

COMMUNITY IMPACT STATEMENT

FOR

Chriswood Subdivision

**Situate Along the South Side of W.V. Route 45,
Approximately 1.3 miles west of Shepherdstown
Jefferson County, West Virginia**

AESI Job No. 5272.A

PREPARED BY:

**ASSOCIATED ENGINEERING SCIENCES, INC.
34 West Franklin Street
Hagerstown, Maryland 21740**

April 2007

**COMMUNITY IMPACT STATEMENT
CHRISWOOD SUBDIVISION
JEFFERSON COUNTY, WEST VIRGINIA**

A. Basic Descriptive Information

1. Owner/Developer:

Louis B. Athey (Developer)
622 E. Washington St., Suite B
Charles Town, WV 25414
(304) 728-0146

2. Contact Person:

William C. Pompeii II
Associated Engineering Sciences, Inc.
34 West Franklin St.
Hagerstown, MD 21740
(301) 797-9160

3. Tract Information:

A. Size: 12.45 acres

B. Shape: Generally rectangular, approximately 200' on the north-west,
1500' on the north-east, 1200' on the south-east, and 650' on the south-west.

C. Location: South side along W.V. Route 45 approximately 1.3 miles west of
Shepherdstown, WV.

Zoning: Residential Growth

4. Project Design:

The proposed project is to subdivide the 12.45-acre tract into a quality residential neighborhood of 23 homes. Of the 12.45-acre tract, 0.5-acres will be used for recreation, 1.0-acre will be used for stormwater, and 1.2-acres will be used for the sanitary sewer drip area. The proposed lots will be serviced by public water and will connect to a community sanitary sewer system. The proposed lots will range from 0.30 acres to 0.48 acres. The site will be bi-sected with two flowing-style roads (*Exhibit A*). *Pompelli Place* will intersect with *Dilloreto Court* which is a cul-de-sac. *Pernotto Place* will be approximately 695 feet, *Pompelli Place* is approximately 470 feet, and *Dilloreto Court* is approximately 300 feet. All three roads will be laid as close to the existing topography to minimize earthwork. The site will have entry to W.V. Route 45 by the use of two roads, Venice Way and Emerald Lane which will be improved according to Jefferson County *Standards*. The stormwater management for the site will be addressed with the use of extended detention S.W.M. Ponds and the consideration of Karst soils. No floodplains are within the tract.

5. Number, Size and Location:

- A. The proposed project is to subdivide the 12.45-acre tract into 23 residential lots.
- B. The lot sizes range from 0.30 to 0.48 acres each. Of the 12.45-acre tract, 0.5-acres will be used for recreation, 1.0-acre will be used for stormwater, and 1.2-acres will be used for the sanitary sewer drip area. The proposed lots will be serviced by public water and will connect to a community sanitary sewer system.
- C. (*Exhibit A*)

6. Topography:

The topography is made up of rolling slopes averaging approximately ten percent. The site is higher along the eastern side of the property creating a drainage pattern from east to west. High points along the east site, creates a drainage pattern towards the middle of the site on the western property boundary. The drainage for the site continues off site about 1000 feet to Rockymarsh Run. The proposed site is located within the area identified as Karst soils for Jefferson County. Due to the Karst soils, stormwater management will be designed according to the Jefferson County Subdivision Ordinance pertaining to Karst soils. If any sinkholes are encountered during construction, a geotechnical engineer will evaluate the sinkholes. The owner/developer will follow the geotechnical engineer's recommendations as to any sinkholes.

7. Soils:

The Jefferson County Soil Survey depicts the majority of the soils on site to be Frankstown series, with the remaining areas as Hagerstown and Fredrick. The soils are not considered Hydric by the County Lists of Hydric Soils. The soils limitations are considered between "Moderate to Severe: slopes; rock outcropping" for septic areas and home sites. The limitations for these series are considered "Severe: slopes; rock outcroppings" for street construction. See attached soils map and narrative for the extent of the soils and more detailed description. (*Exhibit B and B (a)*)

8. Natural Features:

- A. About 3/4 of the site consists of wooded areas. The remainder consists of open field. High points are on the eastern side of the property. These features create a main drainage pattern toward the middle of the site, which drains to the south west to the middle of the property boundary. There is minimal rock outcroppings scattered over this site.
- B. There are no manmade landforms on this site. There are no known sinkholes on site.

9. Existing Structures:

There are currently no structures on site.

10. Existing Easements or Right of Ways

There is currently a Stormwater Management Easement on site as well as a **25' Clearance Area Right of Way along W.V. Route 45. This Right of Way is to accommodate any expansion needed to W.V. Route 45 for the proposed development.**

The other easements on the site consist of two road's Right of Ways, one for Venice Way and the other for Emerald Lane. These two roads are currently gravel roads and will be upgraded to Jefferson County Standards. The road easements are part of the Plat recorded April 22, 2005, Book 1007, and Page 00466 In the land records of Jefferson County, West Virginia. The road easements allow access to the remaining lands of Gatestone, Inc..

11. Existing Covenants or Restrictions

There are currently no restrictions or covenants associated with this proposed subdivision.

12. Areas to be Dedicated:

A homeowners association will maintain the proposed 50' street right of ways, a frontage planting area along W.V. Route 45 (0.2 acres), Sanitary Sewer Drip Area Lot (1.2 acres), Recreation Lot (0.5 acres), and stormwater management facilities (1.0 acres).

13. Intended Improvements:

Improvements consist of a three roads, stormwater management facilities, a recreation area, and on and off site utilities. About 1,465 feet of road will wind through the development. The proposed roads will have a 50' right of way. Two entrances/exits (**Pompeii Place and Pernotto Place**) off of Emerald Lane will bisect the site and exit/enter the site off Venice Way. A third road (**Diloreto Court**) will be a cul-de-sac off one of the roads entering/exiting from Venice Way. Two parcels (1.0 acres) along the western property boundary have been reserved for the SWM Ponds. A recreation lot (0.5 acres) will be incorporated in the site plan and will be centrally located on the site. The proposed streets will have stop signs and street identification signs. **A school bus shelter and mailbox cluster will be provided along the Venice Way near the intersection with W.V. Route 45.**

The two existing private streets (Emerald Lane and Venice Way) will be built to Jefferson County Standards. These two roads currently have easements that allow access to the remaining lands of Gatestone, Inc.

The proposed water service will be provided by the City of Shepherdstown. See (Exhibit Q) for availability letter.

The proposed sanitary sewer drip area has been reviewed by the Jefferson County Public District and approved the operation and maintenance agreement on September 5th, 2006. See (Exhibit P).

14. Intended Land Use:

A total of 23 lots are planned for this subdivision, the 23 lots range from 0.30 to 0.48 acre sites for single-family dwellings. There will be an area of 0.50 acres for recreation.

The MLA requirements for the proposed single family homes site are 10,000 S.F. per Jefferson County Zoning and Land Development Ordinance. The proposed average area per lot is 14,500 S.F..

The breakdown for Parkland Calculations is as followed:

Sum of Platted Lots: 7.66 acres

Sum of Lots: 23 or 0.33 acres avg. lot size

Lots per acres: 3 which requires 4% of recreation area

Recreation Area: Required=0.29 acres Proposed=0.51 acres

15. Intended Earthwork:

Earthwork proposed for this subdivision will be minimal. The proposed streets will be laid as closely to the existing terrain to minimize earthworks. The road right of way will be approximately 1.78 acres or 14% of the total property. The SWM Ponds will require earthwork of approximately 1.0 acres, or about 8% of the total property. Each lot will have various excavating and grading needs depending on the proposed structures and desires of the homeowner. Blasting will be avoided to the fullest extent possible. Any blasting that is necessary will be performed according to all applicable regulations.

16. Proposed Covenants and Restrictions:

Chriswood Subdivision will have covenants and restrictions. A draft is attached as ***(Exhibit O)***.

17. Tentative Schedule:

Preliminary Approval

January 2007-August 2007

Construction & Approval (23 lots)

August 2007-February 2008

18. Market Surveys and Feasibility Studies:

Mr. Louis B. Athey, the owner/developer, has not performed a formal feasibility study. This development will be adding 23 new single-family lots to the market. A market analysis by The Hawthorne Group ***(Exhibit R)*** has determined the need for these proposed lots. The owner/developer has interviewed regional and national builders, including Dan Ryan Builders, Washington Homes, Ryan Homes, and Beazer Homes and they have all indicated that they are in pursuit of lots along the lines that he is proposing to develop. They have indicated a backlog of demand for their product. There is nothing on the immediate horizon that would indicate that this demand will subside. Further, as a demonstration of the market for these lots, all 23 are under contract of sale, pending Planning Commission approval.

19. Anticipated Project Costs:

The estimated cost to prepare this site for housing construction is \$600,000.

20. Anticipated Funding Sources:

This development will be funded completely by private funds.

B. Relationship of Subdivision to Community

Physical Impacts

1. Earthwork:

- A. Earthwork anticipated with this proposed subdivision will be kept to a minimum. The proposed roads will be laid as closely to the existing terrain to minimize earthworks. Only that portion of the site required for the roads, storm water management, and individual home construction will be stripped. ***Each lot will be individually stripped at the time of construction of the home.*** Approximately 84% of the development area will be stripped ***in total*** for the roadways, stormwater management, and home construction.
- B. Blasting for basements will probably be necessary for some Lots. Minimal if any blasting will be necessary for street construction. All blasting will be done in accordance with the standards of the West Virginia Department of Environmental Protection, Office of Explosives and Blasting, and done by a blasting contractor certified competent by that Office.
- C. Since grading has not been designed at this time, anticipated borrow and fill and terrain modifications are impossible to calculate with any degree of accuracy. However, the project will be designed to try to achieve balanced earthworks for the site. If there is excess spoil material, it will be minimal, and it will be spread along lot lines or used within the recreation or drip area lots.
- D. This project will have little effect on existing drainage patterns. The stormwater will be collected by open channel swales, culvert and storm drains as necessary, and conveyed to the SWM facility. The extended detention ponds will be designed to release water at the same rate, or less, of preconstruction. By providing extended detention, the downstream wetland and streams will be further protected from degradation.
- E. The only alteration will be due to street construction, swm ponds, and final grade around the proposed homes.

2. Conversion of Farmland to Urban Uses:

The property has not been used for agricultural purposes in the last three years. 75% of the site consists of woods.

3. Wildlife populations and DNR endangered species check:

The proposed site is home to a variety of species. These species range from fox, raccoons, skunks, deer, opossums, moles, bats, chipmunks, squirrels, mice, rabbits, birds, and snakes. Wildlife will be displaced in the vicinity of homes and ***surrounding areas.***

A. (Exhibit C)

B. There are no known threatened or endangered species or critical habitat on the subject property. See attached letter from WV DNR.

No wildlife study is planned at this time.

4. Groundwater and Surface Water Sources:

A. The Jefferson County Health Departments records show no known bacteriological contaminated wells within the area. ***(Exhibit D)***

B. A Farming pond, wetlands, and a tributary of Rockymarsh Run are located approximately 0.25 miles downstream from the project site. See the attached National Wetland Inventory Map for more information. ***(Exhibit E)***

The storm water management concept will meet the requirements of Section 8.2C and Table 8.C.1 of the Jefferson County Subdivision Ordinance. The SWM will be two detention basins with extended detention to provide water quality and channel protection. The extended detention ponds will be designed to release water at the same rate, or less, of preconstruction. By providing extended detention, the downstream channels will be further protected from degradation.

5. Compatibility of the project with the surrounding area in terms of land use and visual appearance:

The proposed land use has been a principal permitted use since adoption of the Jefferson Co. Zoning Ordinance in 1988 and has been designated "Residential Growth."

The site should be compatible with the surrounding land uses. The site is located within the residential growth area and adjoins the residential growth area to the east, west, north, and south, which has existing residences. The adjacent land south west of the proposed site is zoned rural district. The proposed Single-family dwellings will be a good use for the residential growth zoned area.

6. Impact on Sensitive Natural Areas:

The office of the Natural Resource Conservation Service has reported that the GIS file, inventoried approximately 10 years ago, shows no sinkholes for the site. ***(Exhibit F)*** The topography and drainage patterns will have minimal changes, as earthworks will be kept to a minimum. In addition, two SWM ponds will be incorporated into the design to help control runoff and protect any sensitive areas downstream from the site. The forested area will be conserved where feasible. There are no known wetlands or streams on site. There are wetlands located within 0.25 miles downstream of the site and are found off of a tributary of Rockymarsh Run. These wetlands fall within three classes, Palustrine Emergent, Palustrine Open Water and Palustrine scrub-shrub. ***(Exhibit E). Best management practices of soil erosion and sediment control according to the West Virginia Erosion and Sediment Control Handbook for Developing Areas will be implemented.***

Social Impacts

7. Demands for Schools and Educational Facilities:

This project will produce approximately 12 to 15 children utilizing the figures of .5 (Jefferson County Public School Standards) and .62 (2000 U.S. Census) children per lot respectively. The breakdown of children produced is as follows:

Elementary: 4 to 6

Junior High: 2 to 4

High School: 2

This production of children will occur over the year build-out of the project. These children would attend Shepherdstown Elementary, Shepherdstown Junior High School, Jefferson High School and the Ninth Grade Annex. Current enrollment figures for these schools are as follows:

	<u>2005-6</u>
Shepherdstown Elementary:	366
Shepherdstown Junior High School:	445
Ninth Grade Annex:	650+
Jefferson High School:	1500+

According to the Jefferson County Board of Education, all schools are at or near capacity.

8. Traffic Impact Data:

- A. According to the latest WV Department of Highways traffic counts 2005, the traffic flows on W.V. Route 45 are between **7,300** and 9,000 ADT respectively.
- B. Using the Jefferson County Subdivision Ordinance figure of 8 trips/day this development would generate **184** trips/day for the 24 Hr. 2-Way generation and **18.4** ADT's at peak hours.
- C. The nearest key intersection to this development is the intersection of W.V. Route 45 and **Welneberner Road**.
- D. According to the Comprehensive Plan, there is one "Highway Problem Area" within a one-mile radius of the project. (**Exhibit G, Exhibit G (a), and Exhibit G (b)**). The problem is a bad intersection with W.V. Route 45 and Old Martinsburg Road.
- E. Anticipated trip generation during peak hours is **18.4** trips based on 0.8 peak hour trips per dwelling as defined in the Zoning Ordinance.
- F. Traffic counts are not required based on the proposed peak hour generation.
- G. Traffic counts are not required based on the proposed peak hour generation.

9. Demographic Impact:

Upon completion of this project, the estimated number of persons that will reside in this development will be 55 (2.4 persons/dwelling, 23 dwellings).

10. Health and Emergency Medical Services:

The property is serviced by Jefferson Memorial Hospital, approximately 15 miles southeast, and **City Hospital in Martinsburg, approximately 9 miles west**. The

Shepherdstown Fire Company located approximately 1.5 miles east on W.V. Route 45 (*Exhibit H and H(a)*) services this area.

11. Fire Protection:

The Shepherdstown Fire Department in Shepherdstown and Baker Heights Vol. Fire Department Inc. in Martinsburg will provide Fire Protection. (*Exhibit I, Exhibit J, and Exhibit J(a)*). *The numbers provided by Shepherdstown Fire department for 2006 for EMS services responding to calls was 717. There were 272 calls for fire. The addition of the proposed 23 homes shall have a minimal impact of less than 1% increase.*

12. Police Protection:

The West Virginia State Police and the Jefferson County Sheriff's Department will provide police protection. (*Exhibit K and L*)

13. Trash Removal:

Trash Removal will be by Waste Management of Shenandoah Valley. Speaking with Waste Management on June 1st, 2006, they do provide service to the area of our proposed site. Also if for some reason they do reach capacity before the end of the month, they will just carry to another landfill. They will not submit a letter, but recommended a phone call with any questions.

14. Electrical Power Service:

Allegheny Power System will provide electrical power.

15. Telephone Service:

The Frontier Telephone System will supply telephone service.

16. Sewer and Water Service:

There are currently no available sanitary sewer services to this property at this time. A community sanitary drip area will be located on site. The proposed drip area will be treated by a commercial system called Enviroquip. This system will provide effluents above Chesapeake Bay standards to the onsite dripfield designed to be site specific. The pre-built treatment facility was reviewed in June 2005 by PSD with approval to provide Operations and Maintenance agreement. *The approval was on May 2, 2005 at the Jefferson County PSD Regular Board Meeting. See (Exhibit P).* Water will be provided by the city of Shepherdstown. *An availability letter from The City of Shepherdstown has been attached. See (Exhibit Q).*

17. Relationship of the project to the Comprehensive Plan:

This proposed development is in compliance with the Jefferson County Zoning Ordinance in that it is zoned Residential Growth, which allows the proposed lots as a principal permitted use.

18. Housing Supply and Demand:

This development will be adding 23 new single-family lots to the market. A market analysis by The Hawthorne Group (*Exhibit R*) has determined the need for these proposed lots. This market study was produced in October of 2006 which addresses potential need for this type of housing in Jefferson and surrounding counties.

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>Oct 2005</u>
Single Family Dwellings	503	644	345	267
Mobile Homes	46	112	50	20
Duplexes	18	29	17	10
Townhouses	15	8	8	9

19. Proximity and Relationship to known historic features:

According to the GIS database (*Exhibit M*) the closest historic sites on the National Register is located approximately 1.5 miles to the east and north east of the project site. Two areas were listed in his database: #819 is identified as Shepherdstown Historic Boundary and #834 named Fruit Hill.

20. Recreation:

There are five recreational facilities within a 5-mile radius of the site according to the Comprehensive Plan. Morgan Grove Park (#6) offers basketball, baseball and picnicking facilities. James Romsey Park (#7) offers hiking and historical areas. Princess Street Fishing Access (#18) and Dam #4 Boat Ramp (#19) provided access to the Potomac River. The last area of recreation is Cress Creek Golf Course (#22). (*Exhibit N*) There is approximately 0.51 acres proposed for a recreation area onsite. *Also the proposed sidewalk throughout the development will connect to the existing bike trail that runs along W.V. Route 45.*

Economic Impacts

21. Property Tax Evaluation:

The estimated average value of each dwelling:	\$600,000.
Assessment Rate:	60%
Assessed Value:	\$360,000.
Tax rate:	1.2534/\$100 value
Equation:	1.2534 x \$3600.
Estimated Average Tax per dwelling:	\$4,512.
Number of dwellings	23
Property Tax Revenue Generated by the project	\$103,781.52

22. Anticipated Bank Deposits and Loans:

It is anticipated that local lending institutions will be utilized to the fullest extent possible.

23. Anticipated Local Spending:

Mr. Lou Athey is contract purchaser of all the proposed lots and will be the building contractor for the homes of Chriswood. Local subcontractors will be used. Jefferson County offers several building centers that should be utilized by contractors as well as convenience stores, restaurants, fueling centers, etc.

This development is located in the northern part of the county and minutes from shopping opportunities in Shepherdstown and Martinsburg. It is anticipated that the majority of the homeowners purchasing will be at these markets.

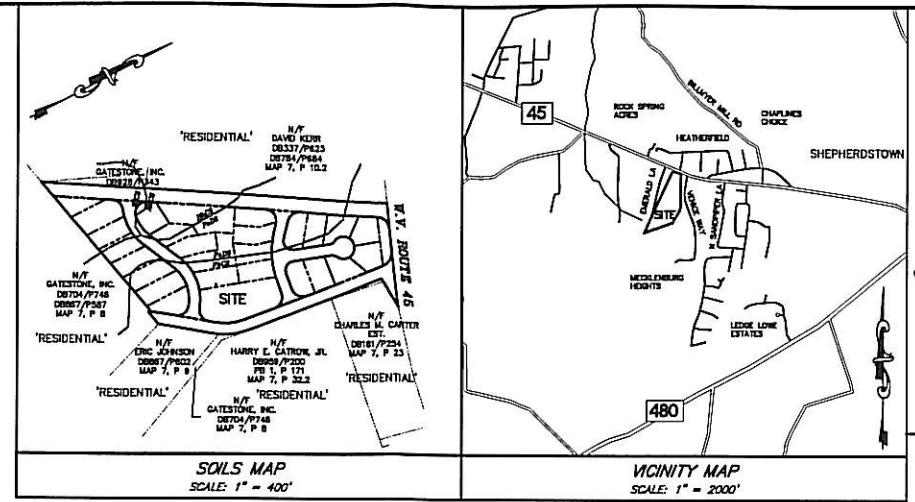
24. Local Employment Implications:

It is expected that the current percentages of employment either in or out of the county will be represented in this development.

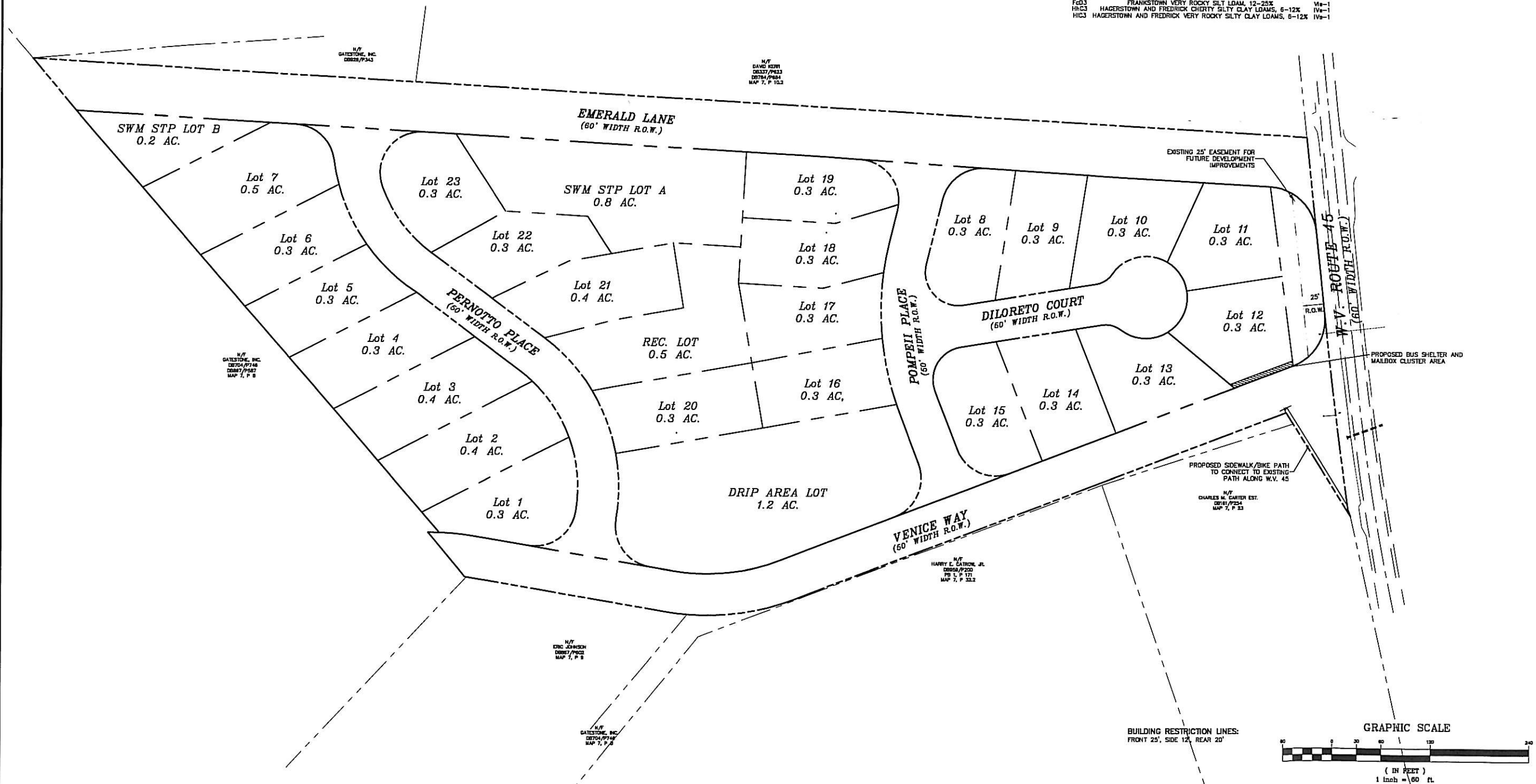
25. Expected Changes in Property Values:

The adjacent lands to this developed is developed and undeveloped and zoned the same as this property. Once this development is established the adjacent properties value should increase. The value of the homes proposed for this development will exceed the value of most homes in the surrounding area. With the amount of open space reserved at this site and the configuration of the street and lots we believe this will be a very attractive development for Jefferson County.

1. ZONED 'RESIDENTIAL GROWTH'
- | | | |
|-----------------------|-------|-------|
| TOTAL TRACT AREA..... | 12.45 | ACRES |
| 23 LOTS..... | 7.66 | ACRES |
| FRONTAGE LOT..... | 0.21 | ACRES |
| DRIP AREA LOT..... | 1.29 | ACRES |
| NORTH ROAD LOT..... | 0.99 | ACRES |
| REC LOT..... | 0.22 | ACRES |
| SOUTH ROAD LOT..... | 0.79 | ACRES |
| SWM-STP LOT..... | 0.24 | ACRES |
| SWM-STP LOT..... | 0.79 | ACRES |
2. THE M/LA REQUIREMENTS FOR SINGLE FAMILY HOMES: 10,000 S.F.
THE PROPOSED M/LA FOR THE SINGLE FAMILY HOMES: 14,500 S.F.
3. THE BREAKDOWN FOR PARKLAND CALCULATIONS IS AS FOLLOWS:
- | | |
|--|---------------------|
| SUM OF PLATTED LOTS: 7.88 ACRES | |
| SUM OF LOTS: 23 LOTS | |
| AVG. LOT SIZE | |
| LOTS PER ACRES: 3 WHICH REQUIRES 4% OF RECREATION AREA | |
| RECREATION AREA: REQUIRED=0.29 ACRES | PROPOSED=0.51 ACRES |



SOILS/SLOPES TABLE		
SOILS	DESCRIPTION	CLASS
FbC3	FRANKSTOWN SHALY SILT LOAM, 6-12%	IVe-1
Fcd3	FRANKSTOWN VERY ROCKY SILT LOAM, 12-25%	IVe-1
HfC3	HAGERSTOWN AND FREDRICK CHERTY SILTY CLAY LOAMS, 6-12%	IVe-1
HfC3	HAGERSTOWN AND FREDRICK VERY ROCKY SILTY CLAY LOAMS, 6-12%	IVe-1



aei
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CONCEPT PLAN
for
CHRISWOOD SUBDIVISION
SHEPHERDSTOWN MAGISTRAL DISTRICT
MAP NO. 7 PARCEL 9, D.B. 1007, PG. 466
*Situate along the south side of W.V. Route 45, approximately
1.8 miles west of Shepherdstown, Jefferson County, West Virginia*

Exhibit A

[illegible]



SITE

Shepherdstown

Shepherdstown

SCALE: 1" = 1666'

**Soils Map
Exhibit B**

Duffield silt loam, 6 to 12 percent slopes, severely eroded (DgC3).—About three-fourths of the original surface layer of this soil has been removed by erosion. This soil is not so deep to bedrock as the soil described as representative for the series. Slopes are short and fairly uniform. Included in mapping were some moderately eroded spots, shaly areas, limestone outcrops, and a few areas of Hagerstown, Frankstown, and Huntington, local alluvium soils.

Most of this soil is in crops, but a small part is in pasture. It is suited to all crops, pasture, and orchards. Slope and erosion limit use. A suitable cropping system, sodded waterways, minimum tillage, and return of crop and animal residue to the soil help to prevent further erosion. Capability unit IVe-1.

Duffield silt loam, 12 to 25 percent slopes, severely eroded (DgD3).—This moderately steep soil is on short narrow breaks along drainageways. Most of the original surface layer has been removed by erosion. This soil is not so deep to bedrock as the soil described as representative for the series. Included in mapping were some moderately eroded areas, some shaly areas, and some limestone outcrops.

This soil is better suited to tall-grass or bluegrass pasture than to cultivated crops. Tall-grass pasture commonly grows well and affords adequate protection from erosion. Reseeding in alternate strips and leaving drainageways in sod help to reduce runoff and erosion where renovation is needed. Capability unit VIe-1.

Edgemont Series

The Edgemont series consists of deep, well-drained, very stony soils on side slopes of the Blue Ridge. These soils formed in material weathered from sandstone, quartzite, and siltstone.

In a representative profile, the surface layer is black very stony loam about 2 inches thick. The subsurface layer is brown very stony loam about 7 inches thick. The subsoil is yellowish brown. The upper 16 inches is very stony sandy clay loam, and the lower 4 inches is very stony sandy loam. The substratum is grayish-brown and yellowish-brown very stony sandy loam to a depth of 50 inches.

Permeability is moderate. Available moisture capacity is moderate to high, and natural fertility is moderately low.

These soils are not suited to cultivated crops or pasture because of stones and slopes. Most of these soils are wooded, and trees grow fairly well. Summer homes are scattered throughout areas of these soils.

Representative profile of Edgemont very stony loam, 6 to 25 percent slopes, in a wooded area above State Route 9 south at overlook on Blue Ridge near Keyes Gap:

O1—1½ inches to ½ inch, loose oak leaves.

O2—½ inch to 0, black decomposed leaf mull and mineral material.

A1—0 to 2 inches, black (10YR 2/1) very stony loam; weak, fine, granular structure; loose; 15 percent stones up to 2 feet in diameter; many fine roots; strongly acid; abrupt, irregular boundary.

A2—2 to 9 inches, brown (10YR 5/3) very stony loam; weak, fine and medium, subangular blocky and very weak, thin, platy structure; very friable; 20 percent stones; many roots; strongly acid; clear, wavy boundary.

B21t—9 to 16 inches, yellowish-brown (10YR 5/4) very stony sandy clay loam; weak, fine and medium, subangular blocky structure; friable; 20 percent sandstone and quartzite fragments up to 18 inches in diameter; common roots; thin patchy clay films; very strongly acid; clear, wavy boundary.

B22t—16 to 25 inches, yellowish-brown (10YR 5/6) very stony sandy clay loam; moderate, medium and fine subangular blocky structure; friable but firmer than B21t horizon; 20 percent sandstone and quartzite fragments up to 18 inches in diameter; common roots; thin patchy clay films and clay flows in root holes; very strongly acid; clear, wavy boundary.

B3—25 to 29 inches, yellowish-brown (10YR 5/6) and pockets of yellowish brown (10YR 5/4) very stony sandy loam; weak, medium, subangular blocky structure; firm; 35 percent sandstone and quartzite fragments up to 15 inches in diameter; few roots; very strongly acid; clear, wavy boundary.

C—29 to 50 inches +, grayish-brown (10YR 5/2) and yellowish-brown (10YR 5/6) very stony sandy loam; massive; firm; 60 percent sandstone and quartzite fragments up to 15 inches in diameter; very strongly acid.

The B horizon is mainly sandy clay loam but ranges to sandy loam in the B22 and B3 horizons. Content of coarse fragments throughout the solum ranges from less than 15 percent to 35 percent. Depth to bedrock ranges from 42 to 60 inches. Reaction of soils in undisturbed areas ranges from strongly acid to very strongly acid.

Edgemont soils are associated with shaly, moderately deep Berks soils; shaly, shallow Weikert soils; finer textured Laidig soils; and moderately deep Dekalb soils. Edgemont soils are deeper to bedrock and have a finer textured subsoil than Dekalb soils. They formed in residuum weathered from sandstone, quartzite, and siltstone, but the Laidig soils formed in colluvium from similar material. Edgemont soils contain more sand than Clifton soils.

Edgemont very stony loam, 6 to 25 percent slopes (EdD).—This soil (fig. 6) has the profile described as representative for the series. It is on mountain crests, benches, and tops of short spurs along the mountain. Included in mapping were extremely stony spots and small areas of Steep rock land. Also included were shallow sandy soils near breaks to steeper slopes.

Almost all of this soil is wooded. This soil is not suited to crops or pasture because of moderately low fertility, droughtiness, and stoniness. It is better suited to trees. In many places this soil is used as a site for summer homes. Capability unit VIIs-2.

Edgemont very stony loam, 25 to 50 percent slopes (EdF).—This soil has a profile similar to that described as representative for the series, except it contains more large stones. Included in mapping were small extremely stony areas and a few escarpments. Also included were moderately steep Edgemont and Laidig soils.

Except for the few areas around summer homes, all of this soil is wooded. Steepness of slope, moderately low fertility, and stoniness severely limit the use of this soil for crops and pasture. It is better suited to trees. Capability unit VIIs-2.

*Frankstown Series

The Frankstown series consists of deep, well-drained soils. These soils formed in material weathered from silty limestone and interbedded limy shales. They are in a band extending northeast from the Virginia state line south of Rippon through the center of the county to the Potomac River. This area is characterized by low, rounded, parallel ridges.



Figure 6.—Area of Edgemont very stony loam, 6 to 25 percent slopes.

In a representative profile the surface layer is a dark grayish-brown shaly silt loam about 5 inches thick. The subsurface layer is yellowish-brown shaly silt loam about 7 inches thick. The subsoil extends to a depth of 29 inches. The upper 5 inches is yellowish-brown shaly silt loam and the lower 12 inches is a strong-brown shaly silty clay loam. Below this, to a depth of 60 inches, is strong-brown and dark-brown shaly silt loam which is underlain by siliceous limestone.

Frankstown soils are easily worked and are fertile. Permeability is moderate. Available moisture capacity is high.

These soils are suited to and used extensively for crops and pasture. They are well suited to orchards, and air drainage generally is good.

Representative profile of Frankstown shaly silt loam, 12 to 25 percent slopes, in a pasture east of Moler Cross-roads 0.7 mile north of Shenandoah Junction:

Ap—0 to 5 inches, dark grayish-brown (10YR 4/2) shaly silt loam; weak, fine, granular structure; friable; many roots; 25 percent shale fragments up to 1 inch long; slightly acid; abrupt, smooth boundary.

A2—5 to 12 inches, yellowish-brown (10YR 5/4) shaly light silt loam; weak, medium, subangular blocky structure; friable; common fine roots; 30 percent shale

fragments up to 2 inches long; many fine pores; slightly acid; clear, wavy boundary.

B21t—12 to 17 inches, yellowish-brown (10YR 5/6) shaly silt loam; moderate, medium, subangular blocky structure; firm; few roots; 30 percent shale fragments up to 2 inches long; many fine pores; thin patchy clay films; medium acid; clear, wavy boundary.

B22t—17 to 26 inches, strong-brown (7.5YR 5/6) shaly silty clay loam; some yellowish-red (5YR 4/6) spots and streaks; moderate, medium, subangular blocky structure; firm, few roots; 30 percent shale fragments up to 2 inches long; common fine pores; medium continuous clay films; common black manganese faces; medium acid; gradual, wavy boundary.

B23t—26 to 29 inches, strong-brown (7.5YR 5/6) shaly silty clay loam; weak, medium, subangular blocky structure; firm; few fine roots; 35 percent shale fragments up to 2 inches long; common fine pores; thin patchy clay films; very strongly acid; gradual, wavy boundary.

B&C—29 to 60 inches, strong-brown (7.5YR 5/6) and dark-brown (7.5YR 4/4) shaly silt loam, common streaks and pockets of yellowish-red (5YR 4/6) silty clay; massive; firm; 40 percent shale fragments up to 3 inches that increase in quantity with depth; thin patchy clay films; strongly acid.

R—60 inches, shaly buff-colored siliceous limestone.

The B horizon ranges from shaly silt loam to shaly silty clay loam, and from yellowish brown to strong brown. Coarse

fragments range from 10 to 40 percent in the B horizon. The B2t horizon ranges from 8 to 18 inches in thickness. Depth to bedrock is from 4 to 7 feet. Natural reaction ranges from very strongly acid to medium acid.

Frankstown soils have more shale fragments and a thinner subsoil than Duffield soils, and they have a less red, thinner subsoil than Benevola, Frederick, and Hagerstown soils.

Frankstown shaly silt loam, 2 to 6 percent slopes (FbB).—This gently sloping soil is in fairly large areas on slopes and in narrow strips along the crest of ridges. This soil has a profile similar to that described as representative for the series, except that it contains less coarse fragments throughout. Included in mapping were small areas of Hagerstown, Frederick, and Duffield soils. Also included were a few, small, strongly sloping soils, a few severely eroded areas, and a few limestone outcrops.

Almost all of this soil is cleared and a considerable acreage is in orchards. It is well suited to all locally grown crops. It is well suited to orchards, but frost pockets are a hazard in places. In a few areas rock outcrops influence the direction of tillage. Choosing a suitable cropping system and using contour stripcropping, sodded waterways, and minimum tillage help to control losses of soil and water. Capability unit IIe-1.

Frankstown shaly silt loam, 6 to 12 percent slopes (FbC).—This soil is on short breaks along intermittent drainageways and near the crest of low ridges. Included in mapping were small areas of Duffield soils and a few limestone outcrops. Also included were small severely eroded areas and a few gently sloping areas.

This soil is suited to all crops commonly grown in the county. Drought causes damage during prolonged dry periods. In places rock outcrops influence the direction of tillage. Choosing a suitable cropping system and using contour stripcropping, minimum tillage, sodded waterways, and returning crop and animal residue to the soil help to control losses of soil and water. Capability unit IIIe-1.

Frankstown shaly silt loam, 6 to 12 percent slopes, severely eroded (FbC3).—This soil has had most of the original surface layer removed by erosion. Except that it is less deep to bedrock, this soil has the profile described as representative for the series. Included in mapping were a few moderately eroded areas, some very shaly areas, some moderately steep areas, and a few limestone outcrops.

Nearly all of this soil is cleared. It is suited to all locally grown crops. In some areas rock outcrops influence the direction of tillage. Prolonged dry periods can cause crop damage. Choosing a suitable cropping system, and using field or contour stripcropping, sodded waterways, and diversions help to control runoff. Orchards need the protection of a permanent, close-growing vegetative cover. Capability unit IVe-1.

Frankstown shaly silt loam, 12 to 25 percent slopes (FbD).—This soil has the profile described as representative for the series. It is in small areas adjacent to drainageways and on the sides of low ridges. Included in mapping were some strongly sloping soils, a few areas of severely eroded soils, small areas of Duffield soils, and a few limestone outcrops.

Most areas are in crops or pasture. Prolonged dry periods can cause crop damage. In some areas rock outcrops influence the direction of tillage. Choosing a suitable cropping system, using stripcropping and sodded

waterways, and returning crop and animal residue to the soil help control losses of soil and water. Capability unit IVe-1.

Frankstown shaly silt loam, 12 to 25 percent slopes, severely eroded (FbD3).—Most of the original surface layer of this moderately steep soil has been removed by erosion. This soil has a profile that is less deep to bedrock than that described as representative for the series. Most areas of this soil are near drainageways where runoff from higher areas concentrates. Included in mapping were small, moderately eroded areas and very rocky and very shaly spots.

Most of this soil has been in crops, but is now used mainly as pasture. Shaly and shallower areas are droughty in places. Moderately steep slopes and the hazard of further erosion limit use of these soils for crops. This soil is suited to pasture. Reseeding tall-grass pastures in alternate strips helps control excessive runoff. Capability unit VIe-1.

Frankstown shaly silt loam, 25 to 35 percent slopes, severely eroded (FbE3).—This soil is in narrow bands along the sides of steep ridges. Most of the original surface layer has been removed by erosion. This soil has a profile that is shallower than that described as representative for the series. Included in mapping were some moderately eroded areas and some limestone outcrops.

Most of this soil is in pasture but it is better suited to trees. Some areas are droughty. This soil generally is managed with the nearby, less sloping soils. Good pasture management is needed. Capability unit VIIe-1.

Frankstown very rocky silt loam, 6 to 12 percent slopes (FcC).—This soil is in narrow bands on hillsides between areas of gently sloping soils and narrow drainageways. This strongly sloping soil has a profile similar to the profile described as representative for the series, but limestone outcrops cover up to 25 percent of the surface, and depth to bedrock is more irregular. Included in mapping were gently sloping areas, very rocky Frankstown soils, and rocky and extremely rocky areas. Also included were severely eroded areas and areas that are shallower to bedrock.

Some of this soil is in woodland but most is in pasture. Machinery can be used on all but the most rocky areas. Tall-grass pasture protects this soil from erosion. Limestone ledges influence the direction of tillage. Capability unit VIs-1.

Frankstown very rocky silt loam, 12 to 25 percent slopes (FcD).—This soil is in narrow bands on the sides of ridges. It has a profile that is similar to that described as representative for the series, but limestone outcrops cover up to 25 percent of the surface, and depth to bedrock is more irregular. Included in mapping were rocky and extremely rocky spots.

Most areas are in permanent bluegrass pasture, but careful management is needed to control excessive losses of soil and water. The rockiest areas remain wooded. This soil is suited to pasture or trees. Machinery can be used on all but the most rocky areas. Tall-grass pasture adequately protects this soil from erosion. Limestone ledges influence the direction of tillage. Capability unit VIs-1.

Frankstown very rocky silt loam, 12 to 25 percent slopes, severely eroded (FcD3).—Most areas of this soil are on breaks along drainageways. The original surface layer has been removed by erosion in most areas. Com-

monly this soil is moderately deep to limestone or shale. Included in mapping were a few, small, rocky and extremely rocky spots. Also included were a few steep areas.

Rockiness, moderately steep slopes, and the severe hazard of erosion severely limit use for cultivated crops or pasture. This soil is well suited to woodland. Capability unit VII-1.

Frederick Series

The Frederick series consists of deep, well-drained soils in the Great Limestone Valley. Slopes are short and irregular. These soils formed in material weathered from limestone, that contained some quartz grains and angular chert. Frederick soils in Jefferson County are mapped only in undifferentiated units with Hagerstown soils.

In a representative profile the surface layer is dark-brown cherty silt loam about 9 inches thick. The sub-surface layer is yellowish-brown silt loam about 3 inches thick. The subsoil extends to a depth of 55 inches. The upper 7 inches is a strong-brown silty clay loam; the middle 25 inches is slightly plastic and slightly sticky, red silty clay; and the lower 11 inches is red cherty clay.

Frederick soils are easy to work, except where they are eroded or very rocky. Permeability is moderate. Available moisture capacity and natural fertility are high.

These soils are suited to corn, small grain, alfalfa, and orchard fruits. Many of the very rocky areas are suited to pasture.

Representative profile of Frederick cherty silt loam from an area of Hagerstown and Frederick cherty silt loams, 2 to 6 percent slopes, 100 yards north of State Route 51, 3½ miles west of Charles Town:

- Ap—0 to 9 inches, dark-brown (10YR 4/3) cherty silt loam; weak, fine, subangular blocky and weak, fine, granular structure; very friable; many roots; 20 percent chert fragments; slightly acid; abrupt, smooth boundary.
- A2—9 to 12 inches, yellowish-brown (10YR 5/4) silt loam; very weak, medium, platy and weak, fine and medium, subangular blocky structure; friable; common roots; 10 percent chert fragments; slightly acid; clear, wavy boundary.
- B21t—12 to 19 inches, strong-brown (7.5YR 5/6) silty clay loam, with a few streaks of yellowish red (5YR 5/6); moderate, medium, blocky structure; friable to firm; thin patchy clay films; 10 percent chert fragments; strongly acid; clear, wavy boundary.
- B22t—19 to 33 inches, red (2.5YR 5/6) silty clay; strong, fine, blocky structure; firm, slightly plastic and slightly sticky; thick, continuous, strong-brown (7.5YR 5/6) clay films; 10 percent chert fragments; few, fine, yellowish-brown (10YR 5/6) siltstone particles up to ¼ inch across; strongly acid; clear, wavy boundary.
- B23t—33 to 44 inches, red (2.5YR 5/8) silty clay; strong, fine and medium, blocky structure; firm, slightly plastic and slightly sticky; thick, continuous, strong-brown (7.5YR 5/6) clay films and a few faces of yellowish brown (10YR 5/6); 10 percent chert fragments; few, fine, yellowish-brown (10YR 5/6) siltstones up to ¼ inch across; strongly acid; clear, wavy boundary.
- B3—44 to 55 inches, red (2.5YR 5/8) cherty clay; few patches of yellowish-brown (10YR 5/6); weak to moderate, fine and medium, subangular blocky structure; firm; thin patchy clay films; 20 percent chert fragments; strongly acid.

The surface layer ranges from cherty silt loam to cherty silty clay loam. The B horizon is silty clay or clay and ranges from red to yellowish-red; however, the upper few

inches of the B horizon ranges to strong brown. Coarse fragments range from less than 10 percent to about 30 percent. Bedrock is at a depth of from 4 to 10 feet. Reaction is strongly acid to medium acid.

The argillic horizons of these soils are slightly thinner than the defined range for the series, but this difference does not alter their use or behavior.

Frederick soils are associated with browner and less acid Hagerstown and Benevola soils; with less red, less clayey Duffield soils; and with Frankstown soils that have a thinner solum and contain more shale. Frederick soils have less sandy clay than Braddock soils and are deeper than the Chilhowie and Opequon soils.

*Hagerstown Series

The Hagerstown series consists of deep, well-drained soils in the Great Limestone Valley. Slopes are short and irregular. These soils formed in material derived from limestone.

In a representative profile the surface layer is dark-brown silt loam about 7 inches thick. The subsoil extends to a depth of 62 inches. The upper 36 inches is yellowish-red silty clay or clay, and is mostly plastic and sticky. The lower 19 inches is variegated, dark-red, yellowish-red, and strong-brown silty clay.

Hagerstown soils are easy to work and are fertile. Permeability is moderate. Available moisture capacity is high.

These soils are suited to corn, small grains, alfalfa, and to orchard fruits. About half of the acreage is very rocky and suited only to pasture and trees.

Representative profile of Hagerstown silt loam, 2 to 6 percent slopes, south of State Route 51, 1¾ miles west of Charles Town:

- Ap—0 to 7 inches, dark-brown (7.5YR 4/2) silt loam; moderate, medium and fine, granular structure; friable; many roots; few chert fragments; slightly acid; abrupt, smooth boundary.
- B21t—7 to 12 inches, yellowish-red (5YR 5/6) silty clay; moderate, medium and fine, blocky structure; firm, slightly plastic and slightly sticky; medium patchy clay films; common roots; some material from Ap horizon in root channels; slightly acid; clear, wavy boundary.
- B22t—12 to 32 inches, yellowish-red (5YR 4/6) clay; strong, fine and medium, blocky structure; firm, plastic, and sticky; few roots; thick continuous clay films; medium acid; gradual, wavy boundary.
- B23t—32 to 38 inches, yellowish-red (5YR 4/6) silty clay; strong-brown (7.5YR 5/6) streaks; moderate to strong, fine and medium, blocky structure; firm, plastic and sticky; few roots; medium continuous clay films; slightly acid; gradual, wavy boundary.
- B24t—38 to 43 inches, yellowish-red (5YR 4/6) silty clay; common, strong-brown (7.5YR 5/6) streaks; moderate, fine and medium, blocky structure; firm; plastic and slightly sticky; few roots; medium continuous clay films; slightly acid; gradual, wavy boundary.
- B3—43 to 62 inches, variegated dark-red (2.5YR 3/6), yellowish-red (5YR 4/6), and strong-brown (7.5YR 5/6) silty clay; weak, medium, platy structure; firm, plastic and sticky; thin discontinuous clay films; some very soft yellowish-brown (10YR 5/6) siltstone; slightly acid.

The B horizons are clay and silty clay and range from yellowish red to dark reddish brown (fig. 7). Depth to bedrock ranges from 4 to 10 feet. Natural reaction ranges from medium acid to slightly acid.

Hagerstown soils are associated with the Frederick soils that are less brown and more acid in the subsoil. They are redder and finer textured than the adjoining Duffield and

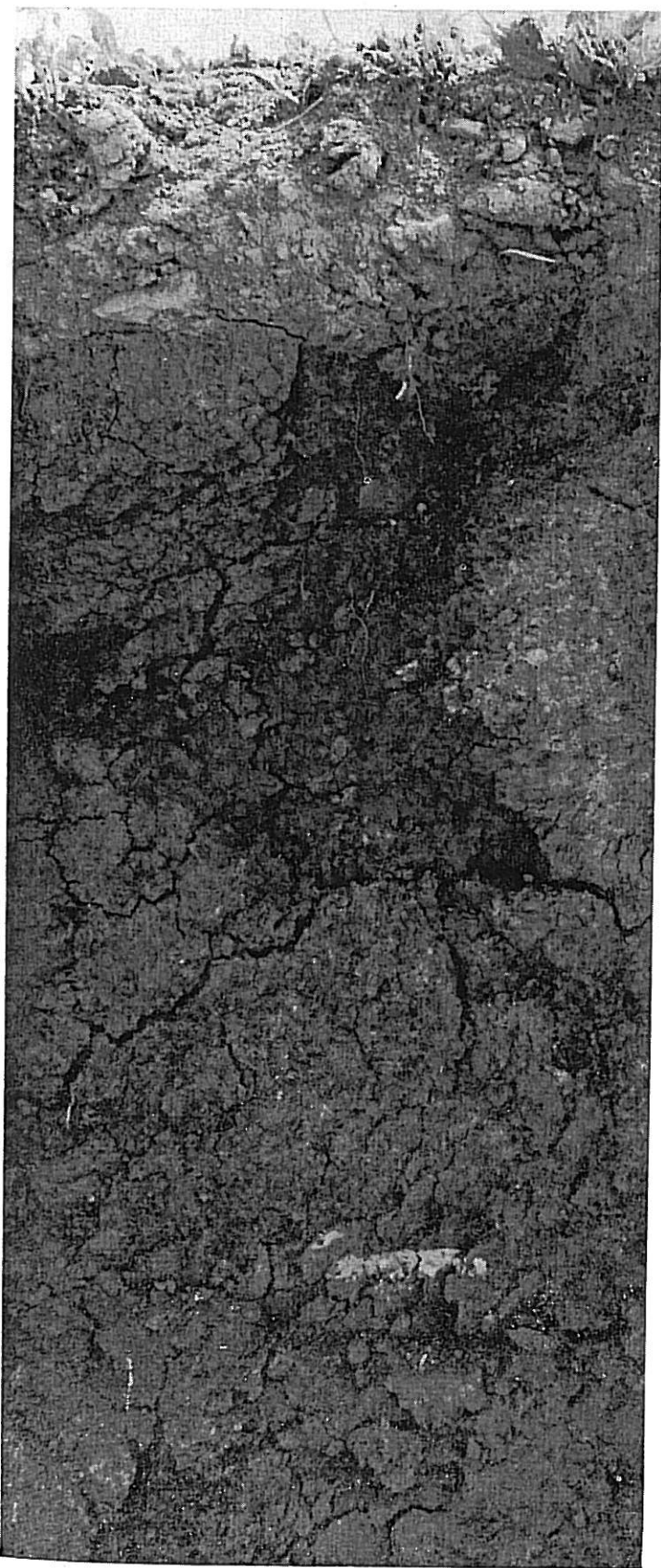


Figure 7.—Profile of a Hagerstown silt loam.

Frankstown soils. Hagerstown soils have a coarser, less red surface layer and a lighter colored subsoil than the limestone-influenced Benevola soils. They are deeper than the Opequon, Chilhowie, and Weikert soils. Hagerstown soils are finer textured than Braddock soils.

Hagerstown silt loam, 2 to 6 percent slopes (HbB).—

This soil has the profile described as representative for the series. It is commonly in large undulating areas. Slopes are short and fairly smooth. Included in mapping were a few strongly sloping areas that surround shallow depressions and a few areas of limestone outcrops. Also included were spots that have a few scattered chert fragments on the surface and some nearly level areas.

This soil is suited to all crops commonly grown in the county. It is well suited to orchards, but frost pockets are a hazard in places. In some areas a few ledges of limestone influence the direction of tillage. Stripcropping and using sodded waterways help to retard runoff and erosion. Capability unit IIe-1.

Hagerstown silt loam, 6 to 12 percent slopes (HbC).—

This soil has a profile similar to the one described as representative for the Hagerstown series, but slopes are short, complex, and are often dissected by numerous intermittent drainageways. Included in mapping were small severely eroded areas and a few areas of moderately steep soils that surround the drainageways. Also included were small, cherty areas; some narrow strips of Huntington, local alluvium; some Frederick soils; a few areas near the breaks of the slopes that are not as deep to limestone; and a few areas of limestone outcrops.

This soil is suited to all crops commonly grown in the county and to orchard fruits. In some areas a few limestone ledges influence the direction of tillage. Air drainage is better, and there is less danger from frost than on the gently sloping soil. A suitable cropping system using minimum tillage and sodded waterways helps to prevent erosion on the strongly sloping soils. Capability unit IIIe-1.

Hagerstown extremely rocky silt loam, 5 to 25 percent slopes (HcC).—The profile of this soil is redder and more sticky than that described as representative for the series, and depth to bedrock is shallower and more irregular. Rock outcrops and loose limestone cover from one-fourth to one-half of the surface (fig. 8). The rocks commonly are in lines, but some are in irregularly spaced groups. This soil is scattered throughout the limestone sections of the county. Included in mapping were small very rocky areas and some areas in which the outcrops cover nearly all the surface.

This soil is suited to trees and most areas are maintained as farm woodlots. Some of the least rocky areas are suited to pasture, using native grasses. Limestone outcrops and boulders make the use of machinery impractical. Capability unit VIIc-4.

Hagerstown silty clay loam, 6 to 12 percent slopes, severely eroded (HeC3).—This soil has lost most of the original surface layer by erosion, and the heavier subsoil material and the topsoil have been mixed by plowing. The resulting surface layer is finer textured and redder than that described as representative for the series. Also, this soil is shallower to bedrock. Small areas of this soil are intermingled with the other Hagerstown soils, but many areas are on the points and the sides of the drainageways. Included in mapping were some gently sloping,



Figure 8.—Outcropping of rocks on Hagerstown extremely rocky silt loam.

moderately steep, and moderately eroded areas. Also included were a few limestone outcrops.

The silty clay loam surface layer, which resulted from erosion, has made this soil difficult to till, but this soil is suited to corn if a good cropping system is used. In some areas limestone outcrops influence the direction of tillage. Sodded waterways, stripcropping, minimum tillage, and winter cover crops help prevent further erosion. Capability unit IIVe-1.

Hagerstown and Frederick cherty silt loams, 2 to 6 percent slopes (HfB).—The Frederick soil in this unit has the profile described as representative for the Frederick series. Hagerstown soils are similar to Frederick soils, and they have similar requirements for use and management. Soils in this unit are either all Hagerstown, all Frederick, or both. These soils are commonly in large undulating areas. Slopes are short and fairly smooth. The surface layer contains 15 to 20 percent chert fragments. Included in mapping were small, severely eroded areas, a few strongly sloping areas, some nearly level areas, and a few areas of limestone outcrops. Also included were small areas of Duffield soils.

This unit is well suited to corn, small grains, and alfalfa. It is suited to orchards, but frost pockets can be a hazard in depressions. In some areas a few hedges of

limestone influence the direction of tillage. Use of a suitable cropping system, stripcropping, and sodded waterways helps to reduce runoff. Capability unit IIe-1.

Hagerstown and Frederick cherty silt loams, 6 to 12 percent slopes (HfC).—The soils in this unit are similar, and they have similar requirements for use and management. Areas are all Hagerstown soils, all Frederick soils, or both soils. These soils are in large rolling areas that are dissected by numerous drainageways. The surface layer contains about 15 percent chert fragments. Included in mapping were a few gently sloping soils, moderately steep soils, some severely eroded areas, and a few limestone outcrops. Also included were small areas of Duffield and Huntington, local alluvium soils.

This unit is suited to corn, small grains, and alfalfa. This unit is well suited to orchards. In some areas limestone outcrops influence the direction of tillage. Air drainage generally is better than on the gently sloping soils. Maintaining drainageways in sod, returning crop residue to the soil, stripcropping, and using minimum tillage help to prevent losses of soil and water. Capability unit IIIe-1.

Hagerstown and Frederick very rocky silt loams, 2 to 6 percent slopes (HfB).—The soils in this unit have profiles similar to those described as representative for their

respective series, but limestone outcrops are on one-tenth to one-fourth of the surface. These soils are similar and they have similar requirements for use and management. Areas are all Hagerstown soils, all Frederick soils, or both soils. These soils are in smaller areas than Hagerstown and Frederick soils that are not rocky. The ledges generally are parallel and oriented northeast to southwest. They appear as narrow ribs, 1 to 3 feet across and a few inches to 2 feet high. Soil near the ledges tends to be somewhat redder and more clayey. Included in mapping were small rocky areas and some extremely rocky spots near Shepherdstown. Also included were a few areas that are not so clayey.

Much of this soil has been cleared and is used as pasture. The less rocky areas are in crops or are used for orchards. This soil is well suited to pasture. The parallel ledges permit the use of reseeding and mowing equipment. Tall-grass pasture affords adequate protection from erosion. The ledges commonly influence the direction of equipment travel. Capability unit VIs-1.

Hagerstown and Frederick very rocky silt loams, 6 to 12 percent slopes (HgC).—Each of the soils has a profile similar to that described as representative for its respective series, but limestone outcrops are on one-tenth to one-fourth of the surface area. Areas are all Hagerstown

soils, all Frederick soils, or both soils. These soils are similar and they have similar requirements for use and management. These soils are in narrow bands around hillsides or on fairly large rolling areas. The outcropping ledges are commonly in a line, but some are in irregularly spaced groups. The ledges are oriented northeast to southwest. They appear as narrow ribs, 1 to 3 feet across and a few inches high. Soil near the ledges is redder and more clayey than other areas. Included in mapping were very narrow, moderately steep breaks and small, gently sloping, narrow flats. Also included were small extremely rocky spots.

Many areas of this unit are cleared and used as pasture (fig. 9). Some of the less rocky areas extend into crop fields and orchards. This soil is better suited to pasture or woodland than to crops because of the rockiness. Most of these soils can be mowed and reseeded with machinery. Capability unit VIs-1.

Hagerstown and Frederick very rocky silt loams, 12 to 25 percent slopes (HgD).—The soils in this unit are similar to those described as representative for their respective series, but about one-fourth of the surface is covered with outcrops of limestone ledges. Areas are all Hagerstown soils, all Frederick soils, or both soils. These soils are similar, and rocks cause similar use and management concerns. These soils generally are on short breaks



Figure 9.—Yellow-poplar and white oak on Hagerstown and Frederick very rocky silt loams, 6 to 12 percent slopes.

near intermittent drainageways and in narrow bands along hillsides. Included in mapping were small, rocky, extremely rocky, and steep areas. Soils near the rock outcrops are redder and more clayey than in other areas, and a few areas are severely eroded.

Most areas of this unit are in trees or pasture. They are suited to pasture, but slope and rockiness make pasture management difficult. Capability unit VIs-1.

Hagerstown and Frederick cherty silty clay loams, 6 to 12 percent slopes, severely eroded (HhC3).—These soils have profiles similar to those described as representative for their respective series, but most of the original surface layer has been removed by erosion. The present surface layer is finer textured, redder, and contains about 20 percent chert fragments. These soils are similar; they have similar requirements for proper use and management. They are scattered in association with the other Hagerstown soils, but many areas are on the points and sides of drainageways. Included in mapping were moderately steep and moderately eroded areas. Also included were small areas of Duffield, Huntington, local alluvial soils, and a few limestone outcrops.

Erosion has made tillage difficult, but this soil is suited to all locally grown crops. It is suited to row crops if grown in a cropping system with long-term hay. In some areas rock outcrops influence the direction of tillage. Intensive conservation practices are needed to help reduce runoff and control further excessive erosion. Capability unit IVe-1.

Hagerstown and Frederick very rocky silty clay loams, 6 to 12 percent slopes, severely eroded (HIC3).—These soils differ from those described as representative for their respective series by having outcropping limestone ledges and by having most of their original surface layer removed by erosion. The present surface layer is redder, more clayey, and does not take in water as readily as the original surface layer. These soils are similar and have similar requirements for use and management. Areas are Hagerstown soils, Frederick soils, or both. Limestone ledges are on about one-fifth of the surface. These soils are scattered in association with the other Hagerstown and Frederick soils, but many areas are on points and sides of drainageways where runoff has concentrated. Included in mapping were small moderately eroded areas and a few extremely rocky areas.

Much of the acreage of this unit is in crops, but soil losses and rock outcrops make cultivation impractical. Some areas extend into orchards and crop fields. These soils are better suited to pasture or trees than to crops. Proper management of tall-grass pasture is difficult in some areas, but bluegrass and white clover are suited. Capability unit VIs-1.

Hagerstown and Frederick very rocky silty clay loams, 12 to 25 percent slopes, severely eroded (HID3).—The soils in this unit are similar to those described for their respective series, but limestone outcrops occupy about one-fifth of the surface and erosion has removed most of the original surface layer. The present surface layer is redder than the surface layer of the soil described as representative and does not absorb water readily. These soils are similar; they have similar requirements for use and management. These soils are generally on short breaks near small drainageways or in bands along the hills where water or livestock have cut through the

sod and runoff has removed much of the surface layer. Included in mapping were some moderately eroded spots and a few extremely rocky areas.

Many areas of this unit are small and are managed with the surrounding soils. Most of these soils are in pasture, but they are difficult to manage properly because of rockiness and the severe erosion hazard. They are better suited to trees. Capability unit VIIIs-1.

Huntington Series

The Huntington series consists of deep, nearly level, well-drained soils on flood plains of streams and along intermittent drainageways in the Limestone Valley. These soils formed in recent alluvium washed from limestone uplands. They are subject to flooding.

In a representative profile the surface layer is dark-brown silt loam about 10 inches thick. The subsoil extends to a depth of 42 inches. The upper 11 inches is dark-brown silt loam, and the lower 21 inches is dark yellowish-brown silt loam that contains chert and sandstone fragments. The substratum is strong-brown and yellowish-red silty clay loam and silt loam.

Huntington soils are easily worked, and they are fertile. Permeability is moderate. Available moisture capacity is high.

These soils are suited to corn, small grains, and alfalfa. Flooding and ponding occur during prolonged wet periods. Frost pockets severely limit use for orchards.

Representative profile of Huntington silt loam, local alluvium in pasture, one-half miles northwest of Shepherd College in Shepherdstown:

- Ap—0 to 10 inches, dark-brown (10YR 3/3) silt loam; weak, fine, granular structure; friable; many roots; few, angular, sandstone and chert fragments; few pores; neutral; abrupt, smooth boundary.
- B1—10 to 21 inches, dark-brown (7.5YR 4/4) silt loam; weak, medium, subangular blocky structure; friable; fine roots; common quartz grains; neutral; gradual, wavy boundary.
- B2—21 to 42 inches, dark yellowish-brown (10YR 4/4) silt loam; weak, fine, subangular blocky structure; firm; few roots; 15 percent chert and sandstone fragments less than 2 inches in diameter; common iron concretions, decreasing with depth; neutral; gradual, wavy boundary.
- IIC—42 to 52 inches, strong-brown (7.5YR 5/6) silty clay loam and silt loam mixed with some yellowish-red (5YR 4/6 to 5/6) heavy silty clay loam; massive; firm; few manganese concretions; slightly acid.

The A horizon ranges from very dark grayish brown to dark brown. The B horizon ranges from dark brown to dark yellowish brown. Depth to residual material or stratified alluvium ranges from 40 to 80 inches. Natural reaction ranges from slightly acid to neutral. The hazard of flooding ranges from slight to moderate.

Huntington soils are associated with the moderately well drained Lindside and poorly drained Melvin soils. They contain less sand throughout than Landes soils that are along rivers. Huntington soils are slightly lower than Ashton soils, and they are flooded more frequently than the Ashton soils. Huntington soils are at lower elevations than Monongahela soils, and they lack the fragipan that is present in Monongahela soils.

Huntington silt loam (Hn).—This nearly level soil has a profile similar to that described as representative for the series, but the substratum consists of stratified sand and silt. It is along Opequon Creek and other permanent



DIVISION OF NATURAL RESOURCES

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Joe Manchin III
Governor

Frank Jezioro
Director

May 11, 2006

Mr. William C. Pompil II
Associated Engineering Sciences, Inc.
34 West Franklin Street
Hagerstown, MD 21740

Dear Mr. Pompil:

We have reviewed our files for information on rare, threatened and endangered (RTE) species and sensitive habitats for the area of the proposed subdivision near Shepherdstown, Jefferson County, WV.

We have no known records of any RTE species or sensitive habitats within the project area. The Wildlife Resources Section knows of no surveys that have been conducted in the area for rare species or rare species habitat. Consequently, this response is based on information currently available and should not be considered a comprehensive survey of the area under review.

Enclosed please find an invoice.

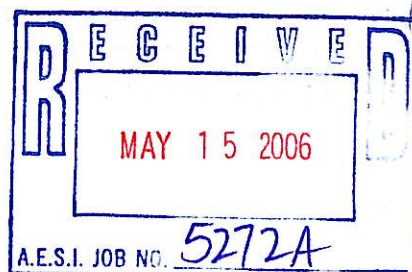
Thank you for your inquiry, and should you have any questions please feel free to contact me at the above number, extension 2048.

Sincerely,

Barbara Sargent
Environmental Resources Specialist
Natural Heritage Program

enclosure

u:\BDSInv\AESI.doc



cc: Bill P.

Exhibit C

Jefferson County Health Department

ROSEMARIE CANNARELLA, M.D., M.P.H.
HEALTH OFFICER



1948 WILTSHIRE ROAD, SUITE 1
KEARNEYSVILLE, WV 25430
ENVIRONMENTAL: (304) 728-8415
FAX: (304) 728-3314
MEDICAL: (304) 728-8416
FAX: (304) 728-3319

July 14, 2006

William Pompeii, II
Associated Engineering
34 West Franklin Street
Hagerstown, MD 21740

Dear Mr. Pompeii:

The Jefferson County Health Department has received your request for information regarding contaminated wells within 1000 feet of a proposed subdivision to be located west of Shepherdstown off of Route 45.

A review of our records indicates that approximately half of the area in question is currently being served by public water. The remainder is served by private wells. This department is unaware of any private wells that are bacteriologically contaminated. You should contact Alan Marchum at the West Virginia Bureau for Public Health in Kearneysville at 725-9453 for information regarding public water sources.

If you have any questions, please contact the Jefferson County Health Department at 728-8415.

Sincerely,

A handwritten signature in cursive script that reads "RCannarella MD, MPH".

Rosemarie Cannarella, MD, MPH
Health Officer

Cc: Paul Raco, Jefferson County Planning, Zoning & Engineering
Richard Wheeler, District Sanitarian, WVBPH
Lisa Dunn, Registered Sanitarian

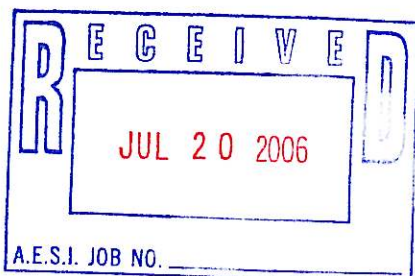
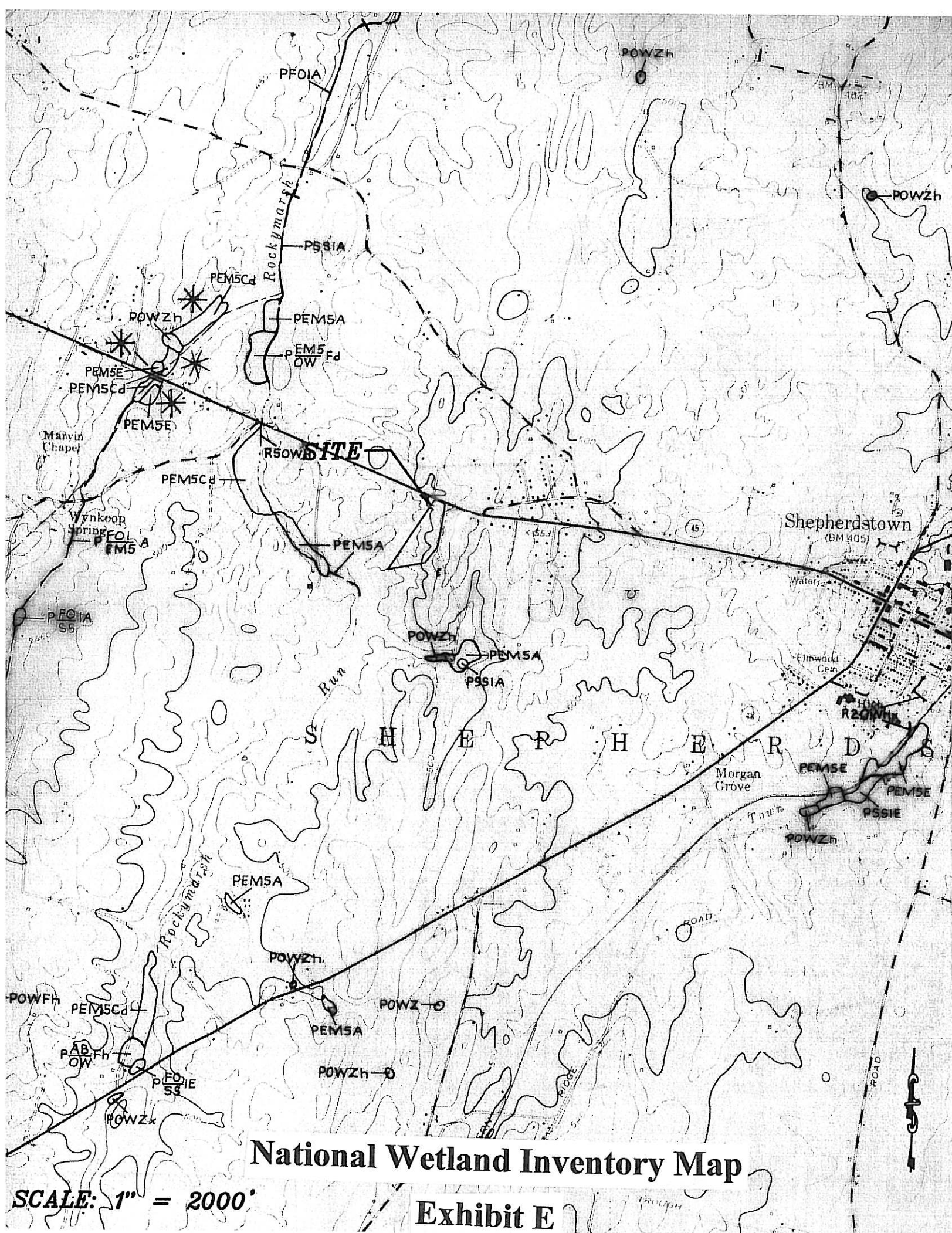


Exhibit D



National Wetland Inventory Map

SCALE: 1" = 2000'

Exhibit E

Jefferson County, WV

Approximate sinkhole locations

Legend

- Sinkhole
- Shenandoah River
- Local Service

SITE

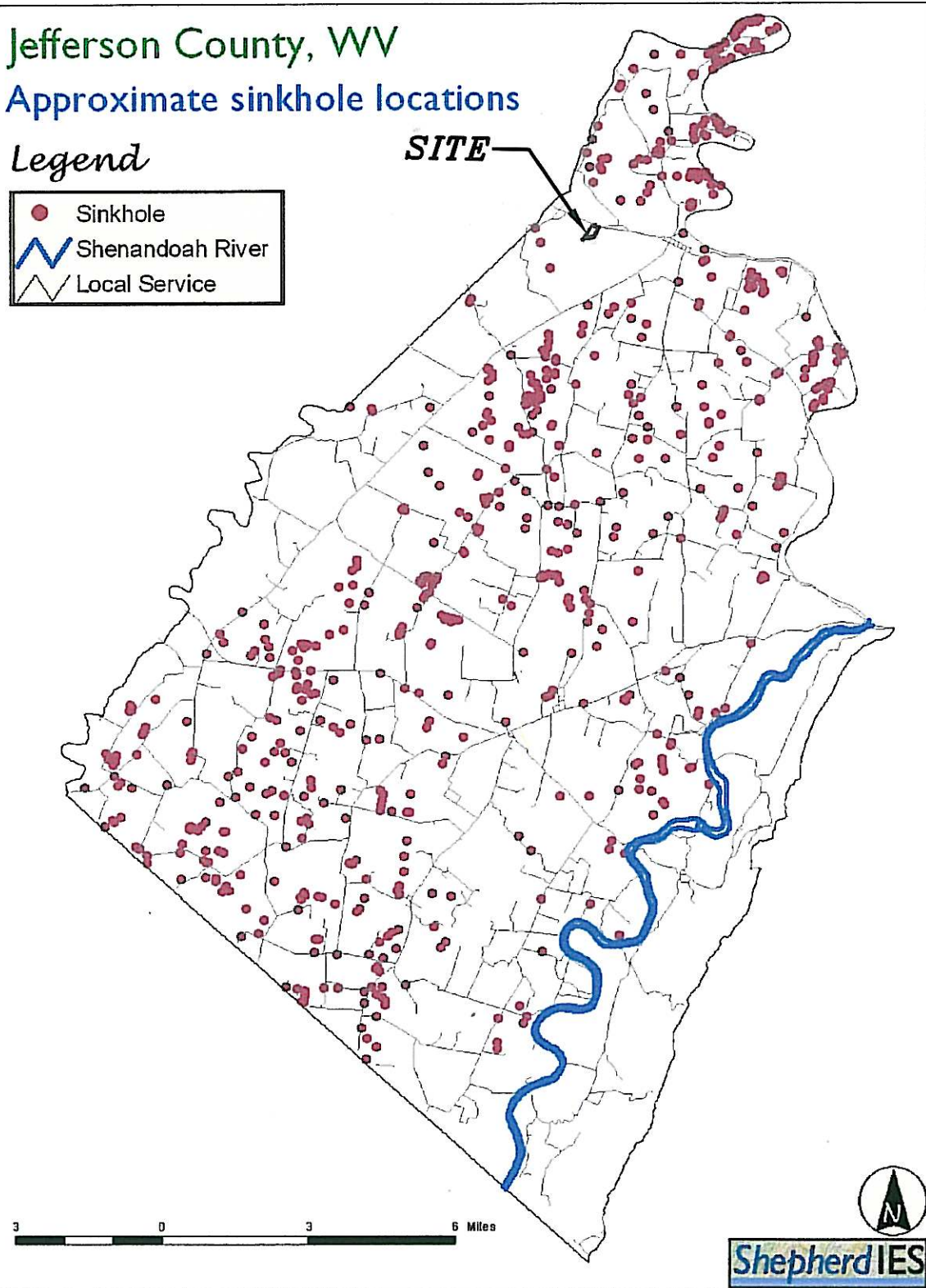
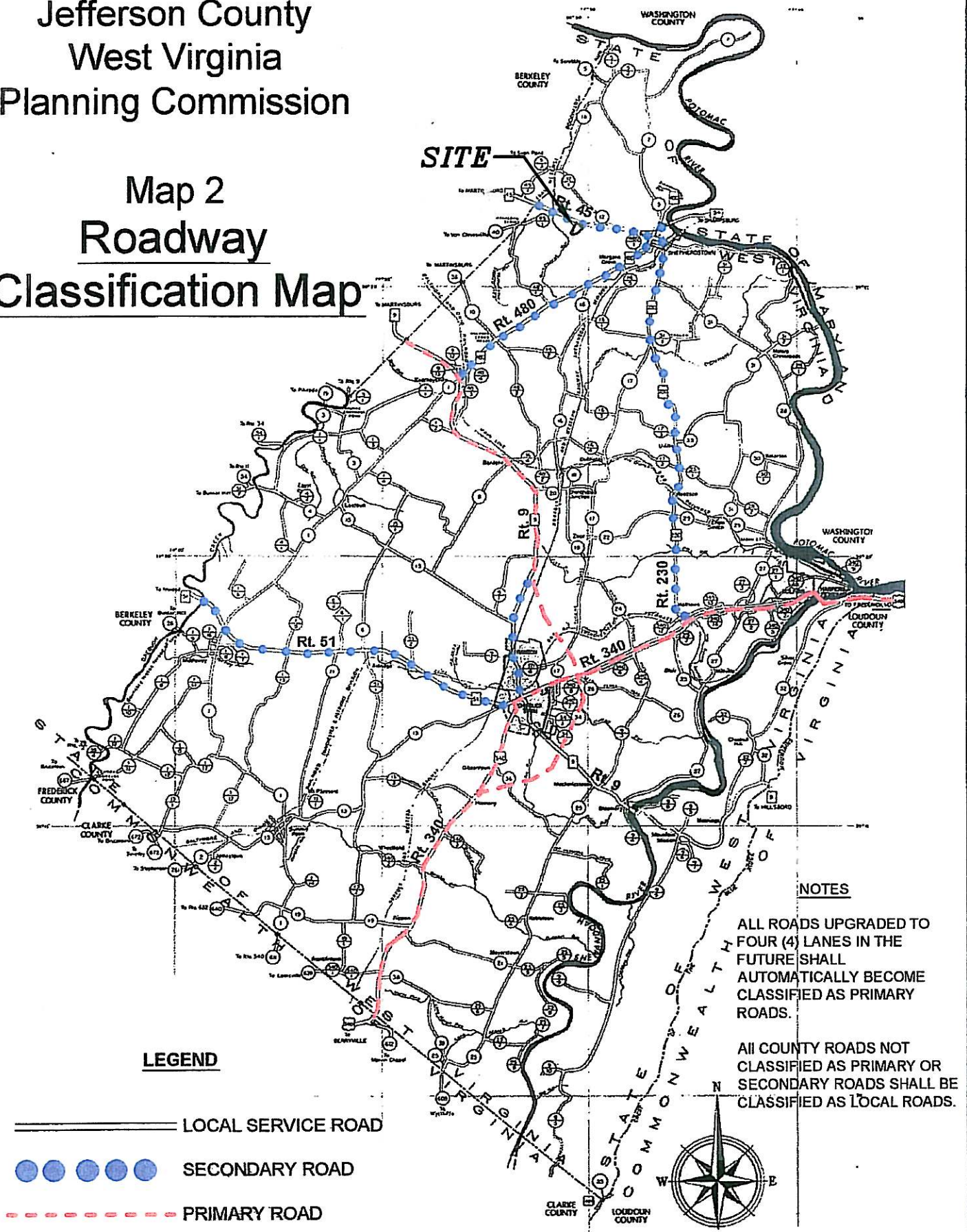


Exhibit F

Jefferson County West Virginia Planning Commission

Map 2 Roadway Classification Map

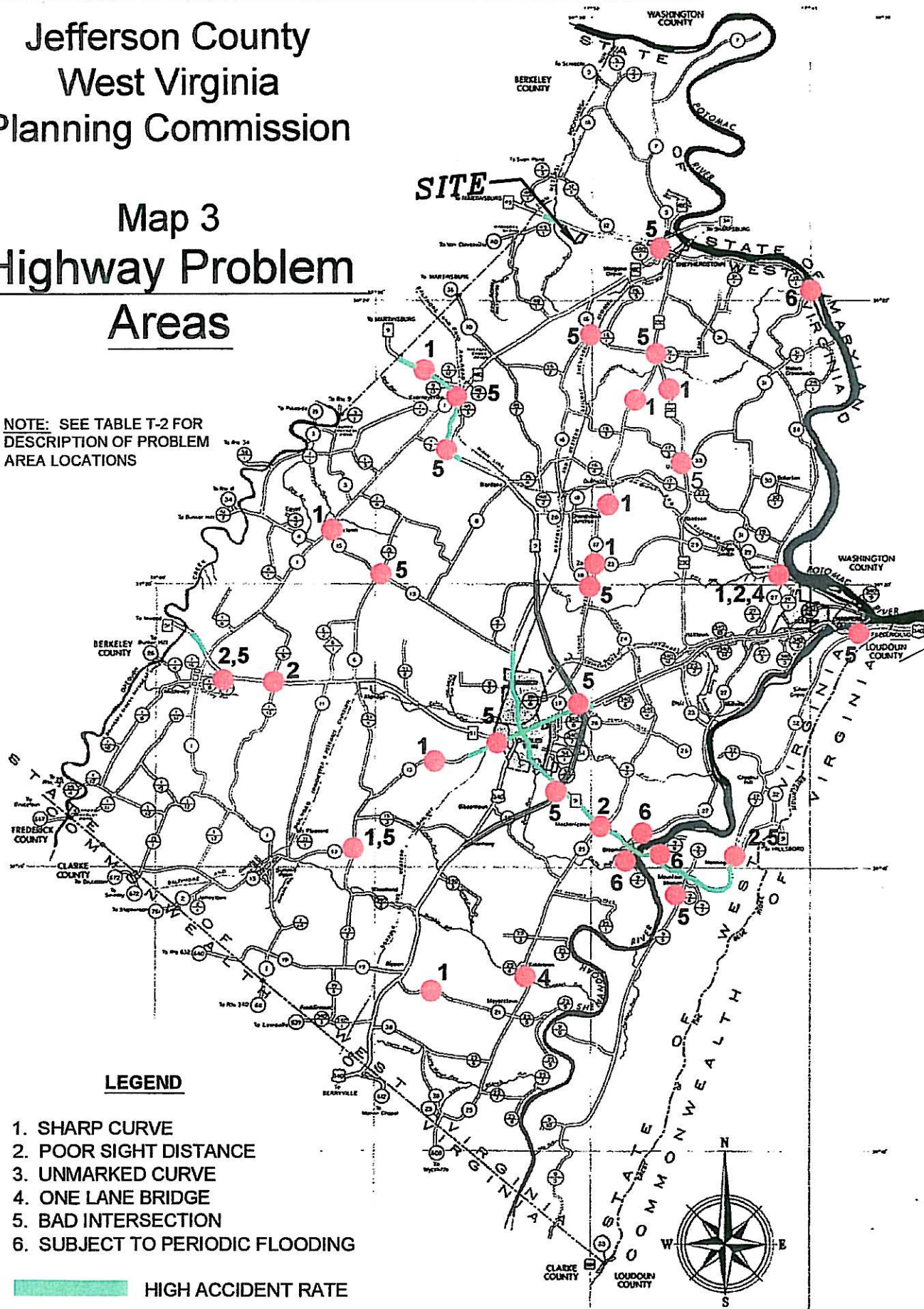


July, 2003

Jefferson County West Virginia Planning Commission

Map 3 Highway Problem Areas

NOTE: SEE TABLE T-2 FOR
DESCRIPTION OF PROBLEM
AREA LOCATIONS



July, 2003

Exhibit G (a)

TABLE T-2
Highway Problem Areas

Route Number	Road Class	Location	Problem
340	P	Shenandoah River Bridge to VA Line	Curvy, rough shoulders, falling rocks, stone retaining wall at edge of road.
340	P	Intersection with Rt. 32	Inadequate turning area onto Rt. 32.
340	P	Intersection with Rt. 9	Poor access from Rt. 340 (By-pass) east-bound off ramp onto Rt. 9 west-bound lane.
9	P	Intersection with Rt. 340	Poor access from Rt. 9 (By-pass) west-bound off ramp onto Rt. 340 west-bound lane.
9	P	Intersection with Rt. 32/2	Poor intersection angle causing poor visibility.
9	P	Intersection with Rt. 1/2 & 48/3	Numerous intersections.
9	P	Intersection with Rt. 480	Poor left turn movements onto Rt. 480 & Rt. 1
9	P	Intersection with 9/3	Poor sight distance.
51	S	Intersection with Rt. 1/5 & 1/13	Poor sight distance turning onto Rt. 1/5 & Rt. 1/13.
51	S	From Qpequon Creek to Charles Town	Hidden driveways.
230	S	1 mile South of Rt. 17	S-Curve
230	S	Intersection with Rt. 31/1 & 16/1	Poor visibility/sight distance.
1/7	L	Intersection with Rt. 51 (Middleway)	Poor sight distance & intersection angle.
1/17	L	Between Rt. 1 & Rt. 13	Rough one-lane dirt road.
9/3	L	Intersection with Rt. 9 (Cattail Run Rd. & Rt. 9)	Poor sight distance pulling onto Rt. 9.
9/4	L	From Rt. 9 at Bloomery to the dead-end	Within 100 year flood plain, periodic flooding.
9/5	L	From Rt. 9, South to VA Line (Mission Road)	Many curves on 2 - lane paved section with large subdivisions.
13	L	Intersection with Rt. 51 in Charles Town	Poor intersection angle causing poor visibility.
13	L	Intersection with Rt. 51/1	Poor intersection angle causing poor visibility.
13	L	Intersection with Rt. 13/2	90-degree turn.
16/1	L	Intersection with Rt. 16	Poor intersection angle causing poor visibility.
17	L	1/2 Mile South of Duffields	Two 90-degree turns.
17	L	1 Mile South of Rt. 230 Intersection	S-Curves
18	L	Intersection with Rt. 17 North of Rt. 24	Poor intersection angle causing poor visibility.
21	L	1 Mile East of Rt. 340 at Rippon	Two 90-degree turns.
22	L	Intersection with Rt. 17	Poor visibility.
Rt. 32	L	Intersection with Rt. 340	Poor intersection angle causing poor visibility, steep grade of road is dangerous when icy or wet.

Road Classifications: P = Primary, S = Secondary, L = Local Service Road



June 13, 2006

Associated Engineering Sciences, Inc.
34 West Franklin Street
Hagerstown, Maryland 21740
Attn: William C. Pompeii, II

CHRISWOOD
RE: ~~Westfields~~ Subdivision

Dear Mr. Pompeii:

This is in response to your letter to me dated June 1, 2006, concerning the request for hospital services for the proposed ~~Westfields~~ Subdivision.

CHRISWOOD

As President & CEO of West Virginia University Hospitals-East, both Jefferson Memorial Hospital and City Hospital would be glad to provide hospital services for the proposed Development.

Sincerely,

A handwritten signature in blue ink that reads 'Roger Eitelman'.

Roger M. Eitelman
President & CEO

RME:lsr

Phone: 304-264-1244
Fax: 304-264-1290
reitelman@wvuh-east.org

Office of the President and CEO
2500 Hospital Drive
Martinsburg, WV 25401

Exhibit H





ASSOCIATED ENGINEERING
SCIENCES, INC.

34 West Franklin Street
Hagerstown, MD 21740

Hagerstown: (301) 797-9160
Frederick: (301) 416-7105
Fax: (301) 797-9163
Web: www.aesi-mdusa.com
E-mail: aesi@aesi-mdusa.com

Principals:
Wilford Z. Sheng, PE
Richard L. Reichenbaugh, PE

Engineers

Surveyors

Landscape
Architects

Planners

Registered in:
Illinois, Maryland,
Ohio, Pennsylvania,
Virginia, West Virginia

October 31, 2006

City Hospital
Attn: Roger Eitelman
Dry Run Road
P.O. Box 1418
Martinsburg, WV 25402

Subject: Subdivision on W.V. Route 45
Approximately 1.3 miles from Shepherdstown, West Virginia

Dear Mr. Eitelman:

Our firm represents the developer of the above captioned single family subdivision project to be located approximately 1.3 miles west of the City of Shepherdstown, Jefferson County, West Virginia. The project will consist of 23 single family homes on a 12.45 acres parcel. Site access will be via two access points of W.V. Route 45 by Emerald Lane and Venice Way.

We are currently developing the Community Impact Statement for the tract and, as part of that process; we need to ask the City Hospital to provide emergency services for the area in which our development is proposed.

In order to minimize the impact on your time, please respond to the question below by checking the appropriate box and sign where indicated. Please feel free to add any comments in the lines provided below.

Thank you,

William C. Pompeii II, ASLA
Licensed Landscape Architect

QUESTION	YES	NO
City Hospital acknowledges the proposed site development.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
City Hospital will serve the proposed site development.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Roger Eitelman</i> Signed	<i>CEO</i> Rank	<i>11/15/06</i> Date

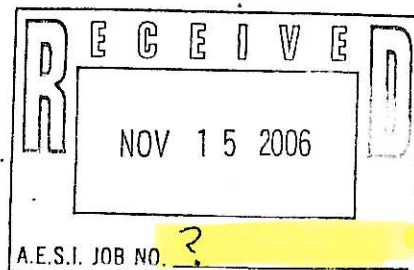


Exhibit H(a)

Jefferson County, WV

Fire Station Response Districts

Legend

Fire Companies



Fire company response area *

1

2 and 4

3

5 and 6

Basic Road Network



* Response area is denoted by fire box primary response station

Fire Companies

1 - Harpers Ferry VFD

2 - Citizens' VFD

3 - Shepherdstown VFD

4 - Independent VFD

5 - Blue Ridge VFD

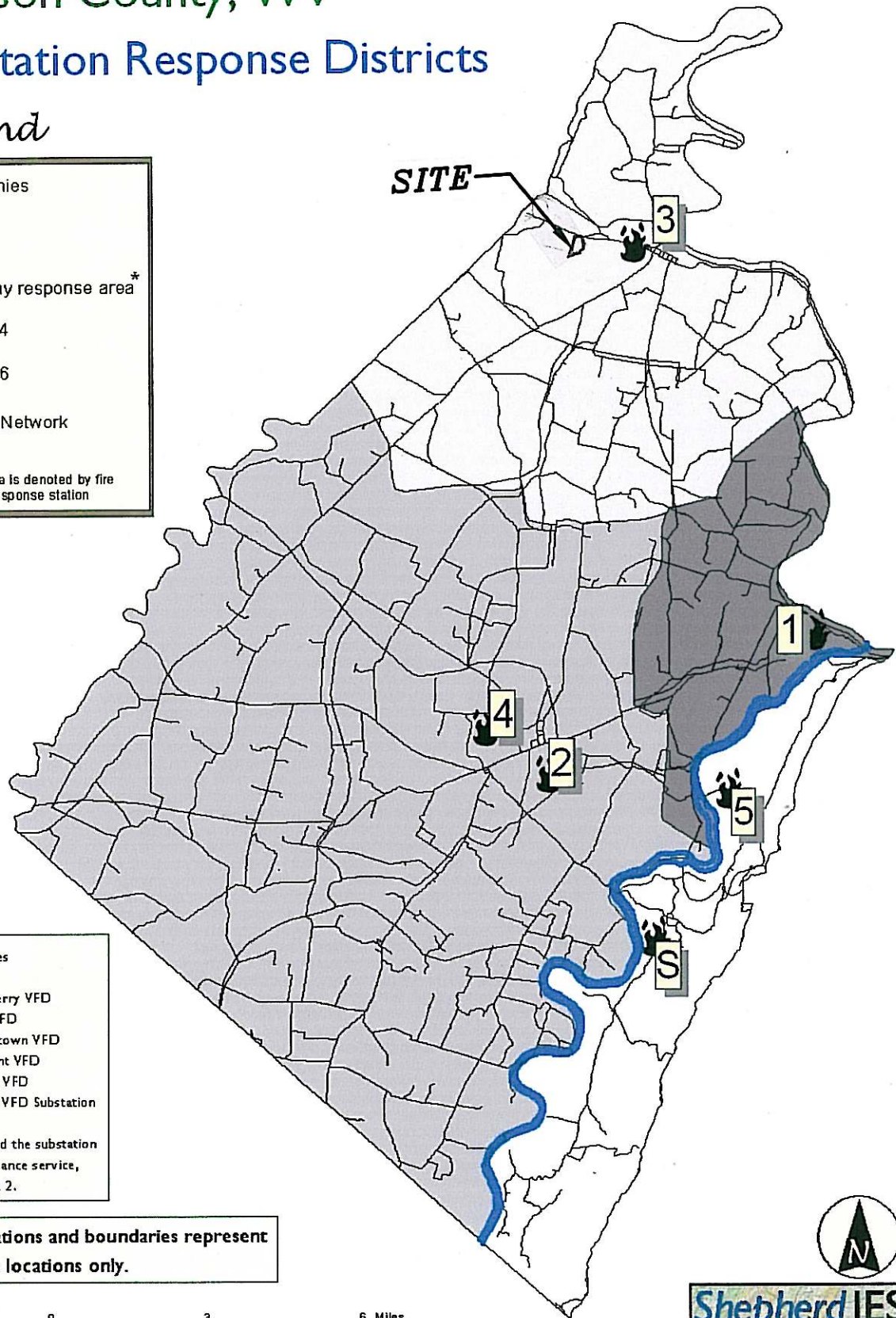
5 - Blue Ridge VFD Substation

All stations and the substation provide ambulance service, except Station 2.

Station locations and boundaries represent approximate locations only.

3 0 3 6 Miles

SITE



Shepherd IES

Exhibit I



SHEPHERDSTOWN FIRE DEPARTMENT, INC.

8052 Martinsburg Pike • PO Box F • Shepherdstown, WV 25443
(304) 876-2311 • ShepherdstownFireDepartment.com

William C. Pompeii II
Associated Engineering Sciences, Inc.
34 West Franklin Street
Hagerstown, Md. 21741-0857

Subject: Fire Protection Letter

Dear Mr. Pompeii II

The Shepherdstown Fire Department is an all volunteer organization. As such we have problems both with the lack of available personnel and funding for emergency operations. We will provide your proposed development with same service that we provide to all the citizens of our fire district pending the availability of personnel and resources.

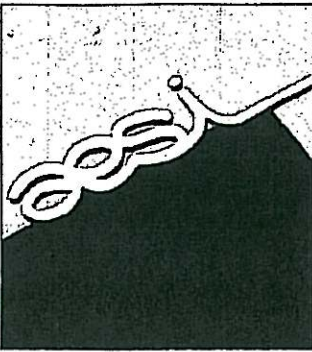
Sincerely:

Ross L. Morgan
Fire Chief



Exhibit J

CC: Bill P.


**ASSOCIATED ENGINEERING
SCIENCES, INC.**

34 West Franklin Street
Hagerstown, MD 21740

Hagerstown: (301) 797-9160
Frederick: (301) 416-7105
Fax: (301) 797-9163
Web: www.aesi-mdusa.com
E-mail: aesi@aesi-mdusa.com

Principals:

Wilford Z. Sheng, PE
Richard L. Reichenbaugh, PE
Robert D. Holmes, PLS

September 12, 2006

Baker Heights Volunteer Fire Department Inc.
2229 Charles Town Road
Martinsburg, WV 25401

Subject: Subdivision on W.V. Route 45
Approximately 1.3 miles from Shepherdstown, West Virginia

Dear Fire Department Personnel:

Our firm represents the developer of the above captioned single family subdivision project to be located approximately 1.3 miles west of the City of Shepherdstown, Jefferson County, West Virginia. The project will consist of 23 single family homes on a 12.45 acres parcel. Site access will be via two access points of W.V. Route 45 by Emerald Lane and Venice Way.

We are currently developing the Community Impact Statement for the tract and, as part of that process; we need to ask the Baker Heights Volunteer Fire Department Inc. for a response regarding service of that site with fire protection.

In order to minimize the impact on your time, please respond to the question below by checking the appropriate box and sign where indicated. Please feel free to add any comments in the lines provided below.

Thank you,

William C. Pompeii II, ASLA
Licensed Landscape Architect

Engineers

Surveyors

Landscape
Architects

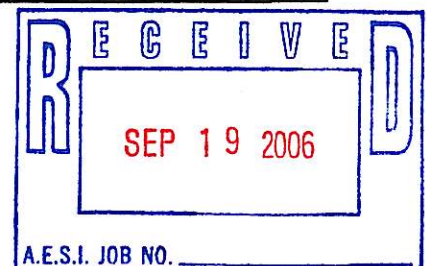
Planners

QUESTION	YES	NO
The Baker Heights Volunteer Fire Department Inc. acknowledges the proposed site development.	X	
The Baker Heights Volunteer Fire Department Inc. will serve the proposed site development.	X	
Signed	Rank	Date

Matthew D. Ralston Fire Chief 9-19-06

Registered in:
Illinois, Maryland,
Ohio, Pennsylvania,
Virginia, West Virginia

Exhibit J(a)





WEST VIRGINIA STATE POLICE

Kearneysville, West Virginia
June 5, 2006

William C. Pompeii, II
Associated Engineering Sciences, Inc.
34 West Franklin Street
Hagerstown, Maryland 21740

RE: Providing police services for a proposed subdivision

Dear Sir:

This officer has reviewed your request for comment about police services for your proposed subdivision. This agency, as a law enforcement agency, doesn't have the luxury of declining police services. The West Virginia State Police will respond to any call for service within our area of responsibility; however, with the ever growing population of Jefferson County and the decrease in our manpower, we are forced to prioritize non-emergency calls for service.

Respectfully submitted,

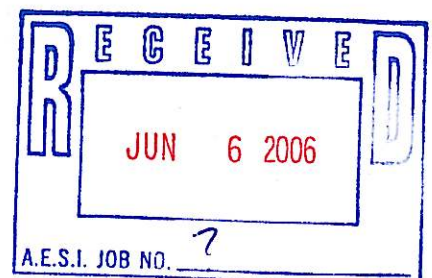
A handwritten signature in blue ink that reads "Sgt E.D. Anderson".

Sergeant E. D. Anderson
West Virginia State Police
Charles Town Detachment

Exhibit K

EQUAL OPPORTUNITY EMPLOYER

cc:
Bill P





Telephone: 728-3205
Tax Office: 728-3220
Fax: 728-3299

SHERIFF and TREASURER of Jefferson County

Everett "Ed" Boober
P.O. Box 9
Charles Town, WV 25414

June 5, 2006

***Associated Engineering Sciences, Inc.
34 West Franklin Street
Hagerstown, Md. 21740***

Dear Mr. Pompeii:

This is in response to your request that this department furnish you with an account with respect to our ability to respond to calls for service regarding matters of law enforcement and preservation of the peace at the proposed subdivision site located on Emerald Lane & Venice Way as they intersect with Route 45, in Jefferson County, West Virginia.

The Sheriff's Department is charged with the affirmative duty of investigating criminal activity, preserving the peace, and enforcing the law. This duty extends to all corners of the county and to any community, subdivision or a business property without regard to size or location.

However, as our community continues to grow, it becomes progressively more difficult to assure timely response due to the significant increase in the numbers of calls for service with the staffing that is currently being provided to the Sheriff's Department. On occasion, calls for service must be handled on a priority basis where the most-serious, urgent type of events must receive priority in response and other, less serious calls for service, are responded to as quickly as manpower becomes available.

The foregoing should not be construed as an expression from this office that we are unable or unwilling to respond to calls for service in a timely manner. Given the resources and level of manpower with which we are obligated to work, our level of service is, and will continue to be responsive, timely, and efficient in carrying out our duties and responsibilities in the areas of law enforcement, criminal investigation and preservation of the peace in the Jefferson County community.

Sincerely,


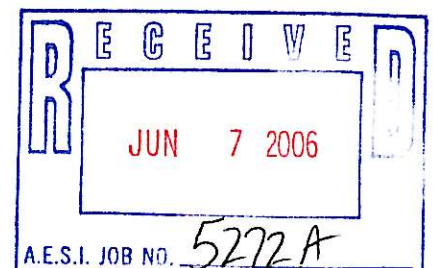

**Everett "Ed" Boober
Sheriff and Treasurer**

Exhibit L



CC: Bill P

Jefferson County, WV

National Register of Historic Places

Legend

- NRHP Site ID
- Local Service
- Shenandoah River

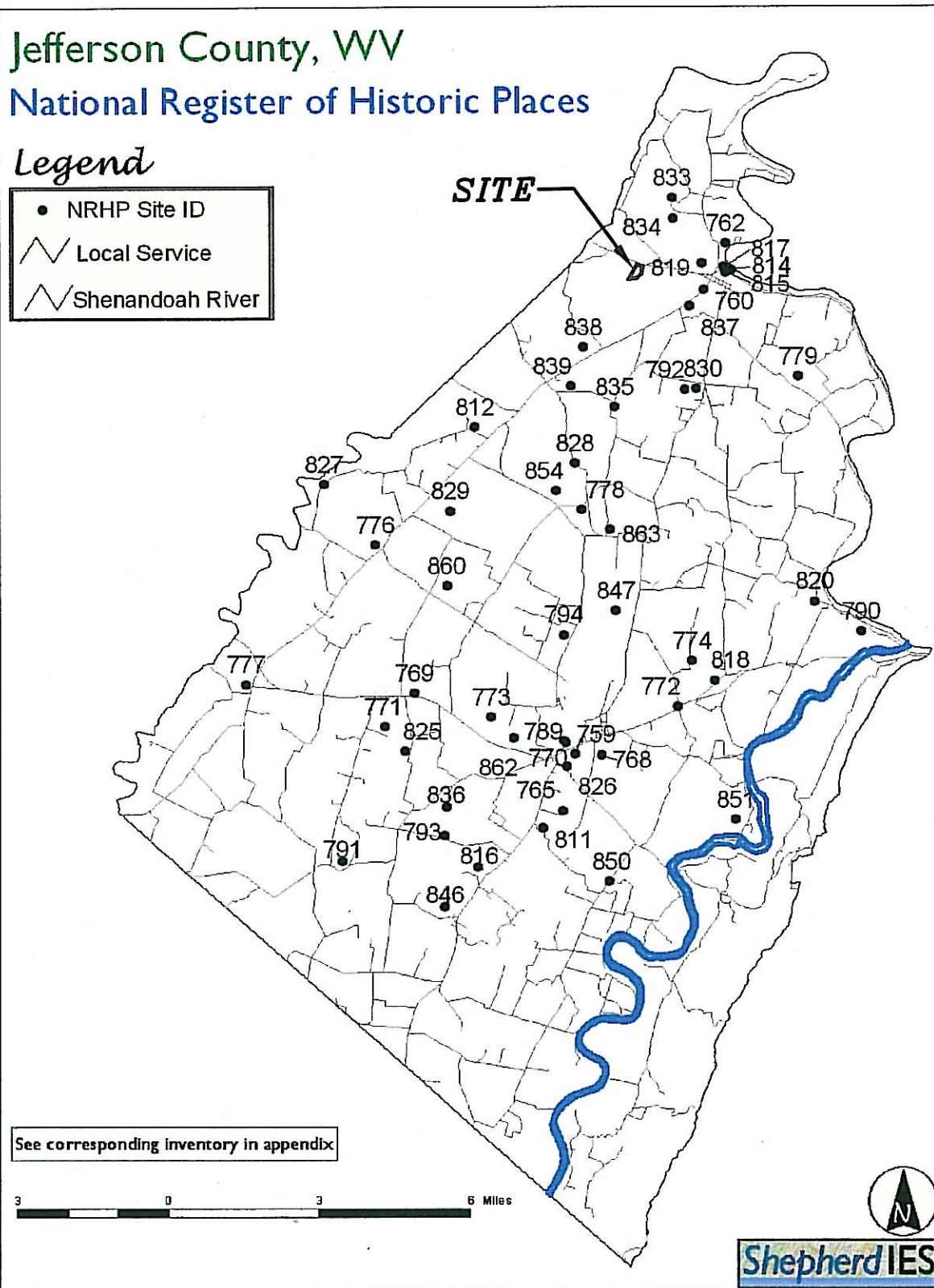
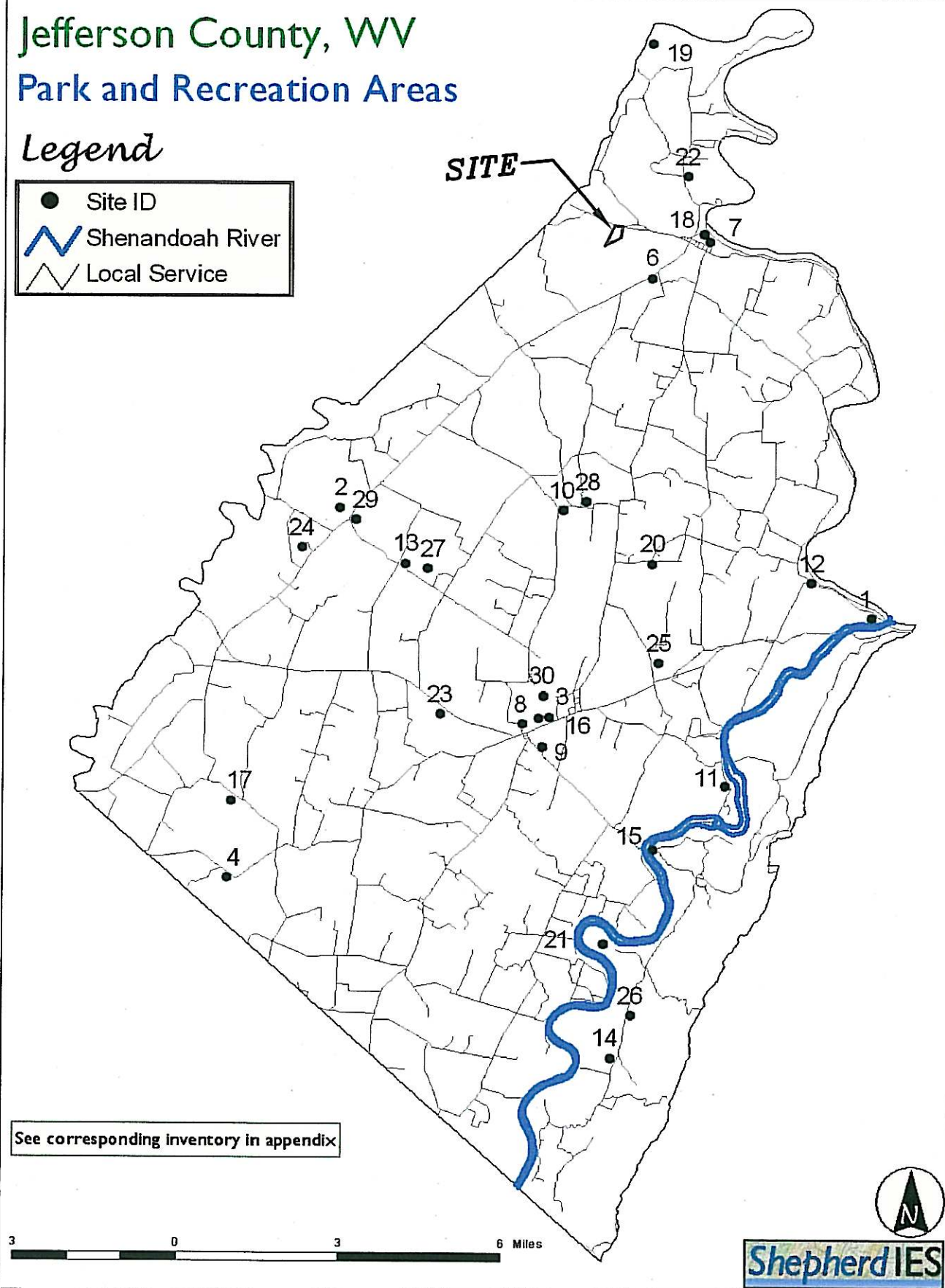


Exhibit M

Jefferson County, WV

Park and Recreation Areas

Legend



COVENANTS FOR CHRISWOOD SUBDIVISION

1) No lot shall be split, divided, or subdivided by sale, resale, gift, devise, transfer or otherwise.

2) No more than one dwelling may be erected on any one lot. No dwelling using modular components shall be permitted, and none shall be of log or block construction, nor shall roofs be permitted to be white or light gray or have pitches less than 4/12.

3) No dwelling or other structure shall be erected until the plans and specifications, including exterior color design, have been submitted to and approved in writing by the Developer, its successors or assigns or their authorized agents. Approval of plans and specification shall not be arbitrarily or unreasonably withheld. Further, any building commenced on said property shall be completed within one year of said commencement date. All buildings must comply with the Jefferson County's set-back requirements. All garages must be attached to the structures.

4) Outbuildings erected on each lot are to be limited to those uses related to single-family dwelling and no structure shall be of unfaced concrete block or unfinished materials. Grantor or his agent shall review all such structures to determine that it shall not detract from the appearance of any home. An outbuilding shall not exceed 12' X 16'.

5) No fence shall be permitted within the subdivision except fences constructed of board, stone, hedge, wooden picket, or split rail, and provided said fences be placed along the back property line, along the side property lines to points not to exceed the rear building line, and across the lot from said points to the rear corners of the building (dwelling). Privacy fences may be erected around the perimeters of swimming pools and tennis courts. The design of all privacy fencing must be approved by the Developer, his successors or assigns prior to construction.

6) Homeowners Association. Every Owner of a Lot shall be a member of the Association, membership shall be appurtenant to,

and may not be separated from ownership of any Lot which is subject to assessment. When more than one person holds an interest in any Lot, all such persons shall be members, but such Lot Owners shall be entitled to only one (1) vote for each Lot owned. There shall be no fractional voting. The Association shall establish Bylaws under which to operate. Until such time as the Developer has sold all lots within the subdivision, he shall have a controlling vote within the Association and shall have the authority to replace any Board member with or without cause.

There shall be at least an annual meeting of the Association and such other special meetings as may be called by the Board of Directors, which shall be a three member board duly elected by a majority of the members of the Homeowners Association. Unless otherwise provided in the Bylaws, the annual meeting shall occur within the months of June and July of each year. Written notice of any meeting, whether annual or special, including the date, time, and purpose and place of the meeting, shall be sent to all Lot Owners not less than ten (10) nor more than forty-five (45) days in advance of the meeting. The Bylaws shall conform to the requirements of state law and shall govern the following: 1) matters which may be discussed at any such meeting, 2) the quorum required to be present, 3) the ability of the Lot Owners to vote by a proxy, and 4) such other matters as may be necessary and appropriate for the formation and operation of the Association.

7) Each owner shall keep all lots owned by him, and all improvements therein or thereon, in good order and repair, including but not limited to the seeding, watering and mowing of all lawns, the pruning and cutting of all trees and shrubbery and the painting (or other appropriate external care) of all buildings and other improvements, all in a good manner and with such frequency as is consistent with good property management.

8) No signs, billboards, or advertising devices of any kind except those used in any subsequent sale of the property, shall be placed or otherwise installed on any lot or building within the subdivision, except that the Developer may use signs to promote the sale of improved or unimproved lots in the subdivision.

9) No owner shall maintain more than a total of three (3) domesticated house pets within the subdivision provided such pets are contained within a fenced-in area.

10) No unregistered automobiles, trucks, motorcycles, motorbikes, or other vehicles whether motorized or self-propelled, shall be parked or placed anywhere within the subdivision; nor shall the same be driven or ridden upon any streets, roadway, alleys or sidewalks within the subdivision, nor upon any lot, open area or trail within the subdivision. No on-street parking shall be permitted of any vehicles, nor shall unlicensed or unused vehicles or commercial vehicles be parked or abandoned on any lot.

11) No motorbikes, trail bikes, motor scooters, three wheelers, go-cars or the like, nor any snowmobile shall be driven or ridden anywhere within the subdivision.

12) The Developer reserves unto itself, its successors and assigns, a utility and/or drainage easement twenty-five (25) feet in uniform width along the front, sides and rear of each lot.

13) No television, radio, or other type of antenna or satellite dish shall be erected on any portion of a lot except the small type of satellite dish may be erected on the rear of the house, not to exceed 24 inches in diameter.

14) Duration. These covenants, conditions, restrictions and easements are to run with the land and shall be binding on all parties and persons claiming under them for a period of twenty-five (25) years from the date of recording of these covenants. After such time, the said covenants, restrictions, conditions and easements shall be automatically extended for such successive periods of ten (10) years, unless an instrument signed by a majority of the then owners of the lots within the said subdivision has been recorded, agreeing to change said covenants in whole or in part.

15) Enforcement. Enforcement shall be by proceedings at law or in equity against any person or persons violating or attempting to violate any covenants, either to restrain violations or to recover damages, and furthermore, the person or persons in violation shall

pay all costs of any such suits to enforce compliance with these covenants.

16) Severability. Invalidation of any of these covenants, conditions and restrictions by judgment or by court order shall in no wise affect any of the other provisions which remain in force and effect.

OPERATION AND MAINTENANCE AGREEMENT

This AGREEMENT, made the 5th day of September, 2006,
by and between Sunnyside, LLC ("Sunnyside") and the JEFFERSON COUNTY
PUBLIC SERVICE DISTRICT ("District"):

WITNESSETH:

WHEREAS, Sunnyside is primarily in the business of residential real estate development; and

WHEREAS, the District has extensive experience and expertise in operating and maintaining wastewater collection systems; and

WHEREAS, Sunnyside is developing, and will own and be responsible for the operation and maintenance of a sanitary sewer collection system, wastewater treatment plant, and drip irrigation discharge system serving the Westfield subdivision; and

WHEREAS, Sunnyside desires to employ the District to perform service, maintenance, and repairs on the Westfield sanitary sewer system; and

WHEREAS, the District is willing to provide such service, maintenance, and repairs, subject to the terms set forth herein; and

WHEREAS, the Westfield subdivision is expected to contain 24 homes at full build out;

NOW, THEREFORE, in consideration of the recitals, the parties do hereby agree as follows:

1. Sunnyside shall design and cause to be constructed, at its sole cost, a sanitary sewer system.
2. The District shall operate and maintain the Westfield sanitary sewer system, including but not limited to the collection system, gravity mains, wastewater treatment plant and drip irrigation system, and shall receive and dispose of the wastewater received, all in accordance with applicable State and Federal laws and regulations. The District shall collect and timely submit to regulatory agencies all required water samples. It shall maintain and submit such operating and maintenance records as may be required by regulatory authorities. The District shall have such maintenance and repair crews available as are required to meet its obligations under this Agreement, including meeting emergencies. The District shall meet as required with regulatory agencies when they visit the system. Sunnyside shall not be liable for fines or penalties as a result of violations resulting from negligent operation of the system; however, Sunnyside shall be liable for any fine and/or penalty incurred as a result of violations occurring that are a result of non-negligent operation of the system.
3. Sunnyside is responsible for collecting payment from those served by the system based upon metered water usage and the District's rates, as amended from time to time. Nonpayment to Sunnyside by any of those served by the system does not relieve Sunnyside of its obligation to make payment to the District as provided herein. Sunnyside may direct the District to install taps in Sunnyside's exclusive discretion. Sunnyside shall be responsible for the cost of such taps and any replacements.
4. For the services provided under this contract, the District shall charge and Sunnyside shall pay the District the regular monthly charge of \$775.

5. Prior to the District's assumption of its duties under this Agreement, Sunnyside shall provide to the District an unconditional, irrevocable and assignable letter of credit issued by a federally insured lending institution with offices in the state of West Virginia, in such form and substance as the District may approve in the amount of \$27,900, said amount representing the District's estimate of operations and maintenance expenses for the first three years of operation. In the event Sunnyside seeks to renew this Agreement for a subsequent term and there are fewer than 16 occupied residential structures within the Westfields subdivision, Sunnyside shall be required to post a letter of credit in an amount determined by the District, subject to the same terms as contained herein.
6. The District shall review its expenses in operating the Westfield system annually in conjunction with the preparation of its annual report, which is due annually on September, 30. If the District determines that an increase in the regular monthly charge is warranted, it shall advise Sunnyside in writing by the 15th of October. Sunnyside shall have 30 days to respond in writing indicating whether or not it agrees to pay the District's revised regular monthly charge or whether it wishes to terminate the Agreement. The District's revised regular monthly charge shall be in effect until Sunnyside presents the District with a copy of an executed operations and maintenance agreement with an alternative provider.

7. Charges for repairs and replacements shall be in addition to the regular monthly charge and shall be on a time and materials basis at the District's cost or in accordance with a rate schedule to be agreed upon by the parties.
8. The District shall perform routine maintenance at no extra charge in accordance with the equipment manufacturer's specifications. Sunnyside shall provide the District with Operation and Maintenance Manuals and manufacturer's literature on all equipment to be serviced.
9. The District is authorized to make service calls and perform necessary repairs or service on the sewer lines and facilities in response to notification or a need by any user of the sanitary sewer system without first clearing such action through a member of Sunnyside's executive officers or board of directors. Specifically, the District is authorized to make any and all emergency repairs without question when, in the opinion of the District's Manager, an emergency repair is needed. The District is not authorized to make service calls or repairs on property not owned by or covered by Sunnyside's easements. Sunnyside shall furnish the District with copies of all easements and deeds which it holds pertinent to the wastewater system. The District shall notify Sunnyside of any extraordinary or major repairs which are required on the sewer system and are not emergency type repairs.

10. Sunnyside shall inform the District of the location of all needed service connections. Sunnyside shall make all connections to the sewer system at its own cost and expense.
11. Sunnyside agrees that it shall not allow any non-domestic waste to be introduced into its property or facilities, including its sanitary sewer collection system, without the express written approval of the District.
12. The District shall have no duties or responsibilities in reference to soliciting, enforcing or compelling payment of delinquent accounts.
13. The District shall invoice Sunnyside for all services on a monthly basis and Sunnyside shall pay such invoices within thirty (30) days of receipt.
14. The parties hereto shall meet, at least quarterly, at a mutually agreed upon time and location, to discuss service, communication, complaints, suggestions, etc., between the parties.
15. This Agreement shall be effective upon substantial completion of construction of the Westfield sanitary sewer system and commencement of operations, and shall continue in effect for a period of three years thereafter. It shall automatically renew for additional periods of one year unless either party gives the other notice in writing of termination or renegotiation within forty-five days prior to the end of the term of this Agreement or renewal thereof.
16. This Agreement may not be assigned without the written consent of the other party to the Agreement. The consent to such an assignment shall not be unreasonably withheld.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement by their appropriate officers as of the day and year first above written.

Sunnyside, LLC

By: _____

Its: _____

Date: _____

ATTEST:

JEFFERSON COUNTY PUBLIC SERVICE DISTRICT

By: _____

Its: _____

Date: _____

ATTEST:

(jeffers\deerfield\O&M Agmt)

*Jefferson County
Public Service District*

Westfields

**Jefferson County PSD
Regular Board Meeting
May 2, 2005**

The monthly meeting of the Jefferson County Public Service District met at 7:00pm on Monday, May 2, 2005 in the meeting room of the Charles Town Library. Those in attendance included: Chairman, Marty Kable; Treasurer, Jack Lantzy; and Secretary, Joe Hankins. Also present were Susanne Lawton, General Manager PSD; Greg Corliss, County Commissioner (Commission liaison); Will Smith and Zane Summerfield, Pentree; and Jim Kelsh, Esquire. Guests included Richard Parks, ARRO; Jason Allen and George Pitcairn, Enviroquip; and Lou Athey.

Chairman Kable called the meeting to order at 7:08pm.

APPROVAL OF MINUTES

The minutes of the April 11, 2005 Regular Board Meeting were approved unanimously as distributed.

The minutes of the April 18, 2005 Special Board Meeting were approved unanimously as distributed.

The minutes of the April 25, 2005 Special Board Meeting were approved unanimously as distributed.

OLD BUSINESS

Consider proposal for O&M Agreement of Sewer Service for Westfields

Jim Kelsh updated the Board. He met that afternoon with Lou Athey and made changes to the agreement, which the Board decided to discuss about in Executive Session.

**Action: Motion made by Mr.
Hankins and seconded by
Mr. Lantzy to go into
Executive Session to
consider the Westfield
O&M Agreement.
Unanimously approved.**

Convene into Executive Session at 8:27pm.

210 W. 3rd Avenue
Ranson, WV 25438
Phone: 304-725-4647
Fax: 304-725-5976
E-Mail: admasst@jcpsd.com

PSD Regular Board Meeting
May 2, 2005

2

Action: Motion made by Mr. Hankins and seconded by Mr. Lantzy to come out of Executive Session and return to Regular Meeting. Unanimously approved.

Convene into Regular Session.

Action: Motion made by Mr. Hankins and seconded by Mr. Lantzy to have Counsel draw up and present O&M agreement to Sunnyside Developers for the Westfield Subdivision. Unanimously approved.

Counsel explained that the previous motion did not authorize the Chairman to execute the agreement. Mr. Hankins expressed that this was his intention. Therefore, the next motion was presented.

Action: Motion made by Hankins and seconded by Lantzy to have Chairman be authorized to execute this upon agreement of all parties. Unanimously approved.

Approval of Addenda to Alternate Mainline Agreement for Cambridge, Breckenridge and Briar Run

Jim Kelsh explained that these were amendments to agreements to extend the payback period.

Action: Motion made by Mr. Hankins and seconded by Mr. Lantzy to authorize the Chairman to execute the three agreements presented; one to Flowing Springs LLC, one to BC Partners LLC and one to Oak Springs LLC. Unanimously approved.

PSD Regular Board Meeting
May 2, 2005

3

Update and discussion of ARRO Value Engineering study of Flowing Springs plan.

Richard Parks informed the Board that by the end of the month a draft would be presented to Sue Lawton. ARRO is done looking into the Treatment Plant and is now focusing on the Collective System.

NEW BUSINESS

Approval of 2005-2006 Operating Sewer Budget

Action: Motion made by Lantzy and seconded by Hankins to approve the 2005-2006 Operating Sewer Budget. Unanimously approved.

Approval of 2005-2006 Operating Water Budget

Action: Motion made by Lantzy and seconded by Hankins to approve the 2005-2006 Operating Water Budget. Unanimously approved.

Approval of 2005-2006 Capital Expenditure Budget

Action: Motion made by Lantzy and seconded by Hankins to table Capital Expenditure Budget until next meeting. Unanimously approved.

Approve new bank account "Capital Improvement Fee".

Action: Motion made by Lantzy and seconded by Hankins to approve a "Capital Improvement Fee" bank account. Unanimously approved.

PSD Regular Board Meeting
May 2, 2005

4

Approve transfer of \$1463.20 from Sewer Security Deposit Account into Sewer Operating Account for security deposit refunds.

Action: Motion made by Lantzy and seconded by Hankins to approve transfer of \$1463.20 from Sewer Security Deposit Account into Sewer Operating Account. Unanimously approved.

Approve transfer of \$50.24 from Glen Haven Security Deposit Account into Glen Haven Operating Account for security deposit refunds.

Action: Motion made by Lantzy and seconded by Hankins to approve transfer of \$50.24 from Glen Haven Security Deposit Account into Glen Haven Operating Account. Unanimously approved.

Approve transfer of \$6383.33 from Renewal & Replacement Account into Sewer Operating Account for new pumps at Pump Stations 2-306 & 1-11.

Action: Motion made by Lantzy and seconded by Hankins to approve transfer of \$6383.33 from R&R Account into Sewer Operating Account. Unanimously approved.

Approve transfer of \$5000.00 from Renewal & Replacement Account into Sewer Operating Account for Force Main upgrade to 2-306.

Action: Motion made by Lantzy and seconded by Hankins to approve transfer of \$5000.00 from R&R Account into Sewer Operating Account. Unanimously approved.

PSD Regular Board Meeting
May 2, 2005

5

Approve transfer of \$1176.46 from Renewal & Replacement Account into Sewer Operating Account for upgrade of Pump 4-4.

Action: Motion made by Lantzy and seconded by Hankins to approve transfer of \$1176.46 from R&R Account into Sewer Operating Account. Unanimously approved.

Disbursements

Action: Motion made by Lantzy and seconded by Hankins to approve disbursements for Cavaland in the amount of \$873.83. Unanimously approved.

Action: Motion made by Lantzy and seconded by Hankins to approve disbursements for Glen Haven in the amount of \$933.77. Unanimously approved.

Action: Motion made by Lantzy and seconded by Hankins to approve disbursements for the PSD in the amount of \$127,495.88. Unanimously approved.

Discussion of any expenses over budget

Mr. Lantzy informed the Board that there are no items over budget this month.

General Manager's Report.

Ms. Lawton updated the Board on activities since last month's meeting.

PSD Regular Board Meeting
May 2, 2005

6

Convene in Executive Session.

Action: Motion made by Mr. Hankins and seconded by Mr. Lantzy to convene in Executive session. Unanimously approved.

Reconvene to Regular Meeting

Action: Motion made by Mr. Lantzy and seconded by Mr. Hankins to return to the regular meeting. Unanimously approved.

Signing of the Amendment to the 1988 Sewer Service Agreement

Action: Motion made by Mr. Hankins and seconded by Mr. Lantzy that the District's Chair be authorized to sign the Amendment to the 1988 Sewer Service Agreement. Unanimously approved.

Terms of the transfer agreement for the Huntfield customer's assets

Action: Motion made by Mr. Hankins and seconded by Mr. Lantzy that the District's Chair be authorized to approve the terms of the transfer agreement for the Huntfield customers assets to be forwarded to the PSC.. Unanimously approved.

PSD Regular Board Meeting
May 2, 2005

7

Highland Farm/Thornhill Certificate case

Action: Motion made by Mr. Hankins and seconded by Mr. Lantzy that counsel be authorized to intervene on the District's behalf in the Highland Farm/Thornhill Certificate Case. However, the Board is to view the letter before being sent. Unanimously approved.

Old Standard Certificate Case

Action: Motion made by Mr. Hankins and seconded by Mr. Lantzy that counsel be authorized to intervene on the District's behalf in the Old Standard Certificate case. Unanimously approved.

Memorandum of Understanding

Action: Motion made by Mr. Hankins and seconded by Mr. Lantzy that the District's Chair be authorized to sign the memorandum of Understanding for the wastewater capital improvement fee. Unanimously approved.

PSD Regular Board Meeting
May 2, 2005

8

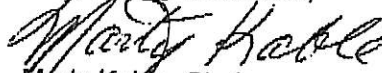
Adjournment.

**Action: Motion made by Mr. Lantzy
and seconded by Mr.
Hankins to adjourn.
Unanimously approved.**

There being no further business at this time, the meeting was adjourned at 11:35pm.

The next regular meeting is scheduled for June 6, 2005 at 7:00pm at 200 East Washington Street, Charles Town.

Respectfully Submitted,



Marty Kable, Chairman
Board of Directors



Joe Hankins, Secretary
Board of Directors



CORPORATION OF SHEPHERDSTOWN

104 NORTH KING STREET
P.O. Box 248
SHEPHERDSTOWN, WEST VIRGINIA 25443-0248
TEL: (304) 876-2312
FAX: (304) 876-1473

December 13, 2006

Jefferson County Planning Commission
PO Box 338
Charles Town, WV 25414

RE: Water Capacity – ^{CHRISTWOOD} Westfield's Subdivision
Application No. – 106-06

To Whom It May Concern:

This is to inform you that the Shepherdstown Water Plant and Distribution System have sufficient capacity to serve the above mentioned project. Attached is our Engineering report which must be followed in respect to this water main extension.

This project will require a Mainline Extension, governed by the WV Public Service Rules and Regulations, WV Bureau of Public Health and the Shepherdstown Rules and Regulations.

Should you have any questions please call me at 876-3322.

Respectfully,

Frank Welch

Frank Welch
Public Works Director

Exhibit Q



October 26, 2006

Ref. No.: 56003130

Corporation of Shepherdstown
P.O. Box 248
Shepherdstown, WV 25443
Attn: Mr. Frank Welch

Re: Water Service for Westfields Subdivision
Application #106-06

Dear Mr. Welch;

We have reviewed the Step 1 application for a water main extension for ^{Chriswood} Westfields Subdivision (Sunnyside, LLC/Louis Athey property) submitted by the applicant's engineer, Associated Engineering Sciences, Inc. This letter presents the modeling results on the information provided by the applicant's engineer. The requested demand for 23 single-family residential lots (3,450 gallons per day, gpd) has been incorporated into the existing EPANET model of Shepherdstown's water system. Attached is an exhibit showing the proposed system incorporated into the model.

As shown on the exhibit, the proposed subdivision is located on the south side of Route 45, directly opposite from the existing Heatherfield subdivision. The nearest existing water mains are 6-inch mains serving Heatherfield. Additional water lines were added to the existing model and the demand of 3,450 gpd was distributed equally to Nodes 9071 through 9079. EPANET water model simulations were conducted to determine the available pressure and fire flow in the proposed development along with the resulting effects on the existing water system.

Initial models runs indicated that a single connection to the existing water main on Beridge Drive (Node 561) does not provide sufficient fire flow within the proposed Westfield subdivision. With a second connection to Heatherfield on Old Martinsburg Road (Node 87), fire flows are adequate. With these two connections, the model shows that under non-emergency conditions, the minimum pressure in Westfield is approximately 44 psi (at Node 9078) and the maximum pressure is approximately 64 psi (at Node 9071). Pressures and flows are within the acceptable range for public water supplies in West Virginia established by the West Virginia Department of Health and Rule 5.8.d of the West Virginia Public Service Commission.

During fire/emergency conditions, the model showed the lowest available hydrant flow is approximately 1,200 gpm at 20-psi residual pressure at Node 9078. Based on ISO

Mr. Frank Welch
October 26, 2006
Page 2

regulations for 1-2 family dwellings not exceeding 2 stories in height constructed 11-30 feet apart, the required fire flow is 1,000 gpm. Therefore, ISO regulations are met.

The existing Shepherdstown water system is not adversely affected by the proposed water main extension. Based on these findings, we recommend that the Step 1 application for water service be approved and a water availability letter issued to the applicant.

The modeling showed that a second connection to the existing system is necessary; while our modeling assumed a second connection at Heatherfield (Node 87), the applicant may consider connecting to the existing 10-inch water main on Route 45 (Node 26), in lieu of the connection on Old Martinsburg Road.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Thiel', written over a horizontal line.

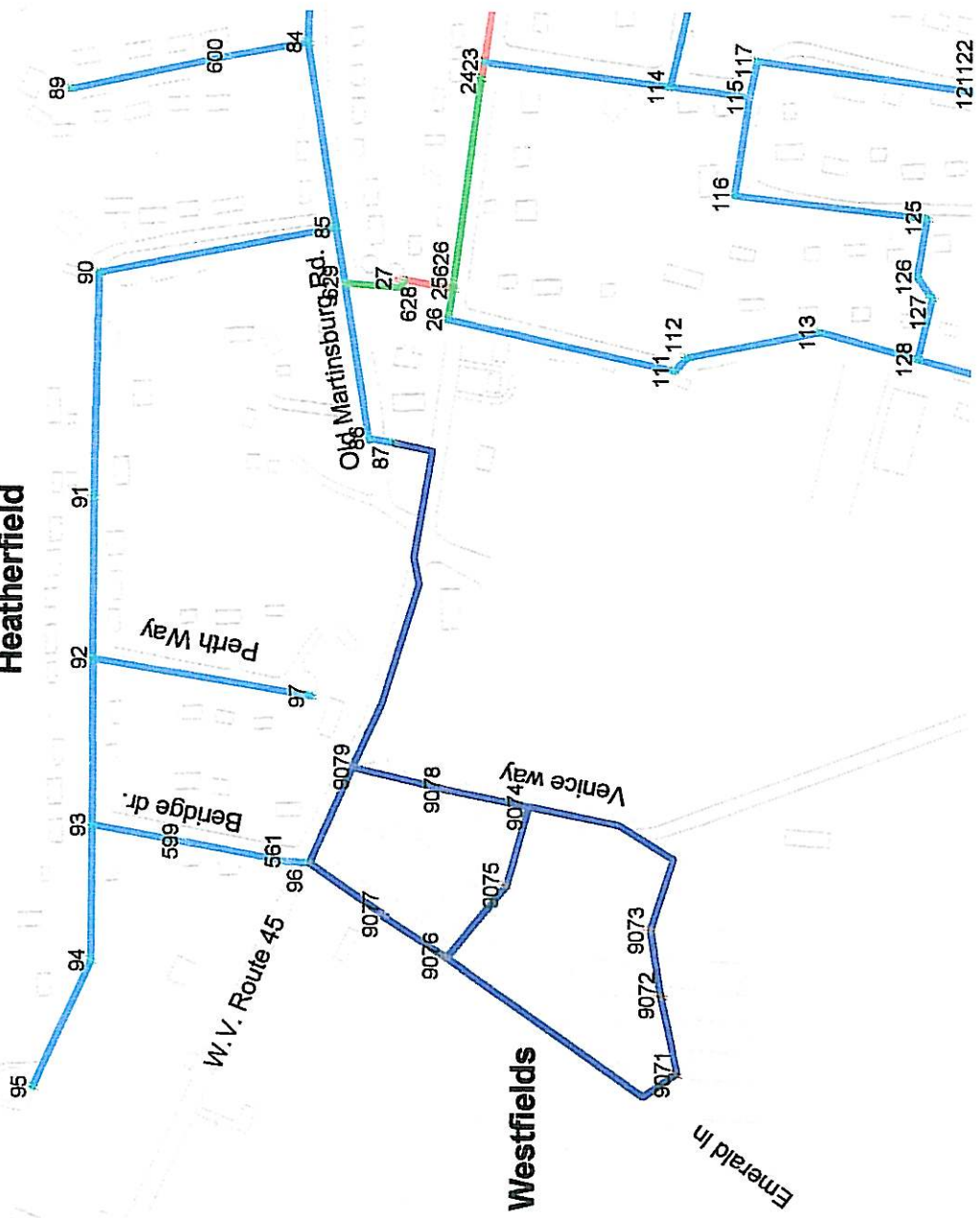
Christine E. Thiel, PE
Project Manager

Attachment

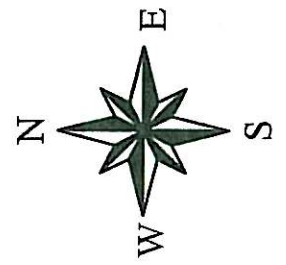
Westfields Subdivision

Heatherfield

Westfields



- Nodes
- 1 Unit
- 2 Units
- 3 Units
- 4 Units
- More than 4
- Pipe Size , inch
- 12
- 10
- 8
- 6
- 4
- 2
- 1.5
- 1
- 0.8
- Westfields Subdivision
- 2
- Shepherdstown





October 4, 2006

Mr. Louis B. Athey
622 East Washington Street, Suite B
Charles Town, West Virginia 25414

Dear Mr. Athey,

Pursuant to your request for a broker's opinion of demand on the proposed development of 23 single-family dwelling building lots located along the south side of Route 45 in the Shepherdstown Magisterial District of Jefferson County, I herewith present my findings.

The purpose of this report is for presentation to Jefferson County Planning for evaluation of the proposed project as presented in the site plan prepared and provided by Associated Engineering Sciences, Inc. of Hagerstown, Maryland.

All information contained herein is true and correct to the best of my knowledge.

Respectfully submitted,

June Parker Estill, RECS
REALTOR®/Broker

1020 Winchester Avenue, Martinsburg, West Virginia 25401 – (304) 263.3360

Exhibit R

LOCATION

The town of Shepherdstown, West Virginia, reported a population of 803 in 2000. The incorporated town has a total area of less than one-half square mile. Shepherdstown is perceived as encompassing a far greater area than the small historic town. The local community considers the north and northeasterly Potomac River area of Jefferson County to be a 'part of Shepherdstown.'

The unique history of the town – oldest in the State – and the surrounding countryside is a significant reason for the region's popularity to visitors and immigrants of the region. It is as prominent today as in historic times. Numerous highly esteemed facilities have national and international recognition. They often serve as meeting facilities for training, conferences and high-level negotiation of international importance. These facilities include the National Conservation Training Center operated by the U.S. Fish & Wildlife Service and the Eastern Management Development Center. The peninsula called Terrapin Neck, smaller peninsulas commonly known as Steamboat Run and Cress Creek to the north of the town are generally held to 'be a part of Shepherdstown.'

A Shepherdstown address is often looked upon as having "smart appeal."

Shepherd University contributes further magnetism. Typical of any community with an academic facility, there is an array of activities to attract the community's interest – sports, theater, art, music, and dance. Annually in the month of July, the Contemporary American Theater Festival, a professional resident theater, presents four new American plays, plus puppetry, dance, music and the visual arts. The Millbrook Orchestra presents musical entertainments between the months of September and May at the Performing Arts Center of the university.

The entire Eastern Panhandle of West Virginia and the surrounding border states offer outstanding entertainment opportunities. The Charles Town Races and Gaming Casino is an ever-growing entertainment facility and magnet for visitors from far and wide. Historic Harpers Ferry is only one of the outstanding attractions to those interested in the history of our nation.

Jefferson and Berkeley Counties are the most northerly of the counties of the Shenandoah Valley. The Blue Ridge Mountains and the Shenandoah River are in Jefferson County. Across the Potomac River from Berkeley and Jefferson Counties begins the Cumberland Valley with historic battlefields such as Antietam and Gettysburg.

From the Subject Property, it is 9.5 miles to I-81 and about 15 miles to I-70. There are adequate county, state and national highways in the area. The MARC commuter train and Amtrak serve the immediate area. There is

good access to two major international airports – Dulles and BWI. Local medical facilities are adequate with Baltimore and Washington, D.C., providing major facilities when needed. This region is blessed with exceptional access to telecommunications, in part, due to the numerous Federal installations. Crime levels are far lower locally than in the adjacent metropolitan cities.

SUBJECT PROPERTY



The proposed development will consist of 23 single-family building lots on a 12.45-acre tract located to the south side of Route 45 and 1.3 miles east of Shepherdstown. It is situated between Emerald Lane and Venice Way. The subdivision of Mecklenburg Heights is just south of the property. Subdivisions in the immediate area include Rock Spring Acres, Heatherfield, Willow Spring Acres, Ledge-Lowe and others.

The average lot size will be .333-acre or 14,500 square feet. Setbacks are to be 25 feet along the front, 12 feet along each side and 20 feet to the rear. A lot of 116 feet by 125 feet could accommodate a structure of 7,000 square feet – a most unlikely scenario – thus each lot will have adequate green space. The service streets are to be from 50 to 60 feet in width. A recreational lot of slightly more than ½ acre – 22,651 square feet – is planned for the south-central portion of the property. Two storm-water management lots are planned and strategically situated to take advantage of the terrain and they total more than one acre – 44,867 square feet.

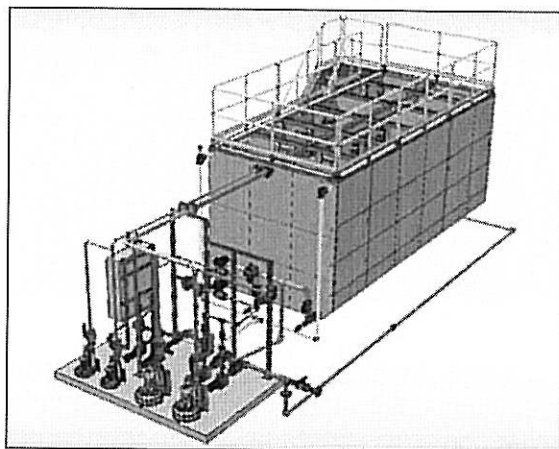


The property is to be served by public water. The property has been studied extensively and it has been determined that it has appropriate soils and topography for the use of a central 'drip field' sewage system. Raw sewage is treated in a wastewater treatment membrane process, clean effluent is then discharged to a drip field and the remaining sludge in the system is periodically removed from the site. The plant will be operated by the Jefferson County PSD. Enviroquip, Inc. of Austin, Texas, designed the system.

Enviroquip Internet presentation (<http://www.enviroquip.com>) has extensive details on the various products available from their company and abundant case studies. The process chosen for this property is identified as Model B-5. This process appears to have a reliable history in the marketplace and to have extensive usage for similar applications such as the Subject Property. Its successful applications include small communities, commercial campuses, cluster housing, rest areas, visitor centers, golf courses and RV parks.

A pre-engineered modular wastewater treatment system is delivered to the site, installed, tested and certified operable by the manufacturer and local authorities. The unit will treat 5,000 gallons per day, is fully integrated, automatic, and low maintenance.

The following is taken from Enviroquip's Internet site.



The B model is a self-contained modular system housed in a pre-fabricated concrete building. This system is mounted above grade and is equipped with all components necessary for operation. Features of this option include:

Plug-and-play” system further reduces any construction costs and setup time

Durable modular structure with multiple finish options

Building air-conditioning available as an option



DEMOGRAPHICS

The 2006 estimated population within **10 miles** of the Subject Property is 98,153 and the projected 2011 population is estimated at 117,841. The 2006 estimated median household income is \$47,264 with 2011 projected to be \$54,010. The 2006 median value of owner occupied housing is estimated at \$204,995, and the average is \$238,670. The 2011 median value of owner occupied housing is estimated at \$235,259, and the average is \$276,000. In 2006 nearly 25% of the housing units were estimated to be in excess of \$300,000 and 2011 is estimated to be nearly 33%. In 2006, 76.8% of all housing units were owner occupied.

The 2006 estimated population within **50 miles** of the Subject Property is 2,708,107 and the projected 2011 population is estimated at 3,083,815. The 2006 estimated median household income is \$77,238 with 2011 projected to be \$91,437. The 2006 median value of owner occupied housing is estimated at \$368,411, and the average is \$452,641. The 2011 median value of owner occupied housing is estimated at \$447,281, and the average is \$538,884. In 2006, 62% of the housing units were in excess of \$300,000 and 2011 is estimated to be 71%. In 2006, 72% of all housing units were owner occupied.

The 2006 consumer expenditure for housing within the **10-mile** radius of the Subject Property is estimated at **\$452.9 billion**. This includes mortgages, maintenance, utilities, telephone and insurance.

Recent Sale of Homes in the immediate area of the Subject Property.

Month	Address	Lot	Subdivision	Price
Aug-06	37 Mossy Oak Court	Lot 25	Brookfield	\$581,537
	40 Mossy Oak Court	Lot 29	Brookfield	\$533,790
	114 N Tamarac Drive	Lot 22	Fernbank at Cress Creek	\$655,000
	44 Thatcher Court	Lot 139	Maddex Farm	\$453,149
	53 Thatcher Court	Lot 157	Maddex Farm	\$476,343
	39 Thatcher Court	Lot 158	Maddex Farm	\$435,185
	30 Thatcher Court	Lot 138	Maddex Farm	\$510,816
	498 Willowdale Drive	Lot 20	Willowdale	\$500,000
Jul-06	74 Pathfinder Court	Lot 12	Brookfield Deerfield Village	\$560,000
	19 Mossy Oak Court	Lot 24	Brookfield Deerfield Village	\$536,425
	60 Reach Cliff Drive	Lot D105	Fernbank at Cress Creek	\$491,492
	372 Maddex Farm Drive	Lot 190	Maddex Farm	\$436,995
	222 Maddex Farm Drive	Lot 100	Maddex Farm	\$324,900
Jun-06	49 Field Crest Court	Lot 21	Deerfield Village	\$524,990
	339 Maddex Farm Drive	Lot 54	Maddex Farm	\$487,315
	356 Maddex Farm Drive	Lot 189	Maddex Farm	\$429,705
	340 Maddex Farm Drive	Lot 188	Maddex Farm	\$386,640
	281 Maddex Farm Drive	Lot 58	Maddex Farm	\$379,805
	302 Maddex Farm Drive	Lot 116	Maddex Farm	\$406,800
				\$9,110,887

I believe these to be new homes. The information was taken from deed transfers prepared by REIC. There are 19 transfers for a total of \$9,110,887. It is typically estimated that 25% of the sale price is for the lot and the balance is attributed to the construction. The average home sale was about \$480,000. Allocating 25% of this to the building lot provides an estimated potential value of about \$120,000 and the construction estimated at about \$360,000.

A review of the Realtor's MRIS database indicates that, assuming 25% of the sale price is allocated to the building lot, the new homes constructed in Jefferson County had a construction cost – on average – of \$116 per square foot. There was no data on the database for new homes, providing square footage, with a Shepherdstown postal address.

MRIS®

Home Search My Matrix Finance Roster Tax Open House Input

Residential General Quick Address Create Your Own Search CMA

Your search returned 0 listings.

Run Search Revise Search

Search Time: 0.03s

Search Criteria: County is 'Jefferson, WV'
 Status is 'Sold'
 CloseDate is on or after '1/1/2006'
 City is 'Shepherdstown'
 NewConstruction is yes
 AboveGradeAreaFinished is greater than or equal to 5
 YearBuilt is greater than or equal to 2006

The Realtors' database clearly indicates a lack of product. Realtors do not market all of the new construction throughout the region.

There are 8 active listings of new homes with a Shepherdstown address, while there are 52 total properties. The low price for the Shepherdstown area was \$340,990 and the high was \$739,900. These properties have been on the market from 41 days to 116 days.

Stat	ML#	Address	ListPrice	BR	FB	HB	Lvl	Fpi	Bsmt	Acres	Yr	Blt	DOMP
Act	JF6083593	2 Folks Point	\$352,990	4	2	1	2	1	Yes	.20	2006	116	
Act	JF6083738	1 Folks Point	\$340,990	4	2	1	2	1	Yes	.20	2006	116	
Act	JF6083785	3 Folks Point	\$369,990	4	2	1	2	1	Yes	.20	2006	116	
Act	JF6130761	28 Field Crest Court	\$739,900	5	5	1	4	1	Yes	.34	2006	74	
Act	JF6133012	1736 Turner Rd	\$699,000	5	6	0	2	2	No	2.80	2006	71	
Act	JF6138595	1 Marsh Hawk Way	\$659,000	4	3	1	3	2	Yes	.98	2006	67	
Act	JF6158265	268 Steamboat Run Road	\$445,000	3	2	0	1	1	Yes	1.50	2006	48	
Act	JF6165470	44 Field Crest Ct #18	\$619,900	6	4	1	3	3	Yes	.27	2006	41	

MRIS indicates there were 652 active listings for Jefferson County homes in MRIS and 527 were single-family detached dwellings offered for sale.

Many contend the real estate market is in a slump. They claim disaster is just around the corner. However, Moody's economic report on housing was released this week. The Associated Press refers to a "slow down that has been gathering force in recent months." AP's evaluation of Moody's 195-page report indicates the following:

"The report projected that 133 of the nation's 279 metropolitan areas would suffer price declines. This is quite a contrast from the past five years

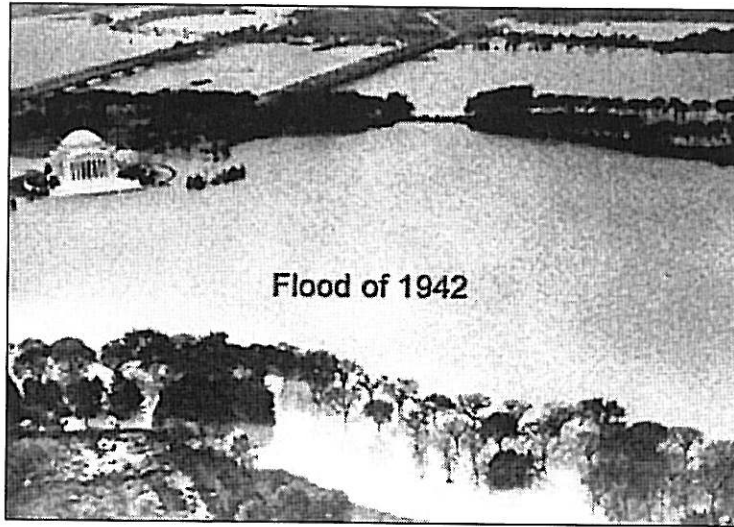
when low mortgage rates pushed sales to five consecutive annual records and prices in the hottest sales areas skyrocketed. . . The housing report said the biggest percentage price decline will be in Danville, Ill., where prices have already fallen by 18.7 percent from the peak in the second quarter of 2005. . . layoffs in autos and other manufacturing industries, which depressed the local economy. . . The second biggest decline is projected to occur in the Fort Myers, Fla., a fall of 18.6 percent from the peak in the final three months of last year. . . The 133 areas with the slumping prices are concentrated in the states of California and Florida and the Northeast corridor from southern Maine to just south of Washington, D.C., as well as boom areas of Nevada and Arizona and some depressed sections of the Midwest such as Detroit . . . The report said the most vulnerable areas for price declines were those regions where red-hot markets attracted speculators known as "flippers" who purchase homes in hopes of selling them fast for a quick profit. . . described the current environment as a "correction" and not a "crash". . .

The report is in keeping with my opinion. This is not a 'slump,' but a market leveling. The builders and developers over built the market often with inferior product. When the cost of materials went up, when the interest rate went up, and when the price of gasoline went up . . . Material costs were obviously rising. The interest rate was lower than reasonable predictable. The price of gasoline could have been predicted to do what it has been doing.

A real estate slump has traditionally lasted for about 11 months – over the last 30 or more years. But, we do not see the present condition as a slump because the rest of the economy is healthy. The home building segment of the market was behaving in an irresponsible manner.

My associates in the metropolitan area and I subscribe to economic research organizations specifically associated with the real estate industry. My associates in the metropolitan area contend our 'slump' is the result of the difficulties in the metropolitan area. Those individuals residing there cannot sell their homes, so they can't move here.

While September 11th has caused much concern and resulted in the migration of facilities and workers from the Washington, D.C. There is yet another matter of concern not commonly recognized. Hurricane Katrina has demonstrated what can occur to a metropolitan area that is at or below sea level. Washington, D.C. has been flooded numerous times in the past and it will happen again.



Jefferson Memorial – Library of Congress

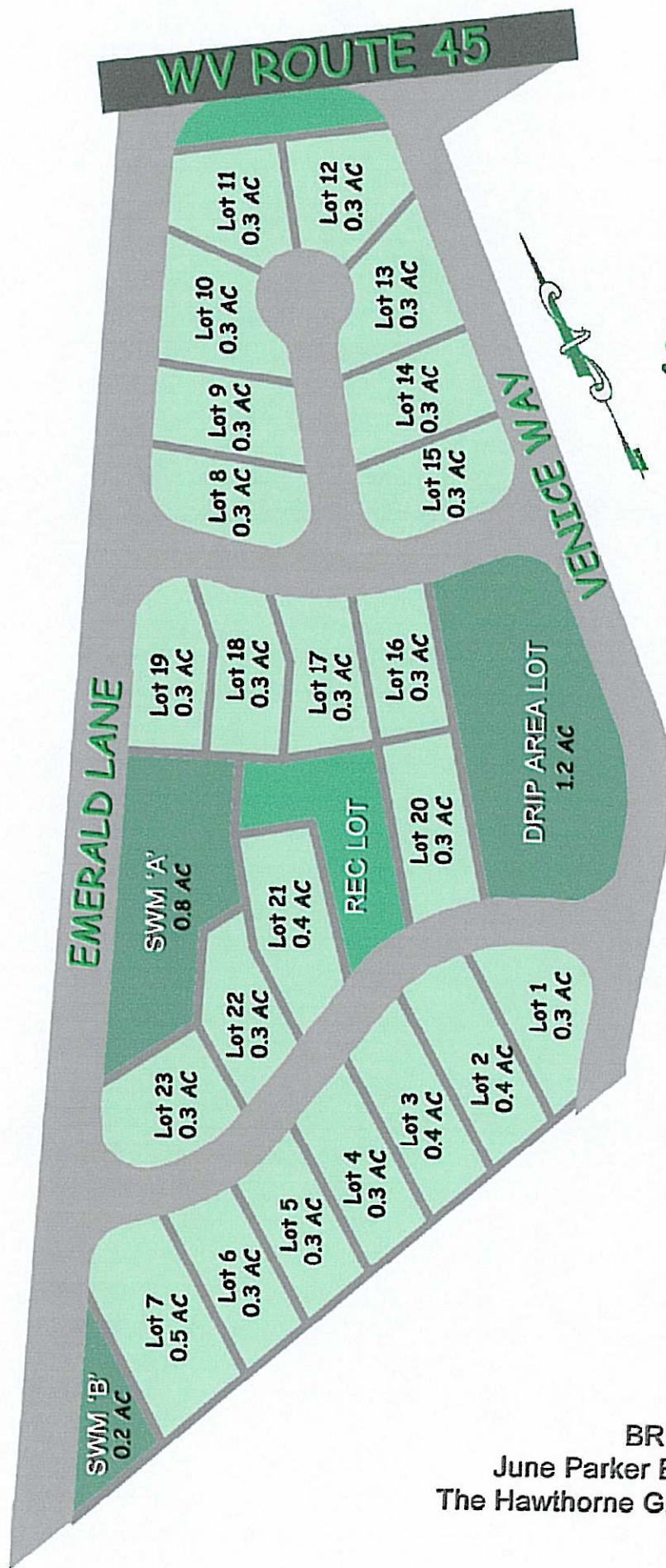
CONCLUSION

The demand for single-family building lots near the Subject Property is likely greater than in other areas of the county. I believe there is only one area of Jefferson County where the demand may be as great and that is Harpers Ferry. The development of a community sewer system is not a negative but rather as a positive. The systems' size – in and of itself – will allow for safer operation than larger systems, which may be less than perfect on occasion. Damage control will be far more manageable. This is a potential selling point to well-informed buyers. The project price range and structure size may be less than the potential of the market.

I contend the potential demand for this product is well established and is apt to be dramatically increased over the next several months.

Respectfully,

June Parker Estill, RECS
REALTOR®/Broker



PROPOSED 23 LOT RESIDENTIAL SUBDIVISION

SHEPHERDSTOWN
MAGISTERIAL
DISTRICT

JEFFERSON
COUNTY
WV

BROKER'S OPINION OF DEMAND
June Parker Estill, RECS, REALTOR®/Broker
The Hawthorne Group, Martinsburg, West Virginia

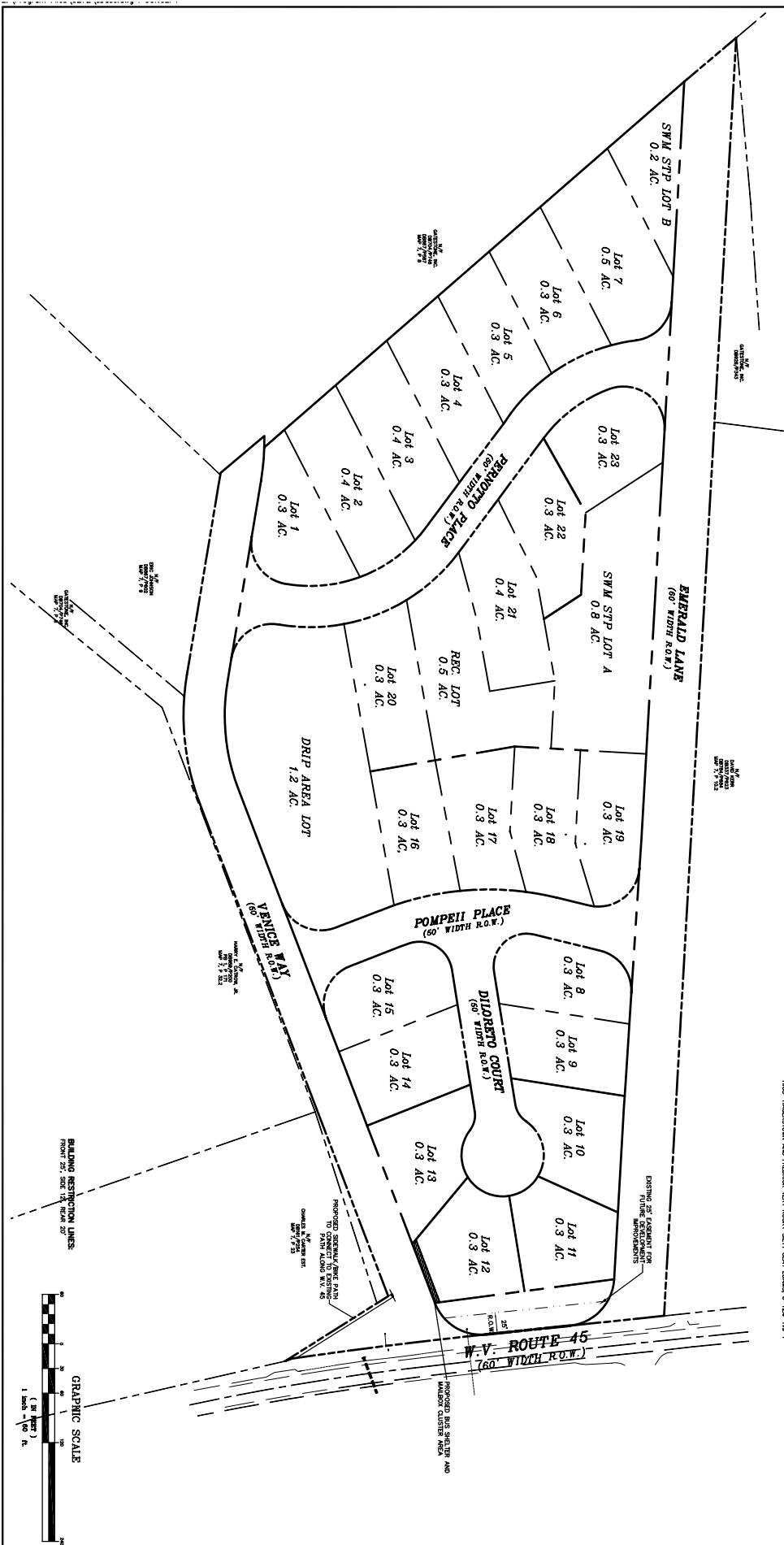
©

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[illegible]

A vicinity map showing the project location. The map includes major roads such as Highway 480, Highway 29, Highway 10, and Highway 100. Key landmarks like the 'MOUNTAIN VIEW' and 'MOUNTAIN VIEW' are labeled. The map is oriented with North at the top.

aesi
ASSOCIATED ENGINEERING
SCIENCES, INC.
SURVEYORS, CIVIL ENGINEERS, LANDSCAPE ARCHITECTS



JOB NO.					
SHEET NO.	5272				
	REVISIONS				5/02/07
	REVISIONS				4/03/07
	ORIGINAL	GAI			7/20/06
	ISSUE	DRAWN BY	CHK. BY	DATE	