Permits: 410-313-2455
Inspections: 410-313-1810
Automated Line: 410-313-3800

Howard County Building/Fire Permit Application
Department of Inspections, Licenses & Permits
3430 Court House Drive
Ellicott City, MD 21043

Permit Number: B12000692

PARASKEVOPOULOS

Building Address: 15507 Bushy Tail Run
Woodbine MD 21797

Suite/Apt. #: _____ SDP/WP/BA #: _____

Census Tract: _____ Subdivision: _____

Section: _____ Area: _____ Lot: _____

Tax Map: _____ Parcel: _____ Grid: _____

Zoning: _____ Map Coordinates: _____ Lot Size: _____

Existing Use: Std

Proposed Use: std w/ addition

Estimated Construction Cost: $ 75,000

Description of Work: 1-story addition with basement

Occupant or Tenant: Owner

Was tenant space previously occupied? ☐Yes ☐No

Contact Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Phone: _____ Fax: _____

Email: _____

Property Owner's Name: Nicholas & Lisa

Address: 15507 Bushy Tail Run

City: Woodbine State: MD Zip Code: 21797

Home Phone: 410.489.5063 Work Phone: 443.538.1875

Applicant's Name & Mailing Address, (If other than stated herein):

Phone: _____ Fax: _____

Email: _____

Contractor Company: Rohde Builders

Contact Person: Jack Rohde

Address: 3671 Conifer Drive

City: Reisterstown State: MD Zip Code: 21136

License No.: 71245

Phone: 443.677.9494 Fax: _____

Email: ~~Jack@Rohdebuilders.com~~

Engineer/Architect Company: SRA Architecture

Responsible Design Prof.: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Phone: 443.226.5745 Fax: _____

Email: _____

BUILDING DESCRIPTION - COMMERCIAL

Building Characteristics	Utilities
Height:	***Water Supply***
No. of stories:	☐ Public
Gross area, sq. ft./floor:	☐ Private
	Sewage Disposal
Area of construction (sq. ft.):	☐ Public
	☐ Private
Use group:	Electric: ☐ Yes ☐ No
	Gas: ☐ Yes ☐ No
Construction type:	***Heating System***
☐ Reinforced Concrete	☐ Electric ☐ Oil
☐ Structural Steel	☐ Natural Gas ☐ Propane Gas
☐ Masonry	***Sprinkler System:***
☐ Wood Frame	☐ N/A
☐ State Certified Modular	☐ Full
Roadside Tree Project Permit	☐ Partial
☐Yes ☐No	☐ Other Suppression
Roadside Tree Project Permit #	No. of Heads:

BUILDING DESCRIPTION – RESIDENTIAL

Building Characteristics			Utilities
☐ SF Dwelling ☐ SF Townhouse			***Water Supply***
	Depth	Width	☐ Public
1st floor:	58'2	40'2"	☒ Private
2nd floor:			***Sewage Disposal***
Basement:			☐ Public
☐ Finished Basement			☒ Private
☒ Unfinished Basement			Electric: ☒ Yes ☐ No
☐ Crawl Space			Gas: ☐ Yes ☒ No
☐ Slab on Grade			***Heating System***
No. of Bedrooms:			☒ Electric
Multi-family Dwelling			☐ Oil
No. of efficiency units:			☐ Natural Gas
No. of 1 BR units:			☐ Propane Gas
No. of 2 BR units:			
No. of 3 BR units:			1,650 sf
Other Structure:			
Dimensions:			
Footings:			Roadside Tree Project Permit
Roof:			☐Yes ☐No
☐ State Certified Modular			Roadside Tree Project Permit #
☐ Manufactured Home			

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature

Jack Rohde
Print Name

Jack@rohdebuilders.com
Email Address

3/7/12
Date

Principal Rohde Builders
Title/Company

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

PLEASE WRITE NEATLY & LEGIBLY

FOR OFFICE USE ONLY

AGENCY	DATE	SIGNATURE OF APPROVAL
State Highways		
Building Officials		
PSZA (Zoning)		
PSZA (Engineering)		
Health	5-24-12	Dana Bernard
Fire Protection		

Is Sediment Control approval required for issuance? ☐ Yes ☐ No
☐ CONTINGENCY CONSTRUCTION START
☐ ONE STOP SHOP

DPZ SETBACK INFORMATION	
Front:	
Rear:	
Side:	
Side St.:	
All minimum setbacks met? ☐ Yes ☐No	
Is Entrance Permit Required? ☐ Yes ☐No	
Historic District? ☐ Yes ☐No	
Lot Coverage for New Town Zone:	
SDP/Red-line approval date:	

Filing Fee	$ 250
Permit Fee	$
Tech Fee	$
Excise Tax	$
PSFS	$
Guaranty Fund	$
Add'l per Fee	$
Total Fees	$
Sub- Total Paid	$
Balance Due	$

Check 4330

Distribution of Copies: White: Building Officials Green: PSZA,Zoning Yellow: PSZA,Engineering Pink: Health Gold: SHA

T:\Operations\Updated Forms\New building app 11.10.2010.docx

Bernard, Dana

From: Bernard, Dana
Sent: Wednesday, March 28, 2012 10:45 AM
To: 'jack@rohdebuilders.com'
Subject: RE: Building Permit B12000692

Great! When you draw your plans make sure you place the propane tank in its exact location. I will have to come out for a site visit to confirm. The MDE statement must also be included on your plan. When you complete your all of your documents we can schedule an appointment to go over them. I will be available next week for appointments on Monday through Thursday. I have Fridays off, so call me to schedule when you are ready for a review.

Thanks
Dana

-----Original Message-----
From: jack@rohdebuilders.com [mailto:jack@rohdebuilders.com]
Sent: Wednesday, March 28, 2012 10:34 AM
To: Bernard, Dana
Cc: jack@rohdebuilders.com
Subject: Re: Building Permit B12000692

Dana -

Thank you for meeting with me on short notice on Monday afternoon at 4pm. As we discussed I am moving forward on the requirements.

I did locate the Propane tank which on the permit from 2003 indicates it was 15' away from the house. It is actually about 100' feet from the addition side of the house and not 15'. I took 3 photos and attached them. Let me know your thoughts on how to proceed.

Additionally I have a few questions.

When I complete the information should I meet with you to submit everything? If so can we meet on Thursday or Friday? I think you may be off of Fridays.

The MDE statement for lots created after 1972: Does that statement also have to be on the plot/map?

I think that should be everything.

Thank you for your time

Jack Rohde, MBA
Principal
Rohde Builders, Inc.
Office 443.507.5940
Mobile 443.677.9494
www.rohdebuilders.com

>-----Original Message-----
>From: Bernard, Dana [mailto:dbernard@howardcountymd.gov]
>Sent: Thursday, March 22, 2012 05:26 PM
>To: JACK@ROHDEBUILDERS.COM
>Subject: Building Permit B12000692
>
>Mr. Rohde,
>
>I have attached a letter containing information regarding building permit # B12000692. If you have any questions please don't hesitate to give me a call.
>
>
>
>Sincerely,
>Dana Bernard
>Dana Bernard, REHS/RS
>Bureau of Environmental Health
>Well and Septic Program
>Development and Coordination Section
>Phone (410) 313-2775
>Fax (410) 313-2648
>E-mail: DBernard@howardcountymd.gov<mailto:DBernard@howardcountymd.gov>
>
>CONFIDENTIALITY NOTICE
>
>
>This message and the accompanying documents are intended only for the use of the individual or entity to which they are addressed and may contain information that is privileged, confidential, or exempt from disclosure under applicable law. If the reader of this email is not the intended recipient, you are hereby notified that you are strictly prohibited from reading, disseminating, distributing, or copying this communication. If you have received this email in error, please notify the sender immediately and destroy the original transmission.
>
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>
>

Howard County Health Department

7178 Columbia Gateway Drive, Columbia MD 21046
Phone (410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
Website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer

March 22, 2012

RE: 15507 Bushy Tail Run
Woodbine, Maryland 21797
Building Permit # B12000692

TO: Nicholas and Lisa PARASKEVOPOULOS (Applicant)
15507 Bushy Tail Run
Woodbine, Maryland 21797

Fortunately, our department can verify percolation testing has been completed on your property and a septic easement has been established. A percolation certification plan has not been located in your file but will be required to process your building permit.

The Howard County Code (sec.3.0808) requires a Percolation Certification Plan for an increase in living space of 250sq.ft. This plan delineates the existing septic reserve area and reflects any proposed changes to the property. Requirements for this plan can be found on our web site: http://www.howardcountymd.gov/Health/docs/perstestandplanreqs.pdf. Prior to building permit approval, an approved Percolation Certification Plan is required. Once you have submitted your Percolation Certification Plan and it is approved, it can serve as your building plan.

In addition, based on the square footage of the existing house and the proposed addition combined, you will be required to upgrade your septic tank to a 2000 gallon tank to accommodate the extra square footage.

And finally, floor plans for the existing house must be submitted to complete the review process.

Your building permit will be placed "on hold" until all Howard County Health Department requirements are met. If you have any questions or correspondence, I can be reached at the above address or by telephone at (410) 313-2775.

Respectfully,

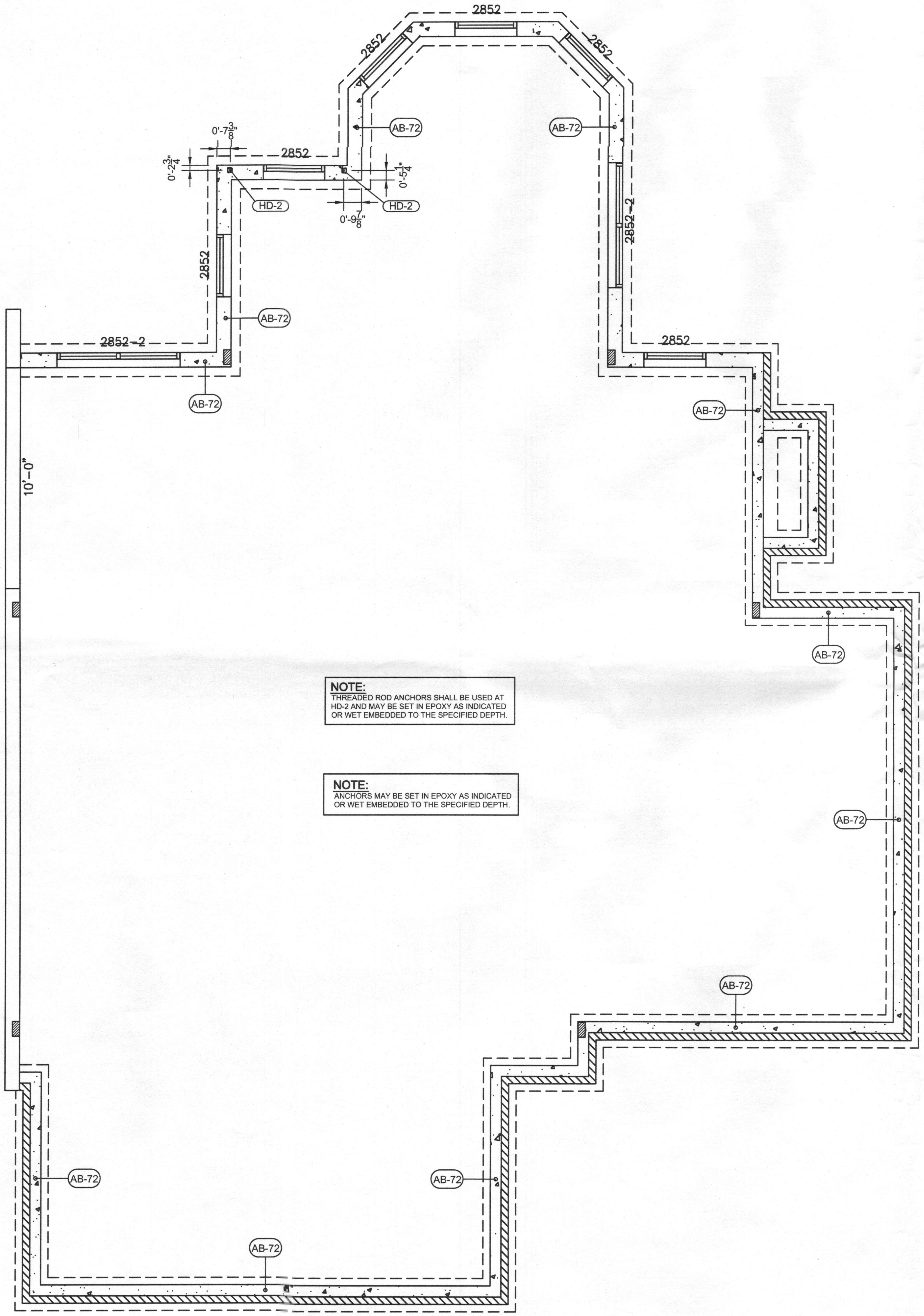
Dana Bernard

Dana Bernard, REHS/RS
Bureau of Environmental Health
Well and Septic Program
Phone (410) 313-2775
E-mail: dbernard@howardcountymd.gov
DLB
cc: Well & Septic program file
Contractor: Jack Rohde
Via e-mail at: JACK@ROHDEBUILDERS.COM

KEY NOTES

(HD-2) 3/4" Ø x 12" DEEP HOLE FOR 5/8" Ø THREADED ROD ANCHOR

(AB-72) MIN. ½" Ø ANCHOR BOLTS @ 72" O.C. OR EQUIVALENT. 7" EMBED. TYPICAL, UNO.



NOTE:
THREADED ROD ANCHORS SHALL BE USED AT HD-2 AND MAY BE SET IN EPOXY AS INDICATED OR WET EMBEDDED TO THE SPECIFIED DEPTH.

NOTE:
ANCHORS MAY BE SET IN EPOXY AS INDICATED OR WET EMBEDDED TO THE SPECIFIED DEPTH.

IT IS RECOMMENDED THAT A COPY OF THIS PLAN BE PROVIDED TO THE CONCRETE SUBCONTRACTOR PRIOR TO CONSTRUCTION

WET EMBED / ANCHOR BOLT PLAN

1/4" = 1'-0"

JRA ARCHITECTURE
443.226.5745
www.jra-design.com

PROFESSIONAL CERTIFICATION
I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws of the State of Maryland, License Number #14678 Expiration Date: 6/30/2012.

APEX TECHNOLOGY
STRUCTURAL ENGINEERING
JAX APEX TECHNOLOGY, INC
VA CA NO. F173645-5
4745 SUTTON PARK CT, SUITE 402
JACKSONVILLE, FL 32224

Paraskevopoulos Residence
PROPOSED ADDITION
15507 Bushy Tail Run, Woodbine, Maryland 21797

DocuSigned by:
Jeffrey P. Arneson
079614DB26EB432...
2/23/2012

STATE OF MARYLAND ★ JEFFREY P. ARNESON ★ No. 32908 PROFESSIONAL ENGINEER

REVISIONS
△
△
△

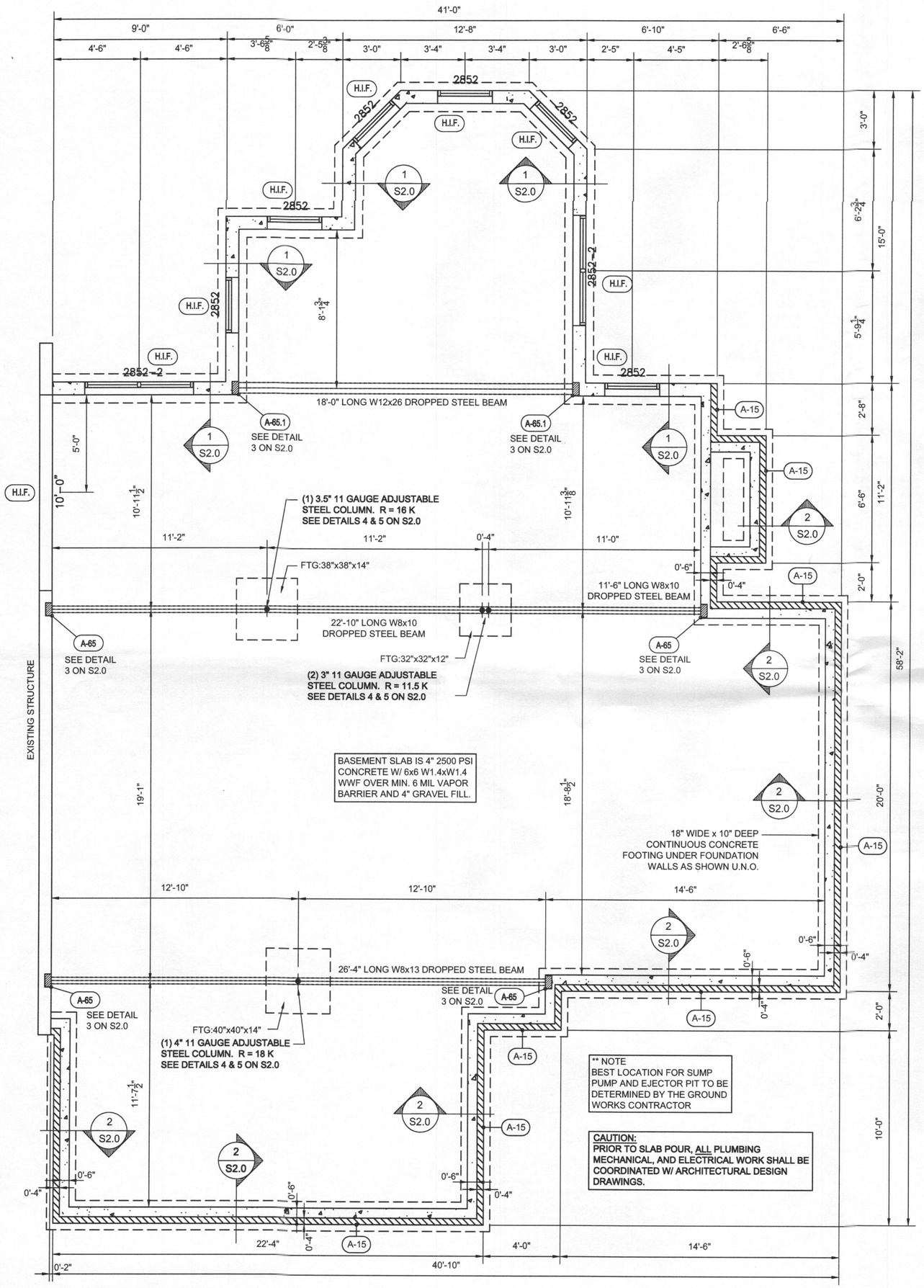
PROJECT #
11969

SCALE: 1/4" = 1'

WET EMBED PLAN

S1.1

PRINT DATE :
February 16, 2012



STRUCTURAL FOUNDATION PLAN

1/4" = 1'-0"

GENERAL PLAN NOTES:

1. EARTH AND EARTH FILL SUPPORTING SLABS ON GRADE IS ASSUMED TO HAVE A MINIMUM BEARING CAPACITY OF 2,000 psf AND SHALL BE FREE OF ORGANIC MATERIAL AND COHESIVE SOILS. COMPACT THE FILL IN 12" LIFTS TO AT LEAST 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY. IT IS THE OWNER'S OR CONTRACTOR'S RESPONSIBILITY TO CONFIRM THESE ASSUMPTIONS.
2. IF CONTRACTOR OR BUILDING OFFICIAL DETERMINES THAT THE SOIL IS NOT SUITABLE FOR 2,000 PSF BEARING CAPACITY, CONTACT EOR. ADDITIONAL FOUNDATION WORK MAY BE REQUIRED.
3. GARAGE AND PORCH SLABS SHALL HAVE NO.4 TOP REINFORCING BAR AT 18" O.C. FOR TEMPERATURE SHRINKAGE. SEE DETAIL 5/S2.1
4. *BUILDING FOOTING HAS BEEN ENGINEERED FOR ALLOWABLE* SERVICE LOADS PER 2009 IRC AND ASCE 7-05 ASD LOAD COMBINATIONS.

KEY NOTES

A-15	4" BRICK LEDGE. TOP OF LEDGE TO BE FIELD DETERMINED.
A-65	BEAM POCKET; 8" WIDE x 4" DEEP x 9" HIGH. SEE DETAIL 3, S2.0
A-65.1	BEAM POCKET; 10" WIDE x 4" DEEP x 13" HIGH. SEE DETAIL 3, S2.0
H.I.F.	HEADER OR BEAM IN FLOOR SYSTEM PER FLOOR FRAMING PLAN.

NOTE: SEE ANCHOR BOLT PLAN, SHEET S1.1, FOR LOCATION AND SPACING OF ANCHOR BOLTS IN SILL PLATE AT TOP OF FOUNDATION WALLS.

JRA
ARCHITECTURE
443.226.5745
www.jra-design.com

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JACKSONVILLE, FL 32224

Paraskevopoulos Residence
PROPOSED ADDITION
15507 Bushy Tail Run, Woodbine, Maryland 21797

DocuSigned by:
Jeffrey P. Arneson
079614DB26EB432...
2/23/2012

STATE OF MARYLAND
JEFFREY P. ARNESON
No. 32908
PROFESSIONAL ENGINEER

REVISIONS

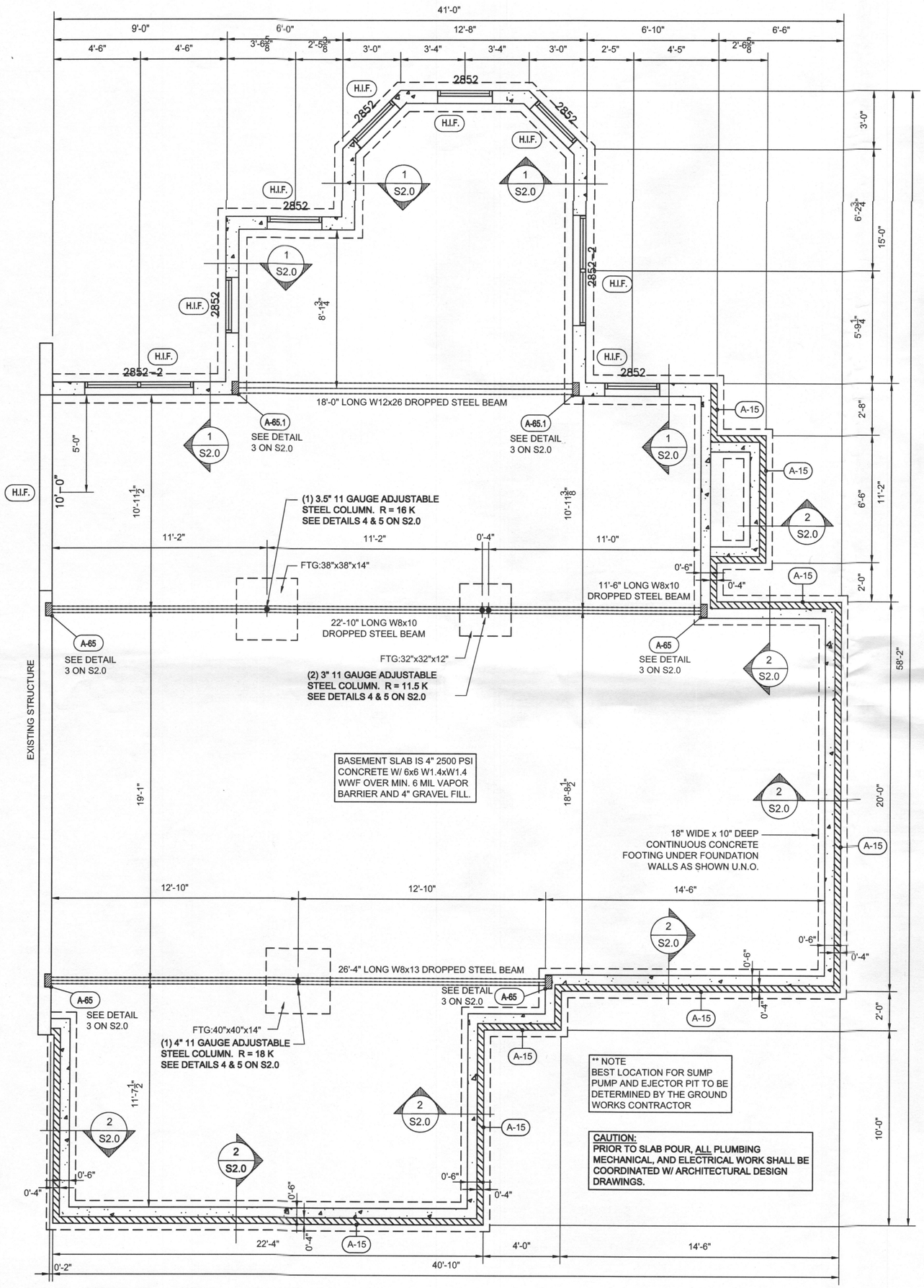
PROJECT #
11969

SCALE: 1/4" = 1'

FOUNDATION PLAN

S1.0

PRINT DATE :
February 16, 2012



STRUCTURAL FOUNDATION PLAN

1/4" = 1'-0"

GENERAL PLAN NOTES:

1. EARTH AND EARTH FILL SUPPORTING SLABS ON GRADE IS ASSUMED TO HAVE A MINIMUM BEARING CAPACITY OF 2,000 psf AND SHALL BE FREE OF ORGANIC MATERIAL AND COHESIVE SOILS. COMPACT THE FILL IN 12" LIFTS TO AT LEAST 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY. IT IS THE OWNER'S OR CONTRACTOR'S RESPONSIBILITY TO CONFIRM THESE ASSUMPTIONS.
2. IF CONTRACTOR OR BUILDING OFFICIAL DETERMINES THAT THE SOIL IS NOT SUITABLE FOR 2,000 PSF BEARING CAPACITY, CONTACT EOR. ADDITIONAL FOUNDATION WORK MAY BE REQUIRED.
3. GARAGE AND PORCH SLABS SHALL HAVE NO.4 TOP REINFORCING BAR AT 18" O.C. FOR TEMPERATURE SHRINKAGE. SEE DETAIL 5/S2.1
4. *BUILDING FOOTING HAS BEEN ENGINEERED FOR ALLOWABLE* SERVICE LOADS PER 2009 IRC AND ASCE 7-05 ASD LOAD COMBINATIONS.

KEY NOTES

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A-65.1	BEAM POCKET; 10" WIDE x 4" DEEP x 13" HIGH. SEE DETAIL 3, S2.0
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NOTE: SEE ANCHOR BOLT PLAN, SHEET S1.1, FOR LOCATION AND SPACING OF ANCHOR BOLTS IN SILL PLATE AT TOP OF FOUNDATION WALLS.

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11969

SCALE: 1/4" = 1'

FOUNDATION PLAN

S1.0

PRINT DATE :
February 16, 2012

4.3 CONCRETE

SEE SECTION 4.4 FOR COLD WEATHER CONCRETE SPECIFICATIONS

CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE (ACI) STANDARD 318-99, STANDARD 306.1-90 (COLD WEATHER CONCRETE), AND IRC.

CONCRETE WALLS AND FOOTINGS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI UNLESS OTHERWISE NOTED.

ALL INTERIOR CONCRETE SLABS SHALL BE 4" THICK AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND SHALL BE REINFORCED WITH 6x6 - W1.4 x W1.4 WWF AND BE POURED OVER A SIX (6) MIL POLY VAPOR BARRIER OVER 4" POUROUS GRANULAR FILL.

ALL INTERIOR CONCRETE SLABS 30'-0" OR GREATER IN ANY DIMENSION SHALL HAVE CONTROL JOIINTS.

VAPOR BARRIER - SHALL BE A 6 MIL POLYETHYLENE SHEET WITH ALL JOINING EDGES LAPPED A MINIMUM OF 6" AND TO BE PLACED OVER 4" POROUS GRANULAR FILL.

ALL EXTERIOR CONCRETE SLABS SHALL BE AIR ENTRAINED (AIR CONTENT BETWEEN 5% AND 7%) AND HAVE A 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI (INCLUDING THE GARAGE SLAB).

4" GRANULAR FILL MIN BELOW CONCRETE SLAB.

WEEP HOLES 2 INCHES IN DIAMETER SHALL BE PROVIDED THRU BASE OF FOUNDATION WALLS (ABOVE FOOTER) AT 6'-0" O.C. OR PER LOCAL CODE. MOST RESTRICTIVE GOVERNS.

FLOOR SYSTEMS SHALL BE SEPERATED FROM POURED CONCRETE PORCHES/PATIOS BY A ½" ASPHALT IMPREGNATED FIBER BOARD EXPANSION JOINT AND A 28 GAGE ALUMINIUM FLASHING AND/OR 6 MIL POLY VAPOR BARRIER

WHERE CONCRETE FLAT WORK ABUTTS AN EXISTING CONCRETE SLAB, PROVIDE A ½" ASPHALT IMPREGNATED FIBER BOARD EXPANSION JOINT

ALL FOOTINGS AND TURNED DOWN SLABS SHALL BE LOCATED AT A MIINMUM OF 30" BELOW THE FROST LINE/GRADE PER LOCAL CODE.

4.4 COLD WEATHER CONCRETE

COLD WEATHER IS DEFINED AS A PERIOD WHEN FOR MORE THAN (3) SUCCESSSIVE DAYS THE MEAN DAILY TEMPERATURE DROPS BELOW 40 DEGREES FARENHEIT. WHEN TEMPERATURES ABOVE 50 DEGREE FARENHEIT OCCUR DURING MORE THAN HALF OF ANY 24 HOUR PERIOD, THE CONCRETE SHOULD NO LONGER BE REGARDED AS "COLD WEATHER CONCRETE."

ALL MATERIALS AND EQUIPMENT REQUIREDED FOR PROTECTION SHALL BE AVAILABLE AT THE PROJECT SITE BEFORE COLD WEATHER CONCRETE.

THE CONCRETE MIX DESIGN PROVIDED BY THE SUPPLIER SHALL AT A MINIMUM REACH THE AVERAGE 28 DAY MIX DESIGN COMPRESSIVE STRENGTH IN MINIMUM 72 HOURS OR 2000 PSI - WHICHEVER IS GREATER. THE CONTRACTOR SHALL SUBMIT A MIX DESIGN TO THE ENGINEER FOR REVIEW PRIOR TO USE.

THE TEMPERATURE OF CONCRETE AT PLACEMENT SHALL BE 55 DEGREES FARANHEIT MINIMUM

THE MINIMUM CONCRETE TEMPERATURE AT THE TIME OF MIXING SHALL NOT BE BELOW 65 DEGREES FARENHEIT. CONCRETE MANUFACTURER SHALL FOLLOW GUIDELINES SET FORTH BY ACI 306R (LATEST EDITION).

ALL SNOW, ICE, AND FROST MUST BE REMOVED SO THAT IT DOES NOT OCCUPY SPACE WHICH IS INTENDED TO BE FIILLED WITH CONCRETE. CONCRETE CONTRACTOR SHALL USE NECESSARY MEANS SO AS TO PROVIDE A NON-FROZEN SURFACE. THIS WORK SHOULD BE DONE IMMEDIATELY PRIOR TO CONCRETE PLACEMENT TO PREVENT RE-FREEZING.

THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION OF CONCRETE AGAINST FREEZING AND MAINTAIN A CONCRETE TEMPERATURE OF 55 DEGREES FARANHEIT FOR A 72 HOUR PERIOD AFTER CONCRETE PLACEMENT. THIS MAY BE ACHIEVED WITH THE USE OF INSULATING BLANKETS DROPPED OVER WALLS, SLABS, AND FOOTINGS, AND/OR THE USE OF TEMPORARY HEATERS

GROUND TEMPERATURE AT THE TIME OF PLACEMENT OF SLAB OR FOOTINGS SHALL NOT BE LESS THAN 35 DEGREES FARANHEIT. THE CONTRACTOR SHALL TAKE INSULATIVE MEASURES AND/OR PROVIDE TEMPORARY HEAT IN ORDER TO PROVIDE A GROUND TEMPERATURE OF AT LEAST 35 DEGREES AT THE TIME OF CONCRETE INSTALLATION

AFTER THE 72 HOUR PERIOD THE INSULATION, FORMS, AND HEATERS MAY BE REMOVED

MAINTAIN ADEQUATE PROTECTION OF SUB GRADE AND ADEQUATE DRAINAGE AWAY FROM EXPOSED CONCRETE ELEMENT TO PREVENT FREEZING AND POTENTIAL FROST HEAV THAT MAY DAMAGE STRUCTURALLY SOUND CONCRETE

THE USE OF CALCIUM CHLORIDE SHALL BE PERMITTED ONLY IN CONVENTIONAL BASEMENT FLOOR SLAB ON GRADE AND IS NOT PERMITTED IN ANY OTHER CONCRETE APPLICATION. THE AMOUNT OF CALCIUM CHLORIDE PERMITTED IN UNREINFORCED BASEMENT FLOOR SLABS SHALL NOT EXCEED 1% BY WEIGHT OF CEMENT

4.7 STEEL

ALL STRUCTURAL STEEL DESIGNED PER A.I.S.C. ASD 9TH EDITION AND IS TO BE FABRICATED OF THE FOLLOWING STRENGTHS:

WIDE FLANGE SHAPES AND CHANNELS	ASTM A992, OR ASTM A572 (GRADE 50)
STEEL TUBES	ASTM A500, GRADE B (46 KSI)
ALL OTHER STEEL	ASTM A36

ALL CONTINUOUS HORIZONTAL REINFORCEMENT SHALL HAVE 90 DEGREE BENDS AT CORNERS AND SHALL HAVE 25" LAP AT SPLICES.

ALL REINFORCING BARS SIZE #3 OR GREATER SHALL BE ASTM A615 GRADE 60 REBAR

WELDED DOWEL BAR REINFORCING SHALL BE ASTM A706 WELDABLE STEEL

WELDED WIRE FABRIC TO BE ASTM A 185.

TRUSS HANGERS, CONNECTORS, STRAPS, AND THE LIKE SHALL BE HOT DIPPED GALVANIZED IN A MANNER CONSISTENT WITH THE CORROSIVE SALT ENVIRONMENT OF THE OCEANFRONT.

4.8 NAILS

COMMON WIRE NAILS AND THREADED HARDENED STEEL NAILS SHALL CONFORM TO THE NOMINAL SIZES SPECIFIED IN ASTM F1667. NOMINAL DIAMETER SIZES APPLY TO FASTENERS BEFORE APPLICATION OF PROTECTIVE COATING.

WHEN A BORED HOLE IS REQUIRED TO PREVENT SPLITTING OF A WOOD DUE TO FASTENER PENETRATION, THE BORED HOLE SHALL NOT EXCEED 75% OF THE NAIL OR SPIKE DIAMETER

THE NOMINAL DIAMETER AND LENGTH OF TYPICAL FASTENERS SPECIFIED FOR THIS PROJECT ARE AS LISTED IN TABLE 4.6-1 BELOW

TABLE 4.8-1: NAIL SIZE LEGEND

	DIA.	LENGTH
16d COMMON	0.165"	3 1/ 2"
16d COMMON	0.148"	3 1/ 4"
12d COMMON	0.148"	3 1/ 4"
10d COMMON	0.148"	3"
10d x 1½"	0.148"	1 1/ 2"
8d COMMON	0.131"	2 1 /2"
10d RINGSHANK	0.148"	3"
8d RINGSHANK	0.113"	2 1/ 2"

4.9 WOOD STRUCTURAL PANEL (PLYWOOD OR OSB)

ALL WOOD STRUCTURAL PANEL SHALL CONFORM TO THE MOST CURRENT APPLICABLE SPECIFICATION AND SUPPLEMENTS OF THE APA.

ALL PANEL END JOINTS SHALL OCCUR OVER SUPPORTS AND SHALL BE STAGGERED ONE HALF PANEL LENGTH FROM ADJACENT PANELS. PROVIDE ⅛ INCH SPACE AT PANEL ENDS.

WOOD STRUCTURAL PANELS SHALL BE INSTALLED AS FOLLOWS:

1. **TYPICAL EXTERIOR WALLS:** FULLY SHEATHED WITH MIN 7/16" OSB OR PLYWOOD w/ 8d COMMON: 6" O.C. AT PANEL EDGE, 12" O.C. IN THE FIELD. (**OPTIONAL**:15 OR 16 GAUGE x 1 ¾" STAPLES @ 4" O.C. AT PANEL EDGES, 8" O.C. IN THE FIELD UNO.)
2. **BRACED WALLS AND SHEARWALLS:** SEE SHEET S6.0 AND STRUCTURAL PLANS.
3. **ROOF DECK SHEATHING:** MIN 7/16" 24/16 SPAN RATED OSB OR PLYWOOD (3-PLY OR BETTER) W/8d COMMON NAILS: 6" O.C. AT PANEL EDGES, 6" O.C IN THE FIELD. ROOF SHEATHING SHALL SPAN OVER A MINIMUM OF (3) SUPPORTS.
4. **FLOOR DECK SHEATHING:** 3/4" ADVANTECH FLOOR SHEATHING GLUED AND NAILED W/ 10d COMMON: 6" O.C. AT PANEL EDGES, 12" O.C. IN THE FIELD OR ALTERNATIVE FASTENERS AS PROVIDED FOR IN IRC TABLE R602.3 (2).
5. **PORCH AND OVERHANG SOFFIT CEILING BOARD SHEATHING:** MIN 3/8" OSB OR PLYWOOD (3-PLY OR BETTER) INSTALLED PERPENDICULAR TO SUPPORTS W/ 8d COMMON: 6" O.C. AT PANEL EDGES, 6" O.C. IN THE FIELD.

4.10 PRE-FABRICATED WOOD ROOF TRUSSES

ROOF TRUSSES FABRICATED TO ACHIEVE THE ROOF PLANES DEPICTED ON THE ARCHITECTURAL PLANS SHALL BE DESIGNED UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER. FABRICATION DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH ANSI/TPI1-2002 AND SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION. TEMPORARY BRACING DESIGN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LEFT IN PLACE AFTER CONSTRUCTION IS COMPLETE.

TRUSS LOADING

ROOF TRUSSES EXPOSED TO WIND SHALL BE DESIGNED FOR ASCE 7-05 90 MPH EXPOSURE C ENCLOSED BUILDING DESIGN. TRUSSES SPANNING OVER EXTERIOR PORCH AREA ARE TO BE DESIGNED WITH AN INTERIOR PRESSURE COEFFICIENT OF 1.0 APPLIED TO THE UNDERSIDE OF THE TRUSS BOTTOM CHORD FOR THE LENGTH OF TRUSS EXPOSED TO PORCH AREA.

WOOD ROOF TRUSSES SHALL BE DESIGNED TO SUPPORT THE LOADS INDICATED BELOW AT THE SPACING INDICATED ON THE DRAWINGS.

- **a. UNIFORM TOP CHORD DEAD LOAD..... 7 PSF.**
- **b. UNIFORM TOP CHORD LIVE LOAD ..... 20 PSF**
- **c. UNIFORM BOTTOM CHORD DEAD LOAD..... 10 PSF.**
- **d. UNIFORM BOTTOM CHORD LIVE LOAD**
  - **ATTICS WITH STORAGE .....20 PSF**
  - **ATTICS WITHOUT STORAGE ..... 10 PSF (NON CONCURRENT)**
- **d. MINIMUM NET AVERAGE UPLIFT**
  - **MWFRS ..... 15 PSF**
  - **C & C ..... 20 PSF**
- **e. LATERAL LOADS IN ACCORDANCE WITH THE 2009 IRC.**
- **f. GROUND SNOW LOAD..... 30 PSF.**

NOTE: IN ADDITION TO BASIC LOAD COMBINATIONS, TRUSS DESIGNER SHALL RUN THE SNOW LOAD DESIGN OPTION USING THE GROUND SNOW LOAD INDICATED ABOVE.

4.11 MANUFACTURED WOOD I-JOISTS

PRE-FABRICATED FLOOR JOISTS SHALL BE MIN 14" DEEP TJI OR EQUIVALENT AS INDICATED ON FLOOR FRAMING PLANS. JOISTS SHALL BE DESIGNED AS FOLLOWS:

MINIMUM TJ PRO RATING 43

UNIFORM LIVE LOADS
- TYPICAL..... 40 PSF
- SOAK OR WHIRLPOOL BATHS ..... 45 PSF

UNIFORM DEAD LOADS
- TYPICAL ..... 10 PSF
- SOAK OR WHIRLPOOL BATHS ..... 20 PSF
- TILE OR MARBLE FLOORS ..... 17 PSF

MAX DEFLECTION..... 1/2"

JOISTS UNDER MARBLE OR TILE ROOF (OTHER THAN POWDER ROOMS AND HALL BATHS) SHALL BE SPACED NO MORE THAN 19.2" O.C.

4.12 THREADED ROD ANCHOR

HOLD-DOWN CONNECTORS SPECIFIED AT ENDS OF SHEARWALLS ARE TO BE SECURED TO BASEMENT WALL w/ SIMPSON HIGH STRENGTH SET EPOXY OR EQUIVALENT. DRILL HOLE ⅛" DIAMETER LARGER THAN THREADED ROD TO THE DEPTH INDICATED.

4.13 ENGINEERED WOOD PRODUCT

ENGINEERED WOOD PRODUCTS SPECIFIED ON STRUCTURAL DRAWINGS HAVE BEEN SIZED USING LITERATURE AND SOFTWARE PROVIDED BY iLEVEL BY WEYERHAUSER.

LSL MATERIAL MAY BE REPLACED WITH LVL OR PSL MATERIAL OF EQUAL OR BETTER DIMENSIONS

LVL MATERIAL MAY BE REPLACED WITH PSL MATERIAL OF EQUAL OR BETTER DIMENSIONS

FOR EQUIVALENCY OF DESIGN PURPOSES, A COMPRESSION PERPENDICULAR TO GRAIN VALUE OF 750 PSI IS USED FOR 1.55E LSL, 1.9E LVL, AND 2.0E PSL BEAMS

EQUIVALENT MANUFACTURED PRODUCTS BY OTHER MAY BE USED AS AN *ACCEPTABLE ALTERNATIVE TO BEAM SPECIFIED ON STRUCTURAL DRAWINGS*

4.14 BRICK VENEER

1. BRICK VENEER SHALL BE INSTALLED AS FOLLOWS:
   - HORIZONTAL TIES @ 24" O.C.
   - VERTICAL TIES @ 16" O.C.
   - WEEP TUBES OR WICKS @ 16" O.C. **OR**
   - OPEN HEAD JOINTS @ 24" O.C.
2. BRICK LINTELS SHALL BE INSTALLED IN ACCORDANCE w/ TABLE 4.13-1 BELOW:

TABLE 4.13-1: BRICK LINTEL INSTALLATION SPECIFICATIONS

LINTEL DIMENSION	MINIMUM BEARING	MAXIMUM TOTAL SPAN
3" Vx3 ½" HxΣ"T	4 INCHES	6 FEET
4" V x 3 ½"H x ¼"T	6 INCHES	8 FEET
5" V x 3 ½" H x ¼"T	6 INCHES	10 FEET
6" V x 3 ½"H x ¼" T	6 INCHES	12 FEET
7" V x 4" H x ½" T	6 INCHES	16 FEET

TABLE 4.13-1 NOTES:
1. STEEL LINTELS TO BE MIN 36 KSI.
2. LINTEL MUST HAVE CORROSION RESISTENT COATING OF EPOXY BASED PAINT
3. ALL LINTELS GREATER THAN 8 FEET SHALL BE LATERALLY SUPPORTED AT A NO GREATER THAN 6 FEET ON CENTER W/ (1) ¼" X 3" WOOD SCREW INTO HEADER. PROVIDE A 1" VERTICALLY SLOTTED HOLE FOR SCREW.

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STATE OF MARYLAND
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No. 32908
PROFESSIONAL ENGINEER

REVISIONS

PROJECT #
11969

SCALE:

STRUCTUAL SUMMARY

S0.1

PRINT DATE :
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1.0 DESIGN CRITERIA AND GENERAL STRUCTURAL NOTES

ALL DESIGN AND CONSTRUCTION WORK SHALL CONFORM TO THE 2009 INTERNATIONAL RESIDENTIAL BUILDING CODE AND THE INTERNATIONAL EXISTING BUILDING CODE. WIND LOADS SHALL BE CALCULATED USING ASCE 7-05.

THIS DRAWING HAS BEEN PRODUCED ENTIRELY ON APEX TECHNOLOGY'S CADD SYSTEM. ANY OTHER LETTERING, LINES OR SYMBOLS, OTHER THAN PROFESSIONAL STAMPS AND SIGNATURES, HAVE BEEN MADE WITHOUT THE AUTHORIZATION OF APEX TECHONOLOGY ENGINEERING SERVICES AND ARE INVALID.

THE STRUCTURAL DRAWINGS SHALL GOVERN THE WORK FOR ALL STRUCTURAL FEATURES, UNLESS NOTED OTHERWISE. THE ARCHITECTURAL DRAWINGS SHALL GOVERN THE WORK FOR ALL DIMENSIONS.

STEP FOOTINGS BELOW ALL SANITARY AND WATER LINES.

ALL WINDOWS AND DOORS MUST BE TESTED TO RESIST THE DESIGN WIND LOADS LISTED IN TABLE 1-1 AND MUST BE INSTALLED IN ACCORDANCE WITH MANF. INSTALLATION DRAWINGS.

LOADING CRITERIA:

ROOF LOADING	
ROOF LIVE LOAD	20 PSF
ATTIC LIVE LOAD	
WITH STORAGE	20 PSF
WITHOUT STORAGE	10 PSF
GROUND SNOW LOAD	30 PSF
FLOOR LIVE LOAD	40 PSF
DECK LIVE LOAD	60 PSF
BALCONY LIVE LOAD	100 PSF
WIND LOADING	(Cd= 1.60)
ASCE 7-05, 3S GUST	
BASIC WIND SPEED	90 MPH
EXPOSURE CATEGORY	C
IMPORTANCE FACTOR	1.0
BUILDING CATEGORY	II
ENCLOSURE CLASSIFICATION	ENCLOSED
INTERNAL PRESSURE COEFF.	0.18
C&C DESIGN PRESSURES	SEE TABLE 1-1
WINDOWS AND DOORS	SEE TABLE 1-1
VINYL SOFFITS	+19.7 / -26.3

TABLE 1-1: COMPONENT AND CLADDING DESIGN PRESSURES

Zone Designation / Effective Wind Area	Interior Zone (psf)		End Zone (psf)	
0 - 20 sq. ft.	+19.7	-21.3	+19.7	-26.3
21 - 50 sq. ft.	+18.7	-20.4	+18.7	-24.4
51 - 100 sq. ft.	+17.6	-19.2	+17.6	-22.2
101 - 200 sq. ft.	+16.7	-18.4	+16.7	20.4

SEE WALL FRAMING PLANS: EZ=END ZONE IZ=INTERIOR ZONE.

SNOW LOADING	(Cd= 1.15)
ASCE 7-05	
EXPOSURE CATEGORY	C
IMPORTANCE FACTOR	1.0
BUILDING CATEGORY	II
SOIL BEARING CAPACITY	2000 PSF (ASSUMED)

SITEWORK REQUIRED IN ACCORDANCE W/ITH GEOTECHNICAL REPORT

DEFLECTION CRITERIA

1. TRUSSES AND BEAMS W/ DEFLECTION GREATER THAN 3/4" SHALL BE SUBMITTED FOR REVIEW BY BUILDER PRIOR TO FABRICATION AND SHALL OTHERWISE CONFORM TO THE FOLLOWING:

A.) ROOF TRUSSES
- LL/240
- TL/180

B.) BEAMS
- TL/600 (SUPPORTING BRICK OR STONE)
- LL/360
- TL/240

LEGEND

LSL	TIMBERSTRAND ENGINEERED WOOD PRODUCT OR EQUIVALENT
LVL	MICROLLAM ENGINEERED WOOD PRODUCT OR EQUIVALENT
PSL	PARALLAM ENGINEERED WOOD PRODUCT OR EQUIVALENT
PFG	INTERMITTENT BRACED WALL METHOD GARAGE PORTAL FRAME (IRC SECTION R602.10.3.4)
PFH	INTERMITTENT BRACED WALL METHOD GARAGE PORTAL FRAME WITH HOLD-DOWNS (IRC SECTION 602.10.3.3)
CS-PF	CONTINUOUSLY SHEATHED GARAGE PORTAL FRAME (IRC SECTION R602.10.4.1.1)

INTERIOR LOAD BEARING WALL

WOOD FRAMED HEADER IN WALL

(#) **MWFRS WALL LINE**

MWFRS WALL LINES ARE IMAGINARY LINES SHOWN ON PLAN TO INDICATE CENTER-TO-CENTER SPACING OF BRACED WALL PANEL SEGMENTS OR AND/OR SHEARWALLS USED TO RESIST RACKING DUE TO MWFRS WIND LOADS. BRACED WALL PANELS SHALL BE INSTALLED IN ACCORDANCE WITH IRC R602.10 AND THESE DRAWINGS. ENGINEERED SHEARWALLS, IF APPLICABLE, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE DRAWINGS. WHERE THESE PLANS ARE MORE RESTRICTIVE THAN CODE, THE PROVISIONS OF THIS PLAN SHALL GOVERN.

(METHOD) **SEE SHEET S-6.0 FOR BRACED WALL PANEL DESIGN DETAILS**

BRACED WALL METHOD PER IRC R602.10

CS-WSP -	PRESCRIPTIVE CONTINUOUSLY SHEATHED BRACED WALL METHOD "CS-WSP" AS DESCRIBED IN IRC SECTION R602.10.4
WSP -	PRESCRIPTIVE INTERMITTENT BRACED WALL METHOD "WSP" AS DESCRIBED IN IRC SECTION R602.10.2
GB -	PRESCRIPTIVE INTERMITTENT BRACED WALL METHOD "GB" AS DESCRIBED IN IRC SECTION R602.10.2.1\

- *SHEATH ALL GABLE END WALLS TO RAKE OF ROOF*
- SEE SECTION 4.9 THIS SHEET AND SECTION 6.0 FOR FASTENING OF OSB/GYPSUM BOARD AT BRACED WALLS

SEE SHEET S-6.0 FOR SHEARWALL DESIGN DETAILS

ENGINEERED SHEARWALL IN ACCORDANCE WITH 2009 INTERNATIONAL BUILDING CODE. USED ONLY FOR PORTIONS OF STRUCTURE THAT DO NOT CONFORM TO VIRGINIA CODE BRACED WALL PROVISIONS

NOTE: SHEATH ALL GABLE ENDS CONT. OVER LENGTH OF ENGINEERED SHEAR WALLS UP TO RAKE OF ROOF

- **PERFORATED SHEARWALLS** ARE SHEARWALLS INDICATED ON PLAN WITH WINDOW AND DOOR OPENINGS WITHIN THE SHEARWALL AND HAVE BEEN DESIGNED IN ACCORDANCE WITH IRC 2305.3.7.2
- DBL STUD GROUP AND HOLDDOWN CONNECTORS ARE REQUIRED ONLY AT THE EXTREME ENDS OF THE SHEARWALL. ALL ELSE IS TO BE INSTALLED PER "SW" SPECIFICATIONS.
- SHEAR WALLS DESIGNED USING **FORCE TRANSFER METHOD** ARE INDICATED ON PLAN AND WERE ANALYZED AS A SIMPLE PORTAL FRAME WITH RIGID JOINT CONNECTION BETWEEN THE BEAM ABOVE AND THE SHEAR WALL. DETAILS ARE PROVIDED AS INDICATED ON PLAN. SHEAR WALLS DESIGNED WITH FORCE TRANSFER METHOD REQUIRE HOLD-DOWNS AT EACH END OF EACH SHEAR WALL.

ALL STRUCTURAL FRAMING HAS BEEN DESIGNED FOR IN-PLACE LOADING CONDITIONS ONLY. THE CONTRACTOR SHALL HANDLE, STORE AND ERECT ALL STRUCTURAL FRAMING MEMBERS IN A MANNER TO NOT OVER STRESS OR DAMAGE THESE MEMBERS. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND ENGINEER IF SUCH DAMAGE OCCURS. THE DAMAGED MEMBER SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE ARCHITECT AND ENGINEER

THE CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION SITE SAFETY INCLUDING BUT NOT LIMITED TO PROVIDING PROPERLY DESIGNED TEMPORARY SHORING, BRACING, FORMWORK, SCAFFOLDING, AND OTHER SAFETY EQUIPMENT REQUIRED TO PROTECT THE STRUCTURE, WORKERS, AND GENERAL PUBLIC. SHORING AND BRACING SHALL REMAIN IN PLACE UNTIL THE COMPLETION OF MEMBER ERECTION AND ALL PERMANENT BRACING IS IN PLACE. THE DESIGN ARCHITECT AND ENGINEER DOES NOT BEAR ANY RESPONSIBILITY FOR ANY OF THE ABOVE ITEMS AND OBSERVATION VISITS TO THE SITE DO NOT IN ANY WAY INCLUDE INSPECTION OF THESE ITEMS

4.0 MATERIAL SPECIFICATIONS

4.1 WOOD

ALL STRUCTURAL LUMBER SHALL CONFORM TO THE MOST CURRENT APPLICABLE SPECIFICATIONS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION.

ALL LUMBER SHALL COMPLY WITH PS 20 "AMERICAN SOFTWOOD LUMBER STANDARD" AND WITH THE APPLICABLE RULE OF INSPECTION AGENCIES CERTIFIED BY AMERICAN LUMBER STANDARD. FACTORY MARK EACH PIECE OF LUMBER WITH GRADE STAMP OF INSPECTION AGENCY EVIDENCING COMPLIANCE WITH GRADING RULE REQUIREMENTS.

ALL LOAD BEARING STUDS SHALL BE NO. 2 SPF OR BETTER (UNO).

ALL LOAD BEARING HEADERS AND BEAMS TO BE MIN. NO. 2 SYP (UNO).

ALL DBL PLATES IN VERTICAL FRAMING SHALL LAP SPLICED DBL TOP PLATE. THE TOP PLY SHALL BE FIELD APPLIED NO. 2 SYP. THE BOTTOM PLY MAY BE NO. 2 SPF OR BETTER. (EXTERIOR WALLS AND INTERIOR LOAD BEARING WALLS SHALL HAVE DBL TOP PLATE).

BOTTOM PLATES IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED

ALL RAFTERS AND JOISTS SHALL BE NO. 2 SYP OR BETTER (UNO).

NO CUTS, HOLES, OR COPES REQUIRED FOR OTHER TRADES IN STRUCTURAL WOOD FRAMING WILL BE PERMITTED WITHOUT PRIOR REVIEW AND APPROVAL OF ENGINEER AND ARCHITECT.

PRESSURE TREAT ALL WOOD WITH WATER-BORNE PRESEVATIVES ALL LUMBER FOR SILL PLATES AND OTHER WOOD WHICH MAY BE EXPOSED TO WEATHER OR EARTH. PRESSURE TREATMENT SHALL COMPLY WITH REQUIREMENTS OF AWPB STANDARDS C2 AND LP-22.

ALL METAL FASTENERS AND CONNECTORS INSTALLED IN PRESSURE TREATED LUMBER SHALL BE PROTECTED IN ACCORDANCE WITH TABLE 4.1-1 BELOW

TABLE 4.1-1: FASTENERS IN PRESSURE TREATED LUMBER

PRESERVATIVE	
ACQ & NON-DOT BORATE	CONNECTORS MUST HAVE Z-MAX, G120 OR TRIPLE ZINC COATED FINISH. ALL FASTENERS MUST BE HOT DIPPED GALVANIZED.
SODIUM BORATE	STANDARD FINISH IS ACCEPTABLE (UNO)
ACZA	NOT RECOMMENDED. STAINLESS CONNECTORS AND FASTENERS REQUIRED.

4.2 FOUNDATION AND EARTHWORK

ALL EARTHWORK AND SUB GRADE PREPERATION SHALL BE EXECUTED AS PER RECOMMENDATIONS PRESCRIBED IN THE GEOTECHNICAL REPORT PREPARED SPECIFIC TO THIS SITE

A QUALIFIED SOILS ENGINEER SHALL BE RESPONSIBLE FOR THE OBSERVATION OF THE SITEWORK AND FOOTING EXCAVATIONS PRIOR TO POURING FOOTINGS TO VERIFY THE BEARING STRATUM IS PROPERLY PREPARED

PROVIDE WEATHER TIGHT COVERING FOR ALL FOUNDATIONS AFTER EXCAVATION; DO NOT EXPOSE TO RAINWATER OR FREEZING

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2/23/2012

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EDWARD RESIDENCE:
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PROJECT # 11969

SCALE:

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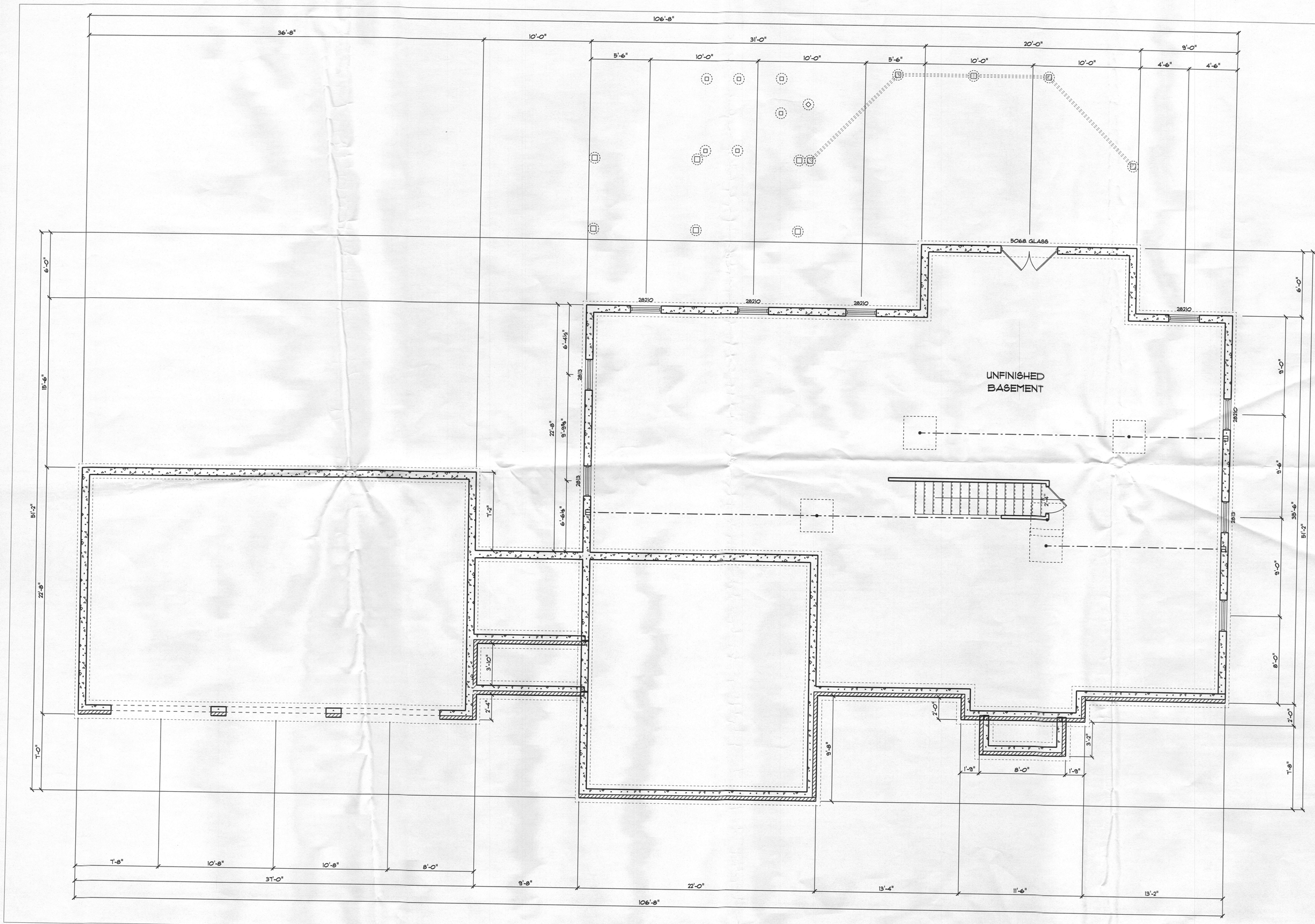

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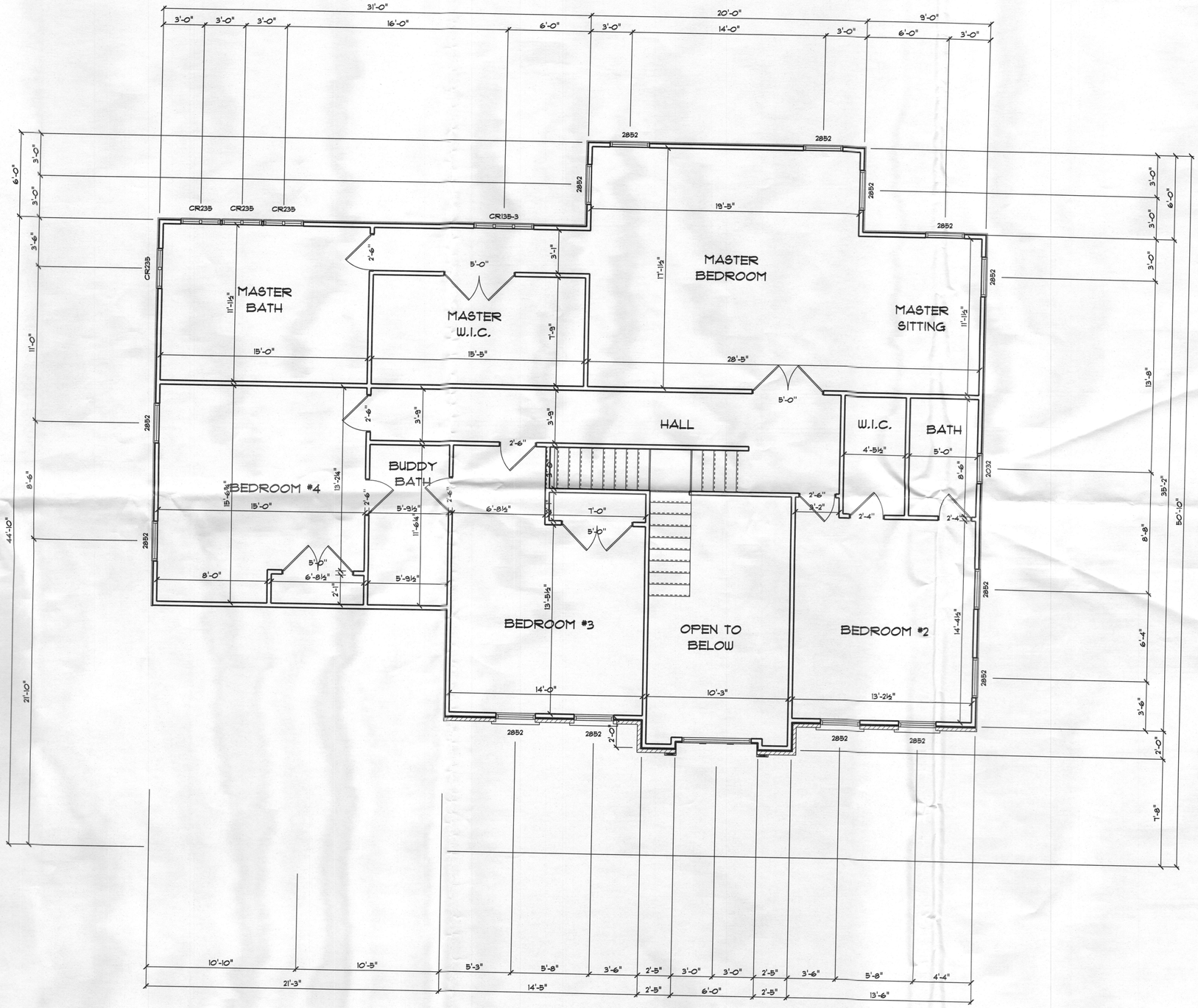
SCALE: 1/8" = 1'-0"

EXIST. BASEMENT

0.20

PRINT DATE :
March 24, 2012



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EXIST. 2nd FLOOR

0.40

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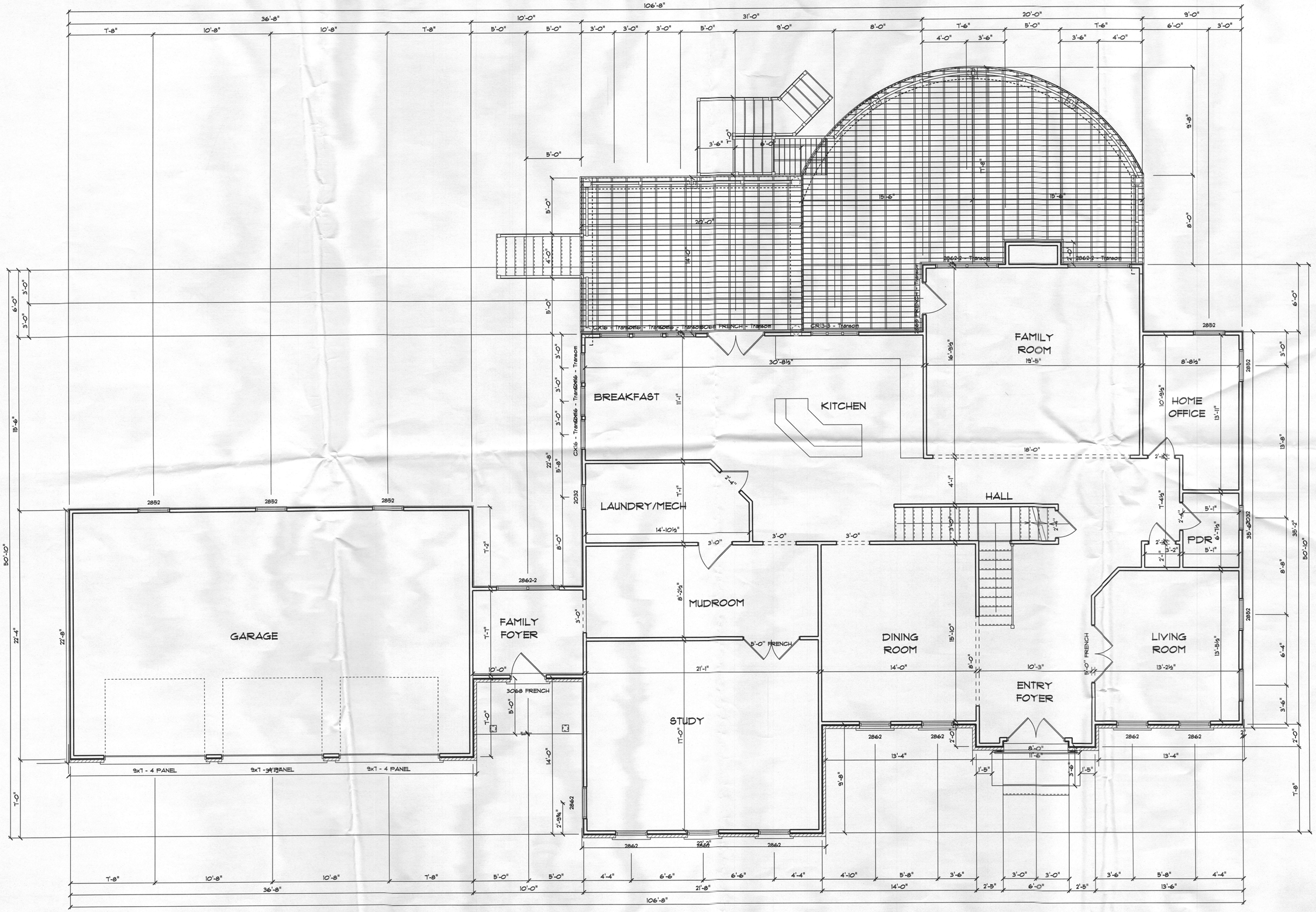
March 24, 2012



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EXIST. 1st FLOOR

0.30

PRINT DATE :
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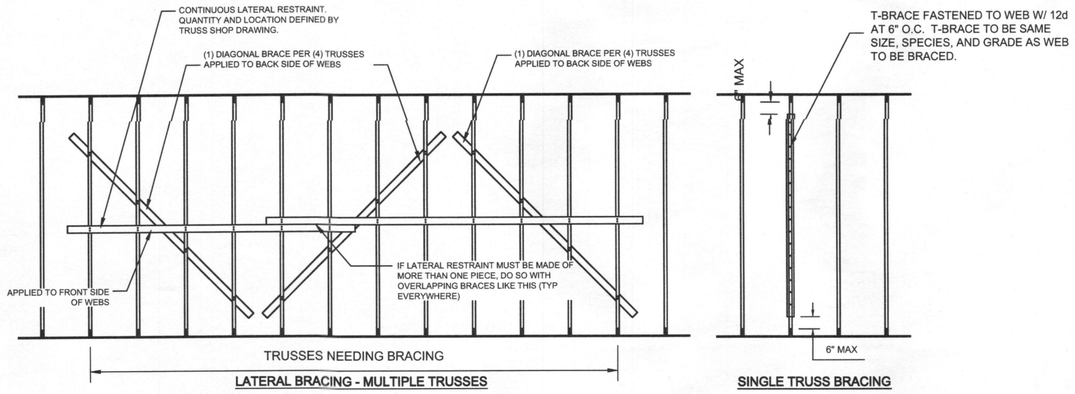
LEGEND AND NOTES:

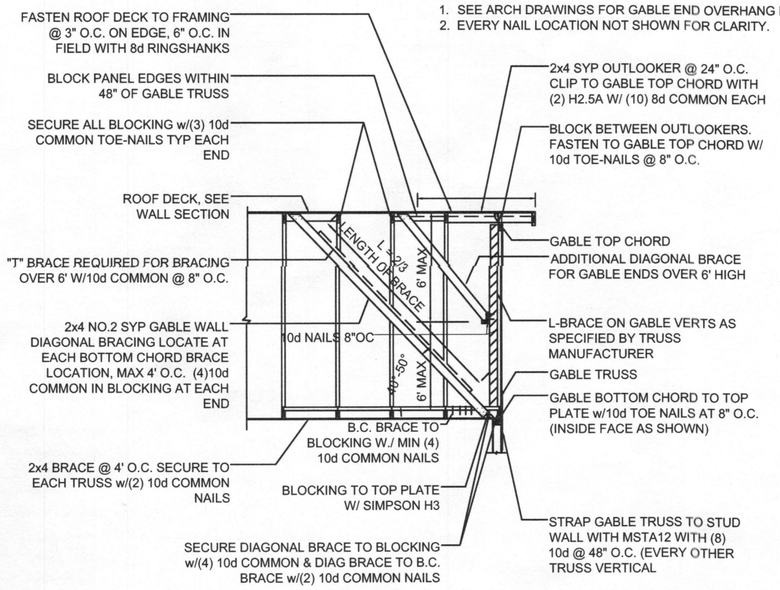
1. T-BRACE TO BE SAME SIZE, SPECIES, AND GRADE AS WEB TO BE BRACED.
2. ALL RESTRAINT LUMBER SHOWN SHALL BE 1x4 NO.3 SYP OR BETTER OR 2x4 NO.3 SPF OR BETTER (UNO).
3. SHOULD A SCENARIO ARISE THAT DOES NOT RESEMBLE THOSE INDICATED ABOVE, IMMEDIATELY CONTACT THE ENGINEER OF RECORD FOR APPROPRIATE BRACING DETAILS.
4. BRACING LUMBER SHALL INTERSECT THE WEBS OF THE BRACED TRUSS AT LOCATIONS INDICATED AS NEEDING BRACING ON THE INDIVIDUAL TRUSS DETAILS PRODUCED BY THE TRUSS ENGINEER.
5. ALL FASTENERS SHOWN ARE O.131" DIA x 3" LONG (UNO).



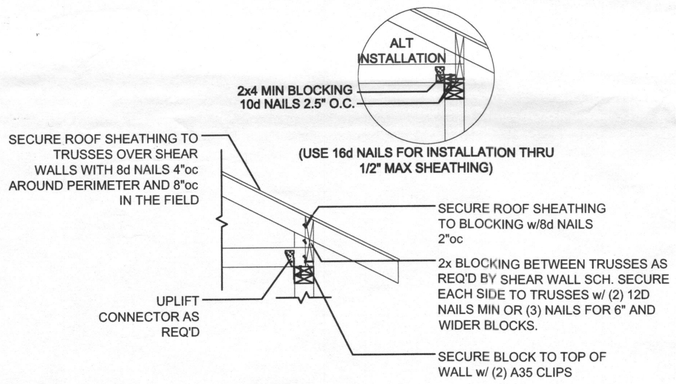
LATERAL BRACING - MULTIPLE TRUSSES

SINGLE TRUSS BRACING

NOTES:
1. SEE ARCH DRAWINGS FOR GABLE END OVERHANG INFORMATION.
2. EVERY NAIL LOCATION NOT SHOWN FOR CLARITY.

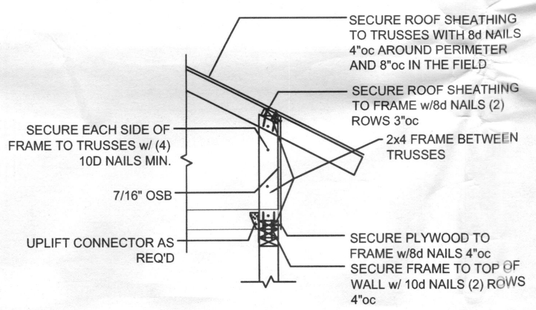


1 PERMANENT TRUSS BRACING DETAIL



NOTES:
1. TRUSS MAY EITHER HAVE A TOP CHORD OVERHANG OR CANTILEVER CONDITION.
2. BLOCKING MUST BE MITERED TO ALLOW FULL CONTACT WITH SHEATHING.
3. BLOCKING PANELS REQUIRED ABOVE SHEAR WALLS.
4. SEEK APPROVAL IN WRITING FROM THE ENGINEER IF VENTILATION HOLES ARE REQUIRED.
5. CAPACITY OF BLOCKING IS APPROX. 450#/FT.

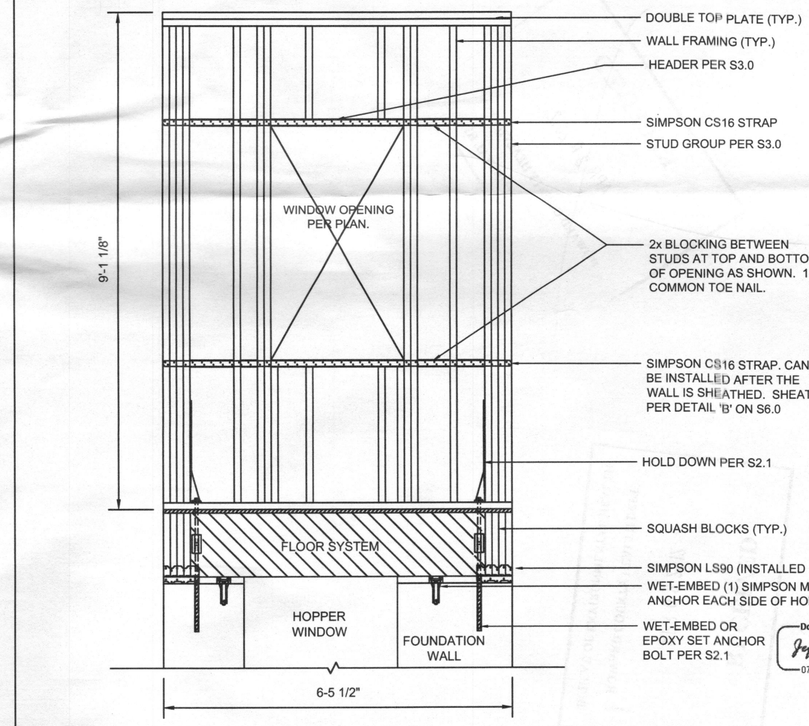
3 ROOF END CONNECTION



NOTES:
1. TRUSS MAY EITHER HAVE A TOP CHORD OVERHANG OR CANTILEVER CONDITION.
2. BLOCKING PANELS REQUIRED ABOVE SHEAR WALLS.
3. SEEK APPROVAL IN WRITING FROM THE ENGINEER IF VENTILATION HOLES ARE REQUIRED.
4. CAPACITY OF BLOCKING IS APROX. 700#/FT.
5. NAIL BLOCKING PANEL INTO EACH TRUSS FROM BOTH SIDE WITH (4) 10d NAILS.

4 ROOF END CONNECTION

2 GABLE END BRACE



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A FORCE TRANSFER SHEAR WALL DETAIL

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STRUCTURAL DETAILS

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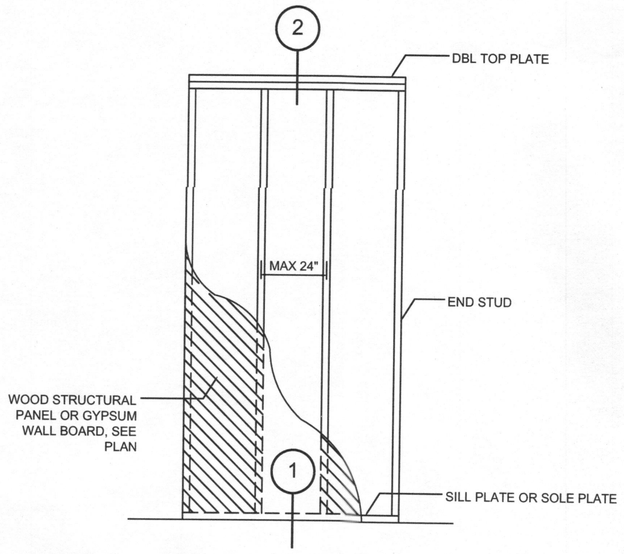
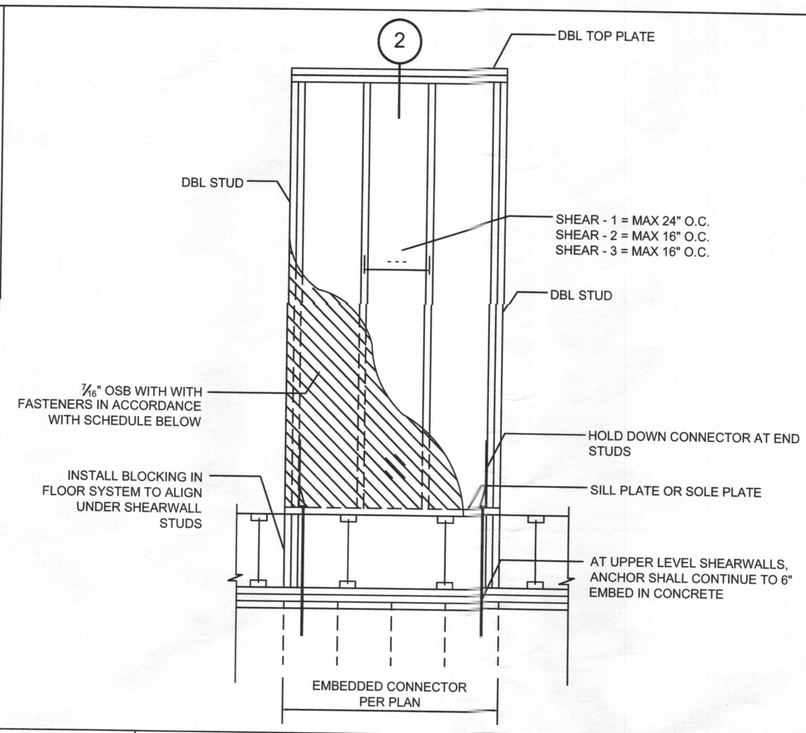
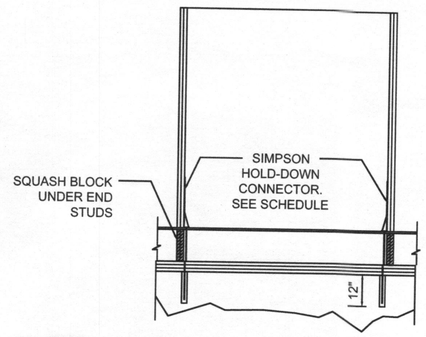
PRINT DATE :
February 16, 2012







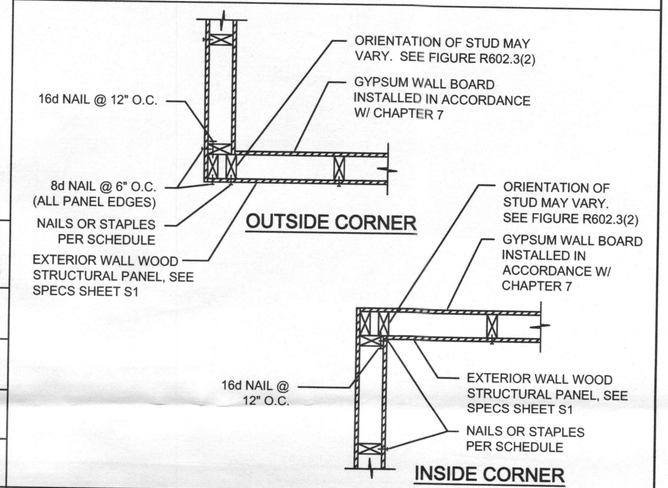
CASE 1: TYPICAL HOLD DOWN CONNECTION

C SHEAR WALL HOLD DOWN CONNECTION

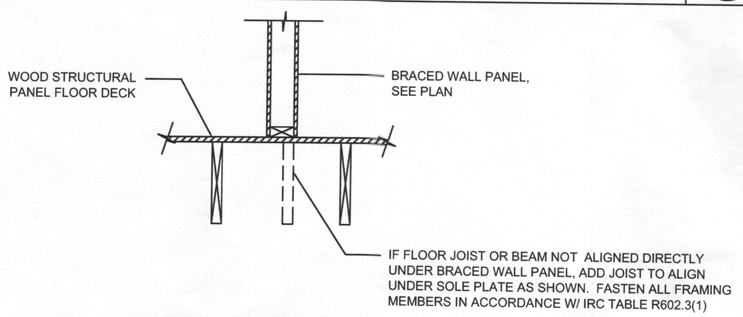
METHOD OF CONSTRUCTION	INSTALLATION REQUIREMENTS
CS-WSP, WSP	WOOD STRUCTURAL PANEL WITH A THICKNESS NOT LESS THAN 7/16" FASTENED TO FRAMING WITH 8d COMMON OR BOX NAILS: 6" O.C. AT PANEL EDGES, 12" O.C. IN THE FIELD (ALTERNATE: 15 GAGE x 1 3/4" STAPLE: 4" O.C. AT PANEL EDGES, 8" O.C. IN THE FIELD)
GB	GYPSUM BOARD WITH A MINIMUM 1/2" THICKNESS FASTENED AT 7" O.C. WITH 1 1/4" LONG TYPE W OR S DRYWALL SCREW
ABW	SPECIAL FRAMING, WALL SHEATHING NAILING, AND ANCHOR BOLTS EMBEDDED INTO CONCRETE IS REQUIRED AT ALTERNATE BRACED WALL PANELS. SEE DETAIL 'D' THIS SHEET.

SHEARWALL TYPE	SHEATHING AND FASTENER PATTERN	HOLD-DOWN CONNECTOR
TYPE 1	7/16" OSB (EXTERIOR) W/ 8d COMMON OR BOX NAILS: 6" O.C. AT PANEL EDGES, 12" O.C. IN THE FIELD (ALTERNATE: 15 GAGE x 1 3/4" STAPLE: 4" O.C. AT EDGES, 8" O.C. IN THE FIELD. **OR** 1/2" GYPSUM WALL BOARD (INTERIOR) WITH 1 1/4" TYPE W OR S DRYWALL SCREWS @ 7" O.C.	NONE
TYPE 2	7/16" OSB WITH 8d COMMON NAILS: 3" O.C. AT PANEL EDGES, 12" O.C. IN THE FIELD. BLOCK ALL PANEL EDGES	HTT5
TYPE 3	7/16" OSB WITH 8d COMMON NAILS: 3" O.C. AT PANEL EDGES, 12" O.C. IN THE FIELD. BLOCK ALL PANEL EDGES	HDQ8

12" O.C. FIELD NAILING FOR TYPE 2 AND TYPE 3 SHEARWALLS MAY BE SUBSTITUTED WITH 15 GA. X 1 3/4" STAPLES AT 8" O.C. OR 16 GA. x 1 1/2" STAPLES AT 6" O.C. (INTERIOR SHEAR ONLY)

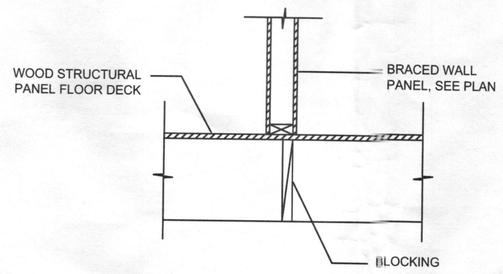


A BRACED WALL PANEL DETAIL



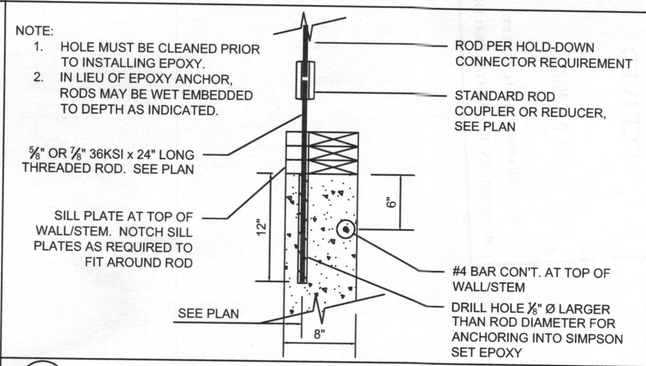
SOLE PLATE PARALLEL TO SUPPORTS

B SHEARWALL DETAIL

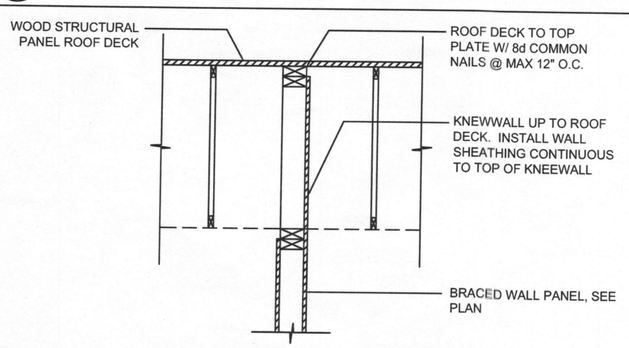


SOLE PLATE PERPENDICULAR TO WOOD JOISTS

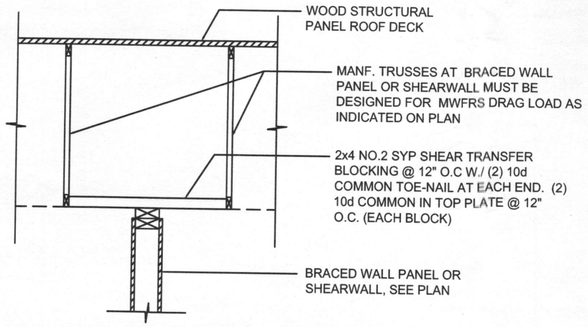
3 TYPICAL CORNER DETAIL



1 INTERIOR BRACED WALL PANEL SILL PLATE/SOLE PLATE CONNECTION



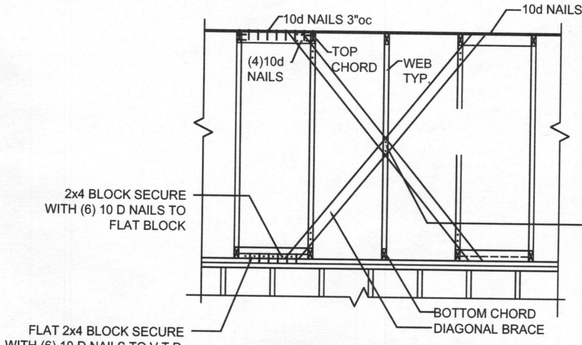
PARALLEL TO ROOF DECK



OPTIONAL PARALLEL TO ROOF DECK

(EOR MUST COORDINATE MWFRS DRAG LOAD ON TRUSSES PRIOR TO FABRICATION)

4 THREADED ROD ANCHOR DETAIL



PERPENDICULAR TO ROOF DECK

NOTES:
2. BRACE TO BE INSTALLED AT APPROXIMATELY A 45 DEG ANGLE.
3. ALL BRACING TO BE 2X4 #2 MIN
4. INSTALL "X" BRACE AT 48" O.C. OVER BRACED WALLS, MIN (1) PER BRACED WALL PANEL

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2/23/2012

2 BRACED WALL PANEL TOP PLATE CONNECTION

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JACKSONVILLE, FL 32224

Paraskevopoulos Residence

PROPOSED ADDITION

15507 Bushy Tail Run, Woodbine, Maryland 21797

STATE OF MARYLAND JEFFREY P. ARNESON No. 32908 PROFESSIONAL ENGINEER

REVISIONS

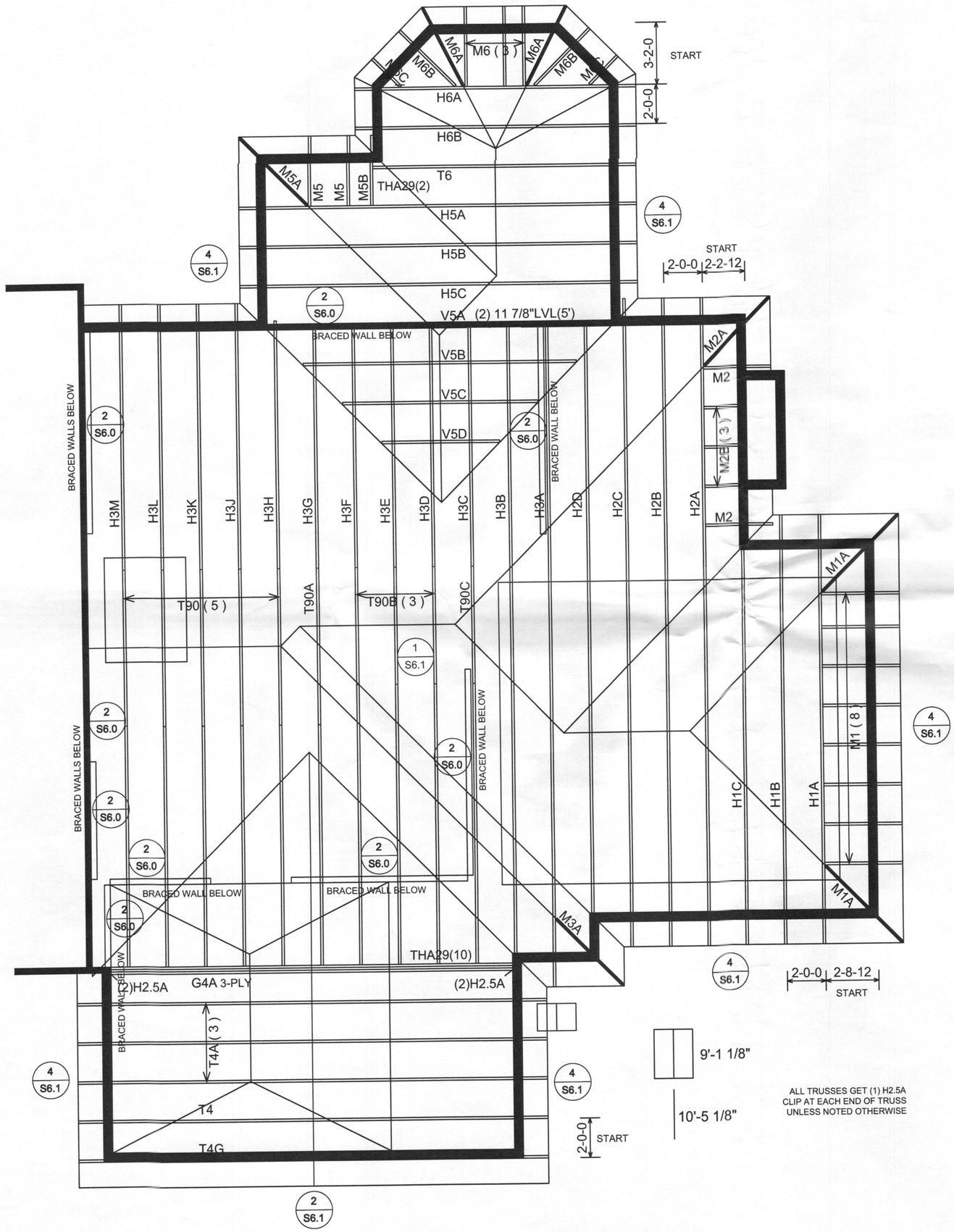
PROJECT # 11969

SCALE: N.T.S.

STRUCTURAL DETAILS

S6.0

PRINT DATE : February 14, 2012



ROOF TRUSS FRAMING PLAN

1/4" = 1'-0"

PLAN NOTES:

SEE SHEET S-000 FOR GENERAL ROOF FRAMING REQUIREMENTS.

SEE SHEET S-000 FOR TRUSS LOADING PROVISIONS.

3. PRE-ENGINEERED WOOD ROOF TRUSSES

ROOF TRUSSES FABRICATED TO ACHIEVE THE ROOF PLANES DEPICTED ON THE ARCHITECTURAL PLANS SHALL BE DESIGNED UNDER THE SUPERVISION OF A REGISTERED LOCAL PROFESSIONAL ENGINEER. ENGINEERING SHOP DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH ANSI/TPI-2002 AND SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO *FABRICATION. DESIGN CRITERIA IS LOCATED ON SHEET S0 OF THE PLAN SET.* TEMPORARY BRACING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LEFT IN PLACE AFTER CONSTRUCTION IS COMPLETE.

TRUSS PLACEMENT PLAN
TRUSSES SHALL BE DESIGNED TO MATCH THE ORIENTATION, SPAN DIRECTION, SPACING, AND BEARING LOCATION OF THE LAYOUT SHOWN HERE.

TRUSS TO TOP PLATE CONNECTIONS
TRUSSES SHALL BE CONNECTED TO BEARING WALLS AND TRUSSES AS INDICATED ON PLAN.

DocuSigned by:
Jeffrey P. Arneson
079614DB26EB432...
2/23/2012

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REVISIONS

PROJECT #
11969

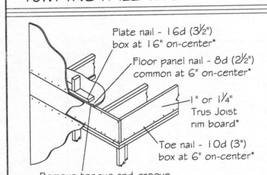
SCALE: 1/4" = 1'

ROOF TRUSS FRAMING PLAN

S5.0

PRINT DATE :
February 16, 2012

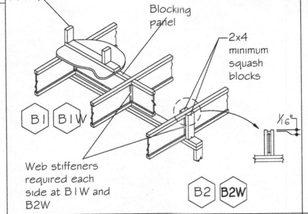
TJM INSTALLATION DETAILS

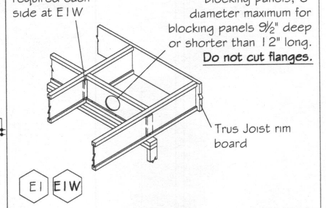


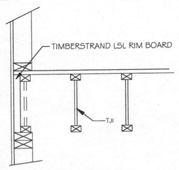
Remove tongue and groove from floor panel edges supported by 1" e-Rim® to ensure quality nailing.

*Conventional construction code minimum for use with A3 only. See Trus Joist Framer's Pocket Guide for A3.1-A3.3 installation specifications.

A3 A3.1 A3.2 A3.3

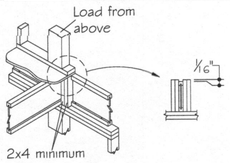


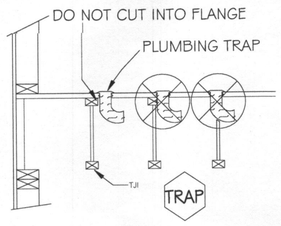




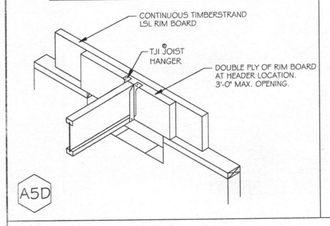
A7 TIMBERSTRAND LSL RIM BOARD

A7M TIMBERSTRAND LSL RIM BOARD & I JOIST



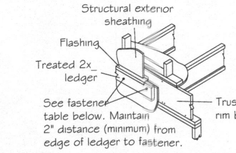


TIMBERSTRAND FLUSH HEADER DETAIL



A5D

EXTERIOR DECK ATTACHMENT



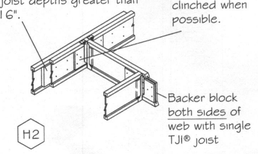
Fastener	Allowable Load / Factored Resistance (lbs)	
	1¼" rim board	1" e-Rim™
½" lag bolt	400 / 630	N.A. / N.A.
½" lag bolt	475 / 750	325 / N.A.

- Allowable load determined in accordance with AC 124.
- Corrosion-resistant fasteners required for wet-service applications.

LA

Filler block: Attach with ten 10d (3") box nails, clinched. Use ten 16d (3½") box nails from each side with 3½" TJI® joist flange widths. Use fifteen nails with TJI® joist depths greater than 16".

Backer block: Install tight to top flange (tight to bottom flange with face mount hangers). Attach with ten 10d (3") box nails, clinched when possible.



H2

ENGINEERED WOOD MATERIALS LIST

JRA DESIGN — PARASKEVOPOULOS ADDITION FIRST FLOOR

FIRST FLOOR TJI'S:

MARK	QTY.	CUT LENGTH	DEPTH	SERIES
48	4	48'	11 7/8"	TJI 360
43	15	43'	11 7/8"	TJI 360
34	2	34'	11 7/8"	TJI 360
31	6	31'	11 7/8"	TJI 360
20	6	20'	11 7/8"	TJI 360
16	3	16'	11 7/8"	TJI 360
14	1	14'	11 7/8"	TJI 360
13	2	13'	11 7/8"	TJI 360
9	4	9'	11 7/8"	TJI 360
BP	27	2'	11 7/8" TJI BLOCKING PANELS	
RIM	13	16'	1 1/8" x 11 7/8" TIMBERSTRAND RIM	

HANGERS

H1	15	PCS.	IUS2.37/11.88
H2	1	PCS.	SUR/L2.37/11
H3	1	PCS.	SUR/R2.37/11

BEAMS

TS1	1	7'	3 1/2" x 11-7/8" TIMBERSTRAND HDR
TS2	1	12'	3 1/2" x 11-7/8" TIMBERSTRAND HDR

NAILING REQUIREMENTS

TJI® joists at bearings: Two 8d (2½") box nails (1 each side), ½" minimum from end.

Blocking panels, rim joist or rim board to bearing plate:
TJI® blocking panels or rim joist:10d (3") box nails at 6" o.c.
Trus Joist rim board:Toenail with 10d (3") box nails at 6" o.c. or 16d (3½") box nails at 12" o.c.
Shear transfer:Connections equivalent to decking nail schedule.

Rim board, rim joist or closure to TJI® joist:
1¾" width or less:Two 10d (3") box nails, one each at top and bottom flange.
2⅛" thru 3½" widths:Two 16d (3½") box nails, one each at top and bottom flange.
3½" width:Toenail joist to rim joist with one 10d (3") box nail each side of joist top flange.

2x4 minimum squash blocks: Two 10d (3") box nails, one each at top and bottom flange.

FRAMER NOTE !!!!!!!!

SOLID BLOCK POST LOADS WITH 2x4 SQUASH BLOCKS FROM ABOVE TO BEARING PLATE BELOW. (ALL EXTERIOR DOOR HEADER JACK)

FrameWorks BUILDING SYSTEM FEATURING THE Silent Floor

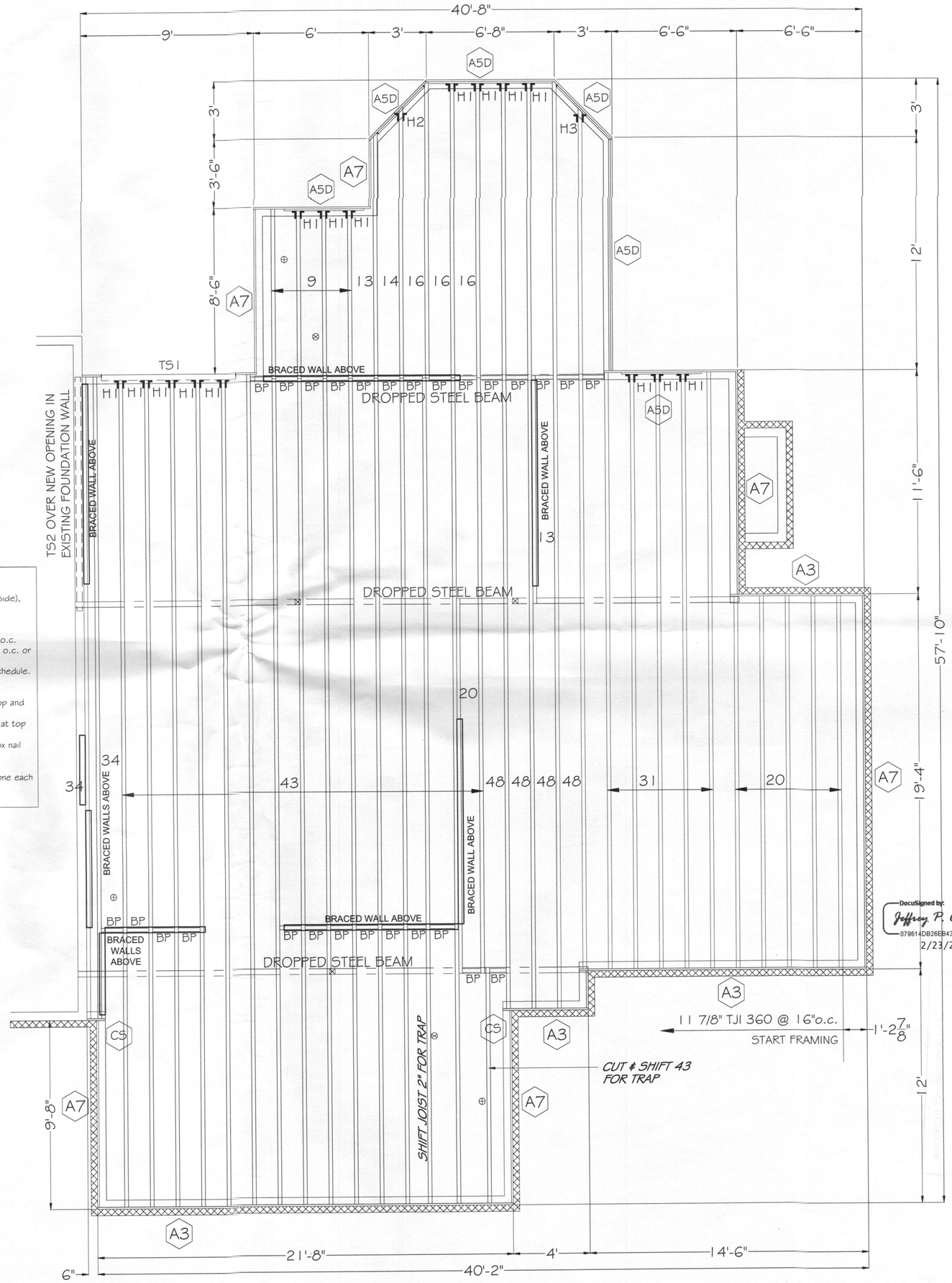
REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS

DO NOT CUT OR ALTER FLANGE OF JOIST TRAP

AVERAGE PRO-RATING = 43

GENERAL NOTES

1) READ THE TRUS JOIST INSTALLATION GUIDE BEFORE FRAMING. COORDINATE APPROPRIATE GUIDE FOR SERIES TJI BEING USED.
2) PROVIDE PLUMBING AND HVAC CONTRACTORS WITH TRUS JOIST INSTALLATION GUIDE FOR HOLE CUTTING CHARTS AND OTHER DETAILS.
3) DO NOT CUT INTO OR ALTER THE FLANGE OF TJI JOIST.
4) BUILDER TO VERIFY LOCATION OF PLUMBING TRAPS, AND SHIFT JOIST A MAXIMUM OF 2 INCHES.
5) HANGERS TO BE INSTALLED PER MANUFACTURES' RECOMMENDATIONS.
6) FLOOR SHEATHING TO BE GLUED AND NAILED TO TRUS JOIST MEMBER IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN PLYWOOD ASSOCIATION. (APA)



FIRST FLOOR JOIST FRAMING PLAN

1/4" = 1'-0"

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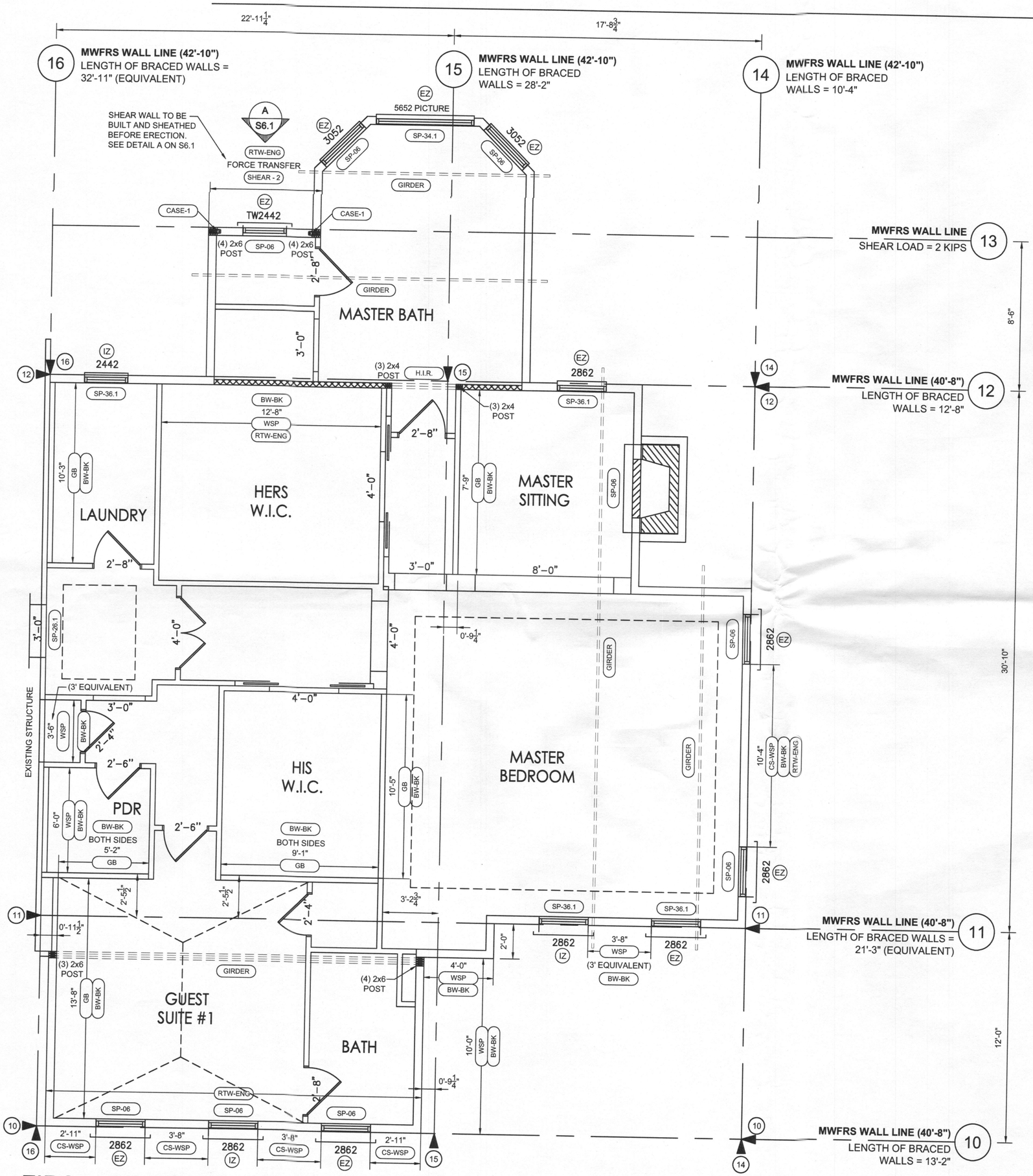
PROJECT # 11969

SCALE: 1/4" = 1'

FIRST FLOOR FRAMING PLAN

S4.0

PRINT DATE : February 16, 2012



FIRST FLOOR STRUCTURAL WALL PLAN

1/4" = 1'-0"

GENERAL PLAN NOTES:

1. FOR GENERAL NOTES AND KEYNOTE SPECIFICATIONS, SEE SHEET S0
2. IF HEADER NOT SPECIFIED, CONTACT ENGINEER OF RECORD
3. FASTEN ALL MULTI-PLY/BUILT UP STUD COLUMNS UNDER BEAMS/GIRDERS W./ (2) ROWS 10d COMMON @ 8" O.C. STAGGERED
4. ALL LUMBER SPECIFIED ON DRAWINGS IS INTENDED FOR DRY USE ONLY, UNO. ALL WATERPROOFING AND FIRE SAFETY SYSTEMS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE TO BE DESIGNED AND DETAILED BY OTHER.
5. LENGTHS OF BRACED WALL PANEL SEGMENTS AND BRACED WALL LINES INDICATED ON STRUCTURAL PLANS ARE NOT TO BE USED FOR CONSTRUCTION. THESE DIMENSIONS ARE FOR CALCULATION PURPOSES ONLY. ALL FRAMING DIMENSIONS ARE TO BE TAKEN FROM ARCHITECTURAL PLANS.
6. SPECIAL POSTS INDICATED ON PLAN ARE TO BE INSTALLED AS SUCH:
   - SAWN LUMBER POSTS ARE TO BE INSTALLED "IN LINE" WITH WALL PANEL. BEAM OR TRUSS TO BEAR ON NO.2 SYP FIELD APPLIED TOP PLATE.
   - WALL PANELS ARE DISCONTINUOUS AT ENGINEERED WOOD POSTS. TRUSS OR BEAM TO BEAR DIRECTLY OVER POST. SECURE ADJACENT WALL PANELS TO POST w/ 10d COMMON @ 8" O.C.

KEYNOTES:

BM-PKT	BEAM POCKET INTO DBL STUD GROUP IN WALL, U.N.O.
H.I.R.	HEADER OR BEAM IN ROOF SYSTEM PER ROOF FRAMING PLAN.
GIRDER	GIRDER TRUSS ABOVE PER ROOF TRUSS FRAMING PLAN
SP-06	(1) 2x6 NO.2 SYP PLANK HEADER
SP-26.1	(2) 2x6 NO.2 SYP HEADER WITH (1) JACK POST
SP-34.1	(3) 2x4 NO.2 SYP HEADER WITH (1) JACK POST
SP-36.1	(3) 2x6 NO.2 SYP HEADER WITH (1) JACK POST
CS-WSP	PRESCRIPTIVE CONTINUOUSLY SHEATHED BRACED WALL IN ACCORDANCE WITH IRC SECTION R602.10.4
WSP	PRESCRIPTIVE INTERMITTENT BRACED WALL METHOD "WSP" AS DESCRIBED IN IRC SECTION R602.10.2
GB	PRESCRIPTIVE INTERMITTENT BRACED WALL METHOD "GB" AS DESCRIBED IN IRC SECTION R602.10.2.1
BW-BK	BRACED WALL INDICATED ON PLAN REQUIRED TO HAVE 2x4 SPF BLOCKING AT HORIZONTAL JOINTS IN OSB/GYPSUM
SHEAR - #	ENGINEERED SHEARWALL IN ACCORDANCE w/ 2009 INTERNATIONAL BUILDING CODE. SEE SPECS, SHEET S0 AND DETAILS ON SHEET S6.0. USED ONLY AT PORTIONS OF STRUCTURE THAT DO NOT MEET THE BRACED WALL DESIGN REQUIREMENTS OF THE 2009 IRC.
CASE-#	POST TO FOUNDATION CONNECTION WITH METAL HOLD-DOWN STRAP OR CONNECTOR PER CASE NO. INDICATED ON PLAN. SEE DETAIL C/S6.0
RTW-ENG	TRUSS/BLOCKING TO TOP PLATE W./ 0.113" x 2 1/2" LONG TOE-NAIL @ 4" O.C. TOP PLATE NAILING OF DBL TOP PLATE W./ 0.128" x 3" LONG NAIL @ 6" O.C. STAGGERED
IZ/EZ	ZONE DESIGNATION FOR WINDOW/ DOOR DESIGN PRESSURE. SEE TABLE 1-1, SHEET S0

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SCALE: 1/4" = 1'

STRUCTURAL FLOOR PLAN

S3.0

PRINT DATE : February 16, 2012

FOUNDATION WALL REINFORCEMENT SCHEDULE

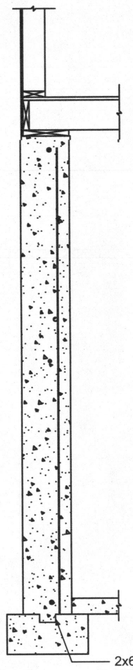

Table A.4 Vertical Reinforcing Bar Spacing For Concrete Basement Walls Per ACI 332-08

Unsupported wall height, ft	f'_c = 3000 psi / f'_c = 60,000 psi		Maximum equaivalent fluid pressure of soft soil, psf/ft													
			30			45			60			100				
	Unbalanced backfill, ft	Reinforcing bar	Minimum wall thickness, in.			Minimum wall thickness, in.			Minimum wall thickness, in.			Minimum wall thickness, in.				
			7.5	9.5	11.5	7.5	9.5	11.5	7.5	9.5	11.5	7.5	9.5	11.5		
8	5	No. 4 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain		
		No. 5 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain		
		No. 6 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain		
	6	No. 4 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	18	Plain	Plain		
		No. 5 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	28	Plain	Plain		
		No. 6 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	39	Plain	Plain		
	7	No. 4 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	22	Plain	Plain	13	17	Plain		
		No. 5 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	33	Plain	Plain	20	26	Plain		
		No. 6 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	46	Plain	Plain	28	37	Plain		
9	5	No. 4 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain		
		No. 5 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain		
		No. 6 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain		
	6	No. 4 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	17	Plain	Plain		
		No. 5 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	25	Plain	Plain		
		No. 6 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	36	Plain	Plain		
	7	No. 4 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	19	Plain	Plain	13	15	Plain		
		No. 5 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	30	Plain	Plain	18	23	Plain		
		No. 6 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	42	Plain	Plain	25	33	Plain		
	8	No. 4 @ ... in.	Plain	Plain	Plain	19	Plain	Plain	15	19	Plain	9	11	14		
		No. 5 @ ... in.	Plain	Plain	Plain	30	Plain	Plain	22	29	Plain	14	18	22		
		No. 6 @ ... in.	Plain	Plain	Plain	42	Plain	Plain	31	42	Plain	21	25	31		
10	5	No. 4 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	25	Plain	Plain		
		No. 5 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	38	Plain	Plain		
		No. 6 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	53	Plain	Plain		
	6	No. 4 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	16	Plain	Plain		
		No. 5 @ ... in.	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	Plain	24	Plain	Plain		
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	7	No. 4 @ ... in.	Plain	Plain	Plain	24	Plain	Plain	18	Plain	Plain	11	14	Plain		
		No. 5 @ ... in.	Plain	Plain	Plain	37	Plain	Plain	28	Plain	Plain	16	22	Plain		
		No. 6 @ ... in.	Plain	Plain	Plain	52	Plain	Plain	39	Plain	Plain	23	31	Plain		
	8	No. 4 @ ... in.	Plain	Plain	Plain	18	Plain	Plain	13	17	Plain	9	10	13		
		No. 5 @ ... in.	Plain	Plain	Plain	27	Plain	Plain	20	27	Plain	14	16	20		
		No. 6 @ ... in.	Plain	Plain	Plain	38	Plain	Plain	29	38	Plain	21	23	28		
	9	No. 4 @ ... in.	21	Plain	Plain	14	18	Plain	10	14	17	8	8	10		
		No. 5 @ ... in.	32	Plain	Plain	21	28	Plain	16	21	26	12	12	15		
		No. 6 @ ... in.	45	Plain	Plain	30	39	Plain	22	29	37	17	17	22		

REBAR CONVERSION CHART	
ORIGINAL	#5 EQUAL
#4 @ 6" O.C	#5 @ 9" O.C
#4 @ 8" O.C	#5 @ 12" O.C
#4 @ 12" O.C	#5 @ 18" O.C
#4 @ 16" O.C	#5 @ 24" O.C
#4 @ 20" O.C	#5 @ 30" O.C
#4 @ 24" O.C	#5 @ 36" O.C

Table A.4 Notes:

1. Numbers in the table indicate spacing in inches of vertical reinforcing as indicated. The term "plain" in the table refers to concrete where minimum vertical reinforcement is required. Minimum reinforcement for all plain concrete walls is as follows:
   No.4 bar @ 36" o.c.
   No.5 or No.6 bar @ 48" o.c.
   Additional vertical and horizontal reinforcing work is required per notes 5,7,8,9,10,11, and 12.

2. This table is applicable to walls of the specified height, unbalanced backfill height, equivalent fluid pressure of soil, concrete strength, and the yield strength of reinforcement. Foundation walls shall have functioning foundation drains and weep holes to prevent development of hydrostatic head at the wall face. Foundation walls shall be waterproofed or dampproofed in accordance with the current adopted edition of the International Residential Code or local Code requirements. Prior to application of any required waterproofing or darnpproofing, fins or projections of concrete greater than 1/2" shall be removed after stripping forms. Bug holes over 1/2" deep, honeycombing, voids, and areas where reinforcement is exposed shall be repaired.

3. This table is applicable only when the structure Is not assigned to Seismic Design Category D, E, or F or located in Seismic Zones 3 or 4.

4. Values in this table were reproduced directly from Table A.4 of ACI 332-04. All engineering data in this table was developed by the Committee responsible for ACI 332-04 "Requirements Far Residential Concrete". Construction of walls detailed using this table shall conform to the requirements of ACI 332-04. Wood frame wall plates shall be anchored to foundation walls in accordance with the current adopted edition of the International Residential Code or local Code requirements.

5. Horizontal Reinforcement for Plain & Reinforced Walls: 8'-0" tal1 walls (3) # 4 bars, 9'-0" & 10'-0" tall walls (4) # 4 bars. A minimum of one horizontal bar shall be located within the top 24" and a minimum of one in the bottom 24" of the wall, The remaining required bars shall be spaced over the height of the wall as equally as practical. Provide minimum 24" lap splices unless otherwise noted. Provide bent bars at corners, wall intersections, and wall offsets. The horizontal reinforcement shall be secured as close as practical to the tension face of the wall, but behind vertical reinforcement where present. At corners, horizontal reinforcement shall extend around comers and lap reinforcement a minimum of 30 bar diameters,

6. Slab-on-grade shall be installed and cured to a minimum compressive strength of 1,700 psi prior to backfill placement. First floor framing shall be installed prior to backfill placement in excess of 4 feet above footing elevation. Frame to foundation wall anchors shall be per the current adopted edition of the International Residential Code or equal. Concrete compressive strength: minimum 3,000 psi at 28 days. Foundation wall concrete compressive strength shall be a minimum of 1,700 psi prior to backfilling in excess of 4 feet above footing elevation. All reinforcing steel shall be Grade 60.

7. Wall-to-Footing Connection: The wall-to-footing connection shall consist of a No. 4 reinforcing bar dowel that extends at least 12" into the wall and 6" into the footing, spaced at a maximum of 24" on-center along the footing. To facilitate positioning before concrete placement, vertical dowels are permitted to be driven into the grade in the bottom of the footing.

8. Unsupported Footing Span: Where an unsupported wall footing section does not exceed a 3 ft. span, a minimum of two No. 4 reinforcement bats shall be placed in the bottom of the footing and extend at least 18" into the supported sections on both sides. Reinforcement ban shall have a minimum cover of 3" from the sides and bottom of the footing. Unsupported footing sections with spans exceeding 3 ft. are not permitted and require an independent structural design.

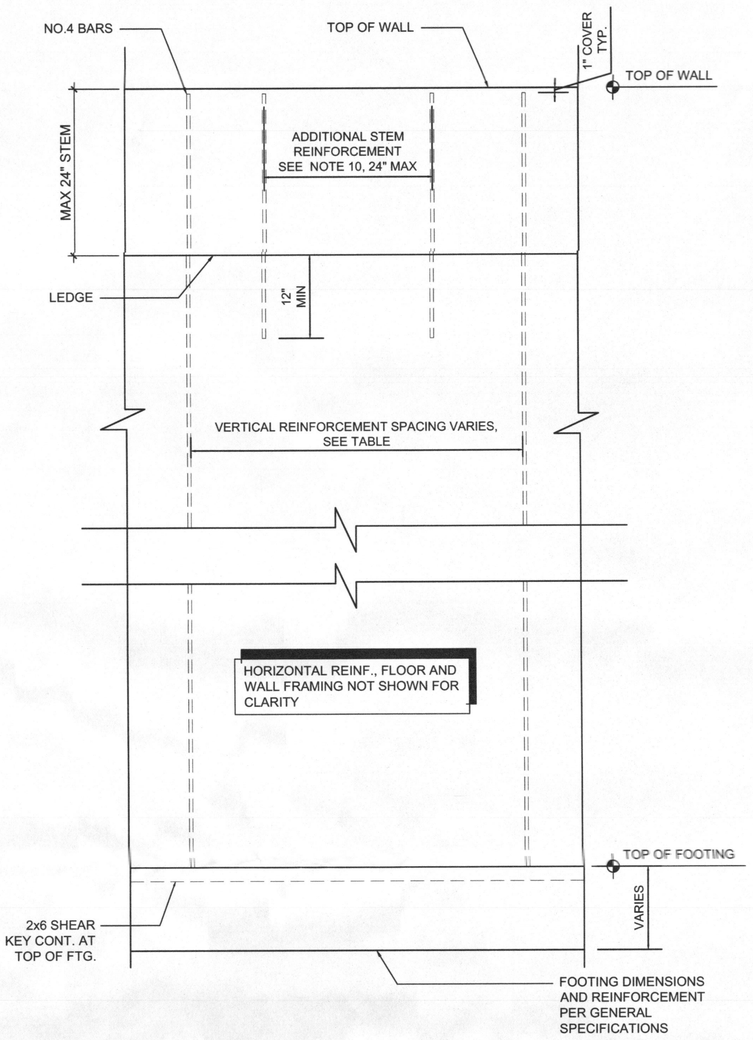
9. Discontinuous Wall Footings: Where a wall footing is discontinuous due to an abrupt elevation change (step), the maximum horizontal discontinuity of the wall footing not exceed 4'. In addition, the reinforcement in the foundation wall at such a location shall conform to the following: (a) At discontinuous wall footings, where wall footing elevation change is greater than twice the footing thickness, place a minimum of two No. 4 horizontal reinforcing bars, one at the top and the other at the bottom of the wall, in addition to other required wall reinforcement. These bars shall extend at each end at least 36" into the wall portion supported directly by the top and bottom wall footings. (b) The bars shall be placed in the middle third of the wall thickness.

10. Reduction of Wall Thickness: The thickness of the top of a foundation wall shall be permitted to be reduced to accept masonry and stone finishes. The height of the reduced thickness section shall not exceed 24". The reduced thickness section shall comply with (a) and (b): (a) Unless otherwise determined by a registered professional engineer, reduced wall thickness shall not be less than 3-1/2"; and (b) Where the wall thickness is reduced, a minimum of one vertical No. 4 reinforcing bar spaced at 24 in. on center along the length of the reduced wall section shall be placed at the tension face of the wall. This bar shall extend a minimum of 12" into the full thickness wall section, and full height into the reduced thickness section. Additional wall reinforcing requirements, at sections of reduced wall thickness, are permitted to include vertical reinforcing bars in fulfillment of the additional reinforcement requirement. If the vertical bar spacing is greater than the additional wall reinforcing requirements, add straight bars, in addition to the vertical wall reinforcement, to meet the additional reinforcement spacing requirements at wall sections of reduced wall thickness.

11. Cast-in-Place Lintels: Lintel beams that conform to the empirical requirements given in (a) through (c) shall be permitted: (a) Lintel beam depth shall be not less than 8"; (b) Lintel beam span shall not exceed 40"; and (c) A minimum of two No. 4 longitudinal reinforcing bars shall be placed at the bottom, extending 24" into the wall at each end. Concrete cover to the bottom OF the lintel shall be 1-1/2" minimum.

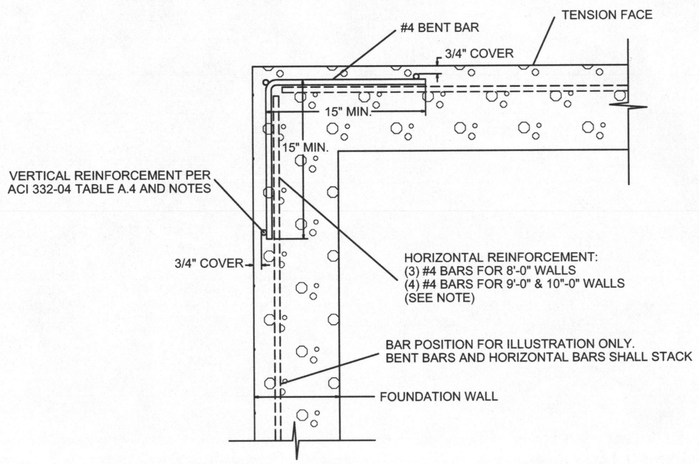
12. Reentrant Comers: Where a wall opening, or an abrupt elevation change greater than 8" in top or bottom of wall, creates a reentrant comer, a minimum of one 24" long No. 4 reinforcing bar shall be placed diagonally within 1-1/2" to the reentrant corner. The bar shall be centered in the wall thickness.

13. Concrete Cover for Reinforcement: All installed reinforcement shall have concrete cover meeting the following minimum requirements: (a) Concrete cast directly against earth: 3"; (b) Concrete directly exposed to earth or weather: 1-1/2"; (c) Concrete coated with exterior grade paint, code compliant waterproofing systems, or not exposed to weather: 3/4". The tolerance on concrete cover shall be + 3/8".



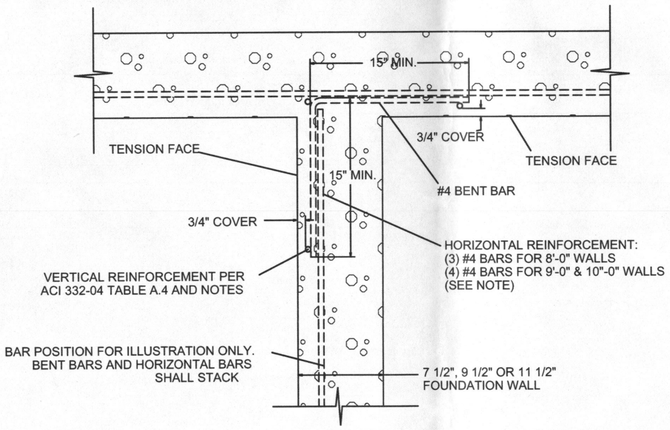
1 VERTICAL WALL REINFORCING SPECIFICATIONS

2 TYPICAL VERTICAL WALL REINFORCING



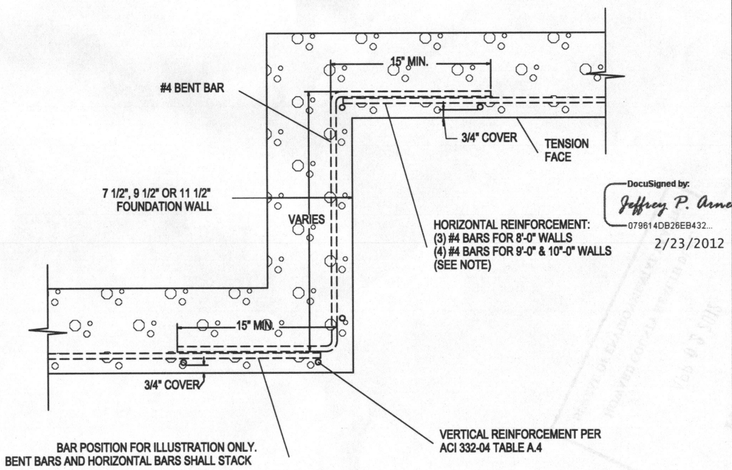
NOTE:
FOR ALL WALL HEIGHTS, A MINIMUM OF ONE HORIZONTAL BAR SHALL BE LOCATED WITHIN THE TOP 24" AND A MINIMUM OF ONE IN THE BOTTOM 24". THE REMAINING REQUIRED BARS SHALL BE SPACED OVER THE HEIGHT OF THE WALL AS EQUALLY AS PRACTICAL.

3 CORNER REINFORCING DETAIL



NOTE:
FOR ALL WALL HEIGHTS, A MINIMUM OF ONE HORIZONTAL BAR SHALL BE LOCATED WITHIN THE TOP 24" AND A MINIMUM OF ONE IN THE BOTTOM 24". THE REMAINING REQUIRED BARS SHALL BE SPACED OVER THE HEIGHT OF THE WALL AS EQUALLY AS PRACTICAL.

4 REINFORCING AT "T" INTERSECTIONS



NOTE:
FOR ALL WALL HEIGHTS, A MINIMUM OF ONE HORIZONTAL BAR SHALL BE LOCATED WITHIN THE TOP 24" AND A MINIMUM OF ONE IN THE BOTTOM 24". THE REMAINING REQUIRED BARS SHALL BE SPACED OVER THE HEIGHT OF THE WALL AS EQUALLY AS PRACTICAL.

5 REINFORCING AT "Z" INTERSECTIONS

JRA
ARCHITECTURE
443.226.5745
www.jra-design.com

PROFESSIONAL CERTIFICATION
I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws of the State of Maryland, License Number #14678 Expiration Date: 6/30/2012.

APEX TECHNOLOGY
STRUCTURAL ENGINEERING
JAX APEX TECHNOLOGY, INC
VA CA NO. F173645-5
4745 SUTTON PARK CT, SUITE 402
JACKSONVILLE, FL 32224

Paraskevopoulos Residence
PROPOSED ADDITION
15507 Bushy Tail Run, Woodbine, Maryland 21797

STATE OF MARYLAND
JEFFREY P. ARNESON
No. 32908
PROFESSIONAL ENGINEER

REVISIONS

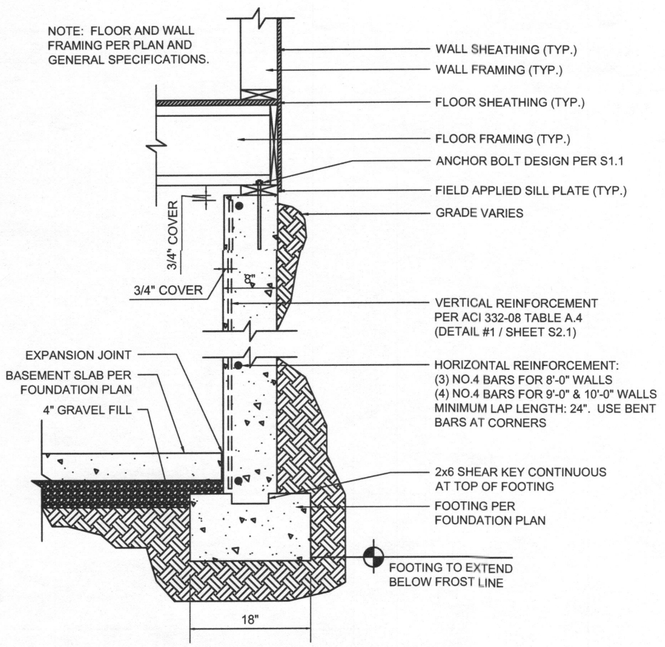
PROJECT #
11969

SCALE: N.T.S.

FOUNDATION DETAILS

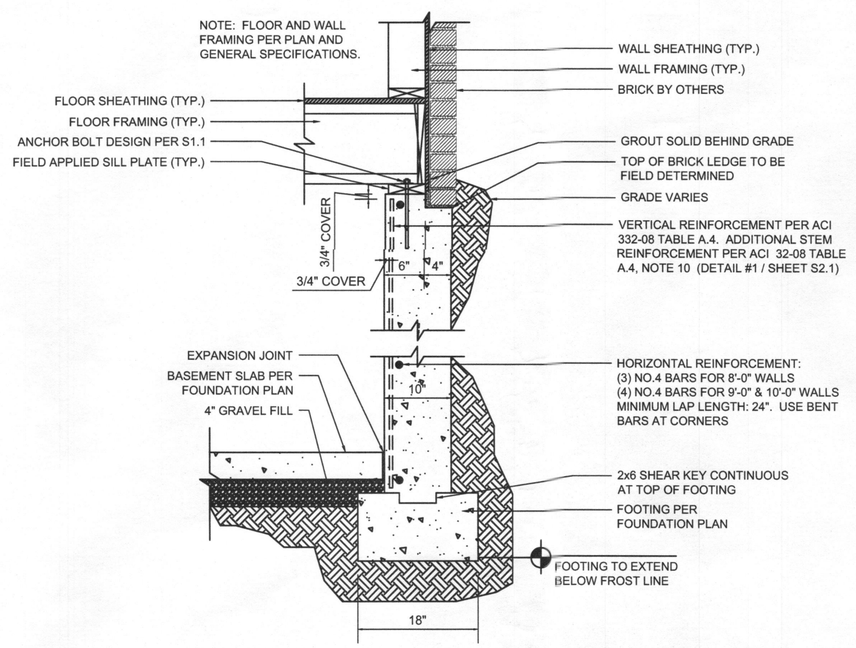
S2.1

PRINT DATE :
February 16, 2012



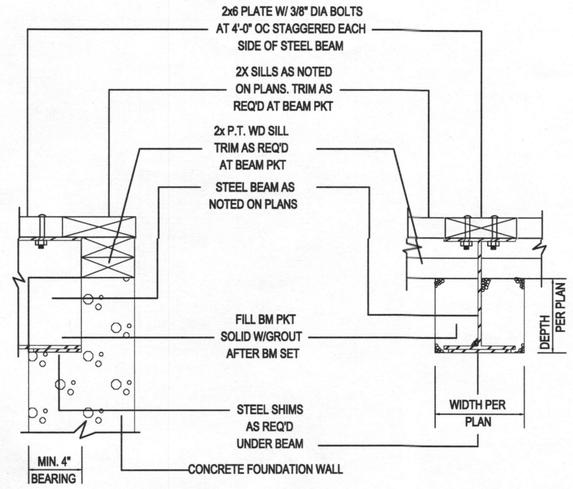
WATERPROOFING, DAMPROOFING, FOUNDATION DRAIN, WEEP HOLES, AND UNDER SLAB DRAINAGE ARE THE RESPONSIBILITY OF THE CONTRACTOR

1 FOUNDATION WALL SECTION (TYP.)

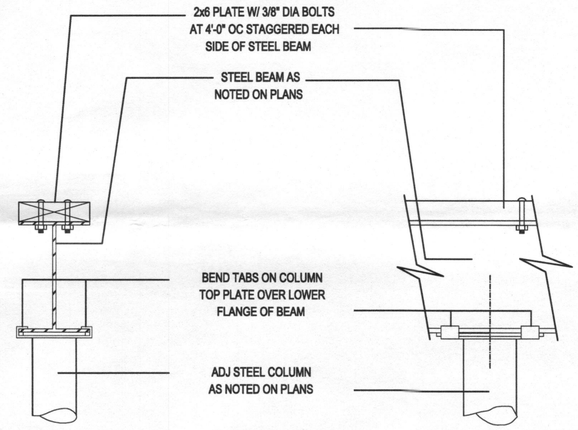


WATERPROOFING, DAMPROOFING, FOUNDATION DRAIN, WEEP HOLES, AND UNDER SLAB DRAINAGE ARE THE RESPONSIBILITY OF THE CONTRACTOR

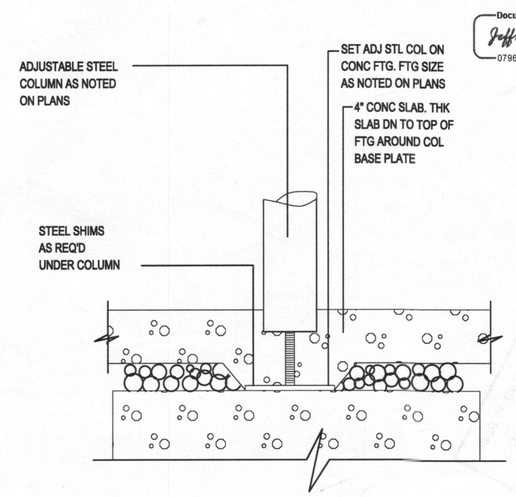
2 FOUNDATION WALL SECTION WITH BRICK LEDGE



3 STEEL BEAM POCKET DETAIL



4 BEAM / COLUMN DETAIL



DocuSigned by: Jeffrey P. Arneson 079614DB26EB432... 2/23/2012

5 COLUMN / FOOTING DETAIL

JRA ARCHITECTURE
443.226.5745
www.jra-design.com

PROFESSIONAL CERTIFICATION
I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws of the State of Maryland, License Number #14678 Expiration Date: 6/30/2012.

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Paraskevopoulos Residence

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STATE OF MARYLAND JEFFREY P. ARNESON No. 32908 PROFESSIONAL ENGINEER

REVISIONS

PROJECT # 11969

SCALE: N.T.S

FOUNDATION DETAILS

S2.0

PRINT DATE : February 16, 2012