

FIRST FLOOR CALCULATIONS

BRACED WALL LINE	WALL PANEL TYPE	NET REQUIRED WALL BRACING FT.	ACTUAL PROVIDED WALL BRACING FT.
A	CS-WSP	13.11'	27.16'
B	CS-PF	13.11'	33.01'
1	CS-WSP	15.84'	21.08'
2	CS-WSP	15.84'	40.00'

- ALL DESIGNATED EXTERIOR BRACED WALLS SHALL BE A MINIMUM 7/16" PANEL SHEATHING ATTACHED TO FRAMING WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS. SOLE PLATS SHALL BE FASTENED TO JOIST OR SOLID WOOD BLOCKING WITH (3) 16d NAILS AT 16" O.C. RIM JOIST TO PLATE OR 811 8d @ 6" O.C. TO NAIL.
- ALL EXTERIOR WALL CORNERS SHALL BE FRAMED PER DETAIL.
- ALL DESIGNATED INTERIOR BRACED WALLS SHALL BE MIN 1/2" GYPSUM BOARD APPLIED TO BOTH FACES OF FRAMING WITH ADHESIVE AND TYPE S OR W SCREWS AT 4" O.C. AT PANEL, TOP AND BOTTOM PLATES AND BLOCKED AT ALL HORIZONTAL JOINTS.
- DESIGNATED NARROW WALL BRACING SHALL BE CONSTRUCTED IN ACCORDANCE WITH BRACED WALL DETAILS.
- TENSION HOLD DOWN STRAP OF 800# - (SIMPSON CM6T4 STRAP W/ 15-16d NAILS EACH END)

Potomac Base Plan
BURKARD HOMES, LLC

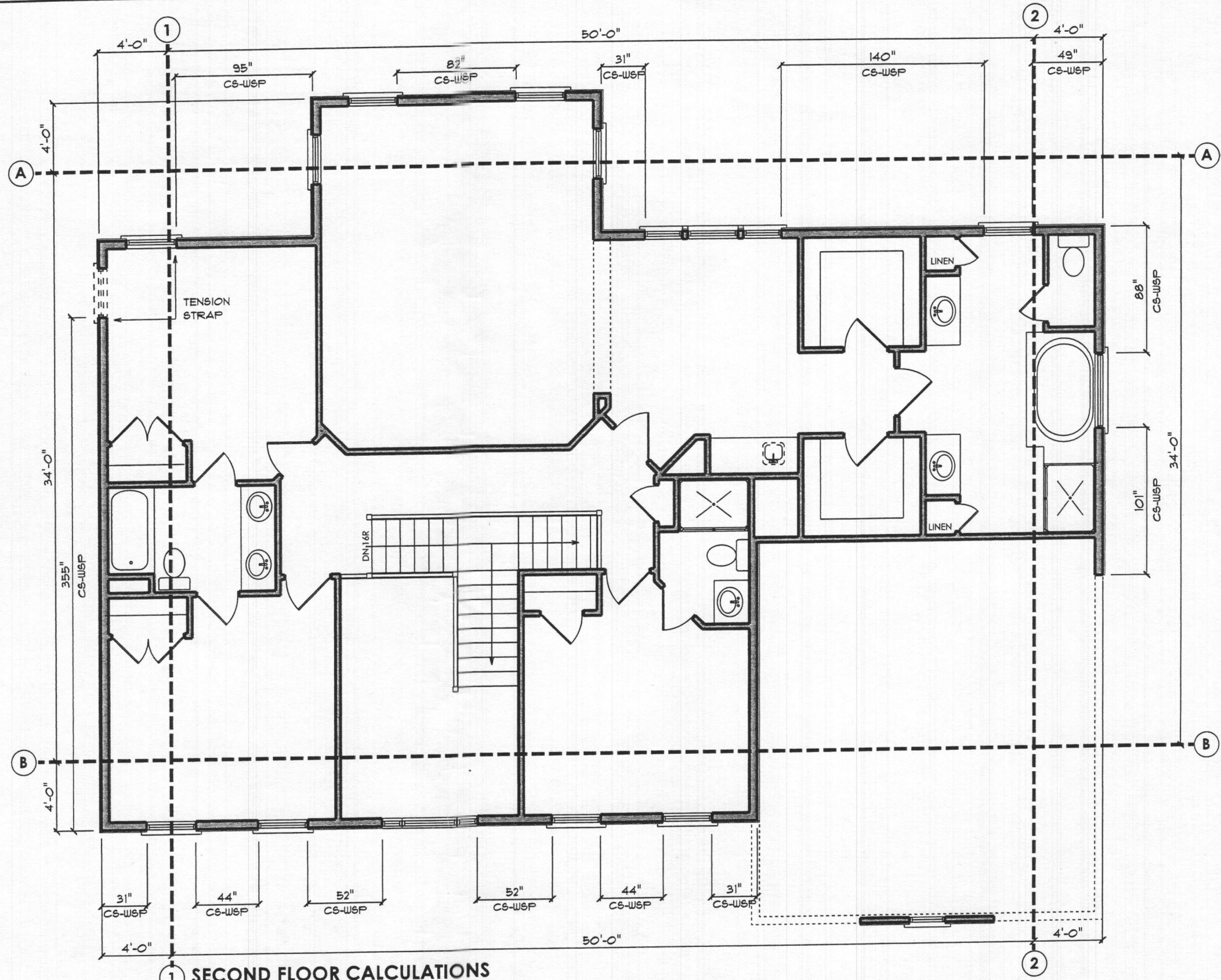
5300 DORSEY HALL DRIVE - SUITE 102
 ELLICOTT CITY, MARYLAND 21042
 240-375-1052

SCALE: 3/16" = 1'-0"
 PRINT: January 02, 2014
 PRELIMINARY BASE SET
 10-02-12
 2012 Code Revisions

1st FLOOR BRACING
4.51

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Expiration Date: 4/30/2014.

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License Number #14678



1 SECOND FLOOR CALCULATIONS

BRACED WALL LINE	WALL PANEL TYPE	NET REQUIRED WALL BRACING FT.	ACTUAL PROVIDED WALL BRACING FT.
A	CS-WSP	6.63'	33.08'
B	CS-WSP	6.63'	21.16'
1	CS-WSP	8.78'	29.56'
2	CS-WSP	8.78'	15.75'

- ALL DESIGNATED EXTERIOR BRACED WALLS SHALL BE A MINIMUM 1/16" PANEL SHEATHING ATTACHED TO FRAMING WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS. SOLE PLATS SHALL BE FASTENED TO JOIST OR SOLID WOOD BLOCKING WITH (3) 16d NAILS AT 16" O.C. RIM JOIST TO PLATE OR SILL 8d @ 6" O.C. TOENAIL.
- ALL EXTERIOR WALL CORNERS SHALL BE FRAMED PER DETAIL.
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- DESIGNATED NARROW WALL BRACING SHALL BE CONSTRUCTED IN ACCORDANCE WITH BRACED WALL DETAILS.
- TENSION HOLD DOWN STRAP OF 800# - (SIMPSON CM6T4 STRAP W/ 15-16d NAILS EACH END)

Potomac Base Plan BURKARD HOMES, LLC
5300 DORSEY HALL DRIVE - SUITE 102
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240-375-1052

SCALE: 3/16" = 1'-0" PRINT: January 02, 2014
06-15-09 PRELIMINARY BASE SET
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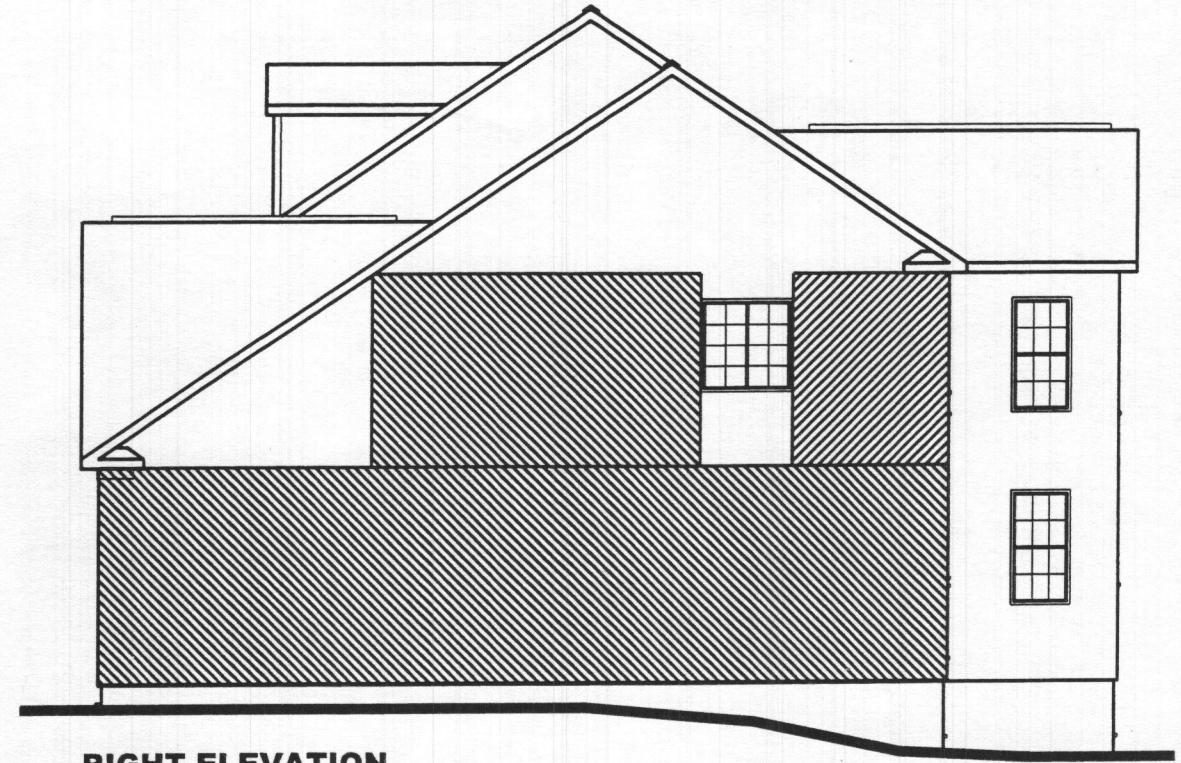
2nd FLOOR BRACING
4.52

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FRONT ELEVATION
 NOT TO SCALE

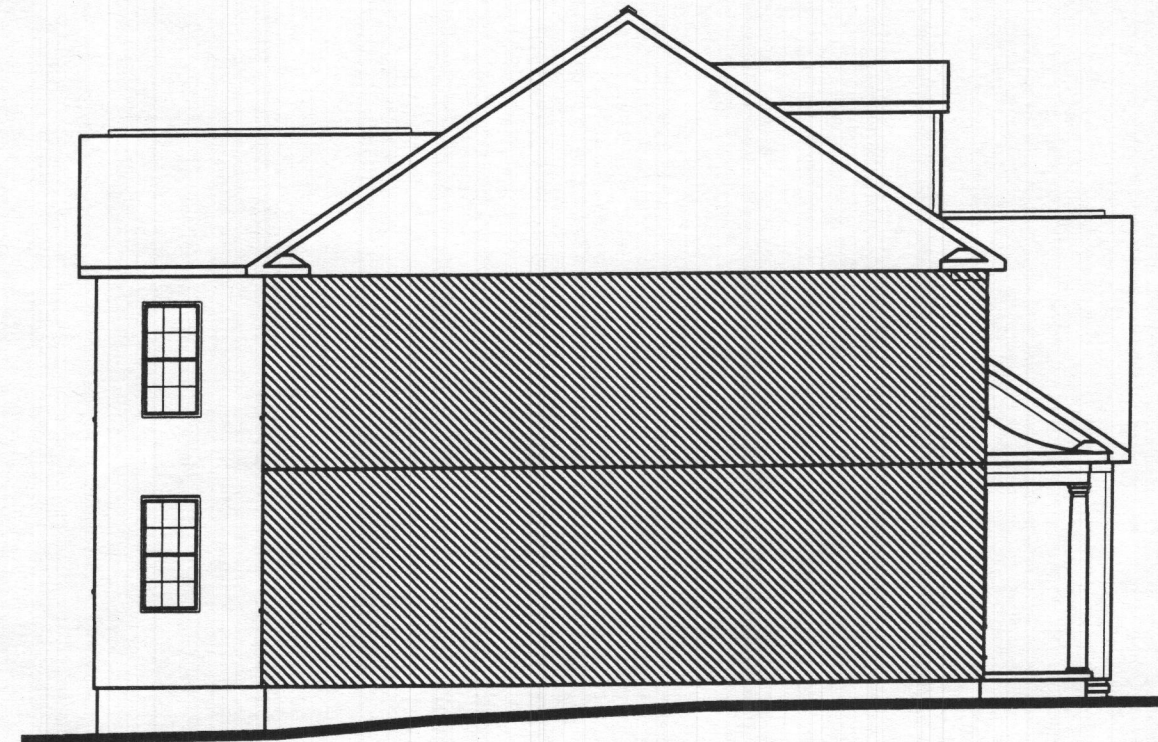


RIGHT ELEVATION
 NOT TO SCALE

-  CONTINUOUS SHEATHING
-  PORTAL FRAMES
 SEE 4.54



REAR ELEVATION
 NOT TO SCALE



LEFT ELEVATION
 NOT TO SCALE

Potomac Base Plan BURKARD HOMES, LLC
 5300 DORSEY HALL DRIVE - SUITE 102
 ELLICOTT CITY, MARYLAND 21042
 240-375-1052

SCALE: 3/16" = 1'-0" PRINT: January 02, 2014
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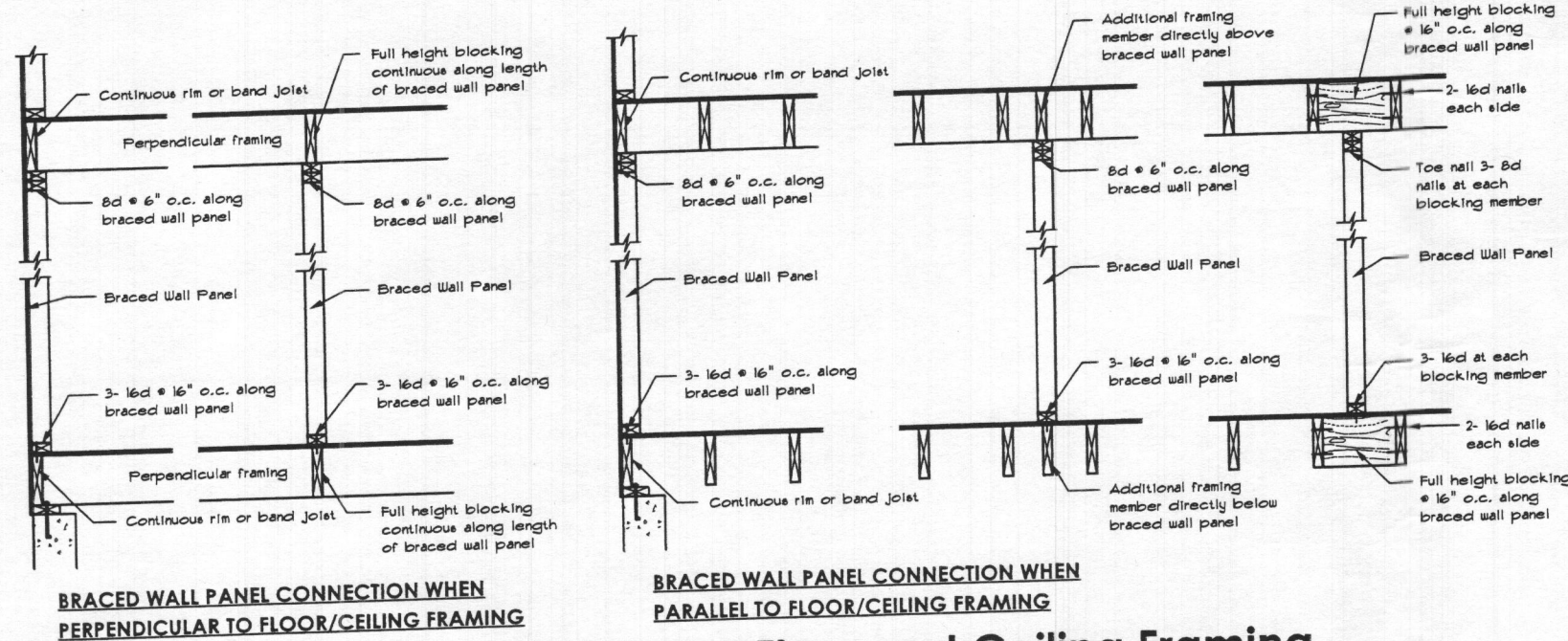
ELEV
 BRACING
4.53

NOTES

Methods WSP & CS-WSP: Min. 7/16" OSB Wood Structural Panel sheathing attached to framing with 6d at 6" o.c. at panel edges and 12" o.c. at intermediate framing members.

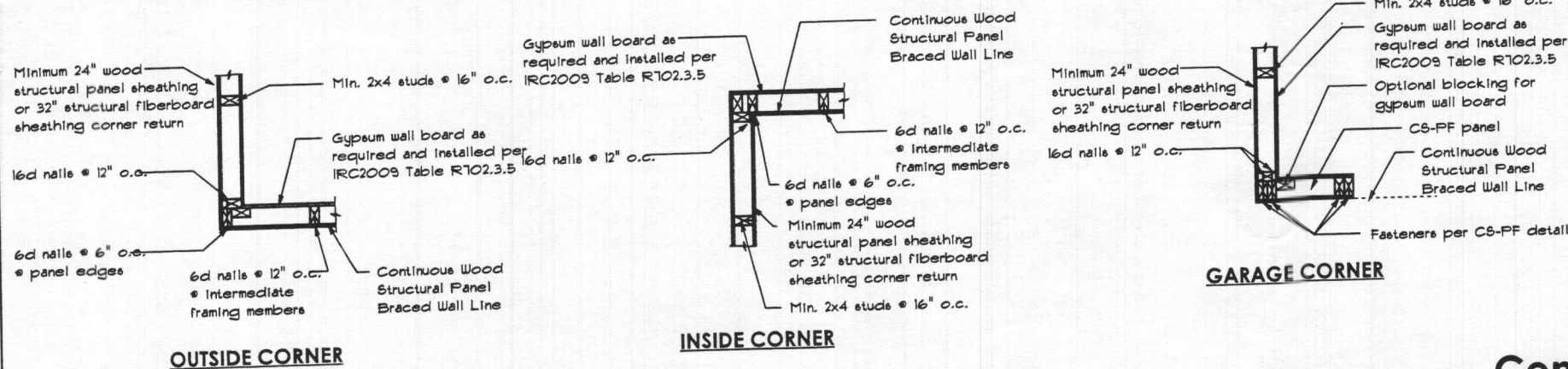
Note: At Braced Wall Lines incorporating Continuously Sheathed bracing methods (CS-WSP & CS-PF), all exterior walls along the Braced Wall Line must be fully sheathed with min 7/16" OSB Wood Structural Panel sheathing fastened per IRC 2009 Tables R602.3(1), R602.3(2), and R602.3(3).

Method GB: Min. 1/2" gypsum board applied to each side of framing with adhesive and Type S or W screws @ 7" o.c. at panel edges and 24" o.c. at intermediate framing members or nails per IRC 2009 Table R702.3.5 @ 7" o.c. at panel edges and 16" o.c. at intermediate framing members.

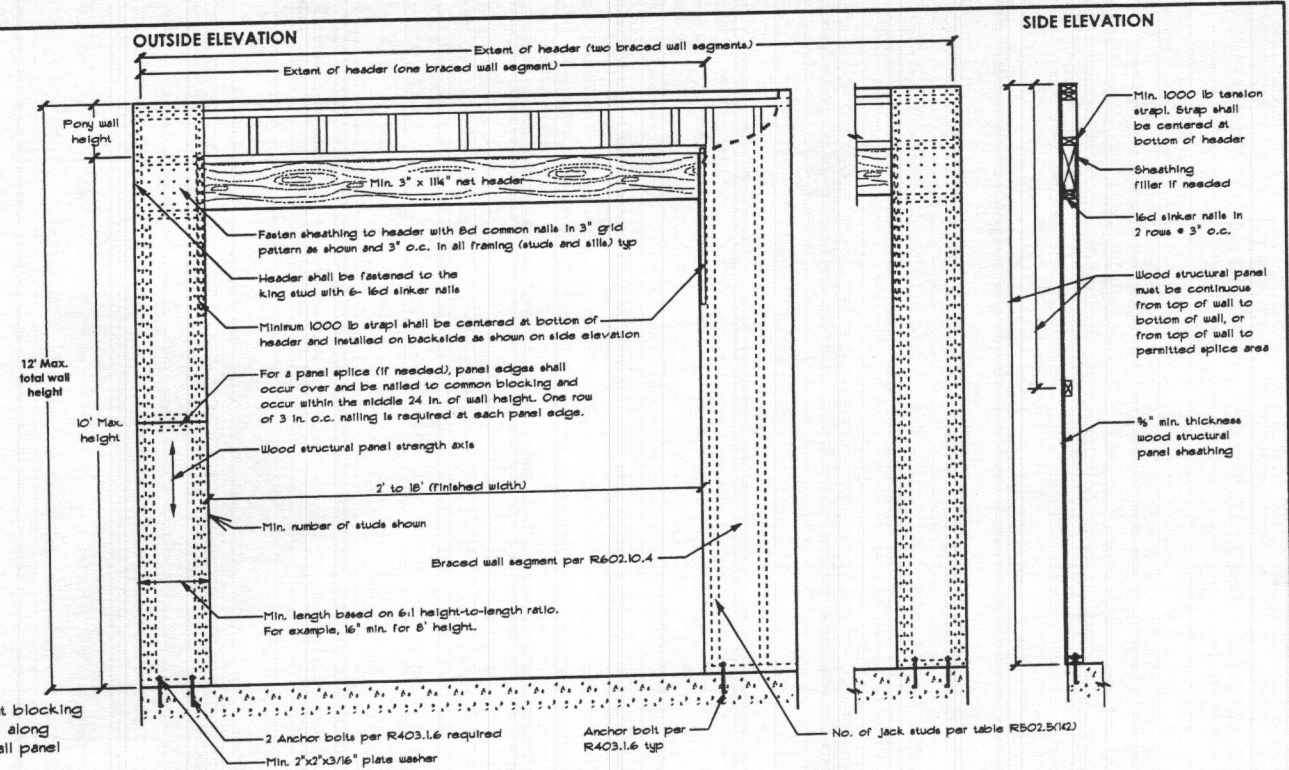


Braced Wall Panel Connections to Floor and Ceiling Framing

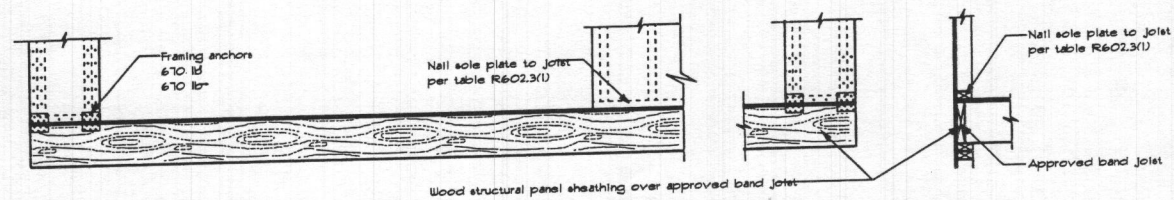
NOT TO SCALE



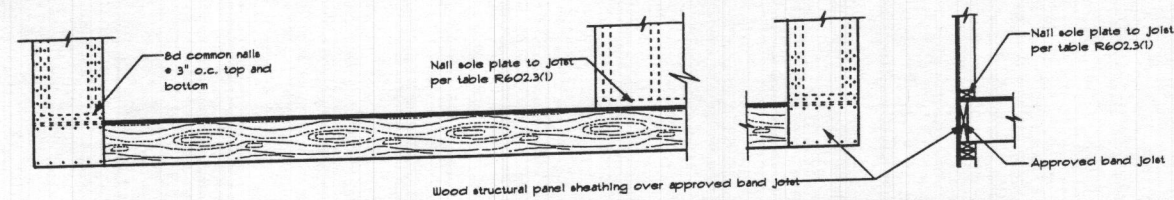
Corner Framing Details



OVER CONCRETE OR MASONRY BLOCK FOUNDATION



OVER RAISED WOOD FLOOR OR SECOND FLOOR - FRAMING ANCHOR OPTION



OVER RAISED WOOD FLOOR OR SECOND FLOOR - WOOD STRUCTURAL PANEL OVERLAP OPTION

Tension Strap Capacity Required for Method CS-PF

Minimum Wall Stud Framing Nominal Size and Grade	Maximum Pony Wall Height (feet)	Maximum Total Wall Height (feet)	Maximum Opening Width (feet)	Wind Exposure B		Wind Exposure C	
				Tension strap capacity required (lb)			
2x4 No. 2 Grade	0	10	18	1000	1000	1000	1000
				9	1000	2375	1000
				16	1000	2375	1000
				18	1200	2750	1000
	2	10	12	9	1000	1500	1500
				16	2025	3500	2000
				18	2400	DR	DR
				9	1200	2750	DR
2	12	12	9	3200	DR	DR	
			16	3850	DR	DR	
			18	2350	DR	DR	
			9	1000	1500	1500	
2x4 Stud Grade	2	12	9	2025	3500	3500	
			16	2450	4100	4100	
			18	1500	2750	2750	
			9	3150	DR	DR	
4	12	12	9	3675	DR	DR	
			16	DR	DR	DR	
			18	DR	DR	DR	
			9	DR	DR	DR	

Note: 1. Basic Wind Speed of 90mph. For other Basic Wind Speeds, see IRC 2009 Table R602.10.4.1.1.
2. DR = Design Required

GARAGE CORNER

CS-PF Continuous Portal Frame

NOT TO SCALE

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BURKARD HOMES, LLC

5300 DORSEY HALL DRIVE - SUITE 102
ELLICOTT CITY, MARYLAND 21042

240-375-1052

Potomac Base Plan

SCALE: 3/16" = 1'-0"
06-15-09 PRELIMINARY BASE SET
10-02-12 2012 Code Revisions

BRACING
DETAILS

4.54

ALL TRUSS OVERHANGS/EAVES ARE SHOWN AT 12"

CONTINUOUS RIDGE VENT, TYP.
PROVIDE 1/2" GAP IN SHEATHING

TYPICAL ROOF:
ARCHITECTURAL SHINGLE
OVER 15# ROOFING FELT
OVER 7/16" OSB W/ CLIPS

R-49 INSUL. TYP.
W/ BAFFLES AS REQ'D

6" FASCIA BOARD,
ALUMINUM WRAP, TYP.
W/ VENTED SOFFIT, TYP.

6'-11 1/2"
TOP OF PLATE
TYPICAL WALL:
HORIZONTAL SIDING OVER
7/16" OSB SHEATHING OVER
2X6 STUDS @ 16" O.C. W/
2-2X6 TOP PL. & 2X6
BOTTOM PL. W/ R-21 INSUL.

PREFIN ALUM DS & G
TOP OF SUBFLOOR

STANDARD
HORIZONTAL SIDING, TYP.
TOP OF PLATE

9'-1 1/2"
GAS DIRECT
VENT FIREPLACE
TOP OF SUBFLOOR

CONCRETE FOUNDATION WALL
FINISH TO GRADE PER COMMUNITY
REQUIREMENTS, TYP.
TOP OF PLATE

ASSUMED GRADE
SLOPES 6" IN FIRST 10'-0"
TOP OF FOOTING

CONTINUOUS CONCRETE FOOTING
SEE PLAN/NOTES FOR REINFORCING

PRE-ENGINEERED
MANUFACTURED
TRUSSES

FIBERGLASS ROOF
SHINGLES, TYP.

2X4 LADDER

OVERFRAME

6" FASCIA BOARD, ALUMINUM
WRAP, TYP. W/ VENTED SOFFIT
W/ 6" FRIEZE BOARD, TYP.

ALUMINUM DECORATIVE RAIL

6X6 ALUMINUM NEWELL POST

STONE VENEER, TYP.

10" DIA. COLUMNS, TYP.

PANEL MOULDING
OVER MDO

CONCRETE PORCH
AND STEPS

TYPICAL FOUNDATION:
CONCRETE FOUNDATION WALL
REFER TO PLAN FOR THICKNESS
AND REINFORCING
WATERPROOF BELOW GRADE

BOTTOM OF FOOTING
36" MIN. BELOW
FINISHED GRADE

3" DIA. DRAIN TILE (or per code)
PIPE TO SUMP, IN 1"-1.5" WASHED
CRUSHED STONE 6" (MIN.) ABOVE
FOOTING 2" MIN. UNDER PIPE &
12" FROM EDGE OF FOOTING
W/ FILTER MEMBRANE OVER.

SECTION NOTES

- 1) 2000 PSF MIN SOIL BEARING CAPACITY ASSUMED
- 2) BEAMS, JOISTS, HEADERS & RAFTERS TO BE SFF #1/2 OR EQ. TYP THRUOUT U.N.O.
- 3) BASEMENT WINDOW LOCATIONS TO BE DETERMINED AT PRECON.
- 4) ALL LOCATIONS FOR HVAC, SUMP PUMPS, ROUGH-INS, H/W/H, A/H AND OTHER FEATURES ARE SUBJECT TO BUILDER DISCRETION ON SITE
- 5) FOUNDATION WALL MIN. THICKNESS 10" WHERE STEM WALL AT BRICK LEDGE EXCEEDS 16" HIGH
- 6) VERIFY SIZE AND LOCATION OF WINDOWS PER GRADE & BUILDER
- 7) MIN. 1/2" HOOKED ANCHOR BOLTS EMBEDDED A MIN. 1" INTO CONC. SHALL BE SPACED AT 4' O.C. AND LOCATED 4" & 12" FROM EACH END OF ALL SILL PLATE PIECES.

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5300 DORSEY HALL DRIVE - SUITE 102
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14542 Ambreen Way
SCALE: 1/4" = 1'-0"
PRINT: Thursday, August 08, 2013
PRELIMINARY BASE SET
06-15-09
10-02-12
09-10-13
12-12-13
2012 Code Revisions
Permit Review Set
Revision

SECTION
A-A
5.01

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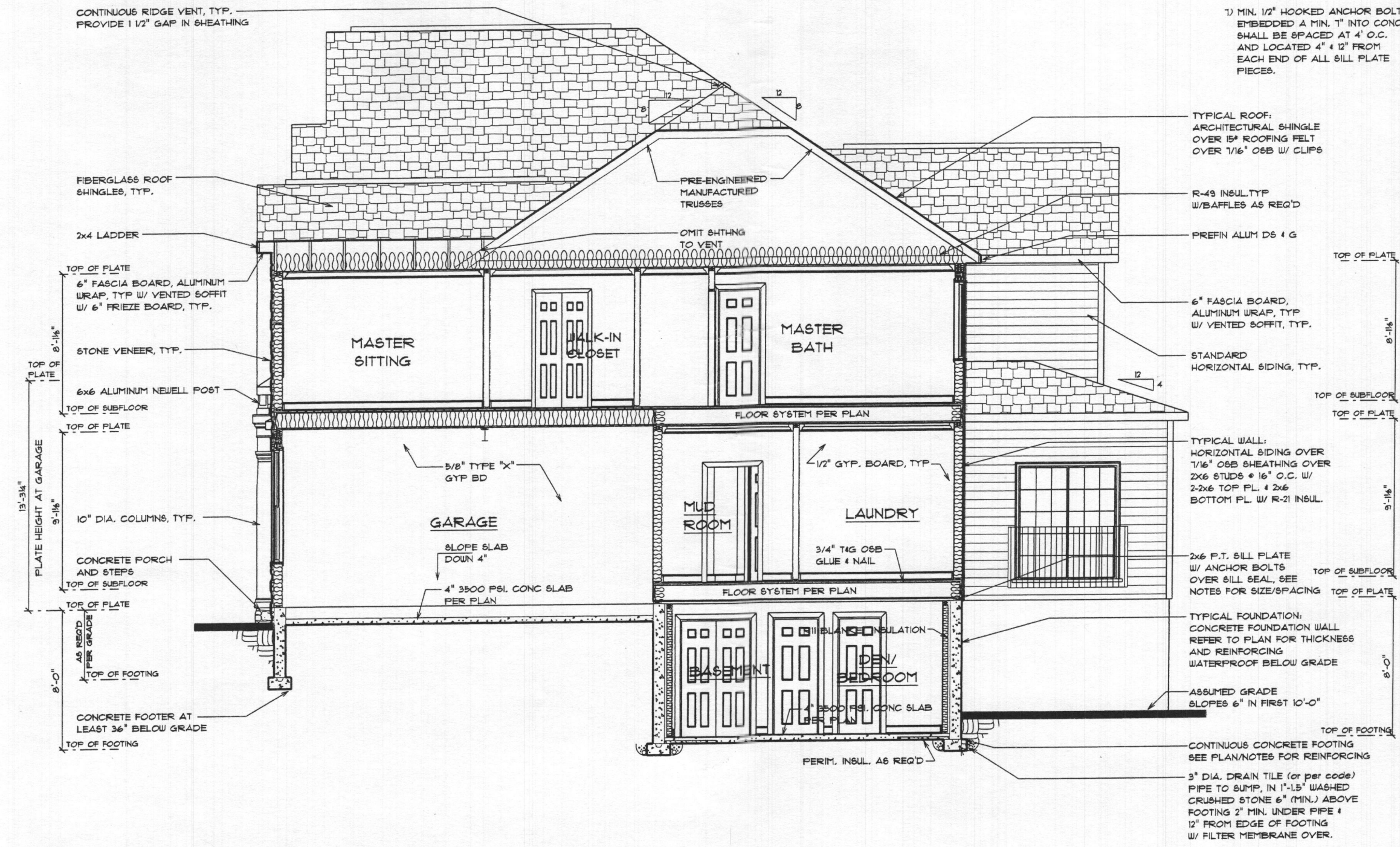
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 06-15-09
 10-02-12
 09-10-13
 12-12-13

SECTION
 B-B
5.02

- SECTION NOTES**
- 1) 2000 PSF MIN SOIL BEARING CAPACITY ASSUMED
 - 2) BEAMS, JOISTS, HEADERS & RAFTERS TO BE SPF #1/2 OR EQ. TYP THROUGH U.N.O.
 - 3) BASEMENT WINDOW LOCATIONS TO BE DETERMINED AT PRECON.
 - 4) ALL LOCATIONS FOR HYAC, SUMP PUMPS, ROUGH-INS, H/W/H, A/H AND OTHER FEATURES ARE SUBJECT TO BUILDER DISCRETION ON SITE
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 - 6) VERIFY SIZE AND LOCATION OF WINDOWS PER GRADE & BUILDER
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ALL TRUSS OVERHANGS/EAVES ARE SHOWN AT 12"



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 09-10-13
 12-12-13

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 Permit Review Set
 Revision

**SECTION
 C-C
 5.03**

SECTION NOTES

- 1) 2000 PSF MIN SOIL BEARING CAPACITY ASSUMED
- 2) BEAMS, JOISTS, HEADERS & RAFTERS TO BE SPF #1/2 OR EQ. TYP THRUOUT U.N.O.
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ALL TRUSS OVERHANGS/EAVES ARE SHOWN AT 12"

CONTINUOUS RIDGE VENT, TYP.
 PROVIDE 1 1/2" GAP IN SHEATHING

FIBERGLASS ROOF SHINGLES, TYP.

TYPICAL ROOF:
 ARCHITECTURAL SHINGLE
 OVER 15# ROOFING FELT
 OVER 1/16" OSB W/ CLIPS

PREFIN ALUM DS TIG

TOP OF PLATE
 6" FASCIA BOARD,
 ALUMINUM WRAP, TYP
 W/ VENTED SOFFIT, TYP.

R-49 INSUL. TYP
 W/ BAFFLES AS REQ'D

TOP OF SUBFLOOR
 TOP OF PLATE
 TYPICAL WALL:
 HORIZONTAL SIDING OVER
 1/16" OSB SHEATHING OVER
 2x6 STUDS @ 16" O.C. W/
 2-2x6 TOP PL. & 2x6
 BOTTOM PL. W/ R-21 INSUL.

2x6 P.T. SILL PLATE
 W/ ANCHOR BOLTS
 OVER SILL SEAL, SEE
 NOTES FOR SIZE/SPACING

TOP OF SUBFLOOR
 TOP OF PLATE
 ASSUMED GRADE
 SLOPES 6" IN FIRST 10'-0"

TOP OF FOOTING
 TYPICAL FOUNDATION:
 CONCRETE FOUNDATION WALL
 REFER TO PLAN FOR
 THICKNESS AND REINFORCING
 WATERPROOF BELOW GRADE

CONTINUOUS CONCRETE
 FOOTING. SEE PLAN/NOTES
 FOR REINFORCING



CONCRETE FOOTER AT
 LEAST 36" BELOW GRADE

3" DIA. DRAIN TILE (or per code)
 PIPE TO SUMP, IN 1'-1.5" WASHED
 CRUSHED STONE 6" (MIN.) ABOVE
 FOOTING 2" MIN. UNDER PIPE &
 12" FROM EDGE OF FOOTING &
 W/ FILTER MEMBRANE OVER.

PERIM. INSUL. AS REQ'D

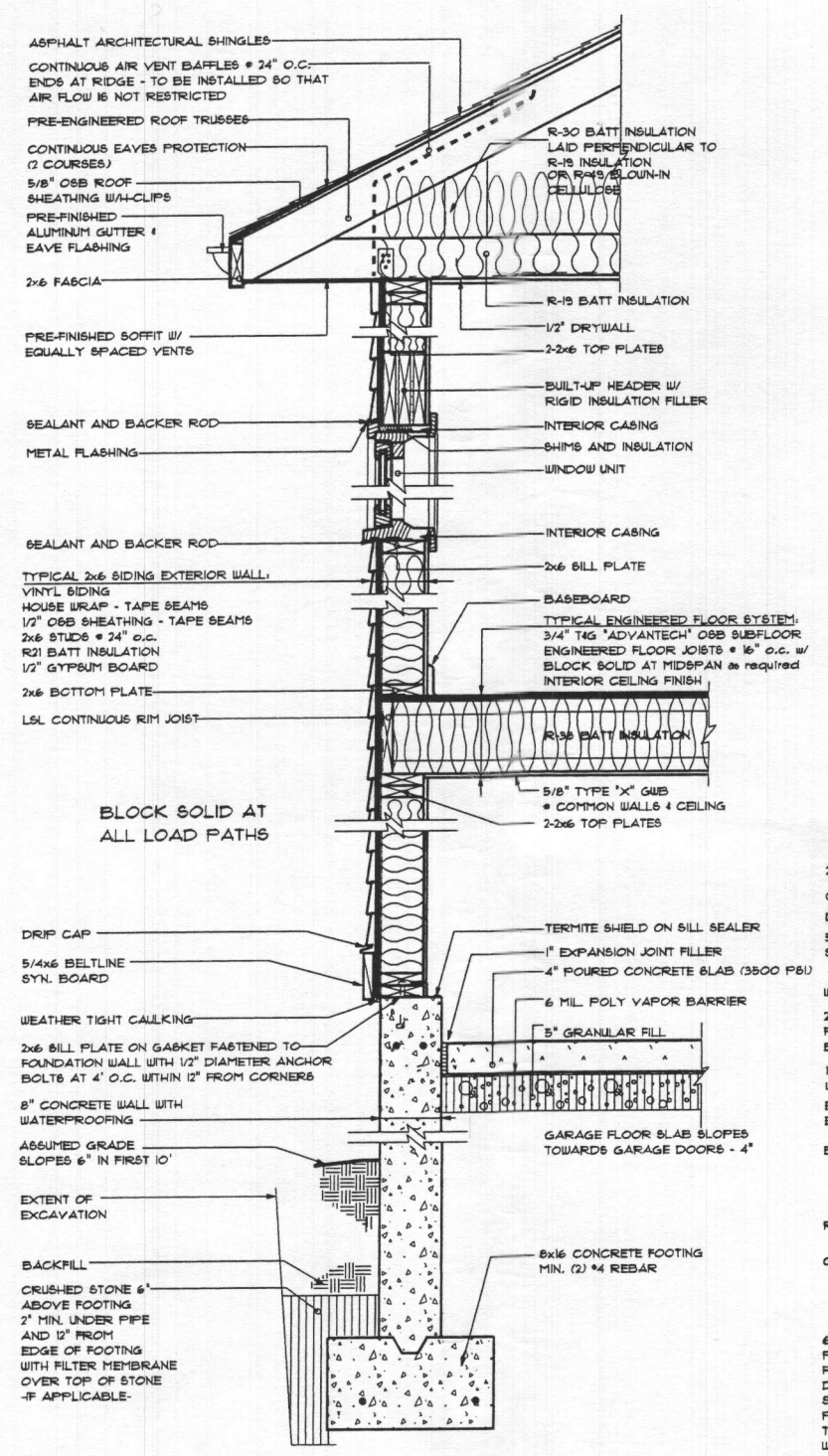
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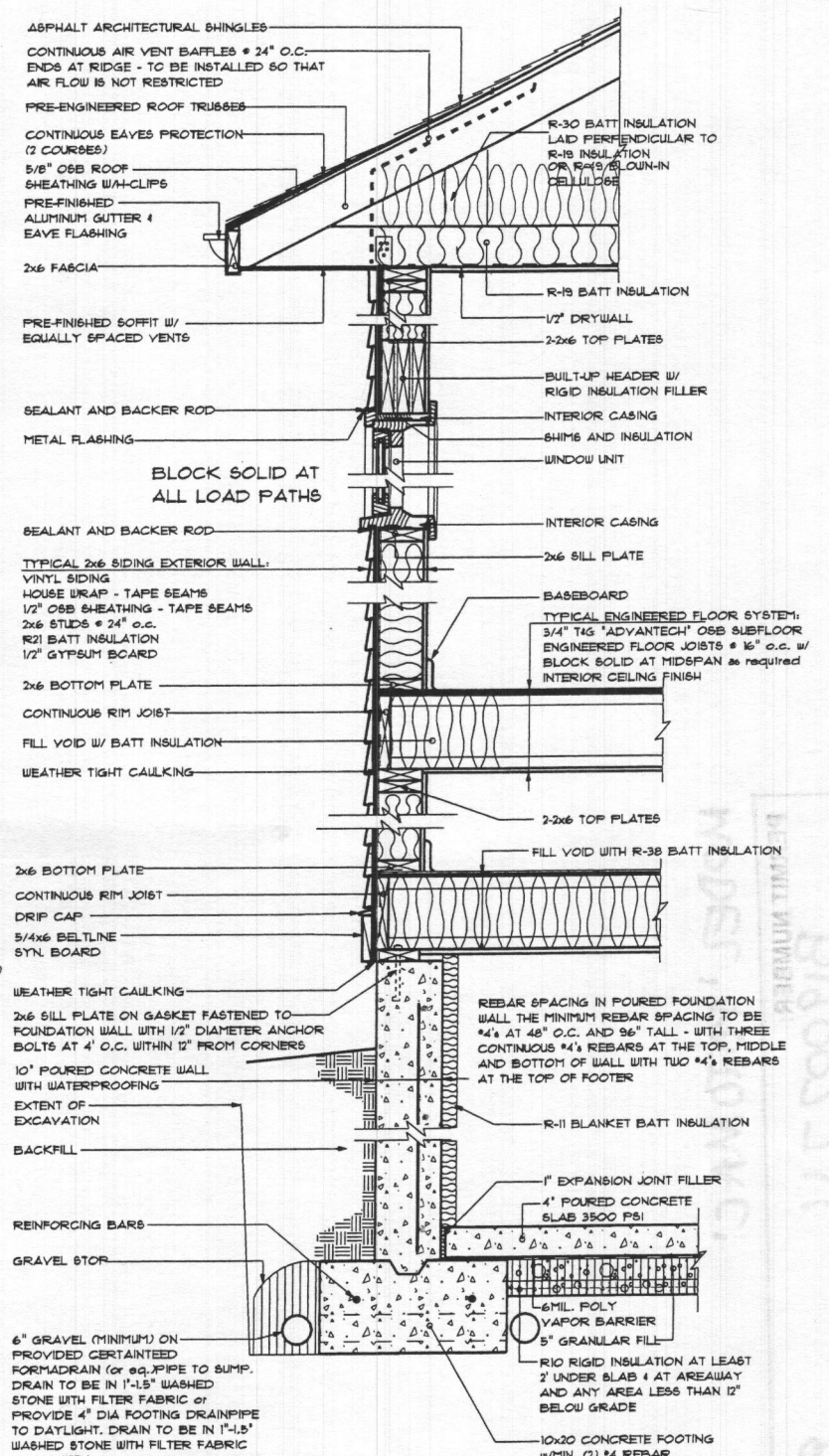
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12-12-13 Revision

WALL
SECTIONS
5.10



WALL SECTION AT GARAGE



WALL SECTION AT HOUSE BOX

SOILS TABLE (WITHIN LOD)

SYMBOL	RATING	NAME	K FACTOR	MAP #
MaB	(B)	MANOR LOAM, 3-8% SLOPES	.24	3
MaC	(B)	MANOR LOAM, 8-15% SLOPES	.24	3
MaD	(B)	MANOR LOAM, 15-25% SLOPES	.24	3

LEGEND

- SSS PROPOSED CONTOURS
- 66x06 PROPOSED SPOT ELEVATION
- LOD LIMIT OF DISTURBANCE (LOD)
- SF SILT FENCE
- SCE STABILIZED CONSTRUCTION ENTRANCE
- RL ROOF LEADER
- W PROPOSED WELL
- ① PRIMARY SEPTIC TRENCH
- ② SECONDARY SEPTIC TRENCH
- ③ TERTIARY SEPTIC TRENCH
- WELL REPLACEMENT ZONE

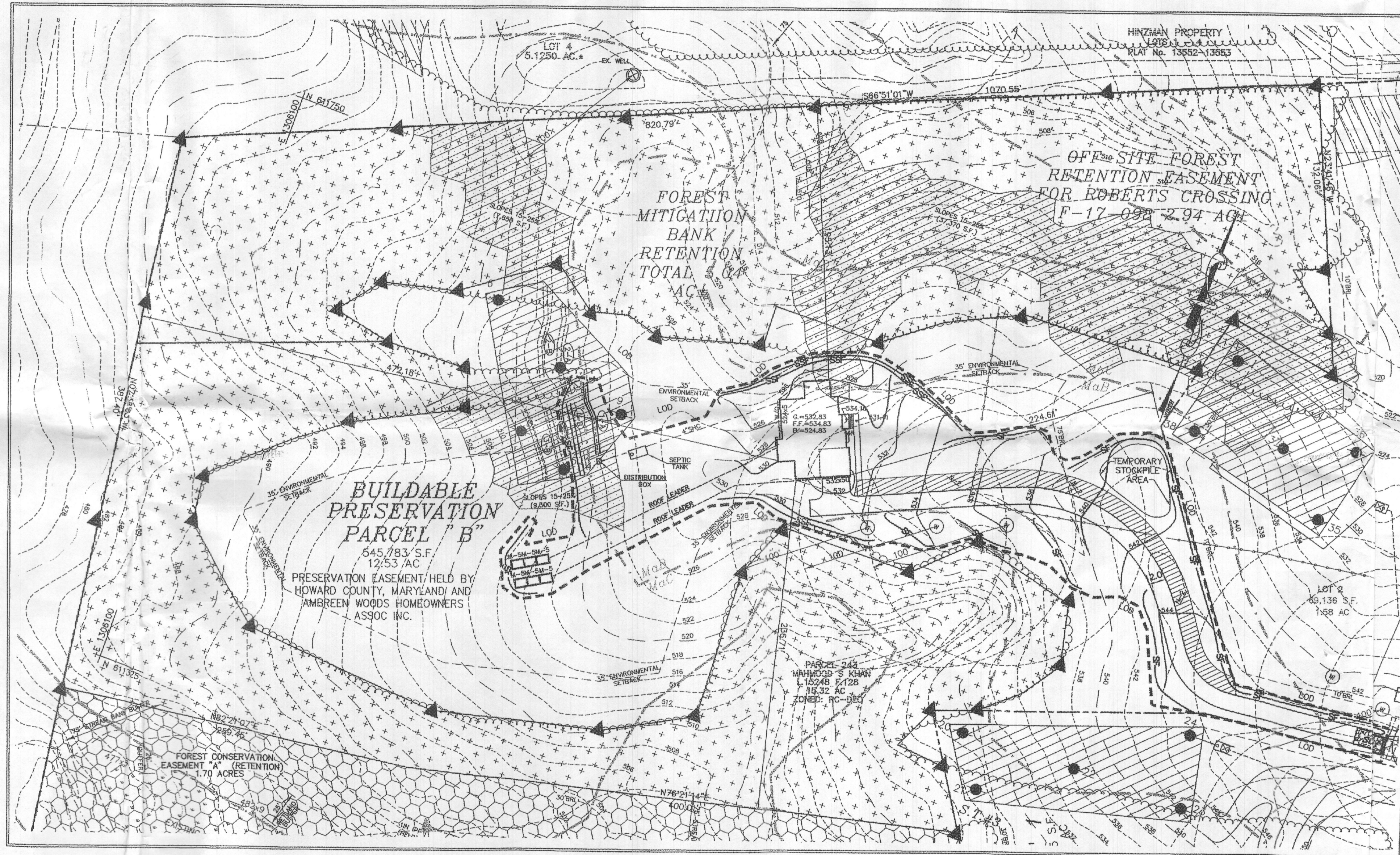
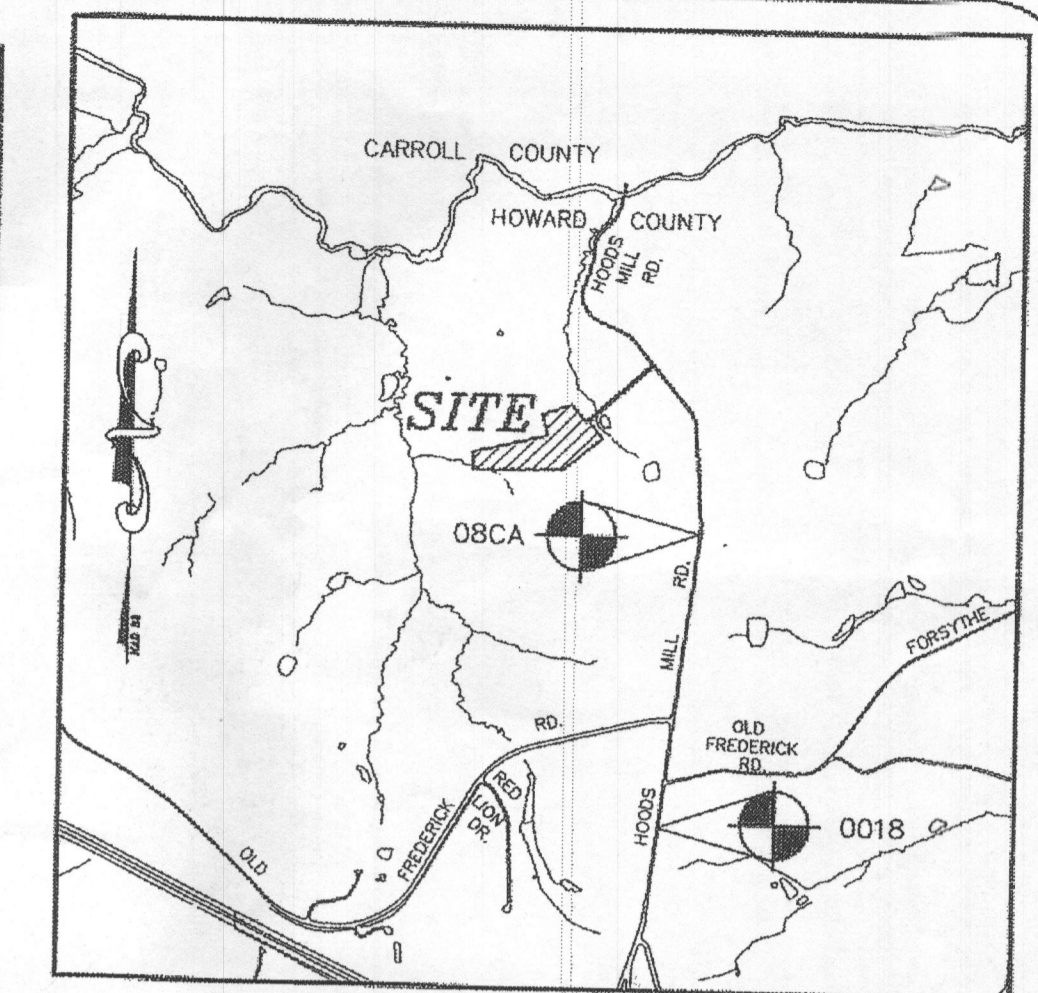
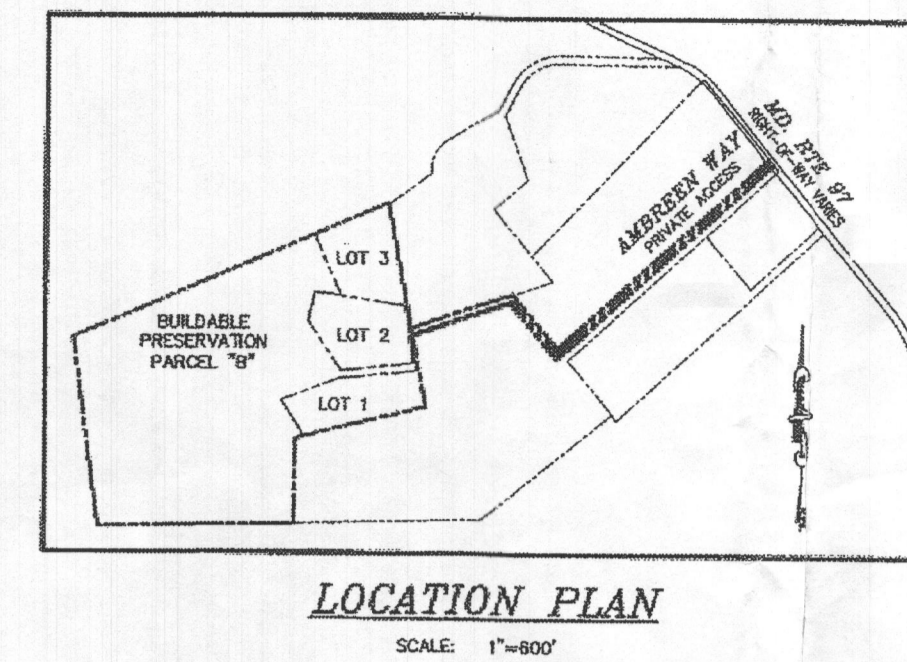
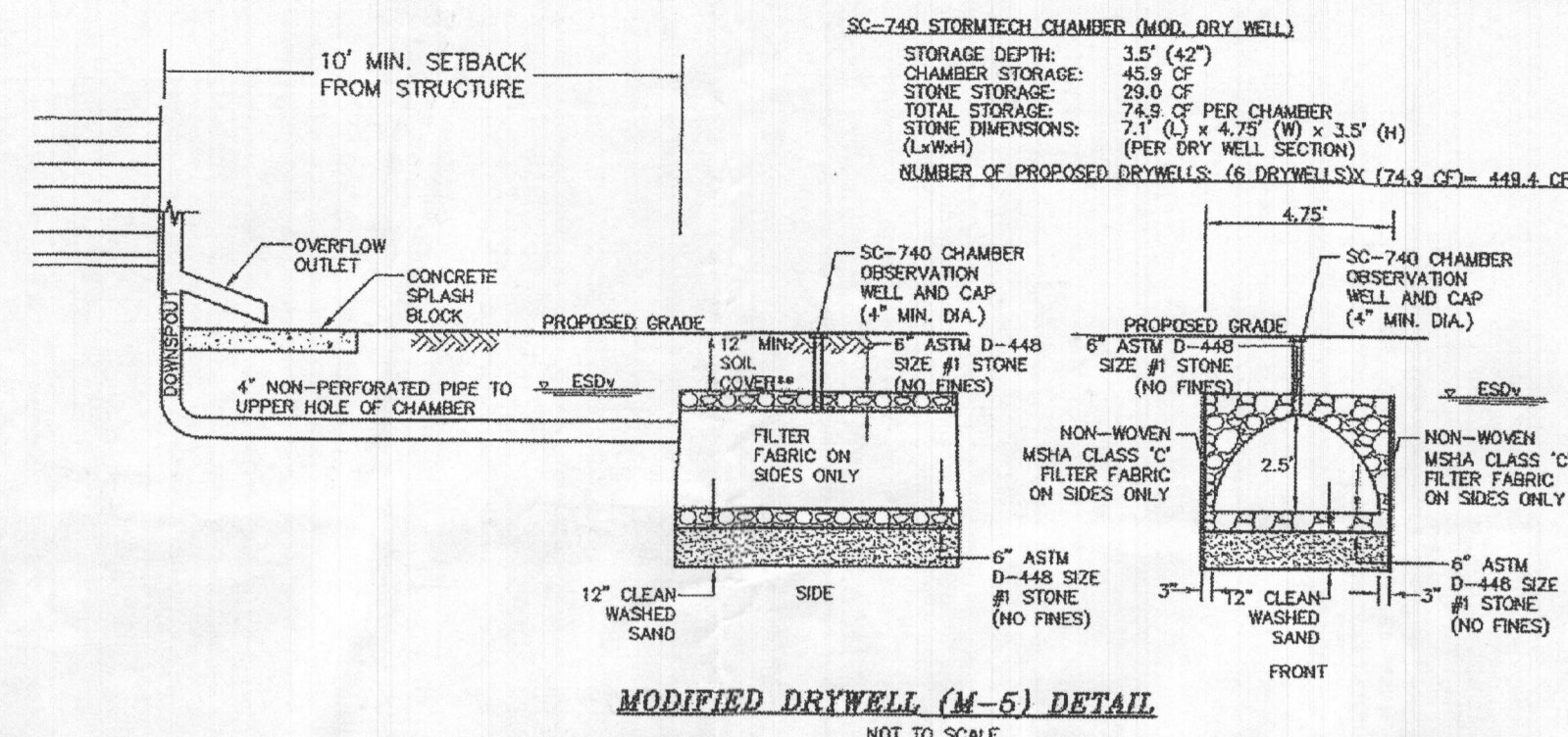
SEPTIC TRENCH ELEVATIONS

TRENCH	EX. GROUND ELEVATION	INVERT ELEVATION	BOTTOM OF TRENCH EL.
PRIMARY A	522.0	520.0	517.0
PRIMARY B	519.5	517.5	514.5
SECONDARY A	519.5	516.5	514.5
SECONDARY B	517.5	514.5	512.5
TERTIARY A	516.5	514.5	511.5
TERTIARY B	514.0	512.0	509.0

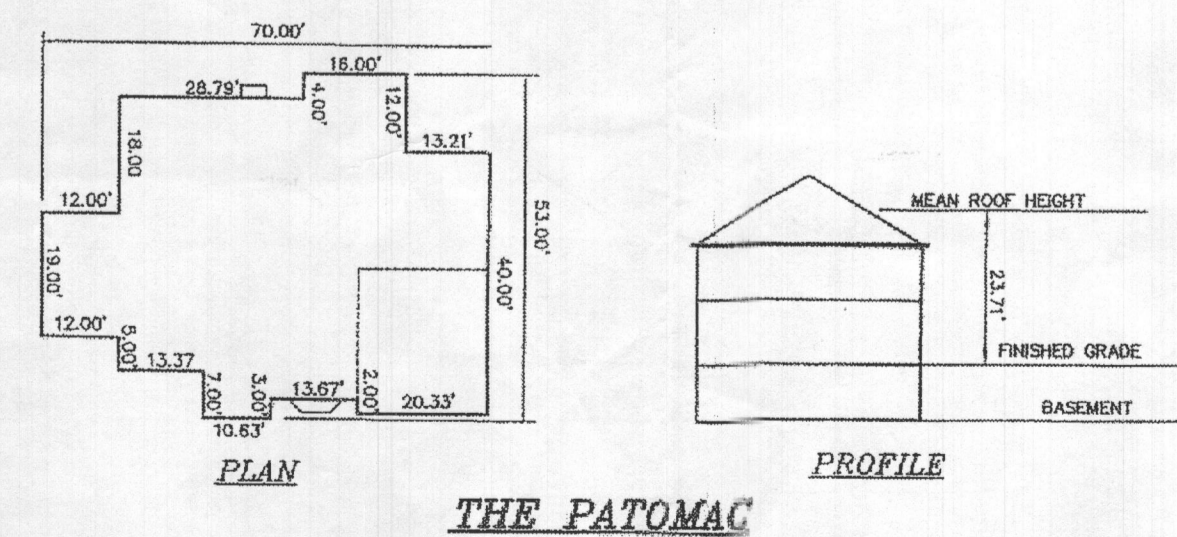
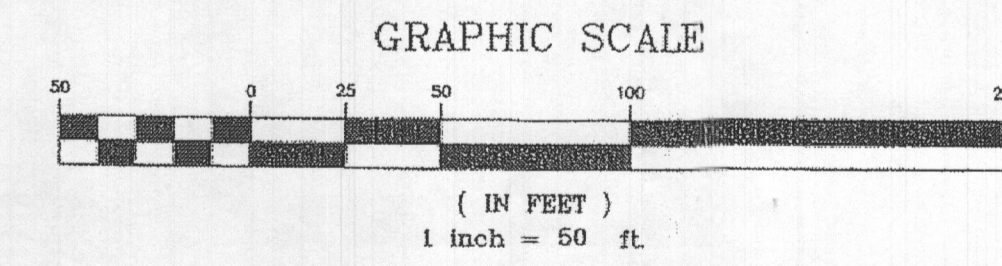
SEWER SYSTEM ELEVATIONS

DESCRIPTION	ELEVATION
BASEMENT ELEVATION	524.83
INVERT OUT OF THE HOUSE	522.33
INVERT INTO SEPTIC TANK	520.91
FINISHED GRADE AT SEPTIC TANK	526.00
TOP OF THE TANK	522.08
INVERT INTO DISTRIBUTION BOX	520.20

SWM FOR THIS LOT IS PROVIDED BY DRYWELLS AND NON-ROOFTOP DISCONNECTIONS. IT WAS APPROVED AND CONSTRUCTED UNDER F-17-036.



- GENERAL NOTES:**
- THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
 - PARCEL BACKGROUND:
TAX MAP: 8
PARCEL: 243
LOT: BUILDABLE PRESERVATION PARCEL "B"
DEED REFERENCE: 15248/128
ELECTION DISTRICT: FOURTH
ZONING: RR-DEO
AREA: 12.53 AC
DPT FILES: ECP-16-054, F-17-036
 - TOPOGRAPHY FOR THE DEVELOPED AREAS IS BASED ON FIELD RUN SURVEY PERFORMED BY MILDENBERG, BOENDER & ASSOC., INC. ON OR ABOUT DECEMBER 2014.
 - PRIVATE WELL AND SEPTIC WILL BE UTILIZED.
 - THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQ. FT. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.
 - ANY CHANGES TO THE LOCATION OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED PLAN MAY BE REQUIRED.
 - THE MAXIMUM EARTH COVER OVER THE TANK IS THREE (3) FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
 - THE WELL TAG # HO-15-0372 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
 - ANY WELLS OR SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELL AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
 - LOD= 55,130 SQ.FT.
- NOTE:
DOUBLE ROW OF SUPER SILT FENCE (9SF) TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR FROM PROPOSED CONTOURS 535 TO 526.



ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
SIGNATURE OF ENGINEER: R. JACOB HIKMAT, PE
DATE: 08/06/19

DEVELOPERS CERTIFICATE
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. HOWARD SOIL CONSERVATION DISTRICT IS AUTHORIZED TO CONDUCT PERIODIC ON-SITE INSPECTION.
SIGNATURE OF DEVELOPER: Tia Pulaski
DATE: 8/6/19

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
DATE: 8/7/19

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP DATE 09/03/20.
SIGNATURE OF ENGINEER: R. JACOB HIKMAT, P.E.
DATE: 08/06/19



OWNER/DEVELOPER
BURKARD HOMES, LLC
5850 WATERLOO ROAD, SUITE 150
COLUMBIA, MD 21045
(410)375-1052

5 Between only
BPT #19002711
Date: 8-3-19
Signature: [Handwritten]
Approved Septic System Plan
Howard County Health Department

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
7350-B Grace Drive, Columbia, MD 21044
(410) 997-0286 Tel. (410) 997-0288 Fax.

1 OF 2

(B-4-2) STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

DEFINITION: THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES: WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

CRITERIA:

A. SOIL PREPARATION

1. **TEMPORARY STABILIZATION**

a. SEEDING PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOW OR RIPPER/S MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENEED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE LEFT WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.

b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.

c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

2. **PERMANENT STABILIZATION**

a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:

i. SOIL PH BETWEEN 6.0 AND 7.0.

ii. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).

iii. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOESS/CLAY IS PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.

iv. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.

v. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.

b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.

c. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENEED TO A DEPTH OF 3 TO 5 INCHES.

d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF SOIL TESTS.

e. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE. REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDING PREPARATION. TRACTOR DISKS OR FLAT TIRE WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDING LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

B. TOPSOILING

1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.

3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.

b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.

c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.

d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.

5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:

a. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, LOAMY SAND, OR LOAMY SANDY. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIC OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF ONDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DIAMETER.

b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMOUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

c. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIC OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

6. TOPSOIL APPLICATION

a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.

b. UNIFORMLY DISTRIBUTE TOPSOIL IN 3 TO 5 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

c. THE TOPSOIL MUST BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING PREPARATION.

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSIS.

2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FINE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE FEDERAL LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.

3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE) FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.

4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

5. WHERE THE SUBSOIL IS EITHER HEAVILY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 6 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

(B-4-3) STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

DEFINITION: THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

PURPOSE: TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

CONDITIONS WHERE PRACTICE APPLIES: TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

CRITERIA:

A. SEEDING

1. **SPECIFICATIONS**

a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.

b. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.

c. INOCULANTS: THE INOCULANT FOR TREATING LEGUMES IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.

d. SOO OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

2. **APPLICATION**

a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.

i. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.

ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDING AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.

b. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.

i. CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1 1/4 INCH OF SOIL COVERING. SEEDING MUST BE FIRM AFTER PLANTING.

ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.

c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).

i. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P₂O₅ (PHOSPHORUS), 200 POUNDS PER ACRE; K₂O (POTASSIUM), 200 POUNDS PER ACRE.

ii. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE) MAY BE APPLIED BY HYDROSEEDING. NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.

iii. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.

iv. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING

1. MULCH MATERIALS (IN ORDER OF PREFERENCE)

a. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT WEEDY, DAMAGED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.

b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.

i. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.

ii. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATING OR GROWING INHERITING FACTORS.

iii. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER WILL REMAIN UNFROZEN IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDS.

iv. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.

v. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.

2. **APPLICATION**

a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.

b. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 2 TO 4 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOLL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.

c. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

3. **ANCHORING**

a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:

i. A MULCH ANCHORING TOLL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE. A MINIMUM OF 2 INCHES OF MULCH IS TO BE ANCHORED. MULCHING SHALL BE LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.

ii. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

iii. SYNTHETIC BINDERS SUCH AS ACRYLIC URE (ACR-90), TERPETROL, TERRA TALK, TERRA TACK OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS.

iv. ASPHALT BINDERS IS STRICTLY PROHIBITED.

v. WEIGHTED PLASTIC NETTING IS AVAILABLE OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

STANDARD SEDIMENT CONTROL NOTES

1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE L.O.D. AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:

a. PRIOR TO THE START OF EARTH DISTURBANCE.

b. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.

c. PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT.

d. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.

OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.

2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.

3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1), AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.

4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-3), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15' OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET, ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL REMEDIATION MATTING (SEC. B-4-6).

5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE CID.

6. **SITE ANALYSIS:**

TOTAL AREA OF SITE: 12.57 ACRES

AREA DISTURBED: 0.24 ACRES

AREA TO BE ROOFED OR PAVED: 0.24 ACRES

AREA TO BE VEGETATIVE STABILIZED: 1.02 ACRES

TOTAL CUT: 3,000 CU. YDS.

TOTAL FILL: 3,000 CU. YDS.

OFFSITE WASTE/BORROW AREA LOCATION:

(B-4-5) STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION: TO STABILIZE DISTURBED SOIL WITH PERMANENT VEGETATION.

PURPOSE: TO USE LONG-LEIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER OF DISTURBED AREAS.

CONDITIONS WHERE PRACTICE APPLIES: EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CRITERIA:

A. SEED MIXTURES

1. **GENERAL USE**

a. SELECT ONE OR MORE OF THE SPECIES OF MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3) AND BASED IN THE SITE CONDITION OR PURPOSE. FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY.

b. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DINES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD GUIDE, SECTION 342-CRITICAL AREA PLANTING.

c. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW RATES RECOMMENDED BY THE SOIL TESTING AGENCY.

d. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FROM FERTILIZER (40-0-01) AT 3 1/2 POUNDS PER 1000 SF. (50 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.

2. **TURFOGRASS MIXTURES**

a. AREAS WHERE TURFOGRASS MAY BE DESIRE INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.

b. SELECT ONE OR MORE OF THE SPECIES OF MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY.

i. KENTUCKY BLUEGRASS: FULL SUN MIXTURE. FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SF. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.

ii. KENTUCKY BLUEGRASS/PERENIAL RYE: FULL SUN MIXTURE. FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SF. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.

iii. TALL FESCUE/KENTUCKY BLUEGRASS: FULL MIXTURE. FOR USE IN DROUGHT AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS: 65 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS: 35 TO 35 PERCENT, SEEDING RATE: 5 TO 8 PERCENT PER 1000 SF. ONE OR MORE CULTIVARS MAY BE BLENDED.

iv. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE. FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS: 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATES 1 1/2 TO 3 POUNDS PER 1000 SF.

c. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURE

i. WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDNESS ZONES: 5B,6A)

ii. CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDNESS ZONES: 6B)

iii. SOUTHERN MD, EASTERN SHORE, MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDNESS ZONES: 7A, 7B)

d. TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES. LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONE AND DEBRIS OVER 1.5 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASS WILL POSE NO DIFFICULTY.

e. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH 0.5 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY CRITICAL ON DRY OR GROWING IN THE PLANTING SEASON, AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

(B-4-6) STANDARDS AND SPECIFICATION FOR STOCKPILE AREA

DEFINITION: A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.

PURPOSE: TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGES TO DRAINAGE PATTERNS.

CONDITIONS WHERE PRACTICE APPLIES: STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE.

CRITERIA:

1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE PLAN AND APPROVED BY THE INSPECTION AGENCY.

2. THE FOOTPRINT OF STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NOT STEEPER THAN 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.

4. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE.

5. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DITCH SUCH AS AN EARTH DITCH, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.

6. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.

7. STOCKPILE MUST BE STABILIZED IN ACCORDANCE WITH THE 3/2 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.

8. IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHOULD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST COVERED WITH IMPERMEABLE SHEETING.