

18708

**KJ & ASSOCIATES****(703) 449-1600****CIVIL AND LAND DEVELOPMENT ENGINEERING**  
10650 Main Street, Suite 302, Fairfax, VA 22030-3814**FAX (703) 449-1601**  
e-mail kjanda@cox.net

December 13, 2013

Mr. Edwin Jacobsen  
40862 Robin Circle  
Leesburg, VA 20175

Dear Mr. Jacobsen;

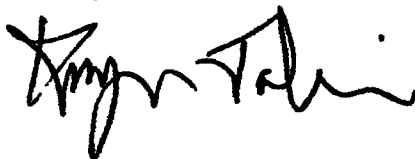
Based on a review on the drainage patterns and topographic conditions proposed for Lot 960, Square 1397 in Washington D.C., we have provided means and methods to control the stormwater runoff during, and after construction of the proposed single family residence.

The total land disturbance for the project is 4,950 square feet. Construction drainage and Siltation and Erosion Control considerations will be handled by such standard D.C. methods as Earth Dikes along the eastern and southern limits of land disturbance; Super Silt Fence along the northern limits of disturbance; and double Silt Fence is used to control siltation along the western limits of disturbance on the lot. Inlet Protection is proposed to be installed upon the existing storm sewer inlet at the entrance to the lot.

Post-construction drainage from the site, both originating from the site, and runoff from off-site sources, will be controlled by way of sheet flow and will be collected by the existing storm sewer inlet at the lot entrance. This inlet was originally designed to adequately collect run-off from Lot 960 and it's upstream off-site land. There is no change in on-site or off-site drainage patterns.

As the proposed improvement on Lot 960 include construction of on-site stormwater management facility (infiltration trench) to convey the run-off generated by the proposed house on the lot, construction of the proposed single family residence will not have any adverse effect on the adjacent lots.

Sincerely,

Kayvan Jaboori, P E  
OwnerRECEIVED  
D.C. OFFICE OF ZONING  
2013 DEC 16 PM 12:07**BOARD OF ZONING ADJUSTMENT**  
District of ColumbiaCASE NO. 18708EXHIBIT NO. 24Board of Zoning Adjustment  
District of Columbia  
CASE NO. 18708  
EXHIBIT NO. 24

**PCS** **PROFESSIONAL CONSULTING SERVICES**  
GEOTECHNICAL • ENVIRONMENTAL • TOXICOLOGY • GEOLOGY • HYDROGEOLOGY

Partners:

Gerald C. Davit, P.E.  
James T. Kirkland, Ph.D., C.P.G.  
Barbara M. Davit, Ph.D., Chemist

December 18, 1993

Mr. Timothy J. Ward  
5505 Seminary Road  
Falls Church, Virginia 22041

Subject: Geotechnical Engineering Services,  
Proposed Residence, 4509 Foxhall Crescents Drive, N.W.  
Washington D.C. (PCS Project #931107)

Gentlemen:

We have performed two test borings on this property to explore subsurface soil and groundwater conditions.

Water was not encountered during drilling or observed at completion when the augers were removed. About 24 hours after drilling observations were made in the open bore holes. No water was observed in boring # 1 to a depth of 20 feet. Water was observed in test boring # 2 at a depth of about 20 feet (EL 295±). Based on this data hydrostatic groundwater is believed to be about 12 feet below the proposed lower floor of the new residence at EL 307±.

Groundwater levels fluctuate due to many variables. However, since groundwater levels are presently below planned excavation levels, we would not anticipate construction of the proposed home to influence groundwater levels on this or adjacent sites. Surface water should be addressed in your site plans.

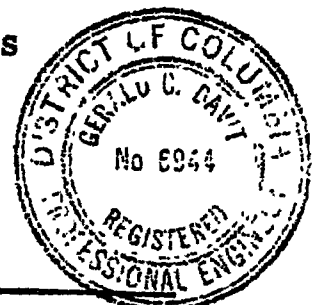
Additional details are included in our geotechnical report for this project. If you have any questions please contact the undersigned.

*BZA 15882*  
*Rec'd. 12/27/93*  
*Ex. No. 23*

Very truly yours,  
PROFESSIONAL CONSULTING SERVICES

*Gerald C. Davit*

Gerald C. Davit



PROFESSIONAL CONSULTING SERVICES  
Page No. 2

Existing Conditions and Proposed Construction

The property is located at the end of Foxhall Crescents Drive. The proposed site is wooded and slopes up from about EL 300 at the existing street to EL 319 to the south. Slopes are typically less than 3H:1V. There is an abandon asphalt road along the south side of the proposed home site.

The proposed structure will consist of a three story single family home with lower level at about EL 307.67. The outside grade will slope from about EL 307 in the front to El 317 along the rear of the building.

Subsurface Exploration

Two test borings were performed in the abandon road on the high side of the proposed site at the approximate locations shown on Enclosure (1).

Results of the subsurface exploration are shown on the test boring logs in Enclosure (2). These logs indicate results of Standard Penetration Tests (SPT) performed in the borings by ASTM D-1586, visual descriptions per ASTM D-2488, estimated Uniform Soil Classification System (USCS) group symbols per ASTM D-2487 and laboratory natural moisture content (MC).

Water was not observed in the test borings during drilling or at completion. Water was observed in test boring No. 2 at a depth of about 20 feet the day after drilling was completed. Based on these observations, we anticipate hydrostatic groundwater levels were about EL 295, which is 12± feet below the proposed floor, at the time the borings were performed.

Water levels may fluctuate due to changes in precipitation, surface grading, seasons of the year and other causes. Perched water, trapped by clayey soils, may also develop periodically.

Soil Laboratory Testing

Results of laboratory classification tests on selected samples are included with the ASTM D-2487 descriptions in Enclosure (3). Some variation between visual and laboratory determined results is anticipated.

PROFESSIONAL CONSULTING SERVICES  
Page No. 3

Soil Conditions

Soils disclosed by this exploration generally consist of residual materials that were formed by weathering of the parent bedrock. Typically these soils increase in density with depth and grade from soil to rock. Some colluvial soils may also be present near the ground surface and at lower elevations.

Boring No. 1 disclosed about 1.5 feet of fill that was probably part of the abandon road. Below this material the soils consist of firm silty and clayey sand and sandy silt. Refusal was not encountered.

Soils disclosed by Boring no. 2 are typical of the general weathering pattern in residual soils. This boring indicates firm to hard silty sand classified SM. Refusal on hard residual material was encountered at 24 feet. Remnants of the asphalt road were present at the ground surface.

Foundation Support

Based on available information, firm, natural silty sand is anticipated at and below the lower floor at EL 307.67. These materials are anticipated to be suitable for support of normal spread footings with a soil bearing pressure of at least 2500 psf.

Foundation subgrades should be observed by us after they are excavated and prior to placement of concrete to evaluate if the soils anticipated are encountered. If necessary modifications to the footing sizes, depth or other design aspects could be made during construction.

Foundation Walls

The walls of the lower level will extend up to 10 feet below exterior grade. These walls must be designed to resist lateral earth pressure. We recommend designing foundation walls below grade for an equivalent fluid pressure of 45 pcf. A perimeter exterior drain is recommended to prevent hydrostatic pressure on the walls. This is discussed later in this report.

PROFESSIONAL CONSULTING SERVICES  
Page No. 4

We recommend backfill placed against the exterior walls generally consist of soils classified ML, SM, SP, SW, GM, GW or GP. In order to limit settlement of exterior grades that may cause water ponding and increased water seepage into subdrains we recommend the backfill be compacted to at least 90 % of the maximum dry density determined by the Standard Proctor, ASTM D-698 or AASHTO T-99. Areas under walks, or other soil supported structures should be compacted to at least 95 % of this standard.

The on site soils encountered above the floor grade are generally anticipated to be of suitable quality for reuse as backfill. However, the natural moisture content is high and we anticipate scarifying and drying of the on site soils would be required to obtain compaction. Since the site is relatively small for performing drying operations it may become more economical to import dryer material. Weather conditions at the time of construction will be a factor.

Floor Support

The lower level floor slab may be soil supported. We recommend a minimum of 4 inches of open graded aggregate about 3/8 to 3/4 inch size be placed below the floor slab. The aggregate base should be covered with a layer of polyethylene at least 6 mil thickness or equivalent.

Floor slab subgrades should be prepared by removing any soft or unsuitable material. The subgrades should be observed by us prior to placing the aggregate base.

Subdrains

The proposed construction is anticipated to be above the hydrostatic groundwater levels; however, the lower level walls and floor slab should be protected from potential surface water infiltration.

We recommend that both interior and exterior drains be provided. A sketch of the subdrainage system recommended is shown in Enclosure (4). We suggest design drawings be developed to show the details of the system including cleanout locations, drain discharge points and invert elevations. If requested we can prepare drawings or review and comment on drawings prepared by others.

PROFESSIONAL CONSULTING SERVICES  
Page No. 5

Limitations

This report has been prepared based on information furnished at this time and our interpretation of data from a limited number and depth of test borings and laboratory tests. Additional exploration and testing may disclose differing results. More than one interpretation of available data is possible. Subsurface conditions may change between locations explored and soil and water conditions change with time.

Our services have been provided in accordance with generally accepted geotechnical engineering practice based on available information. No warranties or guarantees are made.

Samples obtained during this exploration will be retained for thirty days from the date of this report and then discarded unless other disposition is requested.

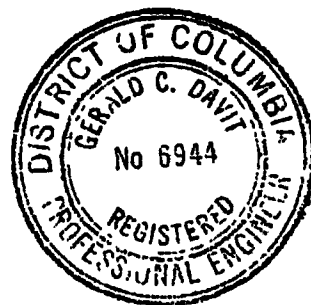
If additional services, design details, or clarification of any aspect of this report is desired please contact the undersigned.

Very truly yours,  
PROFESSIONAL CONSULTING SERVICES

  
Gerald C. Davit, P.E.

Enclosure:

- 1) Test Boring Locations (1 sheet)
- 2) Test Boring Logs (2 sheets)
- 3) Laboratory Testing (2 sheets)
- 4) Subdrain Sketch (1 sheet)



ENCL (1)

PROPOSED SINGLE FAMILY RESIDENCE  
4509 FOXHALL CRESCENTS DRIVE

LOWER LEVEL 307.67  
FIRST FLOOR 317.67  
SECOND FLOOR 327.67

GARAGE ENTRY 305.46

GARAGE INTERIOR 305.50

BORING  
#1BORING  
#2

25' REAR YARD SETBACK

25' REAR YARD SETBACK

TERACE 328.42

SOUTH

SOUTH 78°-41'-00" WEST 75.00

## PROPOSED SITE PLAN

SCALE 1" = 10'-0"

TEST BORING LOG  
PROFESSIONAL CONSULTING SERVICESPROJECT  
Ward ResidenceBoring No. : 1  
Ground Surface EL: 318±  
PCS Project No. : 931107Boring Contractor: Jamison Drilling Company  
Drilling Method: 2½" Hollow Stem Augers  
Boring Location: As shown

Drilling Equipment: CME 45

Date Completed : 12-10-93  
Sheet Number : 1 of 1

DEPTH (Ft)	SPT	VISUAL DESCRIPTION	USCS	STRATUM	MC (%)
-	2+5+5	FILL, contains; asphalt, crushed stone, clayey sand, wet			
1	-----				
2	-----	brown silty SAND, trace roots, contains mica, wet	SM		
3	4+4+8				
4	-----				25
5	-----	yellowish brown silty SAND, trace roots, contains mica, wet	SM		
6	6+5+6				
7	-----				
8	-----				
9	7+8+11				
10	-----				38
11					
12					
13	-----	reddish brown clayey SAND, contains mica, wet	SC		
14	5+7+11				
15	-----				44
16					
17					
18	-----	light brown & gray sandy SILT, contains mica, wet	ML		
19	6+11+12				
20	-----				41
21					
22					
23	-----				
24	6+7+8				
25	-----	Boring terminated at 25.0'			

## WATER OBSERVATIONS:

## REMARKS:

Encountered: None  
Augers Pulled: None, Caved 20.0'  
After 24 hours: None, Caved 20.0'



TEST BORING LOG  
PROFESSIONAL CONSULTING SERVICES

PROJECT  
Ward Residence

Boring No. : 2  
Ground Surface EL: 315±  
PCS Project No. : 931107

Boring Contractor: Jamison Drilling Company  
Drilling Method: 2½" Hollow Stem Augers  
Boring Location: As shown

Drilling Equipment: CME 45

Date Completed : 12-10-93  
Sheet Number : 1 of 1

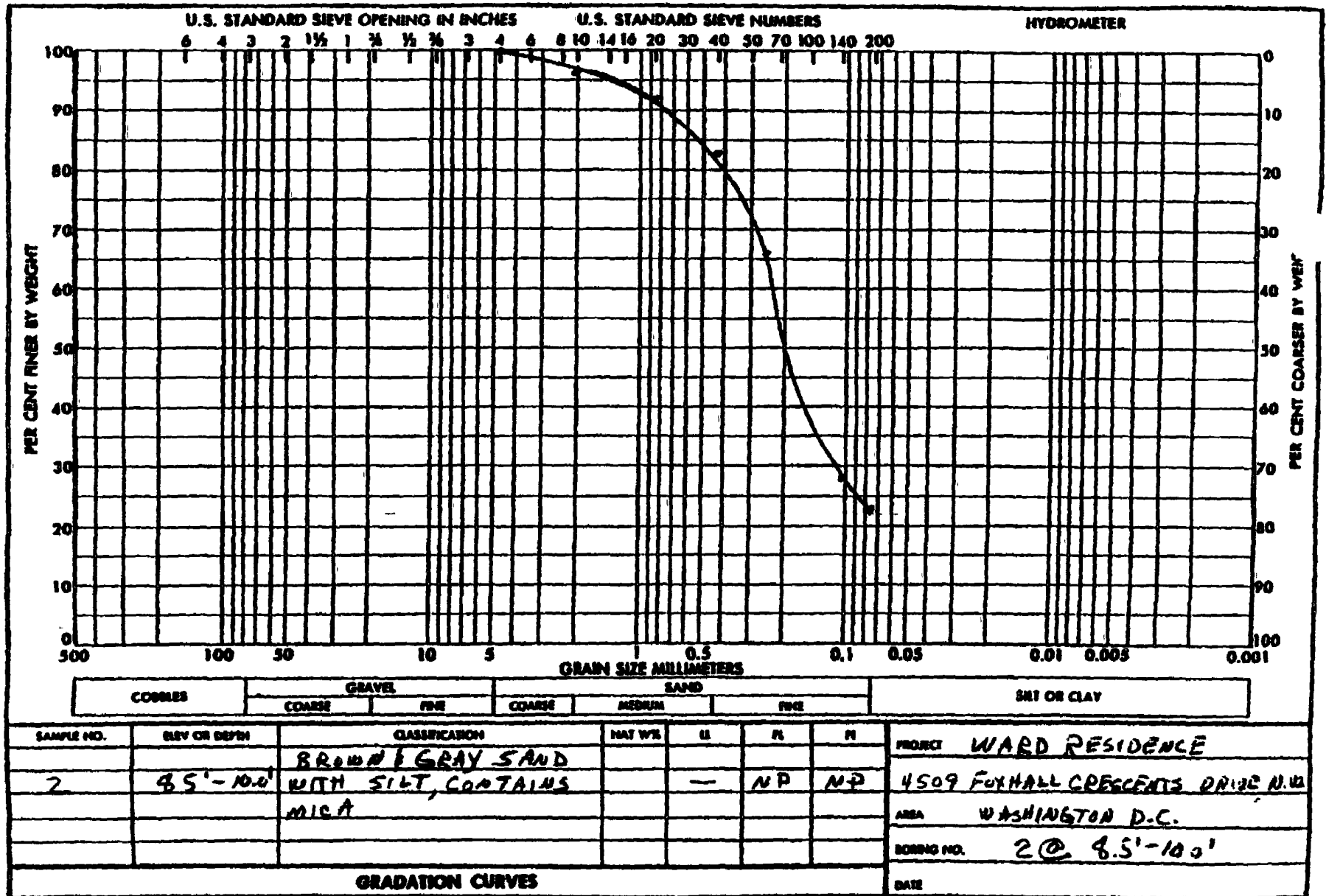
DEPTH (Ft)	SPT	VISUAL DESCRIPTION	USCS	STRA- TUM	NC (%)
-	10+4+7	2"± Asphalt			
1	-----	brown & gray silty SAND, with clayey sand layers, contains mica, wet	SM		
2	-----				
3	5+6+8	----- brown & gray silty SAND, contains mica, moist to wet	SM		23
4	-----				
5	-----				
6	7+9+11				
7	-----				
8	-----				
9	10+13+16				13
10	-----				
11					
12					
13	-----				
14	16+24+29				12
15	-----				
16					
17					
18	-----				
19	10+50/5%				
20	-----				
21					
22					
23	-----				
24	50/5%	----- Refusal at 24 feet			
25					

WATER OBSERVATIONS:

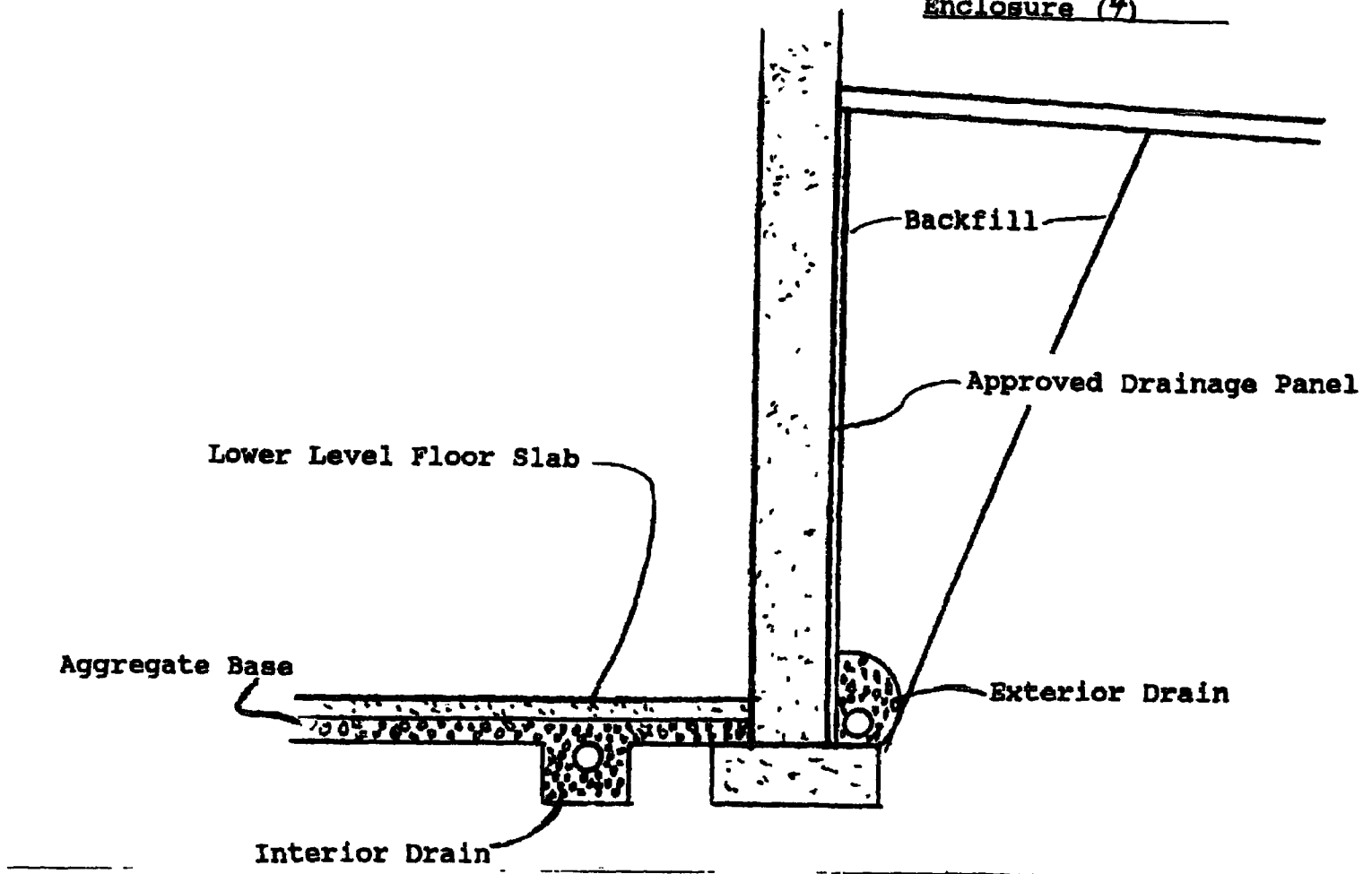
REMARKS:

Encountered: None  
Augers Pulled: None, Caved 24.0'  
After 24 hours: 20.0', Caved 24.0'





ubdrainage Sketch  
Enclosure (4)



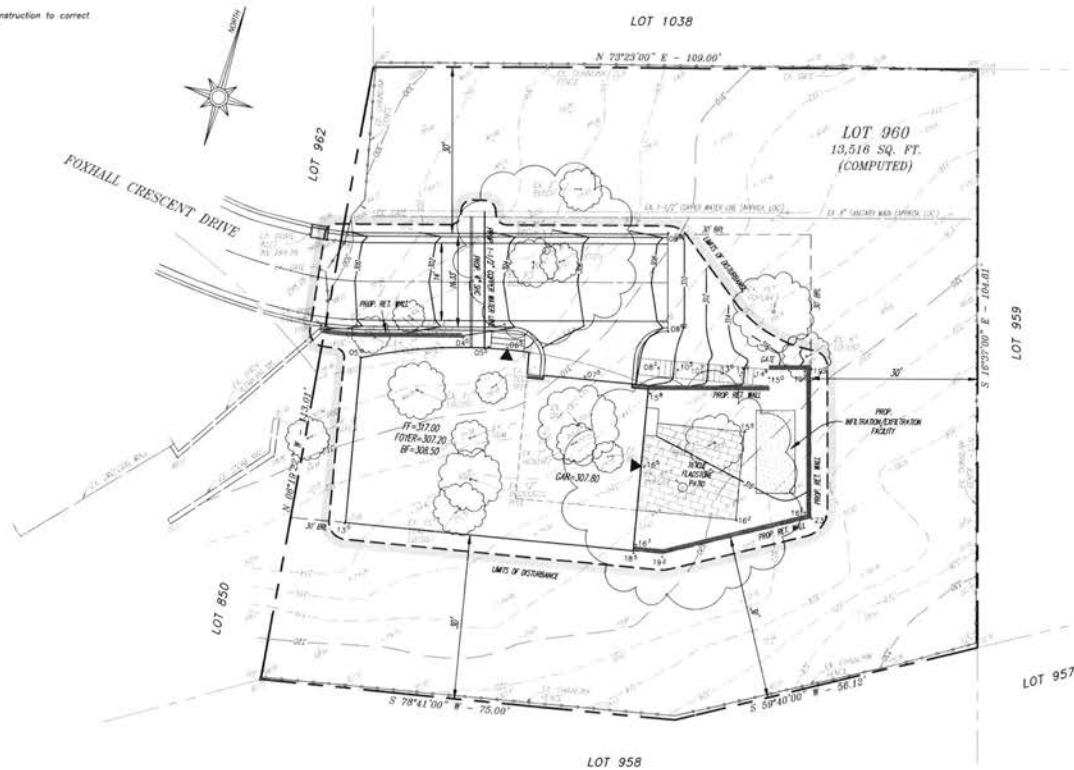
General Notes:

1. Interior Drain 4" min. dia. corrugated PE pipe,  $\frac{1}{4}$ " slots, enveloped with 6" min.  $\frac{3}{8}$ " open graded aggregate, drained by gravity or pump.
2. Exterior Drain 4" min. dia. corrugated PE pipe,  $\frac{1}{4}$ " slots, placed on footing against wall with invert 4" min. below bottom of inside slab, 6" min.  $\frac{3}{8}$ " open graded aggregate above and side, aggregate separated from backfill by approved geotextile filter, drain by gravity.
3. Interior drains and/or exterior drains may be placed level or with positive slope to drain as shown on design drawings. Adjust grades during construction to prevent negative slopes.
4. Cap exterior grade over backfill with clayey soil and slope away from structures.
5. Provide cleanouts for drains as shown on design drawings.
6. Refer to geotechnical report for additional information.

# NOTES:

- Owner: Amir Mollagh,  
201 Berry Street, SE  
Vienna, VA 22180
- Property Address: 4509 Foxhall Crescent  
Washington, DC 20007
- Property Location: Lot #960, Square #1397
- Developer: Jacobson Builders  
40862 Robinson Circle  
Leesburg, VA 20175
- All construction shall conform to DDOE and/or DDOT specifications.
- Only those utilities visible from the ground surface have been indicated on these plans. The location and depth of utilities shall be verified by contractor.
- This property is served by public water and sewer.
- No title report furnished.
- Recommendation for materials and methods of construction to correct existing soil conditions is not a part of this plan.
- CEMA/TIRM DATA

MAP ITEM ID: 1100010012C  
FLOOD ZONE: A  
EFFECTIVE DATE: 08/27/2010



SURVEY JARRETTI SURVEYS, INC. DESIGN KJ DRAWN KJ CHECKED KJ		REVISION APPROVED BY DIVISION OF DESIGN REVIEW	
<b>KJ &amp; ASSOCIATES</b> CIVIL AND LAND DEVELOPMENT ENGINEERING 10000 WOODBURN AVENUE SUITE 100 FALLS CHURCH, VA 22041 PHONE: 703.261.1111 FAX: 703.261.1112 WWW.KJANDASSOCIATES.COM			
DATE: MAY 2013 SCALE: HORIZ: 1"=10' VERT: N/A SEAL:			
SITE & GRADING PLAN 4509 FOXHALL CRESCENTS DRIVE, N.W. WASHINGTON, D.C. 20007 LOT 960, SQUARE 1397			
PROJECT 2013-005		SHEET 1 OF 5	







## FOXHALL

CS

4509 FOXHALL CRESCENTS DRIVE N.W.  
WASHINGTON, DC 20007

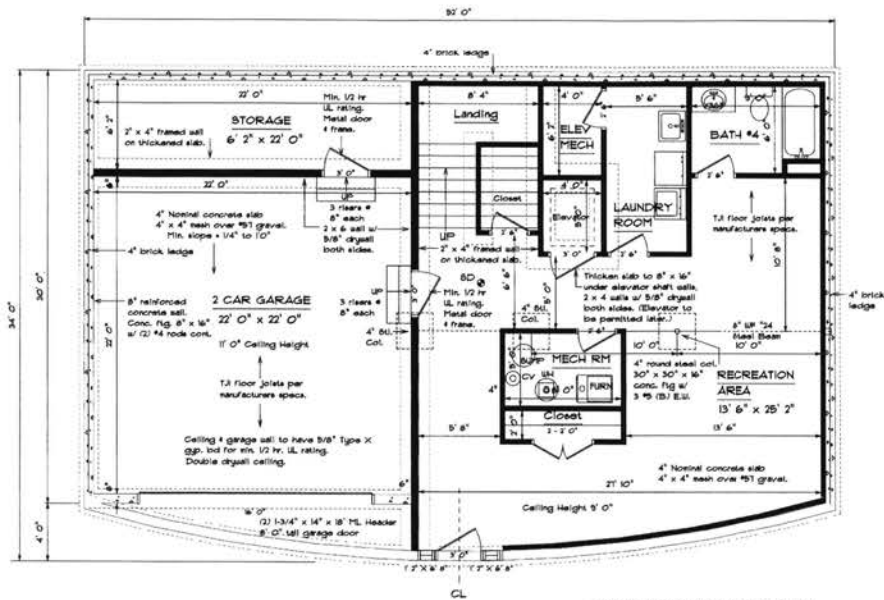
AMIR MOTLAGH  
4509 FOXHALL CRESCENTS DRIVE, NW  
WASHINGTON, DC 20007  
amirmotlagh@hotmail.com

December 5, 2013

### SHEET SCHEDULE

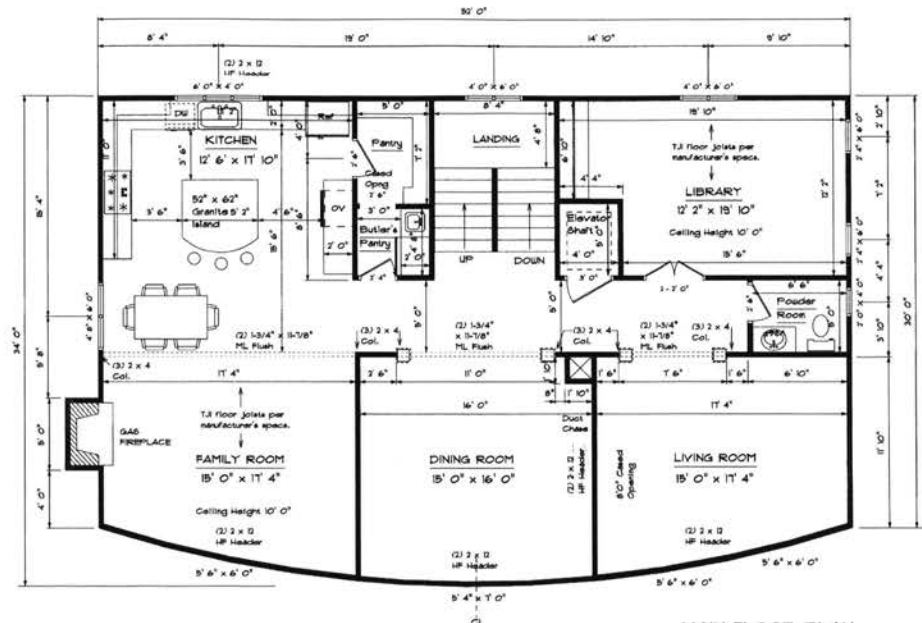
- CS COVER SHEET
- A.1 BASEMENT & FIRST FLOOR PLANS
- A.2 SECOND FLOOR PLAN & FRONT ELEVATION
- A.3 LEFT & RIGHT ELEVATIONS
- A.4 REAR ELEVATION





**BASEMENT FLOOR PLAN**

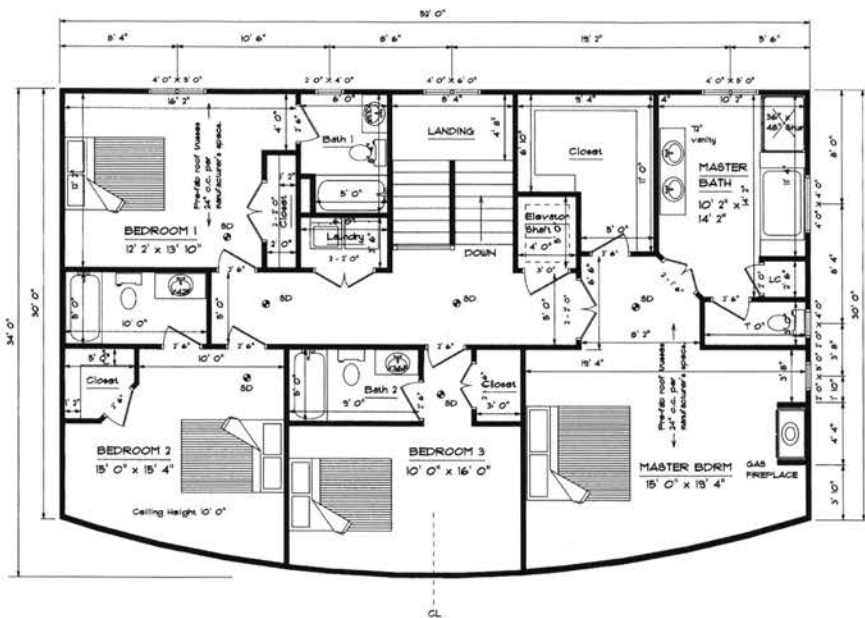
Scale 1/4" = 1' 0"  
 Headers (2) 2 x 10 unless otherwise specified



**MAIN FLOOR PLAN**

Scale 1/4" = 1' 0"  
 Headers (2) 2 x 10 unless otherwise specified

MODEL		Foxhall	
SCALE: 1/4" = 1'0", 1/8" = 1'0"		APPROVED BY:	DRAWN BY: Cjp
DATE: December 5, 2003			REVISED:
LOCATION: 4505 Foxhall Crescenta Drive, Nj Washington, DC 20001			
APPLICANT: Aeri Mclagh, Owner 4505 Foxhall Crescenta Drive, Nj Washington, DC 20001 aerimclagh@foxhall.com			DRAWING NUMBER A.1



**SECOND FLOOR PLAN**

Scale: 1/4" = 1' 0"

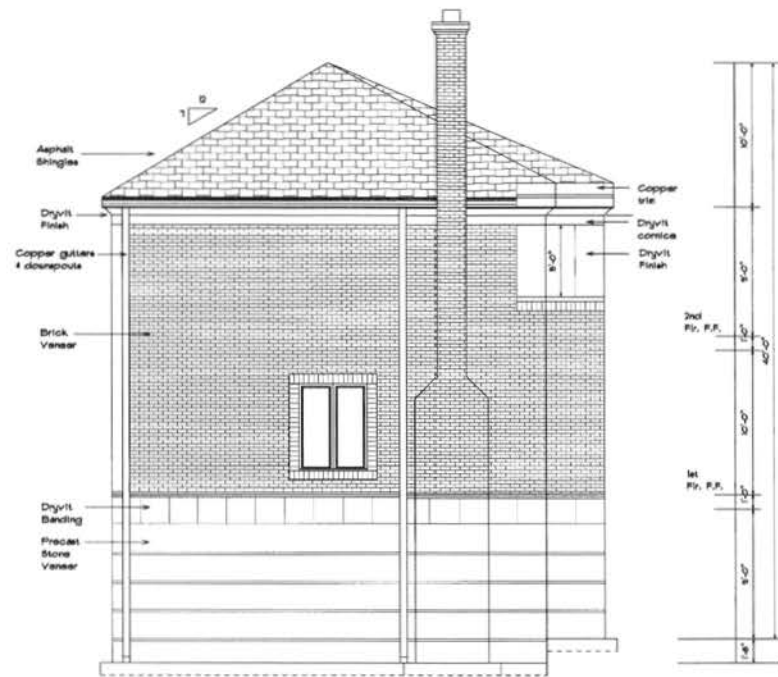
Headers (2) 2 x 10 unless otherwise specified



**FRONT ELEVATION**

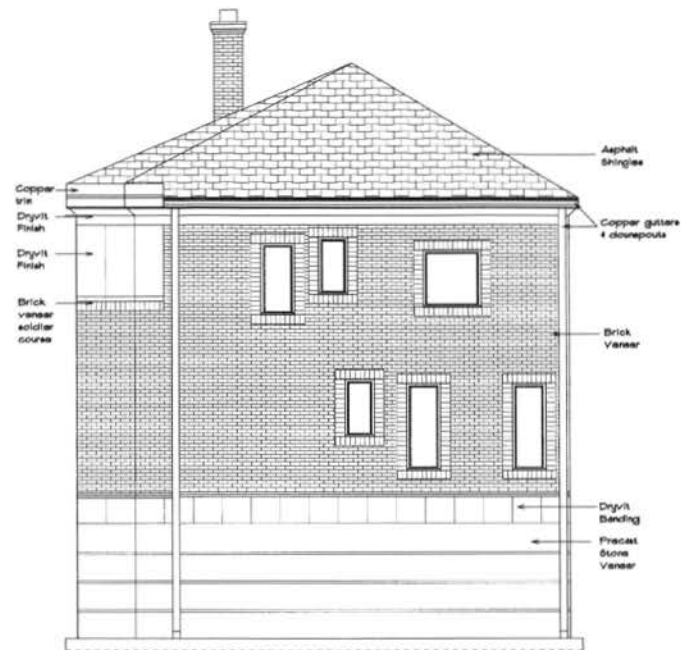
Scale: 1/4" = 1' 0"

MODEL			Foxhall		
SCALE: 1/4" = 10', 1/8" = 10'		APPROVED BY:		DRAWN BY: CPH	
DATE: December 5, 2013				REVISED:	
LOCATION: 4509 Foxhall Crescent Drive, NE Washington, DC 20001					
APPLICANT: Alex Potlugh, Owner 4509 Foxhall Crescent Drive, NE Washington, DC 20001 alex@alexfoxhall.com				DRAWING NUMBER <b>A.2</b>	



LEFT ELEVATION

SCALE: 1/4" = 1'-0"



RIGHT ELEVATION

SCALE: 1/4" = 1'-0"

MODEL		Foxhall	
SCALE: 1/4" = 1'-0", 1/8" = 1'-0"	APPROVED BY:	DRAWN BY: CP	
DATE: December 8, 2019		REVISED:	
LOCATION: 4805 Foxhall Crescent Drive, NW Washington, DC 20007			
APPROVAL: Adam Hough, Owner 4805 Foxhall Crescent Drive, NW Washington, DC 20007 adam@foxhall.com			DRAWING NUMBER <b>A.3</b>

