



April 11, 2011

Hound Ears Club Roadway Evaluation Study Executive Summary

INTRODUCTION

Since the early 1960's, Hound Ears Club (HEC), has evolved into a mature residential community, encompassing 435 single family homes and condominium units. Located over 750 acres, portions of the communities infrastructure are approaching 50 years of use. Over these years new sections have been added and updated; however, no one single document has been formulated to map and evaluate the conditions prior to this study.

The purpose of the study is to evaluate the 12.59 miles of roads and associated infrastructure. The study documents, maps and quantifies the existing conditions; evaluates the key components; develops a priority ranking; and recommends appropriate remediation steps.

This evaluation may be used to: 1) develop projections for the maintenance, operations and replacement of components that have exceeded their reasonable life-cycle, 2) develop short-term and long-term rehabilitation priorities, and 3) update and monitor as-built conditions.

The data to perform the inventory and mapping includes, but is not limited to, data obtained from: Watauga County GIS Department, survey documents produced in 2004 by Appalachian Survey Company when the Club was purchased as an equity corporation, previous plans and surveys produced over the life of the Club, as-built conditions recorded by Club staff, utility plans provided by Utilities, Inc. for water and sanitary sewer, electrical plans provided by Blue Ridge Utilities Cooperative, telephone plans from Skyline Telephone Corporation, and on-site field reconnaissance conducted by Fremont Latimer, Frederick Halback, Richard Clark and Darryl Eggers.

DOCUMENTATION METHODS

As explained above, mapping was prepared utilizing readily available data and on-site field reconnaissance. This data has been recorded in layers utilizing AutoCAD version 2006 software and protocols. Data sets may be displayed depending on need, hierarchy, scale, and required view area. Data may be manipulated or updated using AutoCAD Lite software. Furthermore, AutoCAD maps may be formatted as PDF's for easy use, printing and e-mailing.

The overall evaluation summary and individual evaluation sheets (per road segment) are produced in Excel, allowing easy manipulation, update and conversion to PDF's.

TECHNICAL APPROACH FOR EVALUATING ROADWAYS

Evaluation Strategy

The initial step in the Roadway Evaluation process was to assemble pertinent roadway and utility data in the form of recorded, historical information. This inventory was augmented with HEC-wide field reconnaissance efforts (windshield surveys) conducted during wet and dry weather conditions (December 2010, February 2011 and March 2011). To undertake a comprehensive assessment of the streets, it was necessary to incorporate within the inventory information regarding the various visible and subsurface components that make-up a "roadway system". Four (4) such components were identified (these are discussed in detail below). For each component, a list of technical criteria was developed that describes various levels/stages of deterioration, with each assigned a numerical value. The intent of this exercise was to provide generic descriptions that could be used to compare overall condition or usage.

After the internal record search was completed, each roadway (50+ street segments covering over 12.59 miles) was inspected in both dry and wet weather conditions. Values were carefully assigned and an overall rating calculated for each component. Using an average of the weighted component scores, a final score was calculated for each roadway. **The rating system is such that the lower the score the more severe / deteriorated are the conditions.** A score of one (1) represents the greatest priority road. A score of five (5) represents an ideal street with the lowest priority.

For each roadway, a proposed remediation scenario was assigned depending upon the type of road and the degree of deterioration. Five (5) options were identified and labeled "A" through "E". The options propose complete reconstruction to various levels of rehabilitation / repaving (A - C). In some cases, (D) "routine" maintenance practices (i.e., activities within the capabilities of the HEC Property Services Department) should address the immediate concerns of residents. Recently completed or lightly traveled roads require no action (E).

Lastly, HEC was divided into eight (8) geographic sectors or neighborhoods. These were delineated based upon by their commonality and similarity. It is recommended that when prioritizing and potentially selecting future reconstruction and rehabilitation candidates, each roadway should be viewed against other streets within the same sector. This provides comparisons that are more relevant and representative. Routine updating of the ratings is advisable to reflect evolving conditions.

Component Criteria

Weighted criteria were developed for each roadway system component. The intent was to give greater emphasis on those factors that more directly impact the structural integrity and safety of a roadway. The lower the component number, the more deteriorated the condition or greater priority of usage. Scores were given for the following components:

Roadway Classification (Usage):

<i>Score</i>	<i>Criteria Description</i>
1	Roadway is a “primary” or “major” thoroughfare servicing a significant volume of daily vehicular and pedestrian traffic, characterized by peak flows. Roadway is a designated emergency evacuation, truck and / or service route, is equipped with traffic control systems, and services Club facilities.
3	Roadway is a “collector” thoroughfare servicing a substantial volume of daily vehicular and pedestrian traffic; or may be the site of numerous condominium buildings. Roadway may serve as a pass- through or alternate route between larger thoroughfares.
5	Roadway is a “secondary” thoroughfare that is primarily local in nature. Daily use is by limited area residents and associated service vehicles.

Paving:

<i>Score</i>	<i>Criteria Description</i>
1	Roadway surface exhibits extensive deterioration in the form of longitudinal / transverse separations; alligator cracking; widespread pothole or trench patches; rutting; spalling; and/or, edge cracking. Such defects exist on greater than 50% of the pavement. Substantial portions of the roadway have settled such that vehicular and pedestrian safety is compromised.
3	Roadway surface exhibits sporadic deterioration in the form of longitudinal/transverse separations; alligator cracking; widespread pothole or trench patches; spalling; rutting; and/or, edge cracking. Such defects exist on 25% to 50% of the pavement. Isolated portions of the roadway have settled such that vehicular and pedestrian safety is impeded and jeopardized in certain areas.
5	Roadway has been reconstructed or repaved (asphalt overlay) in the last five (5) years or exhibits minimal wear. Roadway surface exhibits minor deterioration in the form of longitudinal/transverse separations; alligator cracking; widespread pothole or trench patches; spalling; rutting; and/or, edge cracking. Road settlement does not appear to be an issue.

Drainage:

<i>Score</i>	<i>Criteria Description</i>
1	Positive drainage for the roadway is poor and runoff is primarily collected in curbside dirt gutters, swales or drainage pipes. Existing positive drainage structures and/or piping is inadequately sized to handle volume of runoff during typical rain events and/or are structurally deteriorated. Pipes and structures are over 30 years old and pipe is corrugated metal. Irregular street grading deters the fluid transport of water to these receptacles. Conditions are such that chronic flooding occurs after most rain events, with major inundation occurring during and after a major storm.

- 3 Positive drainage for the roadway is adequate and runoff is primarily collected in curbside dirt gutters, swales or drainage pipes. Existing drainage structures and / or piping may or may not be adequately sized to handle volume of runoff during typical rain events. Culverts and piping are corrugated metal and irregular street grading may deter the fluid transport of water to these receptacles. Conditions are such that some flooding occurs occasionally after rain events, with more substantial inundation occurring during and after a major storm.

- 5 Roadway drains well during and after typical rain events. Occasional flooding may occur during high intensity rain, but water is typically gone within shortly after the event. Pooling water along gutter or swale areas are minimal or sporadic. Drainage culverts and pipes have been replaced with resized corrugated plastic (HDP) pipe.

Street Elements (striping, guard rails, crossings, signage, grassing on shoulders, retaining walls etc.):

Score	Criteria Description
1	At least 25% of the street elements are damaged or worn out. Safety of roadway is compromised.
3	At least 10% but less than 25 % of the street elements are damaged or worn out. Certain areas of the roadway are compromised.
5	Less than 10% of the street elements are damaged or worn out.

Component Weighting

Certain components intuitively carry more importance since they apply to a roadway's level of use, structural integrity, drainage, and roadway safety. The components above were weighted using the following percentages:

Usage	35%
Paving	30%
Drainage	25%
Street Elements	<u>10%</u>
	100%

PROPOSED REMEDIATION OPTIONS

Based upon the overall condition of each roadway, a remediation option was assigned that addresses the identified defects. The selection of a rehabilitation plan is based upon engineering judgment and relevant technical experience.

Remediation Code

- A. Complete reconstruction of roadway including upgrading of sanitary sewer and potable water systems (where appropriate), replacement of appropriate positive storm drainage facilities; replacement of pavement.
- B. Rehabilitation of roadway in the form of an asphalt overlay of the existing pavement; replacement of drainage structures as appropriate.
- C. Rehabilitation of asphalt roadway by replacing deteriorated pavement sections; cleaning catch basins, and scarifying and/or filling dirt gutters and swales.
- D. In-house maintenance efforts to seal cracks; fill joints; repair potholes; and, rehabilitate defective patches/trenches.
- E. No action proposed at this time.

CONCLUSIONS and RECOMMENDATIONS

Based on the evaluation of roadways, Hound Ears Club has numerous segments that need to be addressed. The recently completed Cherry (2009) and Dogwood -entrance to five points-(2010) projects have been restored, adding considerable value to adjoining properties and the community as a whole. These projects have demonstrated the success of completing entire road segments. However, since the life-cycle of repaving is between 10 to 20 years, depending on usage, it is important to continue the systematic rehabilitation of all remaining segments. Based on the results of the evaluation matrix attached, the top five (5) roadway segments ranked according to greatest to least priority are as follows:

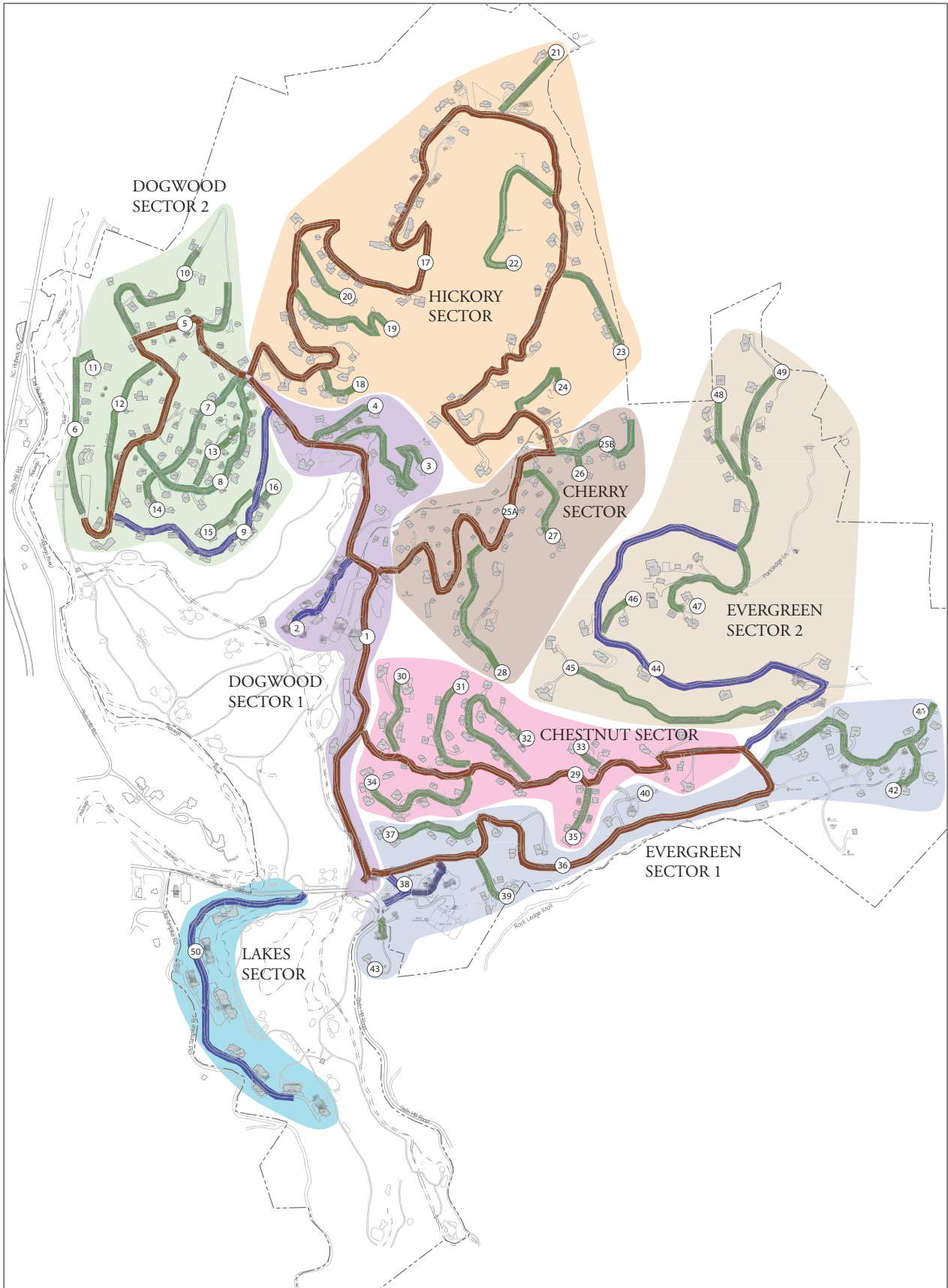
- 1). Dogwood - five points to the pool
- 2). Hickory
- 3). Evergreen - chestnut to cottonwood
- 4). Evergreen - dogwood to chestnut
- 5). Chestnut

To better utilize the evaluation summary, the following action steps are recommended.

- 1). Adopt the evaluation program and proceed with the greatest priority projects.
- 2) Develop a 1 - 5 - 10 year implementation plan, including probable estimates of construction costs, methods of payment / financing, etc. Assess whether the current road paving and infrastructure fees need to be modified or increased.
- 3). Implement or remediate items listed as *critical* on the overall evaluation summary and individual evaluation forms, as funds are available.
- 4). Continue to update data sets and as-built mapping.
- 5). Purchase appropriate software and train staff on use of software.

INDEX OF DELIVERABLES

- A. Executive Summary and Recommendations
- B. Map of Roadway Segments and Sectors - 1 sheet
- C. Evaluation Summary Matrix by Sector and Greatest to Least Priority - 2 sheets
- D. Individual Evaluation Summary Forms (double sided) - 50 sheets
- E. Mapping of Surface As-built Conditions - 9 sheets
- F. Mapping of Utilities (water, sewer, electric, fiber, phone) - 4 sheets



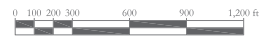
**HOUND
EARS CLUB**
Roadway
Evaluation Study
Roadway Classification

Legend

- Primary Road
- Collector Road
- Secondary Road



Roadway Evaluation No.



April, 2011

Dogwood to 5 points

Date: 4/10/2011

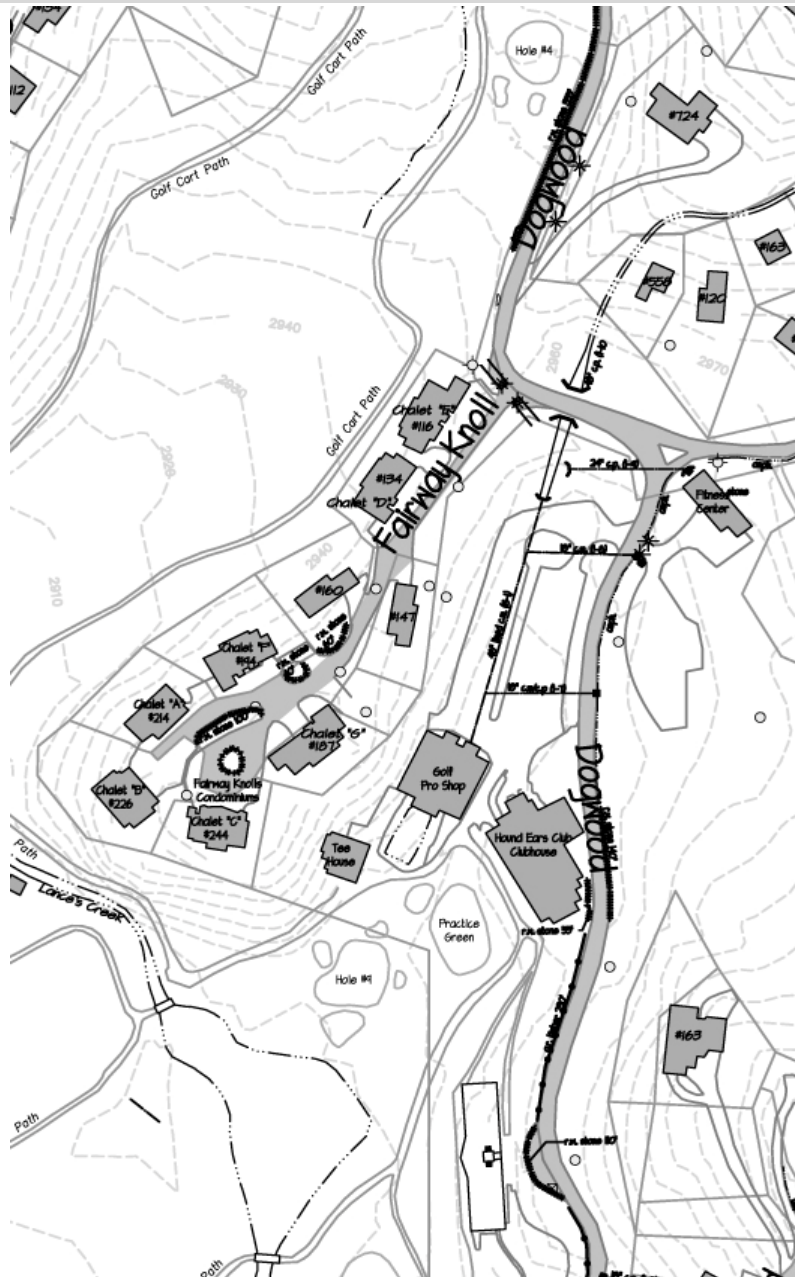
Owner	House #
Security Gate	130
Neary	295
Lodge Deck	311
Club House	429
Golf Pro Shop	475
Tee House	477
Fitness Center	538
Fitness Center	540
Goodman; Goodman; Settle	558
Turner, J.	724
Carter, R.	748
Koehler	801
Blaine	863
Ashby	931



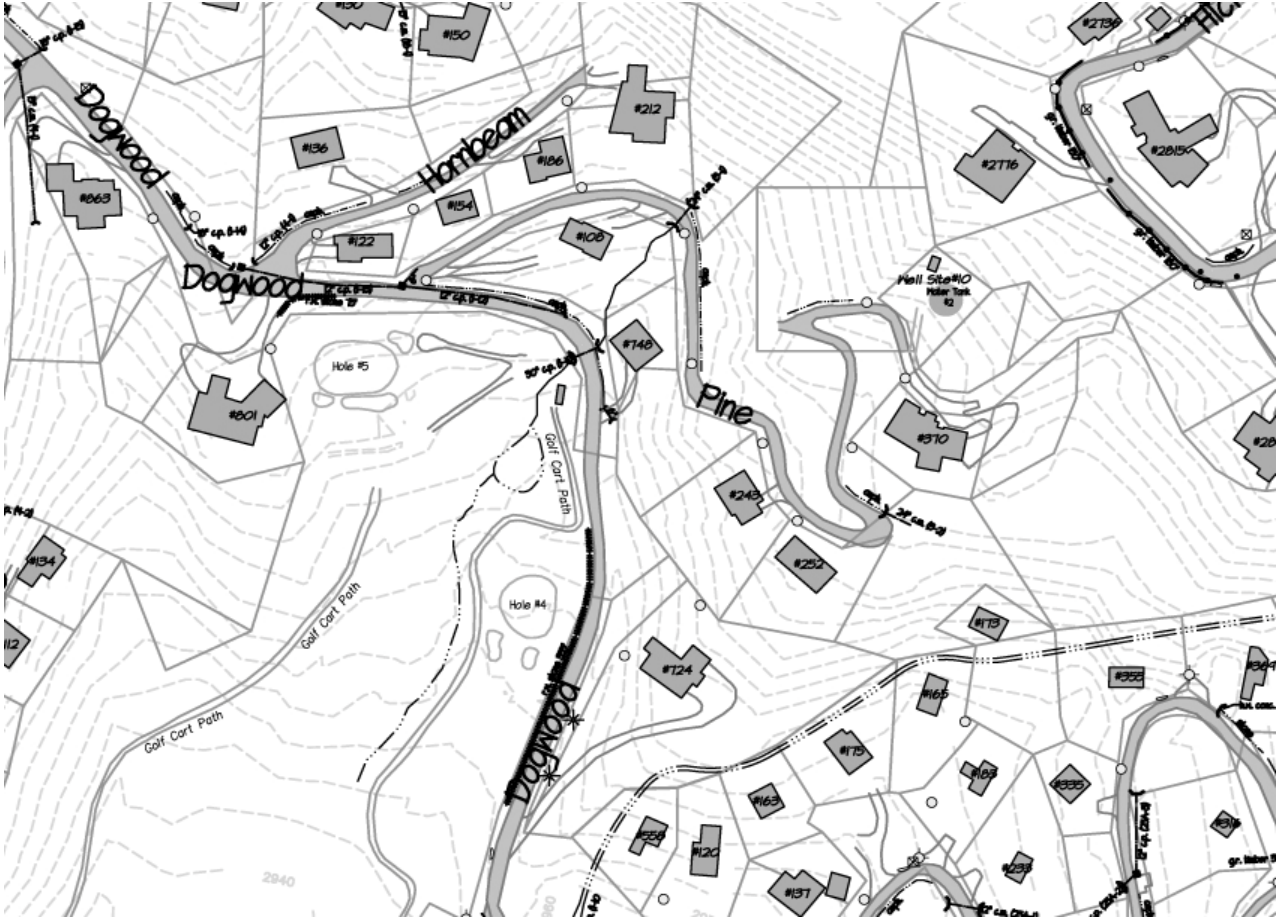
Fairway Knoll

Date: 4/10/2011

Owner	House #
E1- Walker; Lawrence	116
E2- Dickens, J.	116
E3- Patton	116
D1- Billings	134
D2- Dean	134
D3- Patton, B.	134
Holder	147
Winqvist	160
G1- Deglomine	187
G2- Liptzin	187
G3- Fowler	187
F1- Gross	194
F2- DeLancey; Urzi	194
F3- Friedman, N.	194
A1- Urzi	214
A2- Gessler	214
A3- Coley	214
B1- Borthwick	226
B2- Welker	226
B3- Ames	226
C1- Barker, F.	244
C2- Voight	244
C3- Burbank	244



Owner	House #
Zimmerman, J.	122
Tucker, E.	136
Rouse	154
Rouquette	186
Crouse	212



Road Segment: 5 Dogwood: 5 points to pool

Roadway Evaluation Form

Sector: dogwood2

Date: 4/10/2011

EVALUATION

Evaluation Score

2

Formula for calculation:
Usage - 35%, Paving - 30%
Drainage - 25%, Street Elements - 10%

Remediation Code

B

Performance Rating (1= greatest priority, 5= lowest priority)

Usage

1

1 = "Primary", heavily travelled, evacuation or service route
3 = "Collector", substantially travelled, used as pass-through
5 = "Secondary". Lightly travelled, local traffic only

Paving

2

1 = 50% or more is deteriorated or cracked, substantial settling
3 = 25%-50% is deteriorated or cracked, limited settling
5 = minor deterioration, no settling

Drainage

3

1 = no positive drainage, insufficient infrastructure, regular flooding;
3 = adequate drainage, adequate infrastructure, occasional flooding
5 = well drained, adequate infrastructure, minimal flooding

Street Elements

3

1 = 25% or more of elements are damaged or require replacement
3 = 10%-25% of elements are damaged or require replacement
5 = Less than 10% of elements are damaged or require replacement

USAGE

Classification:

1

1=primary 2=collector 3=secondary

Number of Homes:

21

Density (homes/100ft):

0.68

Facilities Served:

Pool, Rain Shelter #2 Green

PAVING

Total Length (ft):

3093

Avg. Width (ft):

18

Total Paved Area (sq ft):

55,674

ELEMENTS

Striping:

2

Guard Rails:

0

Retaining Walls

0

DRAINAGE

Culverts/Inlets/Pipes

Y

Swales

Y

UTILITIES

Water Line:

2

Pipe Diameter

Sanitary:

N

Electric:

O

O=overhead,
U=underground

Hydrants:

0

6" line

1

2"-4" line

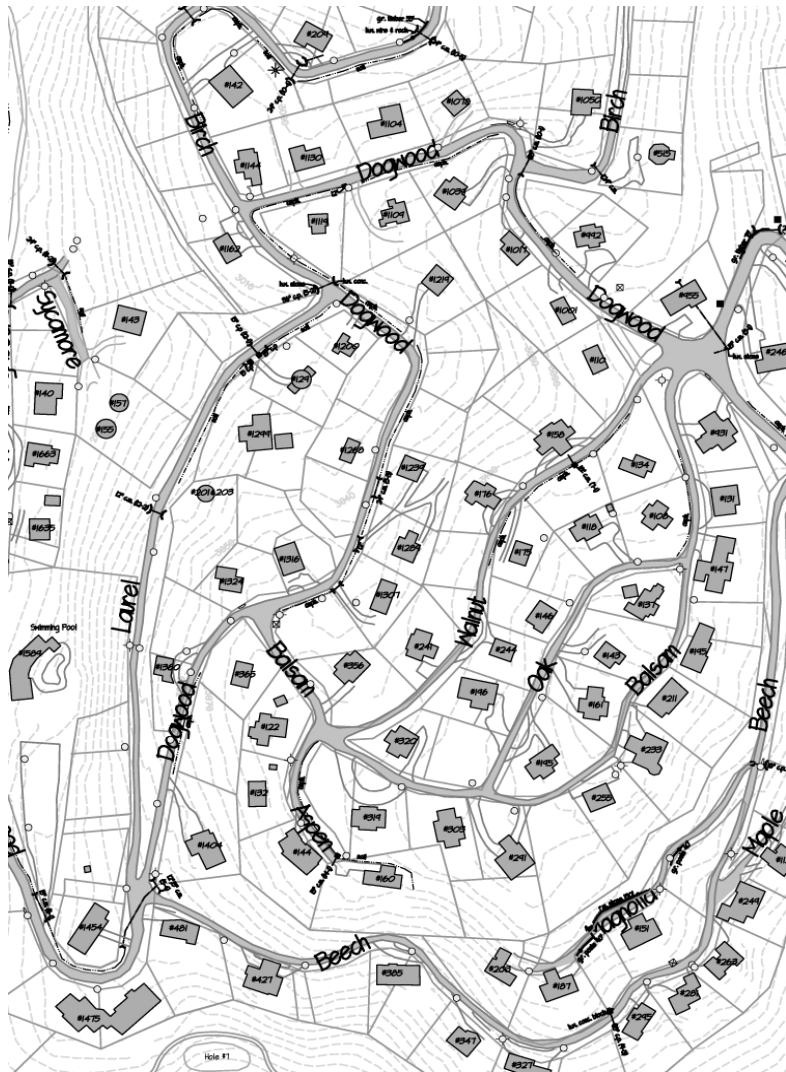
Notes

1. Inlets 5-2, 5-3 replaced in 2006

Dogwood: 5 points to pool

Date: 4/10/2011

Owner	House #
Lovern, R.	955
Stevens, R.	992
Colaizzo	1001
Crisp	1017
Maynard	1039
Lovern, J.	1050
Sochet	1078
Shafrath	1104
Hobart	1109
Vargas; Siljee	1119
Conlan	1130
Ellis, S.	1144
Deavers	1162
Robbins, R.	1200
Friendly Mtn. Club	1218
Morris	1219
Hurley	1239
Dyer	1268
Craig	1289
Cassone	1299
Byrnes	1307
Taylor, R; Short	1316
Gresham	1324
Moretz	1360
Carney	1404
Alala	1454
Barnes	1475
Pool	1589
Rain Shelter #2 Green	1611



Road Segment: 6 Dogwood: pool to Sycamore

Roadway Evaluation Form

Sector: dogwood2

Date: 4/10/2011

EVALUATION

Evaluation Score

3.4

Formula for calculation:
Usage - 35%, Paving - 30%
Drainage - 25%, Street Elements - 10%

Remediation Code

B

Performance Rating (1= greatest priority, 5= lowest priority)

Usage

5

1 = "Primary", heavily travelled, evacuation or service route
3 = "Collector", substantially travelled, used as pass-through
5 = "Secondary". Lightly travelled, local traffic only

Paving

2

1 = 50% or more is deteriorated or cracked, substantial settling
3 = 25%-50% is deteriorated or cracked, limited settling
5 = minor deterioration, no settling

Drainage

3

1 = no positive drainage, insufficient infrastructure, regular flooding;
3 = adequate drainage, adequate infrastructure, occasional flooding
5 = well drained, adequate infrastructure, minimal flooding

Street Elements

3

1 = 25% or more of elements are damaged or require replacement
3 = 10%-25% of elements are damaged or require replacement
5 = Less than 10% of elements are damaged or require replacement

USAGE

Classification:

5

1=primary 2=collector 3=secondary

Number of Homes:

2

Density (homes/100ft):

0.21

Facilities Served:

0

PAVING

Total Length (ft):

971

Avg. Width (ft):

18

Total Paved Area (sq ft):

17,478

ELEMENTS

Striping:

2

Guard Rails:

0

Retaining Walls

0

DRAINAGE

Culverts/Inlets/Pipes

Y

Swales

Y

UTILITIES

Water Line:

2

Pipe Diameter

Sanitary:

N

Electric:

O

O=overhead,
U=underground

Hydrants:

0

6" line

1

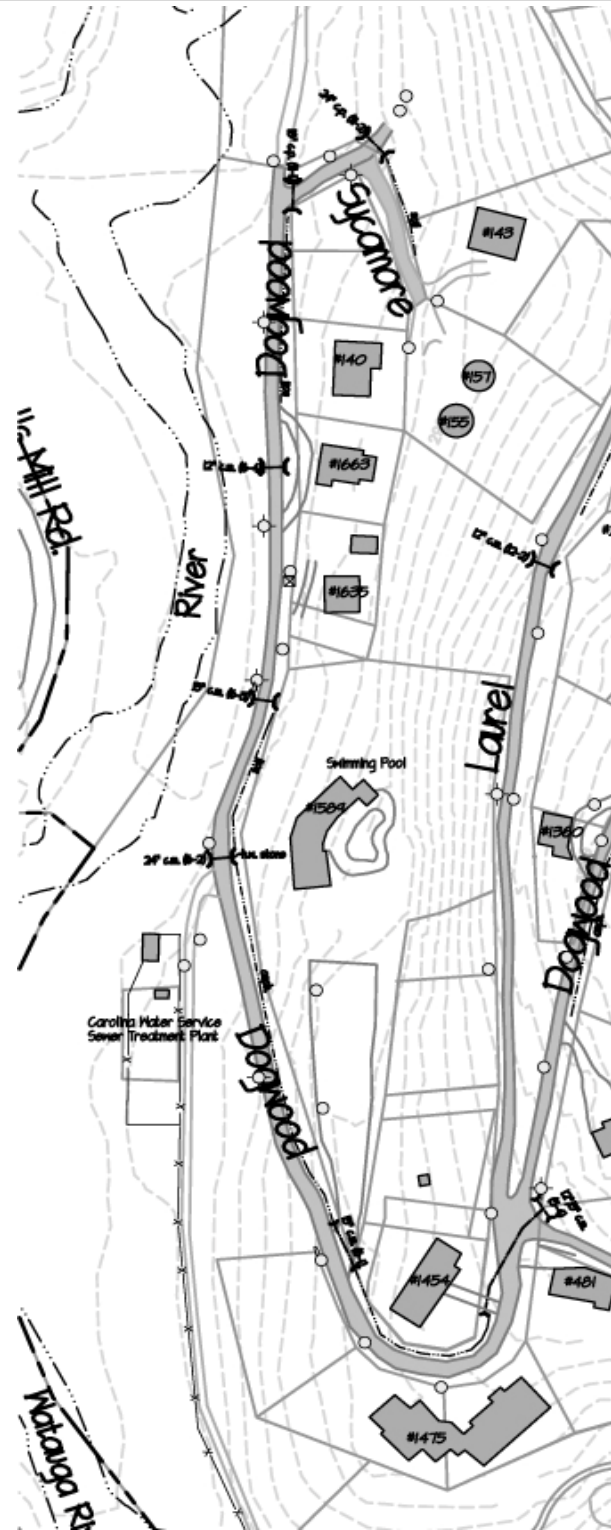
2"-4" line

Notes

Dogwood: pool to Sycamore

Date: 4/10/2011

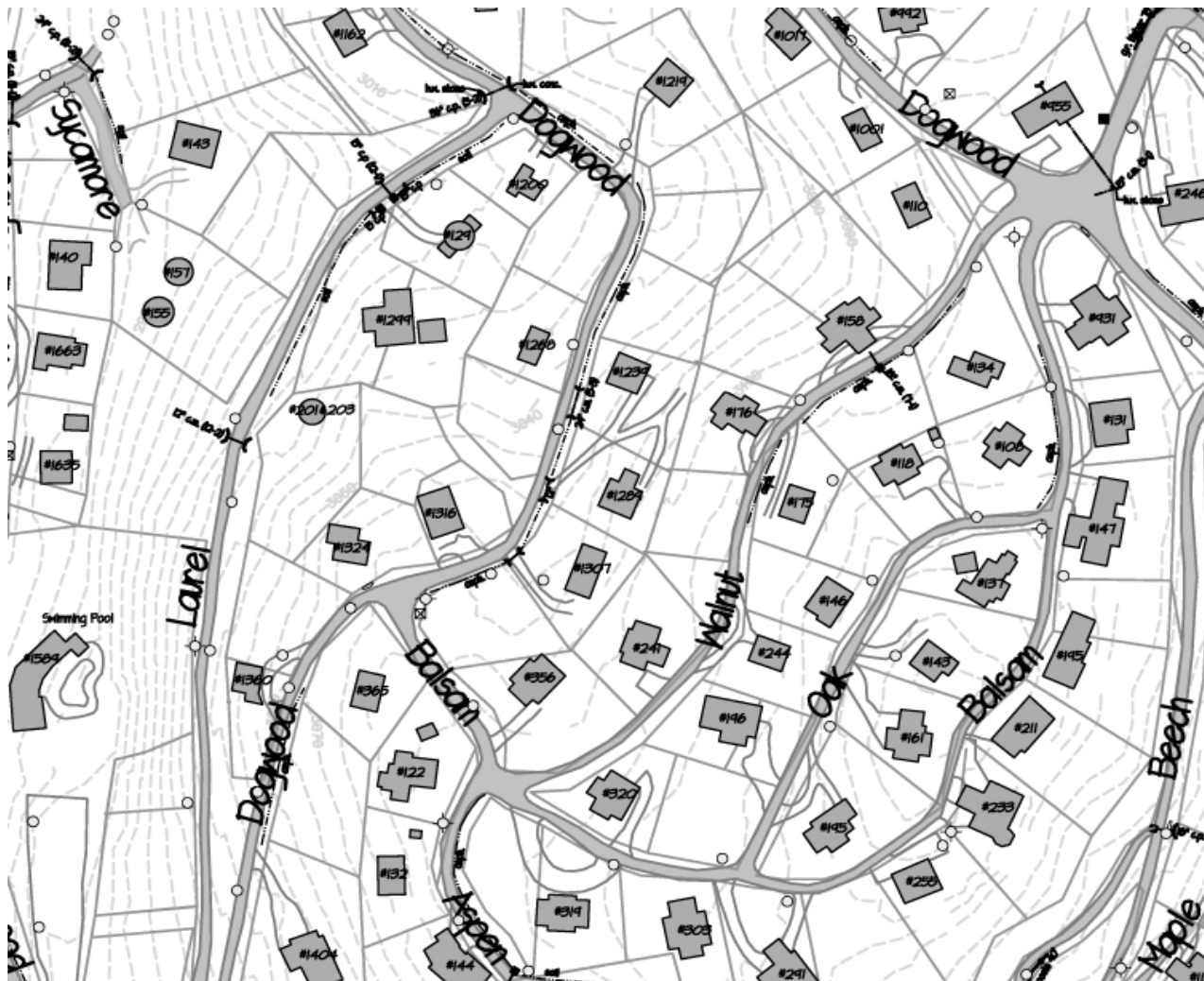
Owner	House #
Breedlove	1635
Rudisill	1663



Owner	House #
Tate	110
Nance	158
Judge	175
Eberhardt	176
Coffey	241
Adamson	244



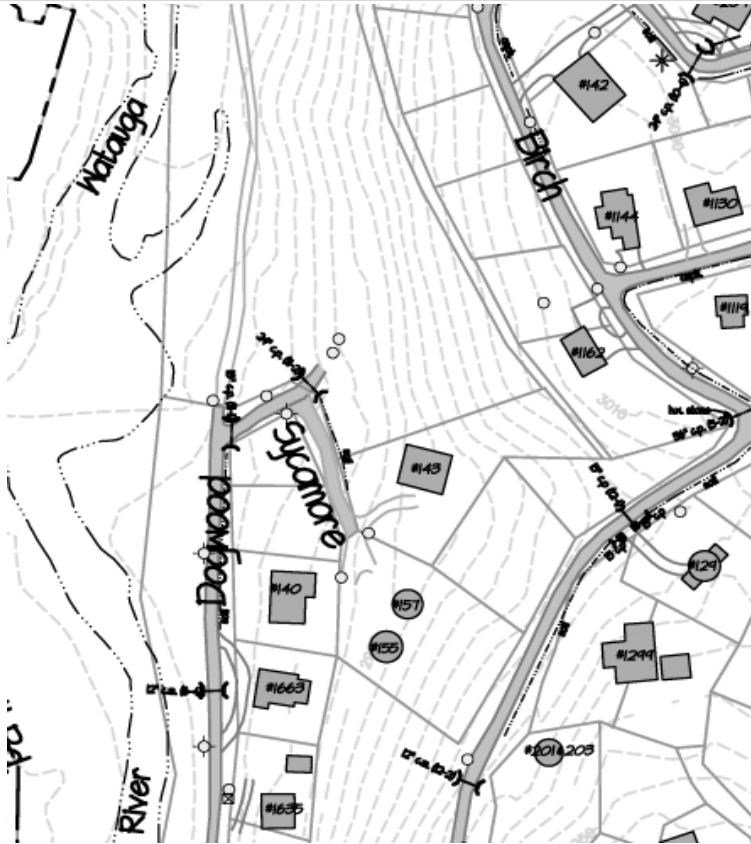
Owner	House #
Bashaarkhah	131
Shrader	134
Davis, G.	147
Myers, G.M.	195
Whitton	211
Nullman	233
Poe, W.E.	255
Scott	291
Russo	303
Ridenhour	319
Cornelius	320
Whiteside	356
Peace	357
Jamison	365



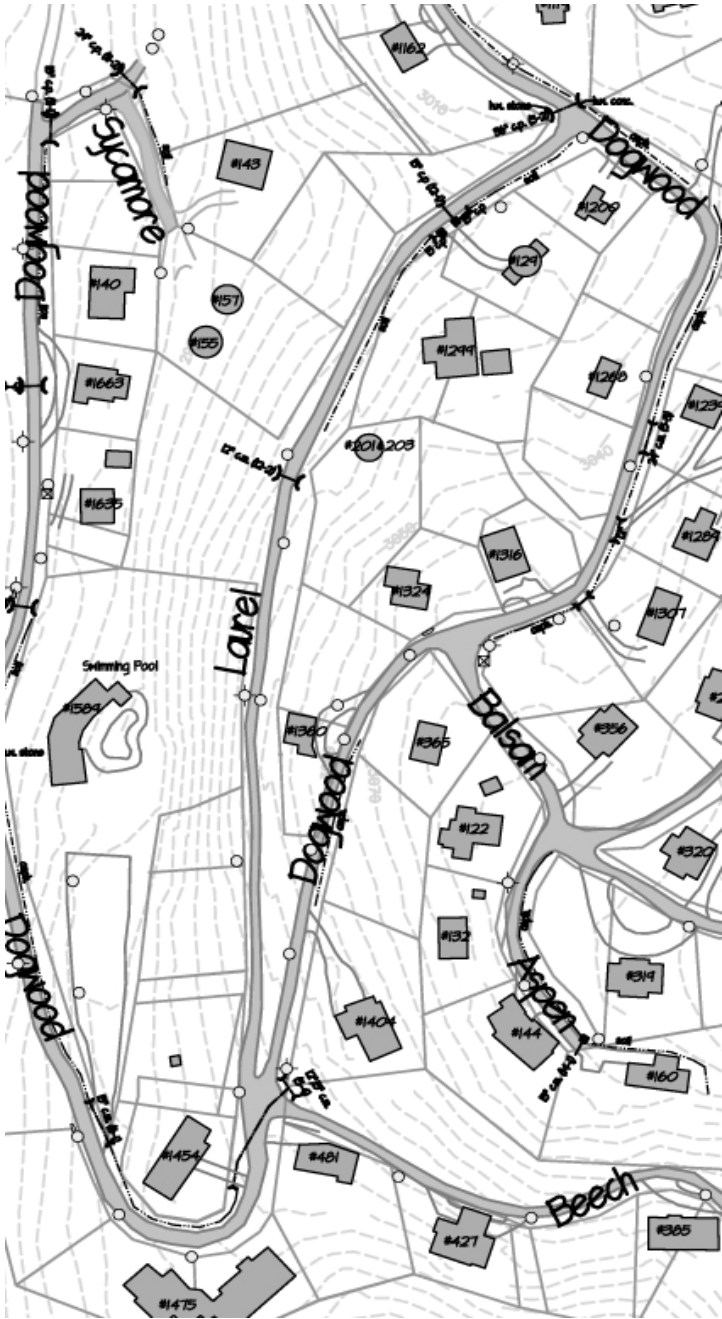
Sycamore

Date: 4/10/2011

Owner	House #
Spivey	140
Tirico	143
Feldman	155
Laidlaw	157



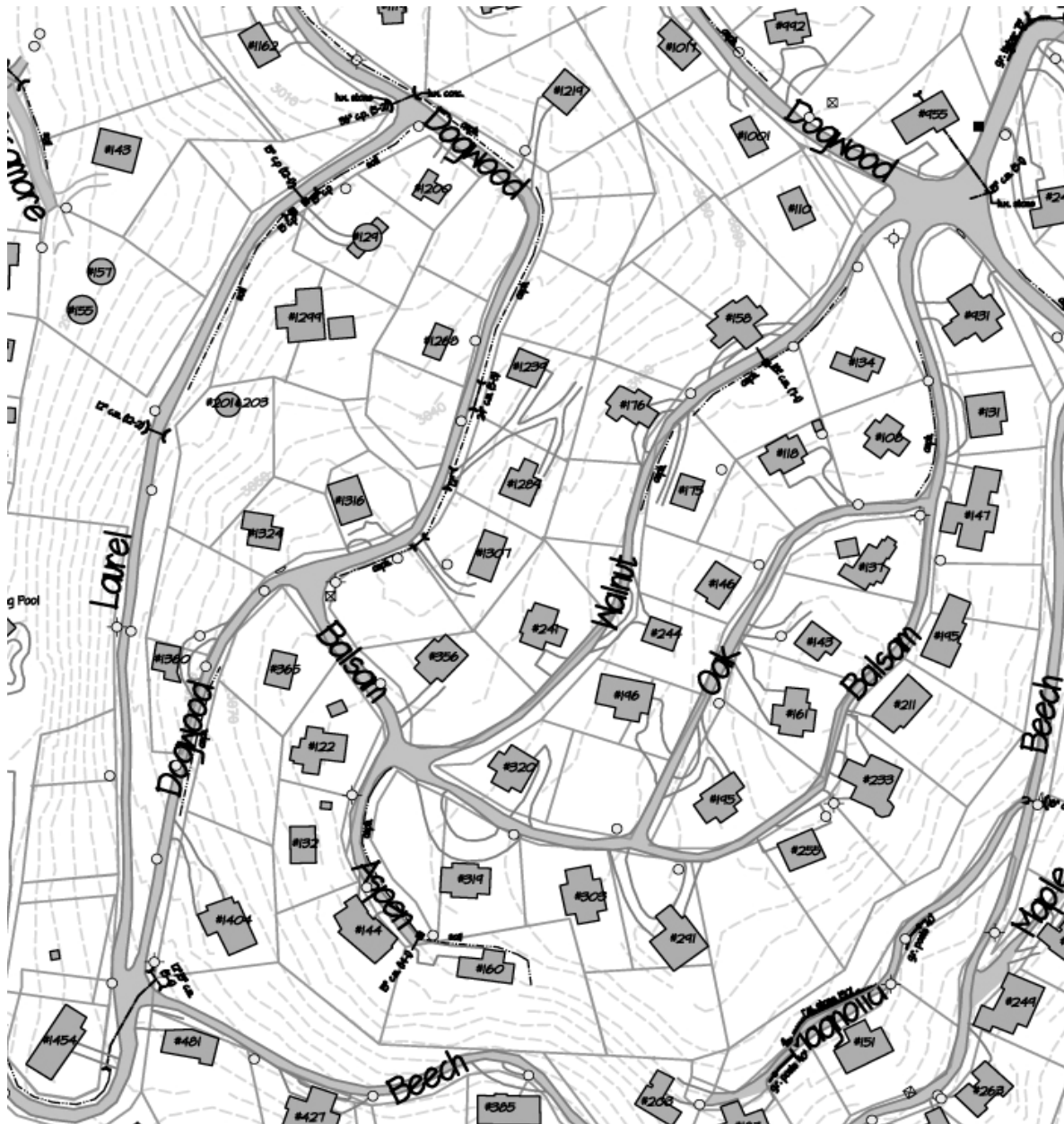
Owner	House #
Barnett, P.	129
Kirkland	201



Oak

Date: 4/10/2011

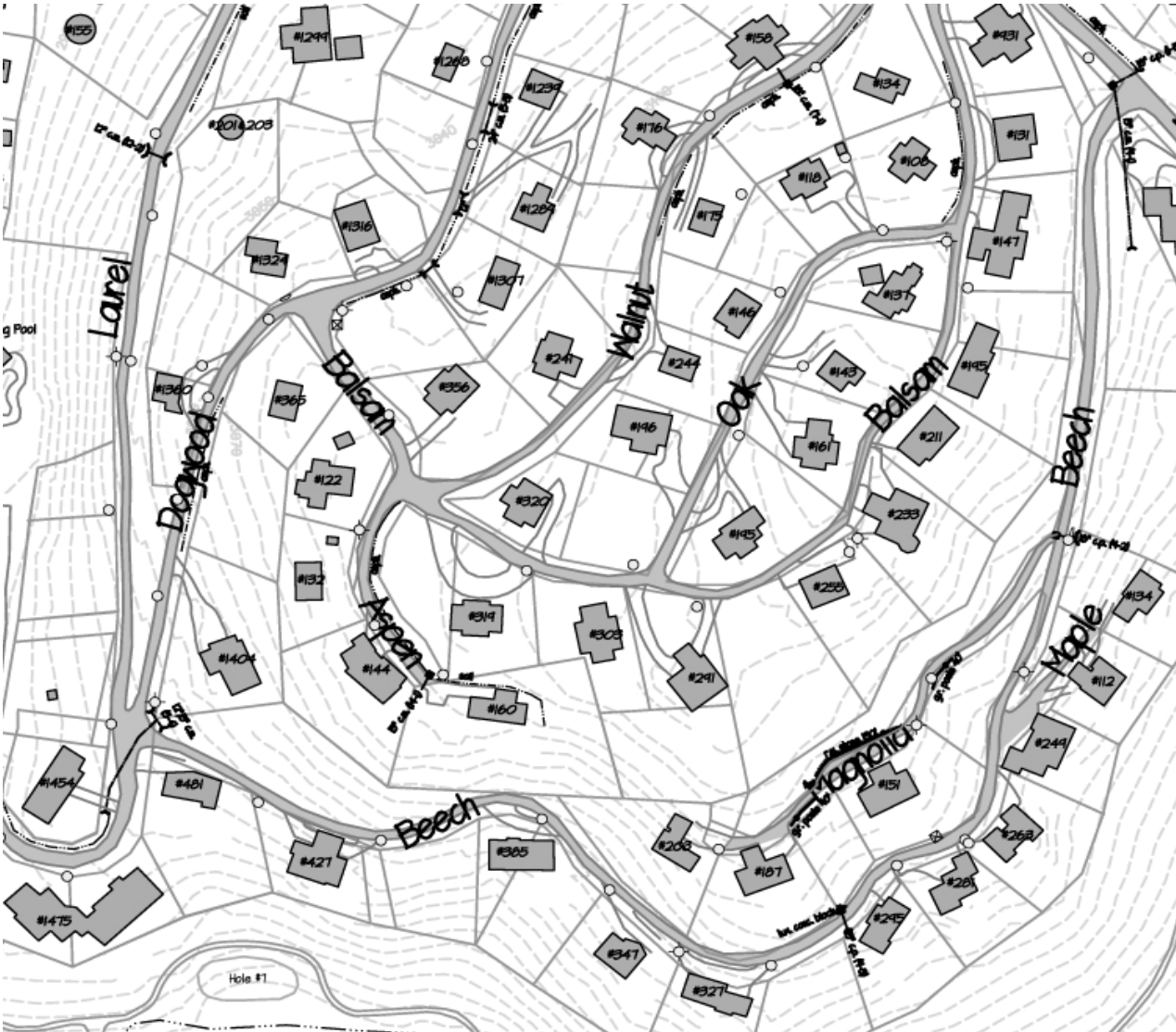
Owner	House #
Wallace, L.	108
Collins; Orndorff	118
Cone	137
Sages	143
Duncan	146
Toussaint	161
McCrea	195
Foley	196



Owner	House #
Forrester	132
Forrester	144
Miller, M.	160



Owner	House #
Schmidt	151
Kallert	187
Smith, J.	203



Maple

Date: 4/10/2011

Owner	House #
McDougall	112
Dull	134



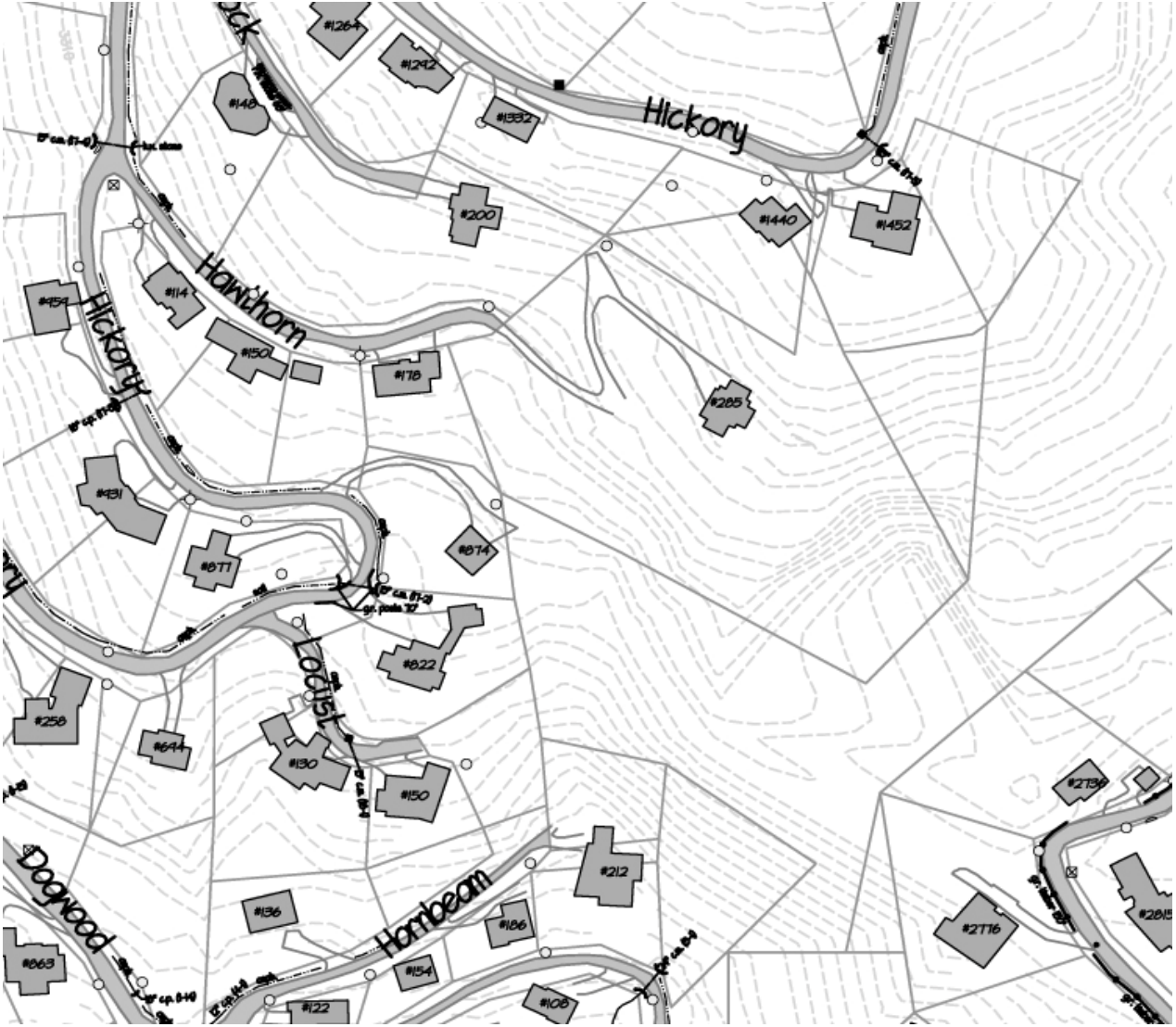
Hickory

Date: 4/10/2011

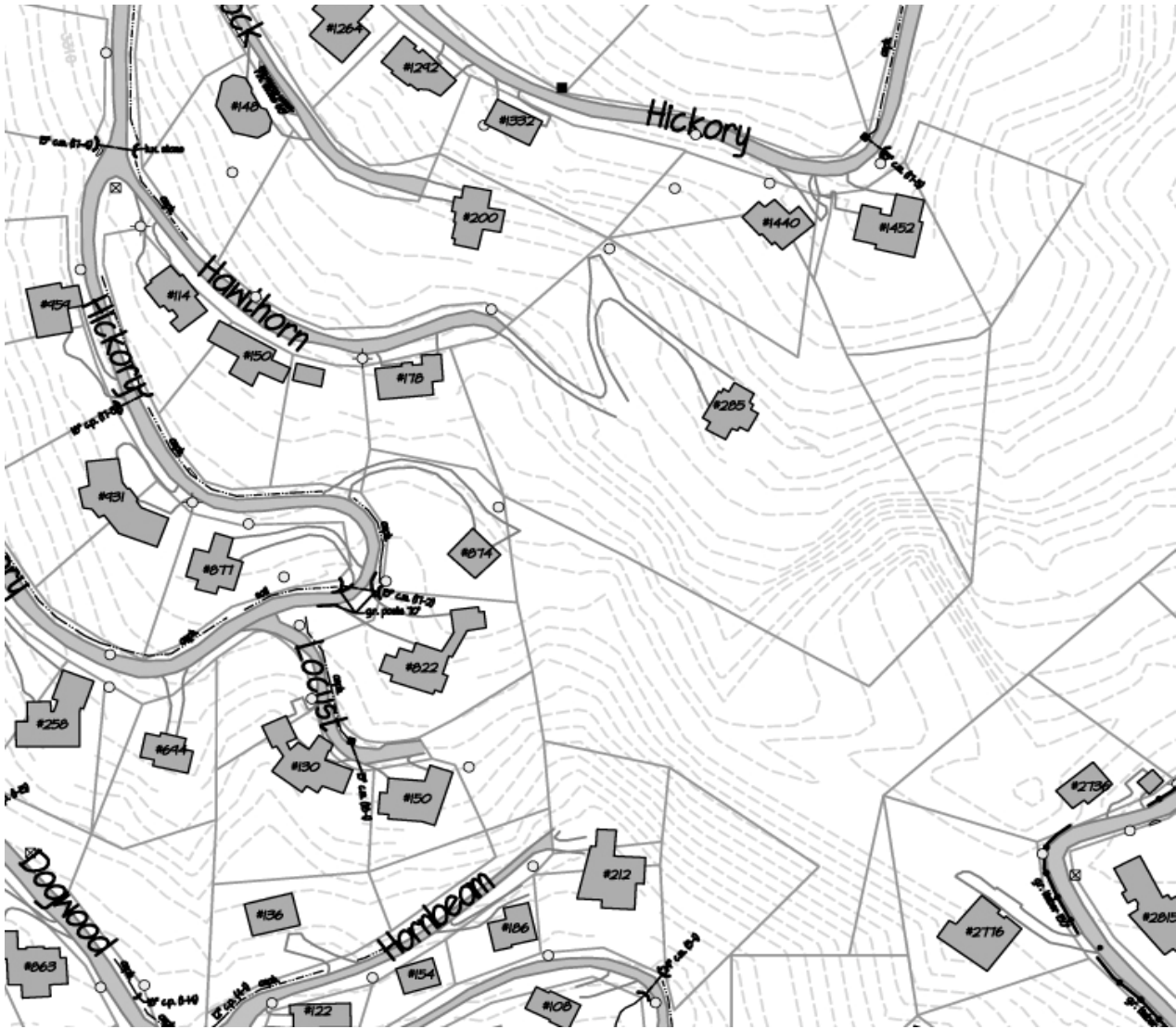
Owner	House #
Epperson	246
Poole, G.	258
Ellis, J.	694
Brady, C.	822
Walsh	874
Lovern, R.	877
Strom	931
Peete	959
Settle	1149
Elliott	1202
Holton	1236
Coston	1264
Finnegan	1292
Thomas; Cisne; Morton	1332
Sutton	1440
Upchurch, R.	1452
Hanley	1707
James, R.	1730
Casey	1736
Zimmerman, R.	1777
Ables	1802
Andrews, J.	1860
Wolfson	1861
Kelly, D.	1911
Newman, J.	1927
Robinette	1992
Singer	2001
Denison	2031
Shaver	2039
Greene, D.	2133
Jones, K.	2382
Fisher	2393
Eisenberg	2411
Elster	2446
Finkel	2450
Reece	2457
Kovalcin	2508
Gaither	2575
Orr	2624
Mayer	2683
Lacy	2736
Thompson, M.	2776
Davis, M.	2810
Smith, R.	2815



Owner	House #
Kinken; Stokes, D.	130
Black, J.	150



Owner	House #
Yergey	114
Jones, R.	150
Van Beuren	178
Adair	285



Road Segment: 20 Hemlock

Roadway Evaluation Form

Sector: Hickory

Date: 4/10/2011

EVALUATION

Evaluation Score

3.25

Formula for calculation:
Usage - 35%, Paving - 30%
Drainage - 25%, Street Elements - 10%

Remediation Code

B

Performance Rating (1= greatest priority, 5= lowest priority)

Usage

5

1 = "Primary", heavily travelled, evacuation or service route
3 = "Collector", substantially travelled, used as pass-through
5 = "Secondary". Lightly travelled, local traffic only

Paving

2

1 = 50% or more is deteriorated or cracked, substantial settling
3 = 25%-50% is deteriorated or cracked, limited settling
5 = minor deterioration, no settling

Drainage

2

1 = no positive drainage, insufficient infrastructure, regular flooding;
3 = adequate drainage, adequate infrastructure, occasional flooding
5 = well drained, adequate infrastructure, minimal flooding

Street Elements

4

1 = 25% or more of elements are damaged or require replacement
3 = 10%-25% of elements are damaged or require replacement
5 = Less than 10% of elements are damaged or require replacement

USAGE

Classification:

5

1=primary 2=collector 3=secondary

Number of Homes:

2

Density (homes/100ft):

0.42

Facilities Served: 0

PAVING

Total Length (ft):

474

Avg. Width (ft):

17

Total Paved Area (sq ft):

8,058

ELEMENTS

Striping: 2

Guard Rails: 0

Retaining Walls 65

DRAINAGE

Culverts/Inlets/Pipes Y

Swales N

UTILITIES

Water Line: 2

Pipe Diameter

Sanitary: N

Electric: U

O=overhead,
U=underground

Hydrants: 0

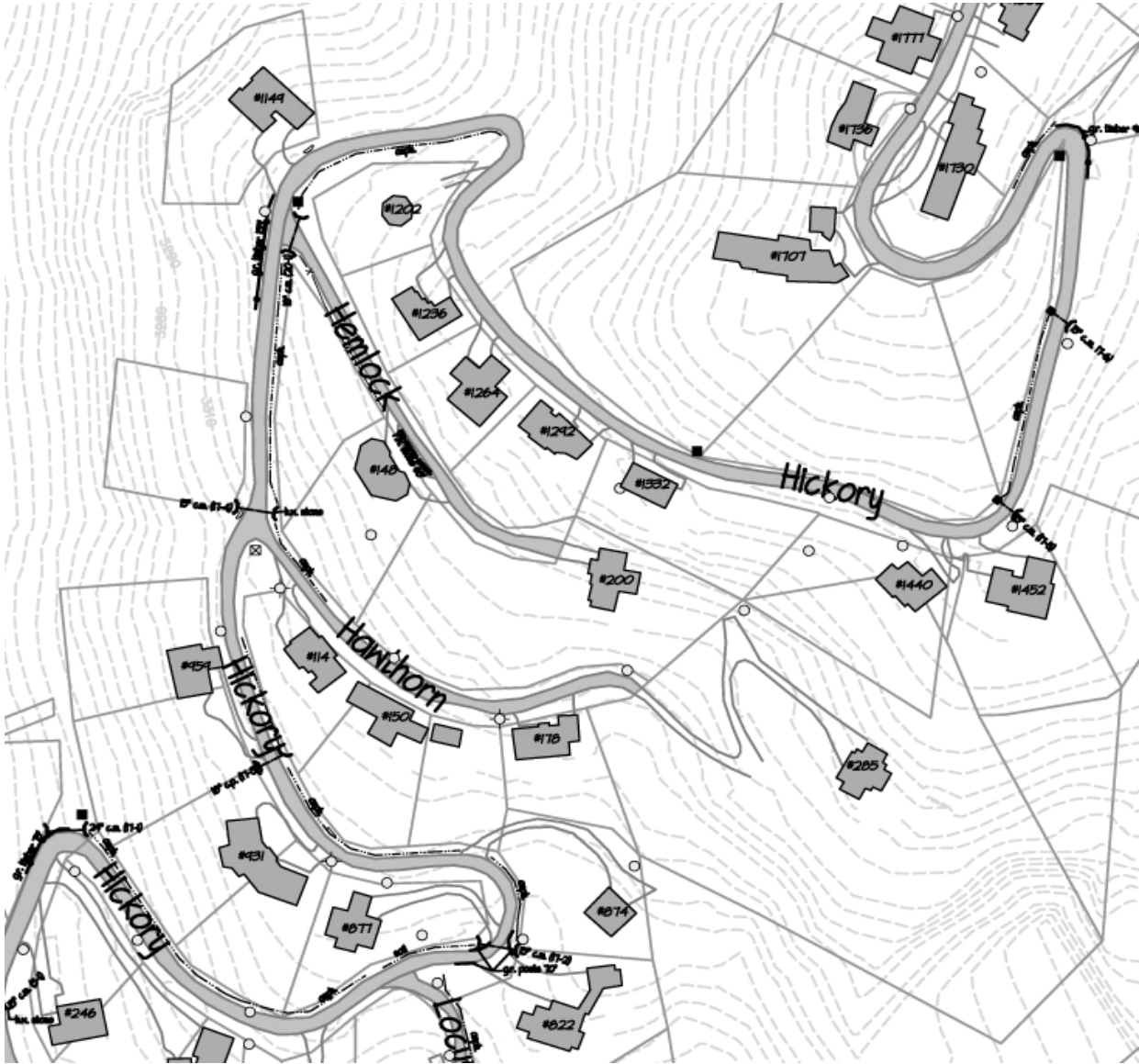
0
6" line

0
2"-4" line

Notes

1. Drainage ssue at #148

Owner	House #
Cashion	148
Spach; Strawsburg	200



Owner	House #
Dryfuss	119
Phelps	255



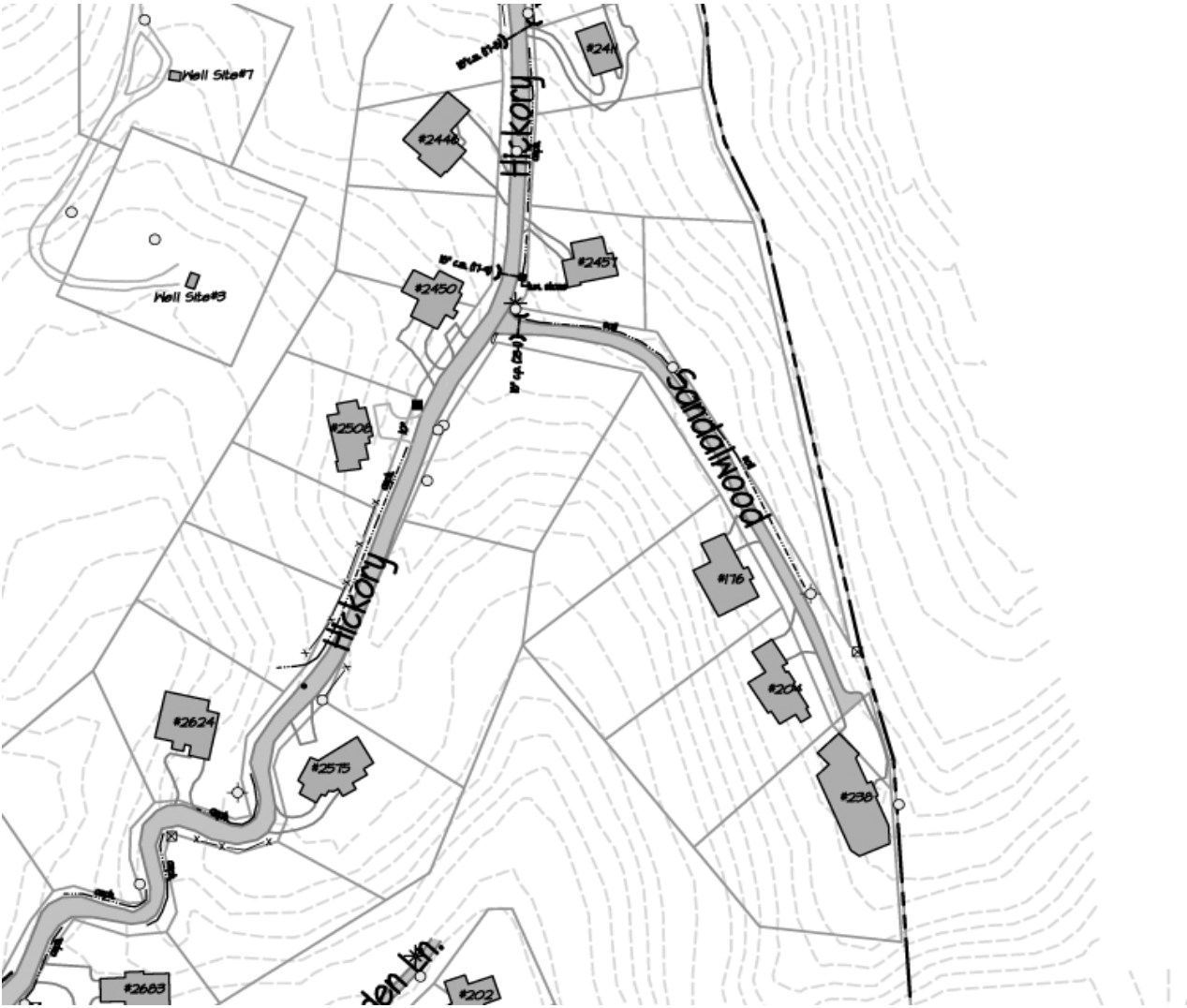
Juniper (gravel)

Date: 4/10/2011

Owner	House #
Epstein	110



Owner	House #
Wilson	176
Kleinman	204
Mason	238



Linden

Date: 4/10/2011

Owner	House #
Abrams	202



Road Segment: 25A Cherry: Dogwood to Hickory

Roadway Evaluation Form

Sector: Cherry

Date: 4/10/2011

EVALUATION

Evaluation Score

3.5

Formula for calculation:
Usage - 35%, Paving - 30%
Drainage - 25%, Street Elements - 10%

Remediation Code

D

Performance Rating (1= greatest priority, 5= lowest priority)

Usage	1	1 = "Primary", heavily travelled, evacuation or service route 3 = "Collector", substantially travelled, used as pass-through 5 = "Secondary". Lightly travelled, local traffic only
Paving	5	1 = 50% or more is deteriorated or cracked, substantial settling 3 = 25%-50% is deteriorated or cracked, limited settling 5 = minor deterioration, no settling
Drainage	5	1 = no positive drainage, insufficient infrastructure, regular flooding; 3 = adequate drainage, adequate infrastructure, occasional flooding 5 = well drained, adequate infrastructure, minimal flooding
Street Elements	4	1 = 25% or more of elements are damaged or require replacement 3 = 10%-25% of elements are damaged or require replacement 5 = Less than 10% of elements are damaged or require replacement

USAGE

Classification: 1 *1=primary 2=collector 3=secondary*
 Number of Homes: 29 Density (homes/100ft): 0.81
 Facilities Served: 0

PAVING

Total Length (ft): 3578 Avg. Width (ft): 19 Total Paved Area (sq ft): 66,193

ELEMENTS

Striping: 2 Guard Rails: 0 Retaining Walls 0

DRAINAGE

Culverts/Inlets/Pipes Y Swales Y

UTILITIES

Water Line: 2 Pipe Diameter Sanitary: Y
 Electric: O O=overhead, Hydrants: 0 1
 U=underground 6" line 2"-4" line

Notes

- Guardrail at Cedar in disrepair - Critical
- Paving, drainage (25A-1-8) & striping replaced in 2009

Cherry: Dogwood to Hickory

Date: 4/10/2011

Owner	House #
Johnson, A.	120
Taylor, C.	137
Pawley	156
Wilcox, J.	163
Hannah	165
Williams, M.E.	173
Sczudlo	175
Love	183
Mashburn	208
Mashburn	208-2
Eisenberg, D.	233
Quincy	243
Bank of America	244
Childress; Page	263
Graves	268
Barns, W.	316
Towery	335
Neal	355
Bowen, B.	369
Pace, T.	429
Lyman	436
Ellis	462
Robau	488
Tingle	512
Tuttle	515
Nicholson	523
Gee	529
Blickle	559
Bowman	570



Road Segment: 25B Cherry: Hickory to end

Roadway Evaluation Form

Sector: Cherry

Date: 4/10/2011

EVALUATION

Evaluation Score

5

Formula for calculation:
Usage - 35%, Paving - 30%
Drainage - 25%, Street Elements - 10%

Remediation Code

E

Performance Rating (1= greatest priority, 5= lowest priority)

Usage

5

1 = "Primary", heavily travelled, evacuation or service route
3 = "Collector", substantially travelled, used as pass-through
5 = "Secondary". Lightly travelled, local traffic only

Paving

5

1 = 50% or more is deteriorated or cracked, substantial settling
3 = 25%-50% is deteriorated or cracked, limited settling
5 = minor deterioration, no settling

Drainage

5

1 = no positive drainage, insufficient infrastructure, regular flooding;
3 = adequate drainage, adequate infrastructure, occasional flooding
5 = well drained, adequate infrastructure, minimal flooding

Street Elements

5

1 = 25% or more of elements are damaged or require replacement
3 = 10%-25% of elements are damaged or require replacement
5 = Less than 10% of elements are damaged or require replacement

USAGE

Classification:

5

1=primary 2=collector 3=secondary

Number of Homes:

6

Density (homes/100ft):

0.77

Facilities Served:

0

PAVING

Total Length (ft):

777

Avg. Width (ft):

19

Total Paved Area (sq ft):

14,375

ELEMENTS

Striping:

2

Guard Rails:

0

Retaining Walls

0

DRAINAGE

Culverts/Inlets/Pipes

Y

Swales

Y

UTILITIES

Water Line:

2

Pipe Diameter

Sanitary:

Y

Electric:

O

O=overhead,
U=underground

Hydrants:

0

6" line

0

2"-4" line

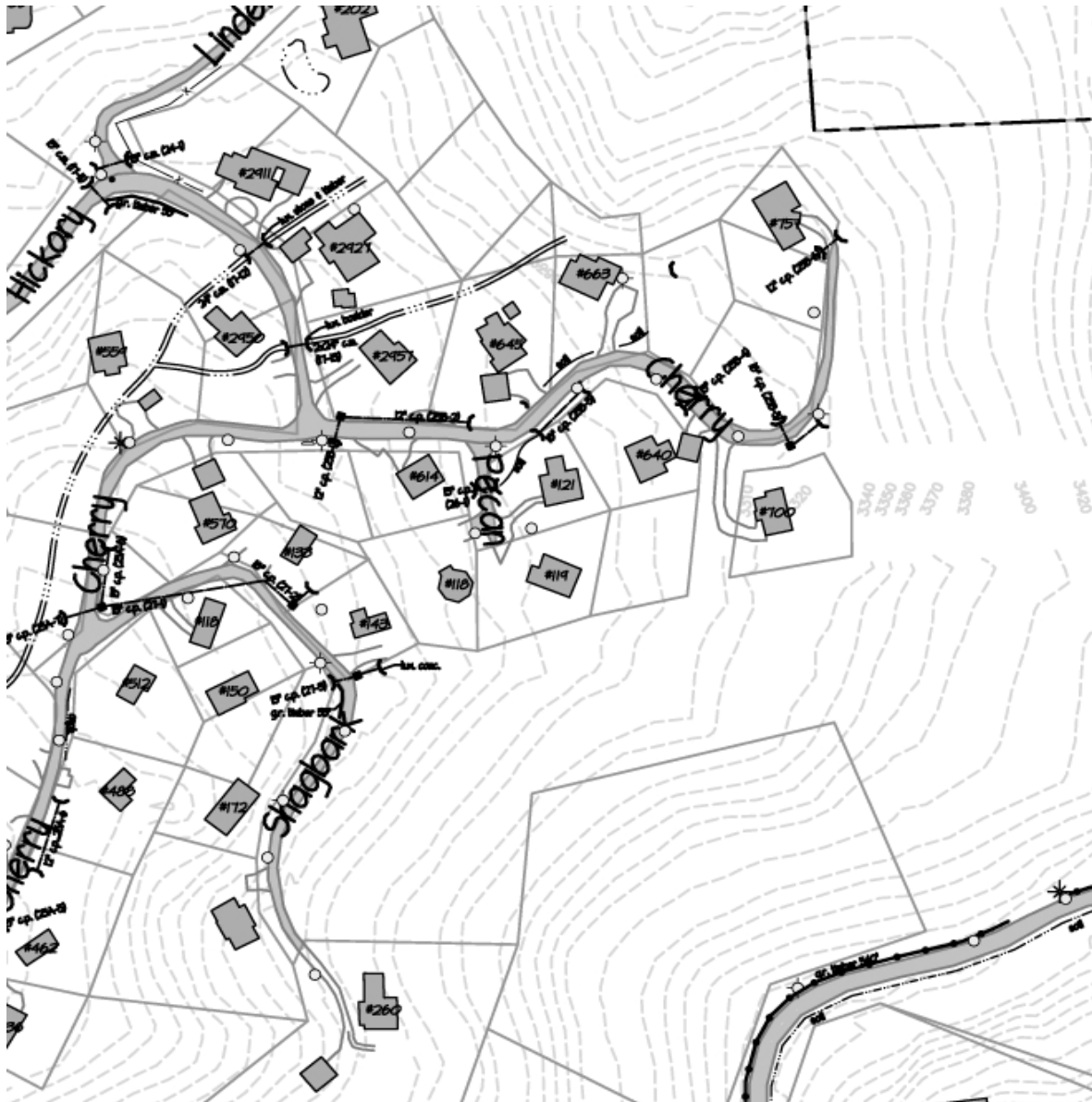
Notes

1. Paving, drainage (25B-1-6) & striping replaced in 2009

Cherry: Hickory to end

Date: 4/10/2011

Owner	House #
Teeter; Miller, E.	614
Stephens	640
Coffman	645
Butler, L.	663
Hines, R.	700
Elledge	757



Pecan

Date: 4/10/2011

Owner	House #
McGuiness	118
Schmelzer	119
Muth	121



Owner	House #
LeSage	118
Vruwink	133
Evans, R.	143
Skufca	150
Hines	172
Henderson	216
Swicegood	260



Cedar

Date: 4/10/2011

Owner	House #
Mitchell	128
Bray	196
Pace, T.	200
Hayworth	224
Schubert	238
Johnson County Bank	274



Road Segment: 29 Chestnut

Roadway Evaluation Form

Sector: Chestnut

Date: 4/10/2011

EVALUATION

Evaluation Score

2.6

Formula for calculation:
Usage - 35%, Paving - 30%
Drainage - 25%, Street Elements - 10%

Remediation Code

C/D

Performance Rating (1= greatest priority, 5= lowest priority)

Usage

1

1 = "Primary", heavily travelled, evacuation or service route
3 = "Collector", substantially travelled, used as pass-through
5 = "Secondary". Lightly travelled, local traffic only

Paving

4

1 = 50% or more is deteriorated or cracked, substantial settling
3 = 25%-50% is deteriorated or cracked, limited settling
5 = minor deterioration, no settling

Drainage

3

1 = no positive drainage, insufficient infrastructure, regular flooding;
3 = adequate drainage, adequate infrastructure, occasional flooding
5 = well drained, adequate infrastructure, minimal flooding

Street Elements

3

1 = 25% or more of elements are damaged or require replacement
3 = 10%-25% of elements are damaged or require replacement
5 = Less than 10% of elements are damaged or require replacement

USAGE

Classification:

1

1=primary 2=collector 3=secondary

Number of Homes:

12

Density (homes/100ft):

0.37

Facilities Served: 0

PAVING

Total Length (ft): 3202

Avg. Width (ft): 19

Total Paved Area (sq ft): 60,838

ELEMENTS

Striping: 2

Guard Rails: 245

Retaining Walls 0

DRAINAGE

Culverts/Inlets/Pipes Y

Swales Y

UTILITIES

Water Line: 2,4

Pipe Diameter

Sanitary: N

Electric: O

O=overhead,
U=underground

Hydrants: 0

6" line

3

2"-4" line

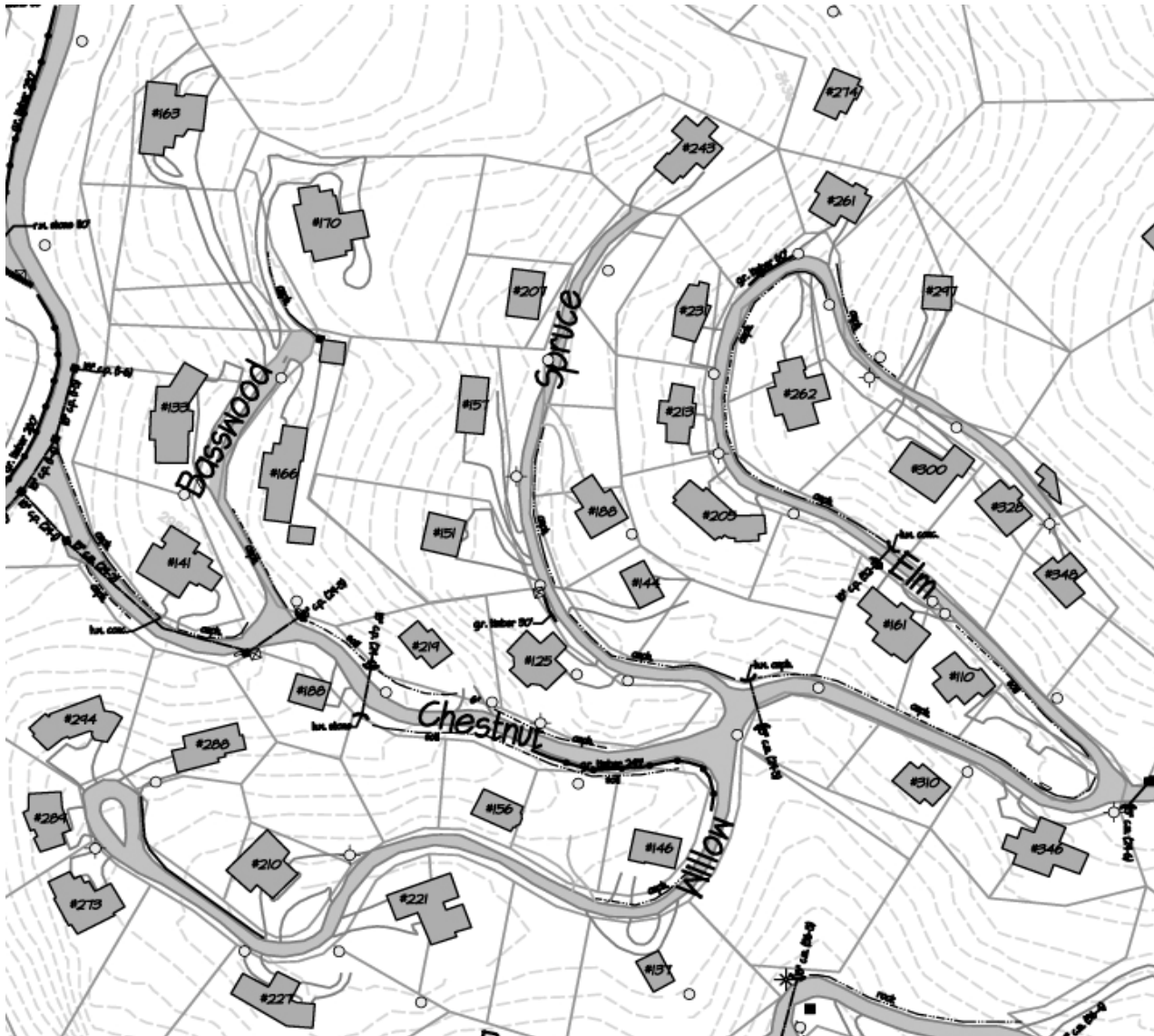
Notes

1. Inlet 29-1 added in 2010
2. Inlet 29-3, 29-4 replaced in 2006, 2009

Basswood

Date: 4/10/2011

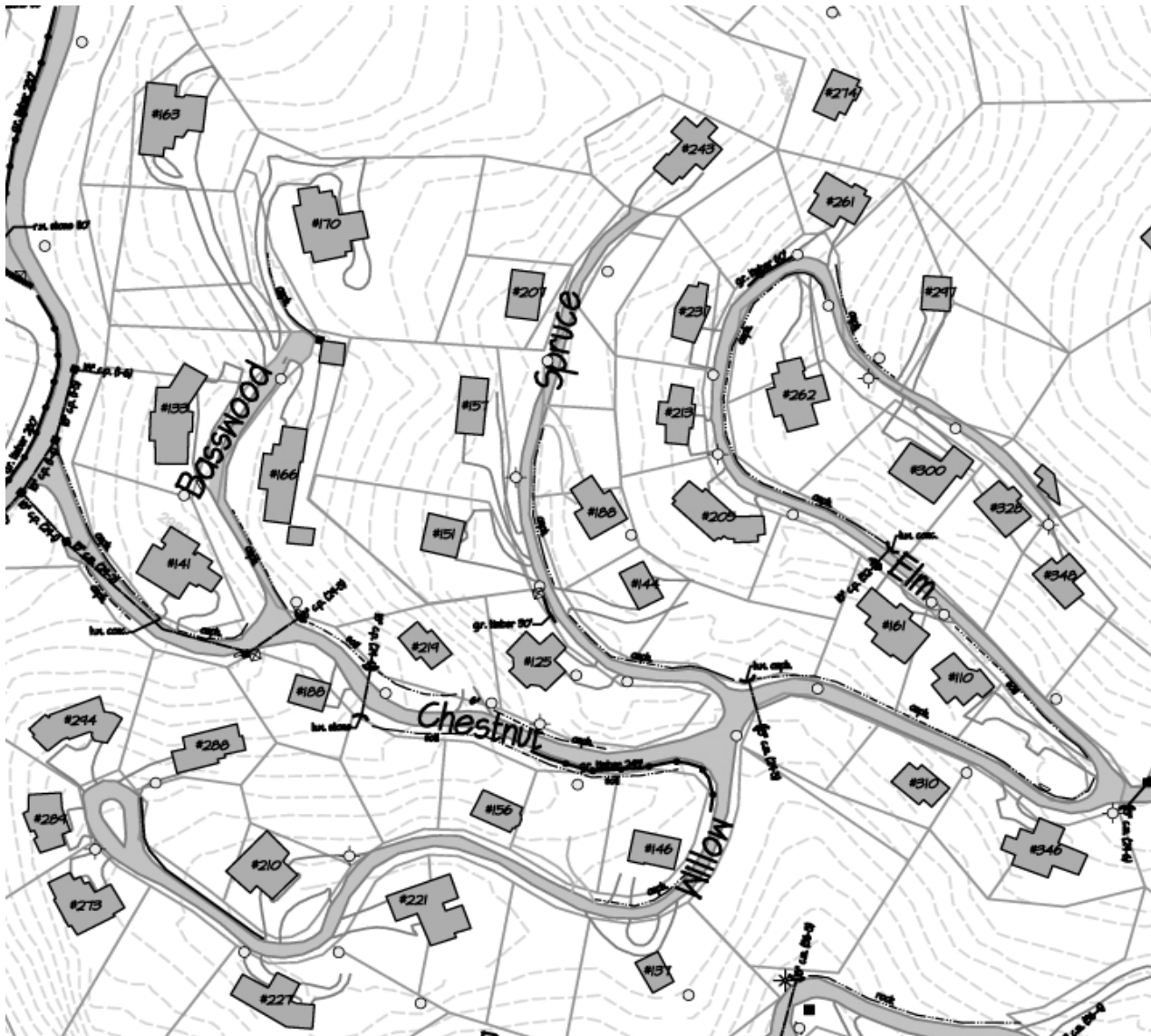
Owner	House #
Wallace; Robinson	133
Canham; Kronenfeld	163
Powell, E.	166
Hawn	170



Spruce

Date: 4/10/2011

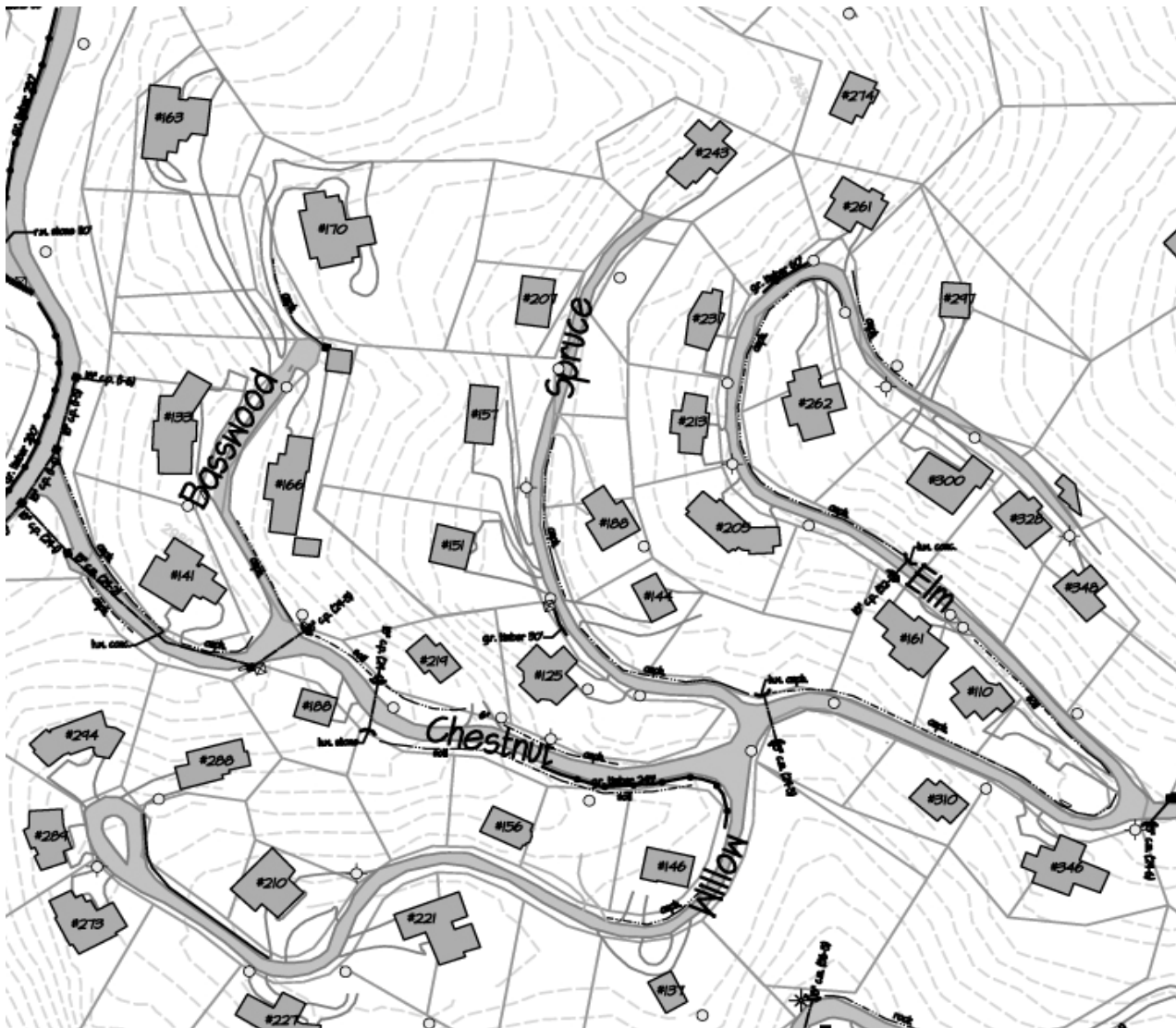
Owner	House #
Amos; Yokley; Krick	125
Rust	144
Corrigan	151
Boles	157
Smith, D.	188
Seitz	207
Spector	243



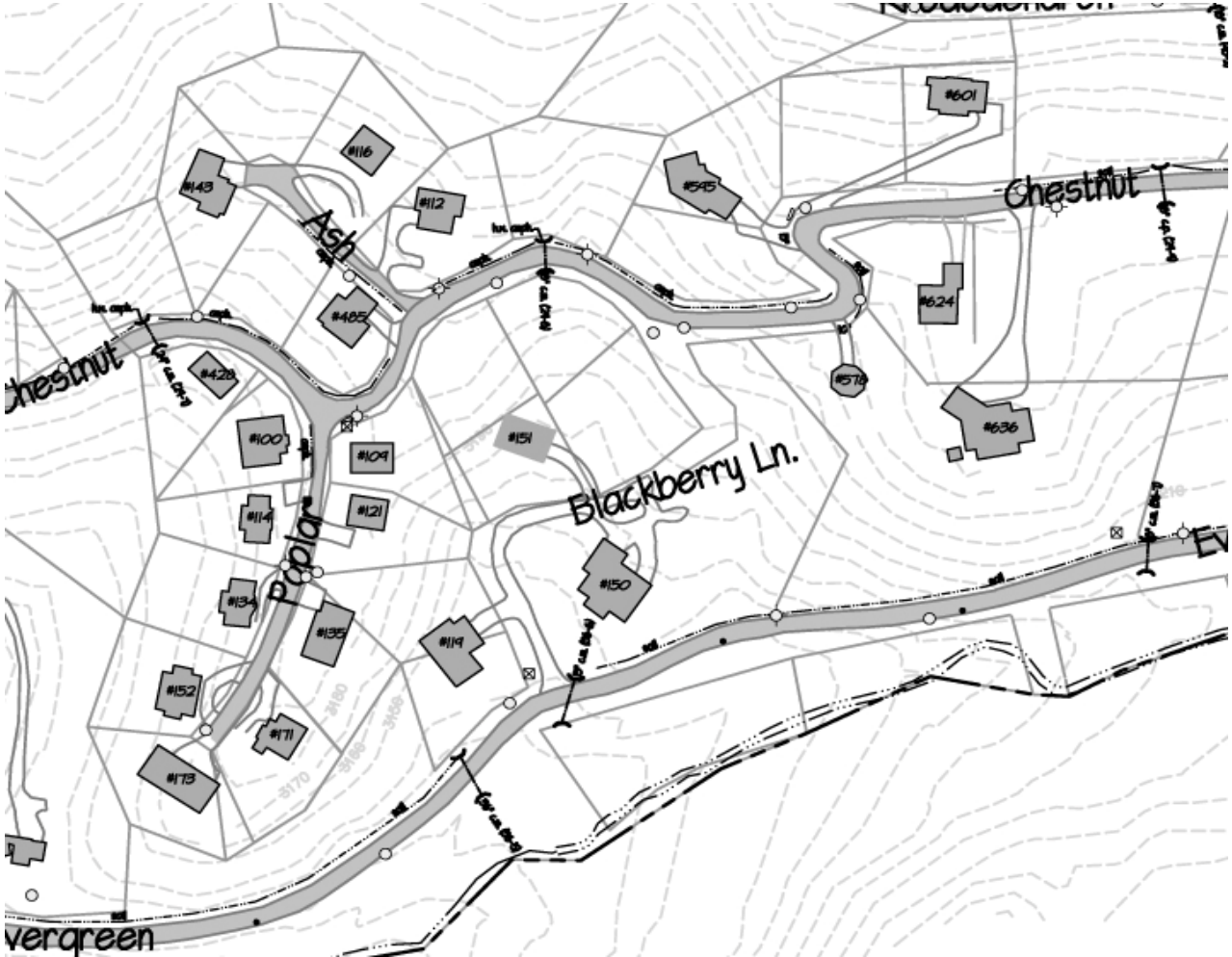
Elm

Date: 4/10/2011

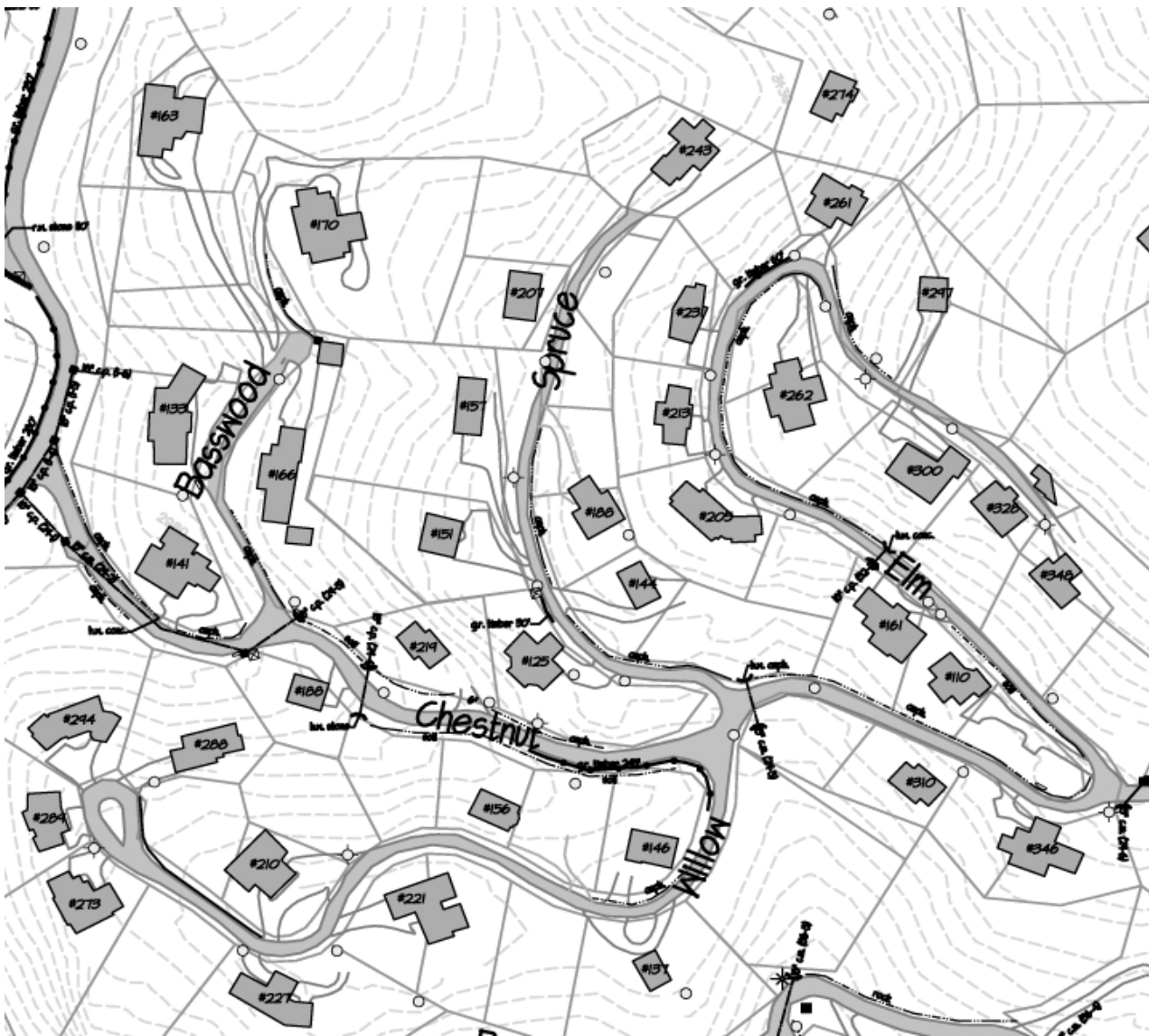
Owner	House #
Blair	100
Kelly, E.	110
Grote	161
Lanman	205
Russell, H.	213
Smith, S.E.	231
Michnoff	261
Michelson	262
Brown, J.	297
Beck	300
Hancock	328
Mayers	348



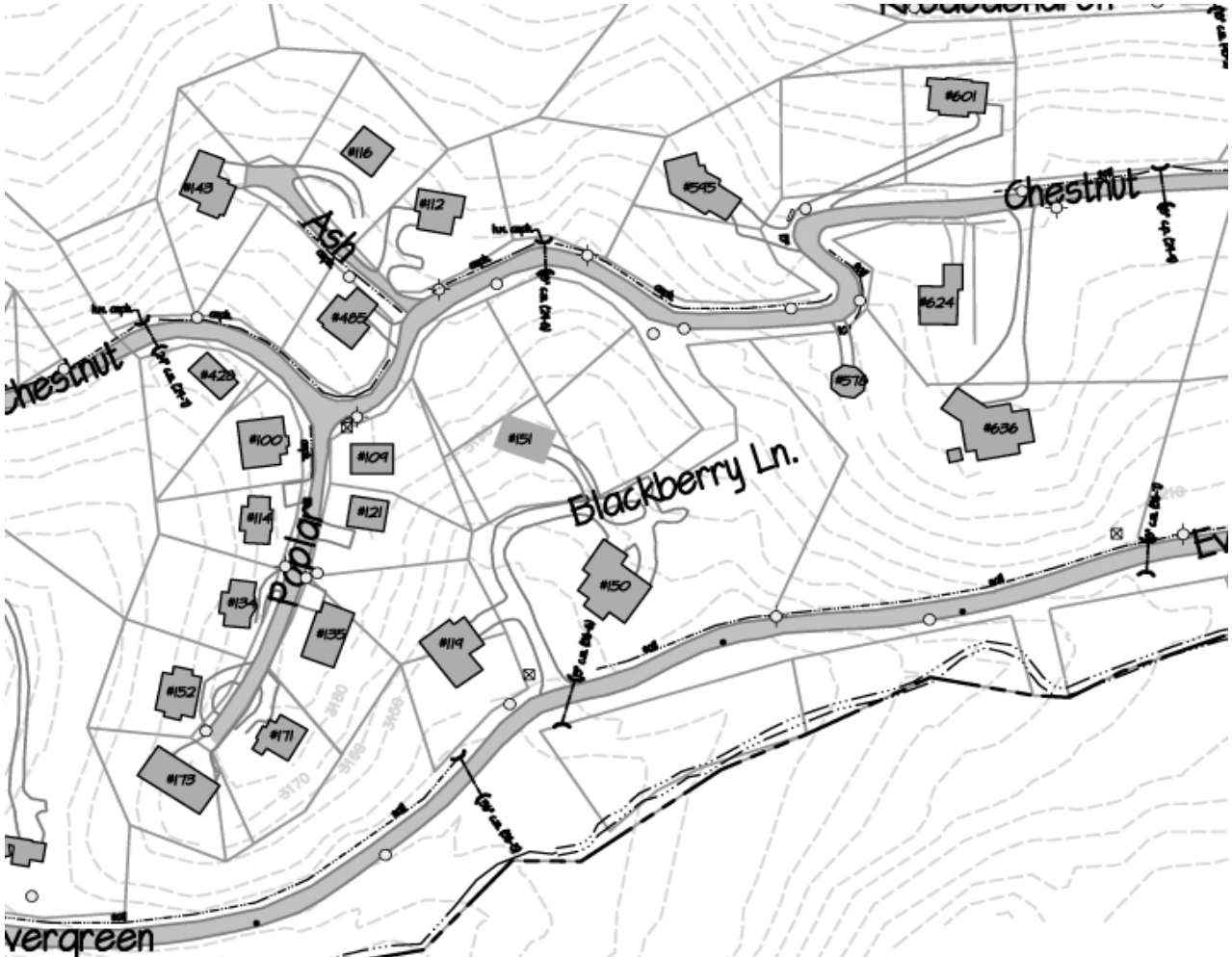
Owner	House #
Jones, F.	112
Webb	116
Litteljohn	143



Owner	House #
Freiman	137
Jundt	146
Albright	156
Brinegar	210
Gunnells	221
Bradshaw, T.	227
Harris, C.W.	273
Kinsey	288
McCammon	289
Parker, W.H.	294



Owner	House #
Corlett	100
Morrison, R.	109
Kincaid, B.	114
Jarrett; Jarrett	121
Wallace, J.	134
Barnhill	135
Stokes	152
Shelburn	171
Bohn	173



Owner	House #
Hinson	278
Thompson, A.	355
Falls	382



Road Segment: 37 Buckeye

Roadway Evaluation Form

Sector: Evergreen1

Date: 4/10/2011

EVALUATION

Evaluation Score

3.95

Formula for calculation:
Usage - 35%, Paving - 30%
Drainage - 25%, Street Elements - 10%

Remediation Code

C/D

Performance Rating (1= greatest priority, 5= lowest priority)

Usage

5

1 = "Primary", heavily travelled, evacuation or service route
3 = "Collector", substantially travelled, used as pass-through
5 = "Secondary". Lightly travelled, local traffic only

Paving

3

1 = 50% or more is deteriorated or cracked, substantial settling
3 = 25%-50% is deteriorated or cracked, limited settling
5 = minor deterioration, no settling

Drainage

4

1 = no positive drainage, insufficient infrastructure, regular flooding;
3 = adequate drainage, adequate infrastructure, occasional flooding
5 = well drained, adequate infrastructure, minimal flooding

Street Elements

3

1 = 25% or more of elements are damaged or require replacement
3 = 10%-25% of elements are damaged or require replacement
5 = Less than 10% of elements are damaged or require replacement

USAGE

Classification:

5

1=primary 2=collector 3=secondary

Number of Homes:

5

Density (homes/100ft):

0.74

Facilities Served: **0**

PAVING

Total Length (ft):

675

Avg. Width (ft):

17

Total Paved Area (sq ft):

11,475

ELEMENTS

Striping:

2

Guard Rails:

0

Retaining Walls

0

DRAINAGE

Culverts/Inlets/Pipes

N

Swales

Y

UTILITIES

Water Line:

2

Pipe Diameter

Sanitary:

N

Electric:

O

O=overhead,
U=underground

Hydrants:

0

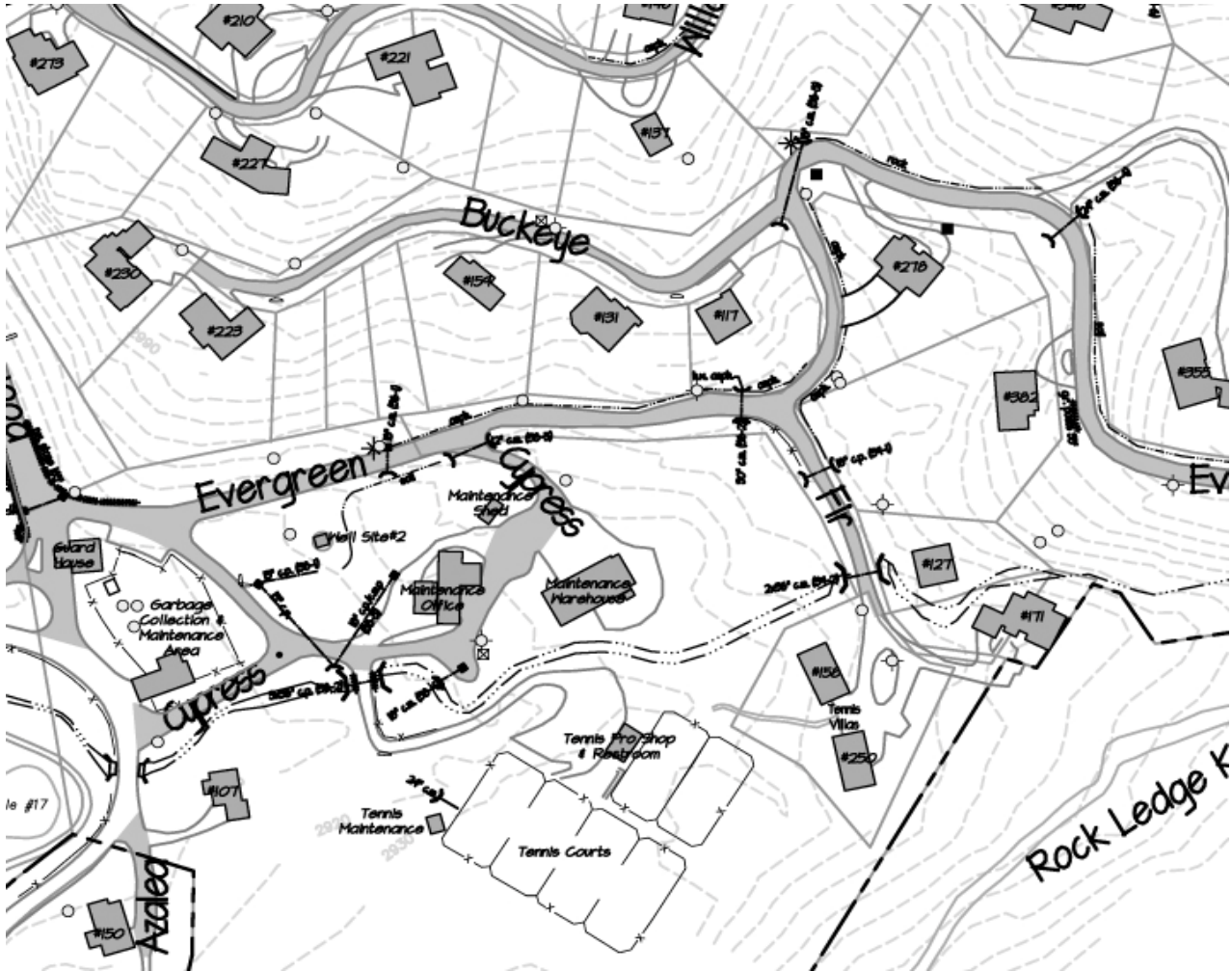
6" line

1

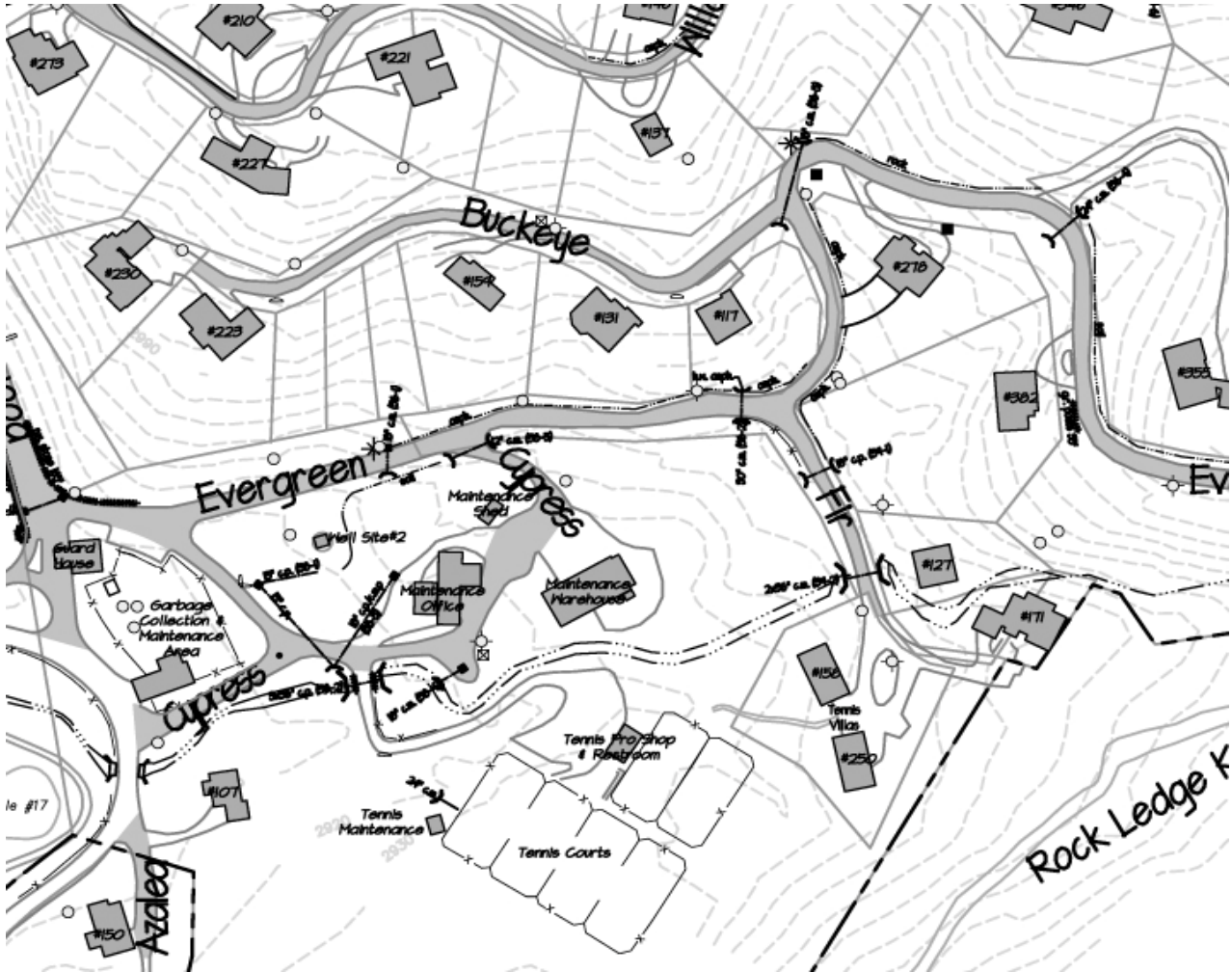
2"-4" line

Notes

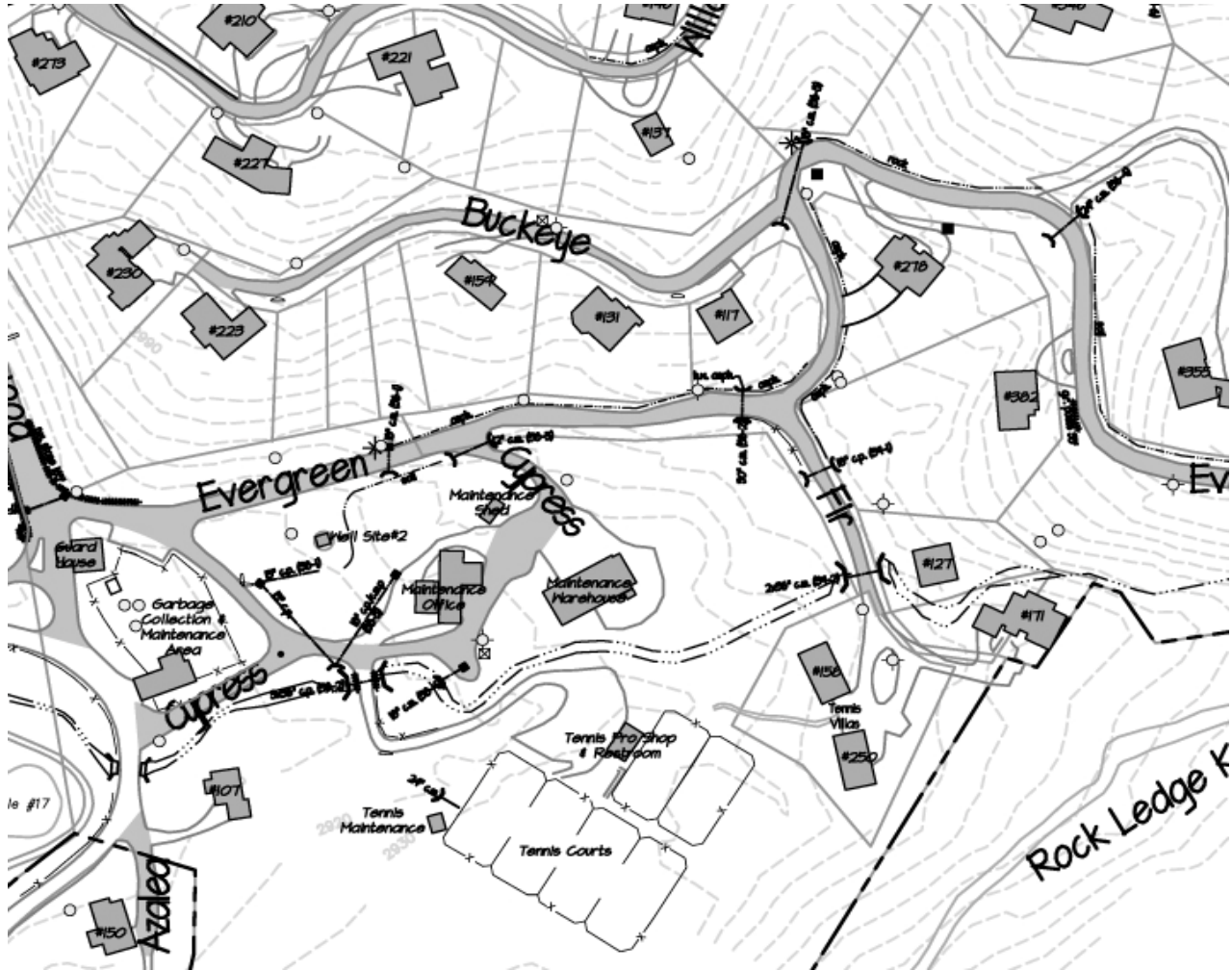
Owner	House #
Coffelt	117
Donaldson	131
Carter, R.	159
Davis, E.	223
Smith, S.	230



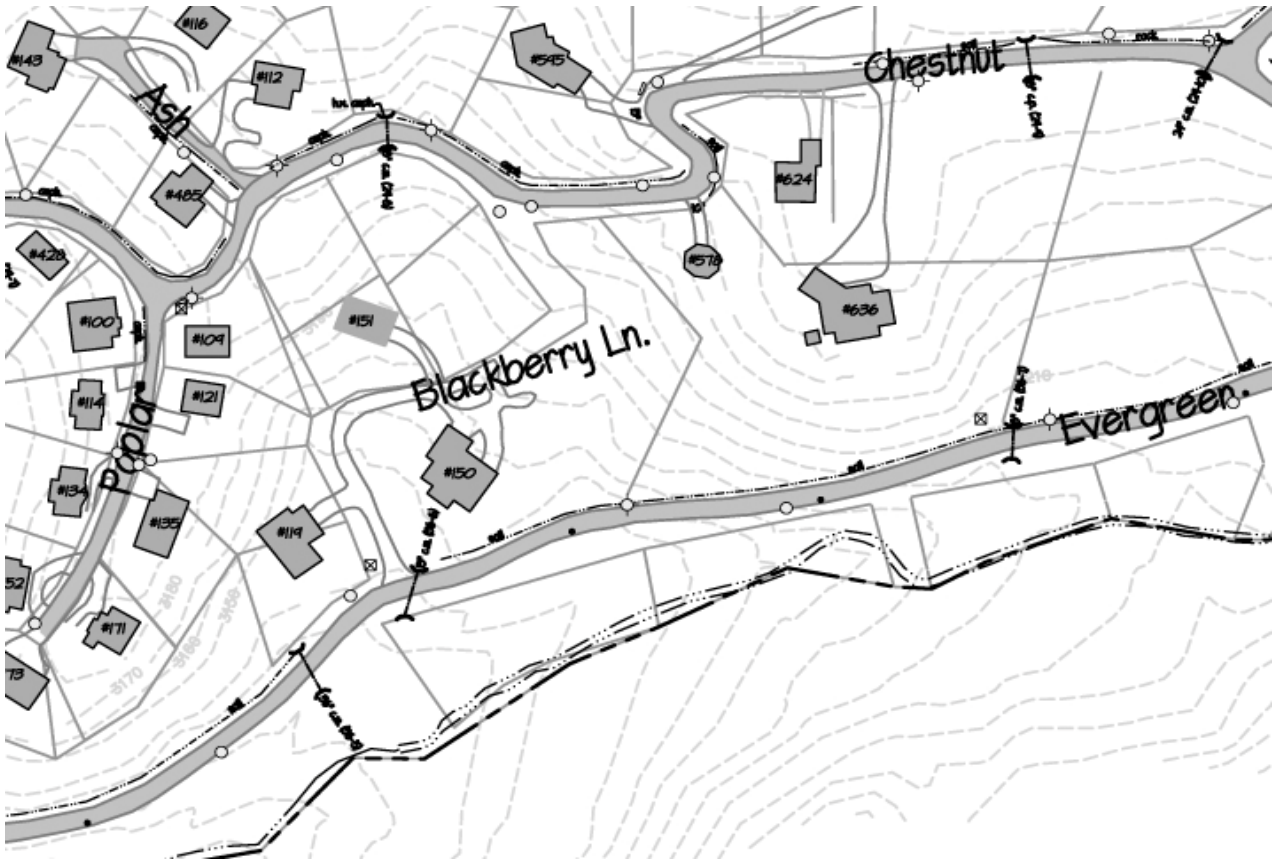
Owner	House #
Skyline Telephone	118
Firehouse	134
Tennis Courts	148
Property Services	167
Property Services	173
Golf Maintenance	198



Owner	House #
Burroughs	127
B1- Haylock	158
B2- Rayle-Libbe	158
Sulzberger	171
A1- Brumley	250
A2- Deschamps	250



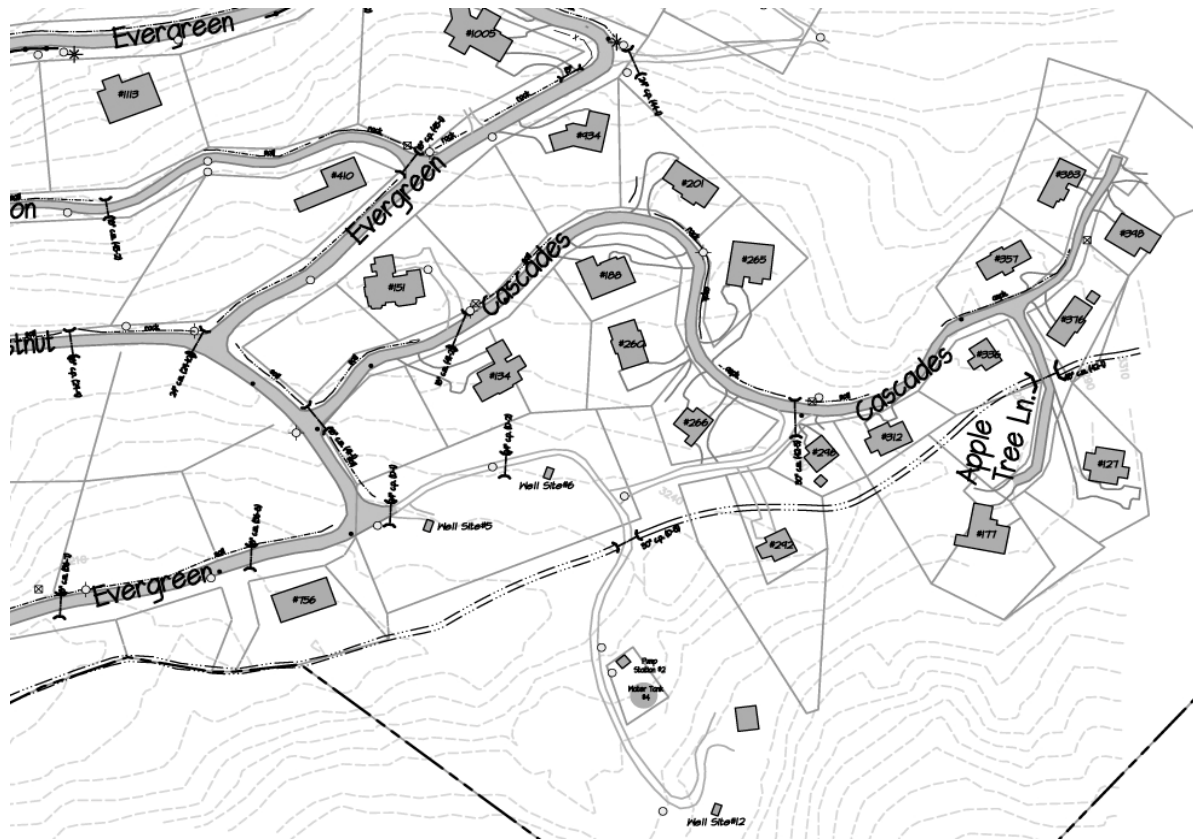
Owner	House #
Baumel	119
Neff	150
Nullman, J.	151



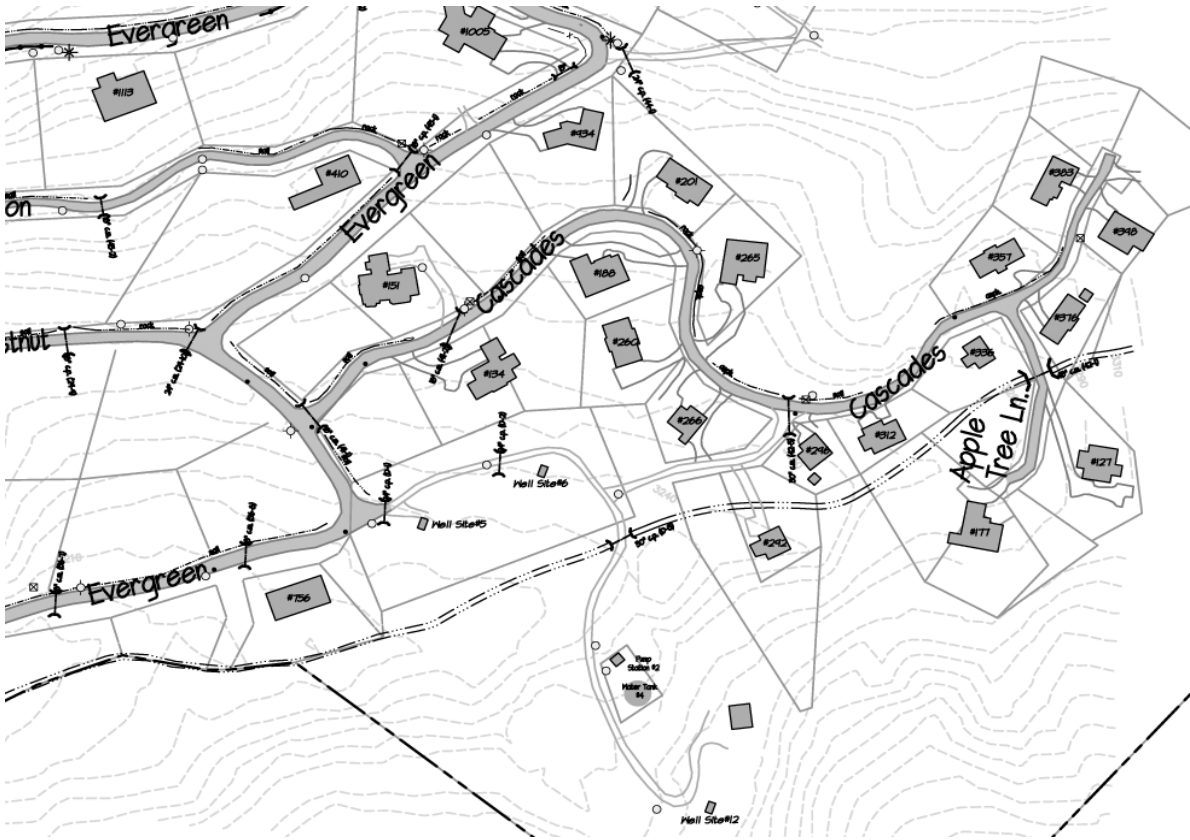
Cascades

Date: 4/10/2011

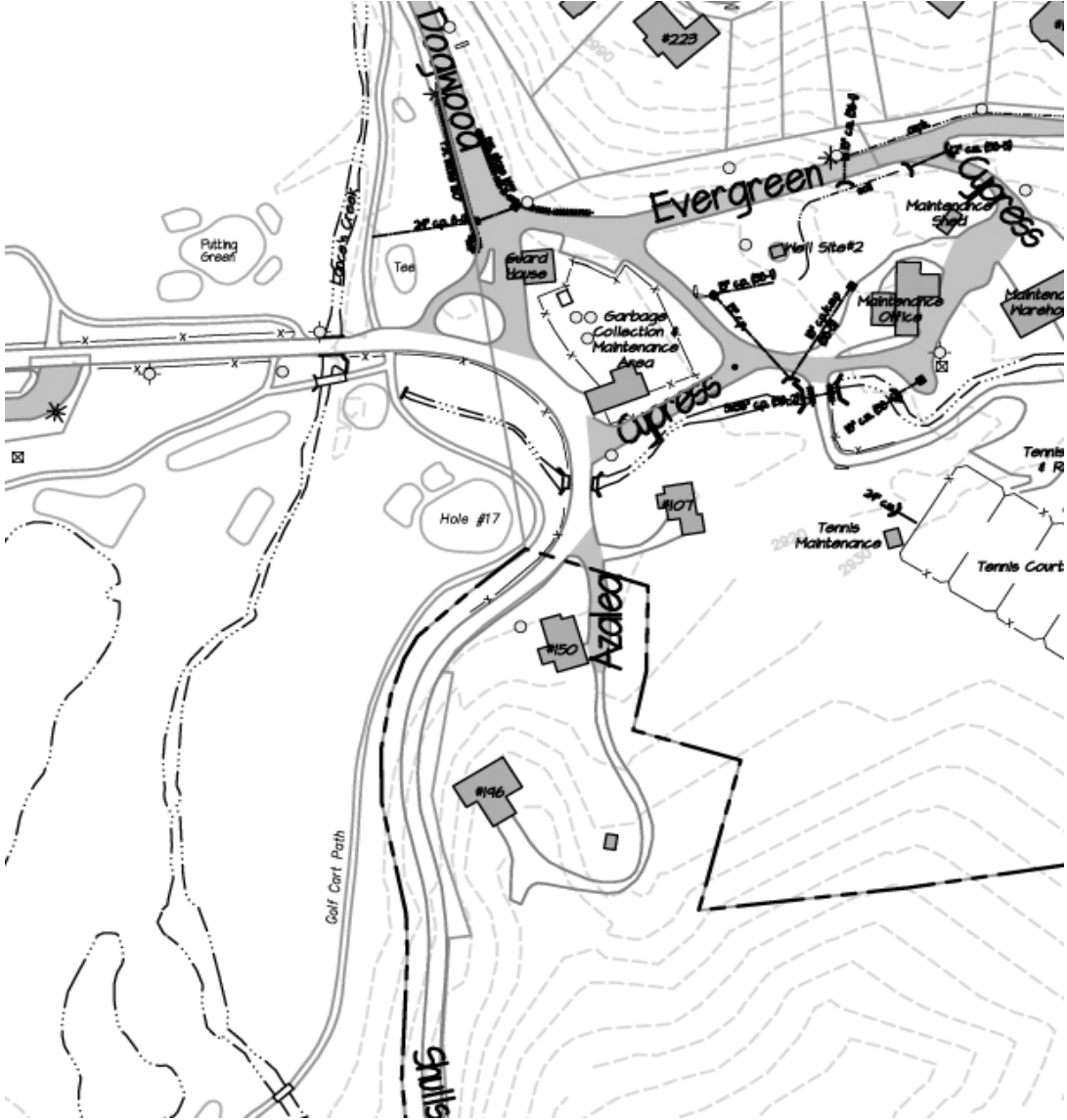
Owner	House #
Abramowski	134
Ellis, C.	151
Schoeck	188
Russell	201
Hunsucker	260
Wilson, A.	265
Parker	266
Burris	292
Lobdell	296
Zaunbrecher	312
Fuller-Marsh	336
Anderson, C.	357
Sturges	376
Crawford	383
Webster	398
Shovlain	420



Owner	House #
Doster	127
Lazar	177



Owner	House #
Hound Ears Club	107
Snyder	150



Road Segment: 44 Evergreen: Chestnut to the Cliffs

Roadway Evaluation Form

Sector: Evergreen2

Date: 4/10/2011

EVALUATION

Evaluation Score

2.25

Formula for calculation:
Usage - 35%, Paving - 30%
Drainage - 25%, Street Elements - 10%

Remediation Code

C/D

Performance Rating (1= greatest priority, 5= lowest priority)

Usage

3

1 = "Primary", heavily travelled, evacuation or service route
3 = "Collector", substantially travelled, used as pass-through
5 = "Secondary". Lightly travelled, local traffic only

Paving

2

1 = 50% or more is deteriorated or cracked, substantial settling
3 = 25%-50% is deteriorated or cracked, limited settling
5 = minor deterioration, no settling

Drainage

2

1 = no positive drainage, insufficient infrastructure, regular flooding;
3 = adequate drainage, adequate infrastructure, occasional flooding
5 = well drained, adequate infrastructure, minimal flooding

Street Elements

1

1 = 25% or more of elements are damaged or require replacement
3 = 10%-25% of elements are damaged or require replacement
5 = Less than 10% of elements are damaged or require replacement

USAGE

Classification:

3

1=primary 2=collector 3=secondary

Number of Homes:

8

Density (homes/100ft):

0.16

Facilities Served: **0**

PAVING

Total Length (ft): **4926**

Avg. Width (ft): **20**

Total Paved Area (sq ft): **98,520**

ELEMENTS

Striping: **2,3**

Guard Rails: **1965**

Retaining Walls **0**

DRAINAGE

Culverts/Inlets/Pipes **Y**

Swales **Y**

UTILITIES

Water Line: **6** Pipe Diameter

Sanitary: **Y**

Electric: **O,U** O=overhead,
U=underground

Hydrants: **4** **0**
6" line 2"-4" line

Notes

1. Guardrails & striping deteriorated - Critical
2. Settlement, cracking and drainage issues - Critical

Evergreen: Chestnut to the Cliffs

Date: 4/10/2011

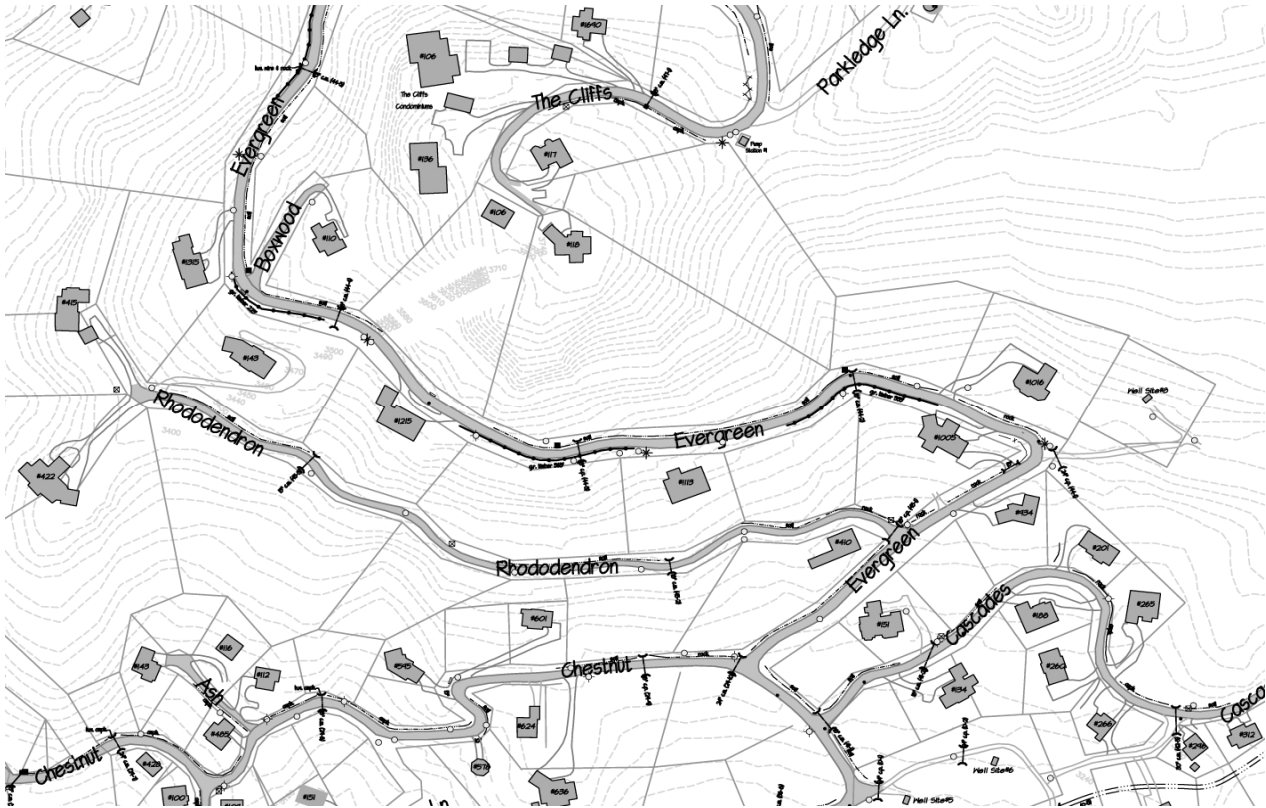
Owner	House #
Moretz	756
Angel	934
Hartley	1005
Pifer	1016
Tate	1113
Jesseph	1215
Black, W.R.	1315
Picchi	1690



Rhododendron

Date: 4/10/2011

Owner	House #
Scupbach	143
Royall	410
Hodges	415
Isil	422



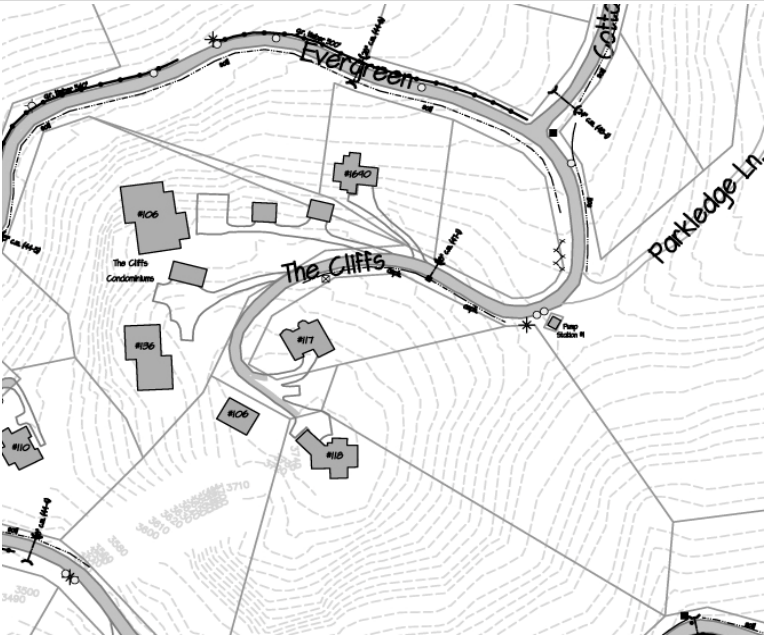
Owner	House #
Patterson	110



The Cliffs

Date: 4/10/2011

Owner	House #
A1- Upchurch, T	106
A2- McNeely	106
A3- Boon	106
A4- Gray	106
A5- Hahne	106
Linn	106
Boleman	117
Whicker	118
B1- Neviaser	136
B2- Harlow, J.	136
B3- Byrd	136
B4- Harlow, J.	136



Owner	House #
A1- Johnson, R.	209
A2- Greene, D.	209
A3- Shepherd	209
A4- Pettyjohn	209
A5- Seidenberg	209
A6- Finch	209
A7- Prym	209
A8- Worley	209
B1- Clarke	271
B2- Nolan	271
B3- Shepard	271
B4- Goddard	271
B5- Levine	271
B6- LeVarge	271
B7- Stefanovich	271
B8- Ferguson	271
C1- Taheri	361
C2- Claughton	361
C3- Pulliam	361
C4- Bank of Edwardsville	361
C5- Weintraub	361
C6- Ketcham	361
C7- Harrell	361
C8- Page	361
C9- Stavros	361
C10- Hawkins	361
D1- Good	363
D2- Todd	363
D3- Costa	363
D4- Davis, W.F.	363
E1- Pratt	467
E2- Propst	467
E3- Hearn	467
E4- Janis	467
F1- Hall	507
F2- Maselli	507
F3- Hall	507
F4- Duncan, S.	507
G1- Sedlak	565
G2- Miller, W.	565
G3- Baker, P.	565
G4- Benson; Turner, G.	565
A1- Petrany	601
A2- Libby	601

