projects\501117-DBU\Ardwick Road\131202 Ardwick-EE.xlsx]current WO Contract

APPENDIX I

Itemized Construction Cost Estimate for Closed Section Design

C. I. P. WORK ORDER CONTRACT PRICING

Ardwick Drive, Waycroft Way & Golf Lane - EE per Work Order Contract

No.	DESCRIPTION	QUANT.	UNIT	UNIT PRICE	AMOUNT
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1007	ARROW PANELS	40	UD	\$1.00	\$40.00
1008	TEMPORARY TRAFFIC SIGNS	144	SF	\$12.00	\$1,728.00
1023	FLAGGER	320	HR	\$20.00	\$6,400.00
1032	CRUSHER RUN AGGREGATE CR-6 FOR MAINTENANCE OF TRAFFIC	300	TONS	\$4.00	\$1,200.00
1034	CONSTRUCTION STAKEOUT	40	CH	\$80.00	\$3,200.00
2001	UNCLASSIFIED ROADWAY EXCAVATION	302	CY	\$20.00	\$6,040.00
3001	CLASS 3 EXCAVATION FOR STORM DRAIN AND MISCELLANEOUS CONSTRUCTION: TOTAL DEPTH OF EXCAVATION LESS THAN OR EQUAL TO 4 VERTICAL FEET	806	CY	\$60.00	\$48,360.00
3006	CLASS IV OR CLASS V 15 INCH REINFORCED CONCRETE PIPE	144	LF	\$12.48	\$1,797.12
3008	CLASS IV OR CLASS V 21 INCH REINFORCED CONCRETE PIPE	97	LF	\$21.58	\$2,093.26
3011	CLASS IV OR CLASS V 30 INCH REINFORCED CONCRETE PIPE	38	LF	\$40.40	\$1,535.20
3023	15 INCH TYPE S, HIGH DENSITY POLYETHYLENE PIPE	661	LF	\$6.76	\$4,468.36
3024	18 INCH TYPE S, HIGH DENSITY POLYETHYLENE PIPE	348	LF	\$9.24	\$3,215.52
3046	"J" INLET MCDOT STANDARD No. MC-506.01	16	VF	\$265.60	\$4,249.60
3047	"J" INLET AS TERMINUS MCDOT STANDARD No. MC-506.02	12	VF	\$254.40	\$3,052.80
3051	TYPE "B" MANHOLE MCDOT STANDARD No. MC-515.01: FOR THE PORTION OF VERTICAL DEPTH UP TO AND INCLUDING 6 FEET	12	VF	\$200.00	\$2,400.00
3052	TYPE "B" MANHOLE MCDOT STANDARD No. MC-515.01: FOR THE PORTION OF VERTICAL DEPTH GREATER THAN 6 FEET AND LESS THAN OR EQUAL TO 8 FEET	18	VF	\$200.00	\$3,600.00
3053	M.S.H.A. CONCRETE MIX No. 2, MIX No. 3, MIX No. 6, SOLID MASONRY AND/OR PRECAST CONCRETE FOR MISCELLANEOUS STRUCTURES	8	CY	\$440.00	\$3,520.00
3054	STORM DRAIN INLETS THROATS (ANY SIZE, ANY TYPE)	25	LF	\$20.00	\$500.00
3055	TOP SLABS, INCLUDING MANHOLE FRAME AND COVER, FOR STORM DRAIN INLETS (ANY SIZE, ANY TYPE)	2	CY	\$100.00	\$200.00
3060	M.S.H.A. STANDARD No. MD-368.01 END SECTION FOR 21 INCH REINFORCED CONCRETE PIPE	1	EA	\$434.60	\$434.60
3095	SILT FENCE	6,780	LF	\$1.00	\$6,780.00
3096	REMOVE AND RESET SILT FENCE	6,780	LF	\$1.00	\$6,780.00
3098	STABILIZED CONSTRUCTION ENTRANCE	19	TONS	\$10.00	\$190.00
3099	REHABILITATE STABILIZED CONSTRUCTION ENTRANCE	19	TONS	\$1.00	\$19.00
4004	SUBFOUNDATION CONCRETE USING M.S.H.A. CONCRETE MIX No. 1	81	CY	\$95.00	\$7,695.00
5003	HOT MIX ASPHALT BASE PAVEMENT FOR ROADWAYS: SUPERPAVE 25.0 MM, PG 64-22	41	TONS	\$70.00	\$2,870.00
5004	HOT MIX ASPHALT SURFACE PAVEMENT FOR ROADWAYS: SUPERPAVE 12.5 MM, PG 64-22	311	TONS	\$75.00	\$23,325.00
6002	COMBINATION CONCRETE CURB & GUTTER (ANY TYPE)	6,780	LF	\$25.00	\$169,500.00
6007	7 INCH DEPTH PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS	7,098	SF	\$3.25	\$23,068.50

*2012 Pricing is for Information Only

C. I. P. WORK ORDER CONTRACT PRICING

6033	REMOVE AND RESET/RELOCATE EXISTING FENCE (ANY SIZE, ANY TYPE)	212	SF	\$6.75	\$1,431.00
6042	STONE, BRICK, OR SOLID MASONRY FOR THE RELOCATION OF EXISTING SIGNS, MAILBOXES, DECORATIVE DRIVEWAY ENTRANCE WALLS, TREE WELLS, ETC.	12	SF	\$50.00	\$600.00
6043	REMOVE & RESET/RELOCATE EXISTING MAIL BOX (ANY SIZE, ANY TYPE)	42	EA	\$25.00	\$1,050.00
7014	SODDING	6,038	SY	\$4.00	\$24,152.00
7017	SELECTIVE TREE TRIMMING: 6¼ INCHES IN CALIPER OR LARGER	32	CH	\$150.00	\$4,800.00
7018	SELECTIVE TREE FELLING AND REMOVAL: 6¼ INCHES IN CALIPER OR LARGER	40	CH	\$550.00	\$22,000.00
7019	ADDITIONAL WATERING OF SOD, PLANTS, AND SEEDED AREAS	12	1000 GAL.	\$10.00	\$120.00
7020	TREE ROOT PRUNING	5,447	LF	\$1.00	\$5,447.00
8003	RELOCATE EXISTING GROUND MOUNTED SIGN USING NEW SUPPORTS	8	SF	\$12.00	\$96.00
8009	ADJUST EXISTING MANHOLES (ANY SIZE, ANY TYPE) TO FINISHED GRADE: DOWN 6 INCHES OR UP 12 INCHES	1	EA	\$330.00	\$330.00
8013	ADJUST EXISTING WASHINGTON GAS VALVE BOX TO FINISHED GRADE (ANY SIZE, ANY TYPE)	1	EA	\$100.00	\$100.00
8015	RELOCATION OF EXISTING FIRE HYDRANT	3	EA	\$200.00	\$600.00
Subtotal					\$425,302.96
30% Contingency					\$127,590.89
Non WO Contract Items (PEPCO& Streetlights)					\$49,600.00
Landscaping Cost					\$ 5,000.00
Total					\$607,493.85
Closed Section					\$607,000.00

S:\PROJECTS\Projects\501117-DBU\Ardwick Road\140109 Ardwick-Closed Section-EE.xlsx]current WO Contract

APPENDIX J

Design, Property Acquisition and Construction Management Cost Estimate

Date: 12/27/2013

Project Name: Ardwick Drive, Waycroft Way & Golf Lane Design (12)
Duration: 12 months

	FY17			Total	Rounded
	Hourly Rate	Duration (month)	Hours per Month		
Transportation Design	100	12	22	26,400	
Contracts Costs (4 Soil Borings)				10,000	
Permit Fees (SWM Concept)				2,684	
Permit Fees (E&S)				3,710	
Total Cost				\$42,794	43,000

Construction Mgt (13) Duration: 6 months = 3 months prior to construction + 3 months construction duration

	FY18			Total	Rounded
	Hourly Rate	Duration (month)	Hours per Month		
Construction Section	100	3	25	7,500	
Transportation Design	100	3	20	6,000	
Total Cost				\$13,500	\$63,000

Property (14) Duration: 9 months

	FY18			Total	Rounded
	Hourly Rate	Duration (month)	Hours per Month		
Property Acquisition Section	100	9	5.5	4,950	
Temporary Construction Easement				800	
Total Cost				\$ 5,750	6,000