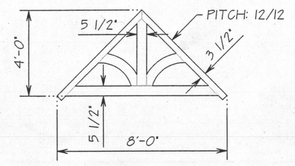
FULLY AUTOMATIC SPRINKLER SYSTEM



GABLE DETAIL

FRONT ELEVATION at GARAGE

FRONT ELEVATION at HOUSE

R312.2 WINDOW FALL PROTECTION
WHERE THE TOP OF THE WINDOW SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND GREATER THAN 72" ABOVE THE FINISHED GRADE OR OTHER SURFACES BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH
1. OPERABLE WINDOW WITH OPENINGS THAT WILL NOT ALLOW A 4" SPHERE TO PASS THROUGH THE OPENING WHERE IS IN ITS LARGEST OPENED POSITION.
2. OPERABLE WINDOWS THAT ARE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F 2090.
3. OPERABLE WINDOWS THAT ARE PROVIDED WITH WINDOW OPENING CONTROL DEVICES THAT COMPLY WITH SECTION R312.2.2.

REAR ELEVATION

REVIEWED FOR STRUCTURAL SUPPORT; FOUNDATION, STEEL BEAMS, MICRO-LAMS, HEADER'S & WALL BRACING ONLY.
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland.
License No. 9862 Expiration Date: 5-17-18

TMM CONSULTING SERVICES, LLC
7941 HOLLOW RD.
MIDDLETOWN, MD 21769
240-434-4518

SHEET No.
1 of 11

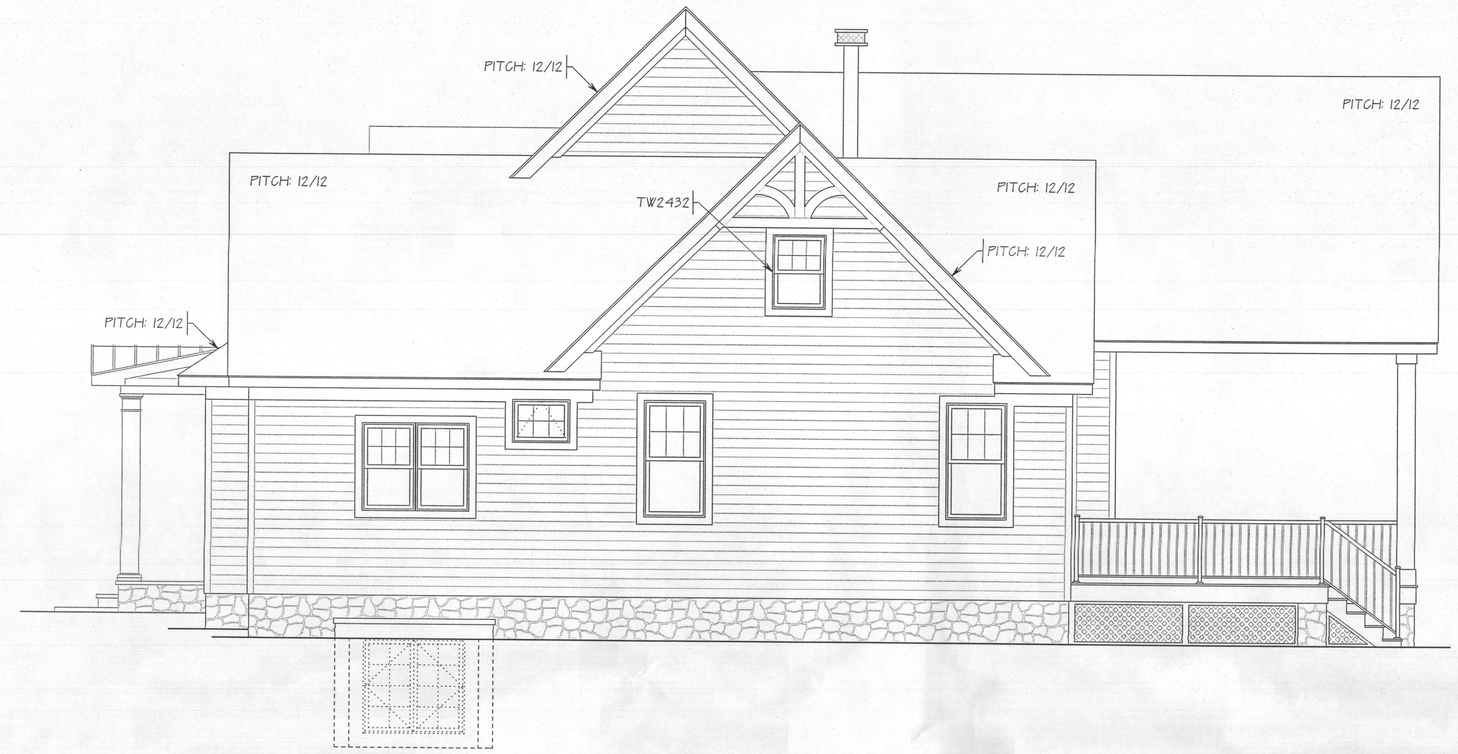
FRONT & REAR ELEVATIONS

PROJECT FOR:
STEPHEN PETTIT
2600 McKENDREE RD
GLENWOOD, MARYLAND 21738

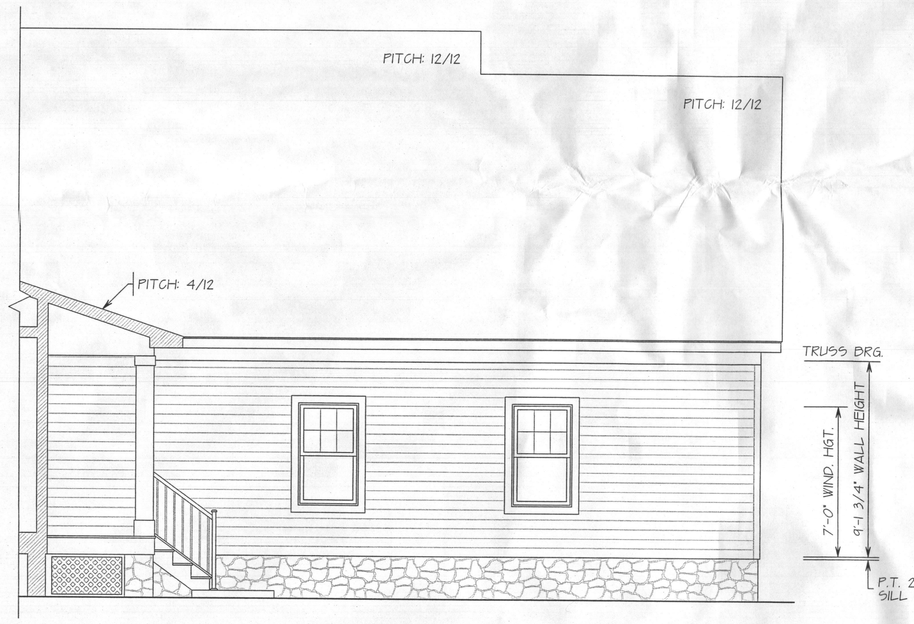
DATE	SCALE	FILE NAME	DRAWN BY
MARCH 12, 2018	1/4" = 1'-0"	P-FINAL	P. GUGLIUZZA

CREATIVE OUTLOOKS, LLC
PHILIP F. GUGLIUZZA
CUSTOM HOME PLANNING & DESIGN
HOME IMPROVEMENT LICENSE
COMPLETE CONSTRUCTION PLANS
PHONE: 410-596-1062 PGCREATE@OS.NET

LEFT SIDE ELEVATION at HOUSE

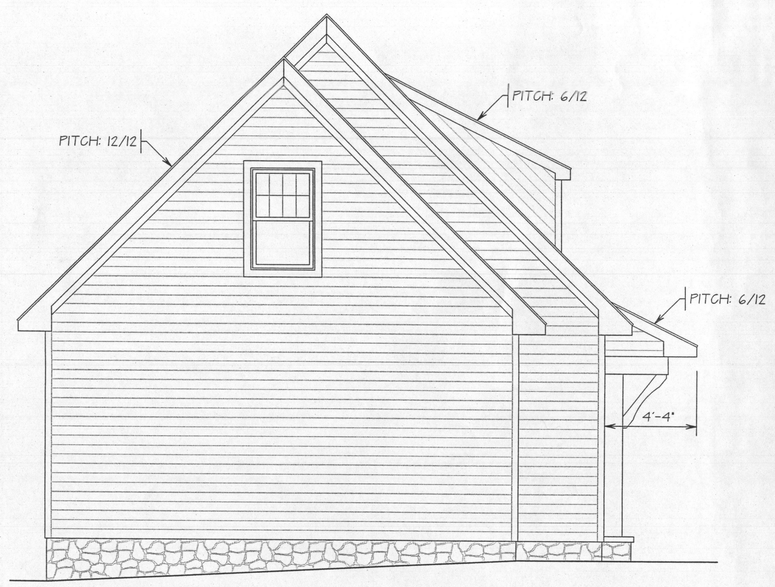


RIGHT SIDE ELEVATION



REAR ELEVATION at GARAGE

LEFT SIDE ELEVATION at GARAGE/HOUSE



LEFT SIDE ELEVATION at GARAGE

R301.1 CLIMATE ZONE 4A

R401.2 COMPLIANCE METHOD:
MANDATORY AND PRESCRIPTIVE PROVISIONS

R402.1.1 VAPOR RETARDER:
WALL ASSEMBLIES IN THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH VAPOR RETARDER REQUIREMENTS OF SECTION R702.7 OF THE INTERNATIONAL RESIDENTIAL CODE 2015 EDITION

R402.1.2 ATTIC INSULATION: R-49 w/STANDARD TRUSS HEEL
ATTIC INSULATION: R-38 w/ RAISED HEEL OVER EXTERIOR WALL

R402.1.2 WOOD FRAME WALL:
R-20 OR R-13 + R5 CONTINUOUS INSULATION

R402.1.2 BASEMENT WALL INSULATION:
R-13/R-10 FOIL FACED CONTINUOUS, UNINTERRUPTED BATTS FULL HEIGHT

R402.1.2 CRAWL SPACE WALL INSULATION:
R-13/R-10 FOIL FACED CONTINUOUS BATTS FULL HEIGHT EXTENDING FROM FLOOR ABOVE TO FINISH GRADE LEVEL AND THEN VERTICALLY OR HORIZONTALLY AN ADDITIONAL 2'-0".

R402.1.2 FLOOR INSULATION OVER UNCONDITIONED SPACE
R-19 BATT INSULATION

R402.1.2 WINDOW U-VALUE/SHGC
.35 (U-VALUE)
.40 (SHGC)

R402.2.10 SLAB ON GRADE FLOORS LESS THAN 12" BELOW GRADE:
R-10 RIGID FOAM BOARD UNDER SLAB EXTENDING EITHER 2'-0" HORIZONTALLY OR 2'-0" VERTICALLY.

R402.2.4 ATTIC ACCESS:
ATTIC ACCESS SCUTTLE WILL BE WEATHERSTRIPPED AND INSULATED R-49

R402.4 BUILDING THERMAL ENVELOPE (AIR LEAKAGE):
EXTERIOR WALLS AND PENETRATIONS WILL BE SEALED PER THIS SECTION OF THE 2015 IECC WITH CAULK, GASKETS WEATHERSTRIPPING OR AN AIR BARRIER OF SUITABLE MATERIAL. SEALING METHODS BETWEEN DISSIMILAR MATERIALS SHALL ALLOW SEALING FOR DIFFERENTIAL EXPANSION AND CONTRACTION.

R402.4.1.2 BUILDING THERMAL ENVELOPE TIGHTNESS TEST:
BUILDING ENVELOPE SHALL BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE OF NOT EXCEEDING 3 AIR CHANGES PER HOUR. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM E 779 OR ASTM E 1827 WITH (BLOWER DOOR) AT A PRESSURE OF 0.2 INCHES W.G. (50 PASCALS). TESTING SHALL BE CONDUCTED BY AN APPROVED THIRD PARTY. A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE BUILDING INSPECTOR.

R402.4.2 FIREPLACES
NEW WOOD BURNING FIREPLACES WILL HAVE TIGHT-FITTING FLUE DAMPERS OR DOORS, AND OUTDOOR COMBUSTION AIR. FIREPLACE DOORS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 127 (FACTORY BUILT FIREPLACE AND UL 907 (MASONRY FIREPLACE).

R402.4.4 ROOMS CONTAINING FUEL-BURNING APPLIANCES WHERE OPEN COMBUSTION AIR DUCTS PROVIDE COMBUSTION AIR TO OPEN COMBUSTION FUEL BURNING APPLIANCES, THE ALLIANCES AND COMBUSTION AIR SHALL BE LOCATED OUTSIDE THE BUILDING THERMAL ENVELOPE OR ENCLOSED IN A ROOM ISOLATED FROM INSIDE THE THERMAL ENVELOPE. EXCEPTIONS: 1. DIRECT VENT APPLIANCES WITH BOTH INTAKE AND EXHAUST PIPES INSTALLED CONTINUOUS TO THE OUTSIDE 2. FIREPLACES AND STOVES COMPLYING WITH SECTION R402.4.2 AND SECTION R1006 OF THE IRC.

R402.4.5 RECESSED LIGHTING
RECESSED LUMINARIES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE.

R403.1.1 THERMOSTAT
ALL DWELLING UNITS WILL HAVE AT LEAST (1) PROGRAMMABLE THERMOSTAT FOR EACH SEPARATE HEATING AND COOLING SYSTEM PER 2015 IECC SECTION 403.1.1

R403.1.2 WHERE A HEAT PUMP SYSTEM HAVING SUPPLEMENTARY ELECTRIC RESISTANCE HEAT IS USED THE THERMOSTAT SHALL PREVENT THE SUPPLEMENTARY HEAT FROM COMING ON WHEN HEAT PUMP CAN MEET HEATING LOAD.

R403.3.1 MECHANICAL DUCT INSULATION
SUPPLY AND RETURN DUCTS IN ATTIC R-8 MINIMUM, R-6 WHEN LESS THAN 3'. SUPPLY AND RETURN DUCTS OUTSIDE OF CONDITIONED SPACES R-8 MINIMUM. ALL OTHER DUCTS EXCEPT THOSE LOCATED COMPLETELY INSIDE THE BUILDING THERMAL ENVELOPE R-6 MINIMUM. DUCTS LOCATED UNDER CONCRETE SLABS MUST BE R-6 MINIMUM.

R403.3.2 DUCT SEALING:
ALL DUCTS, AIR HANDLERS, FILTER BOXES WILL BE SEALED. JOINTS AND SEAMS WILL COMPLY WITH SECTION M6.01.4.1 OF THE IRC.
A DUCT TIGHTNESS TEST (DUCT BLASTER" DUCT TOTAL LEAKAGE TEST) WILL BE PERFORMED ON ALL HOMES AND SHALL BE VERIFIED BY EITHER A POST CONSTRUCTION TEST OR A ROUGH-IN TEST. DUCT TIGHTNESS TEST IS NOT REQUIRED IF THE AIR HANDLER AND ALL DUCTS ARE LOCATED WITHIN THE CONDITIONED SPACE.

R403.6 MECHANICAL VENTILATION
OUTDOOR (MAKE-UP AND EXHAUST) AIR DUCTS TO BE PROVIDED WITH AUTOMATIC OR GRAVITY DAMPER THAT CLOSE WHEN THE VENTILATION SYSTEM IS NOT OPERATING.

R403.6.1 WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FAN EFFICIENCY TO COMPLY WITH TABLE R403.6.1

R403.7 EQUIPMENT SIZING SHALL COMPLY WITH R403.7

R404.1 LIGHTING EQUIPMENT
A MINIMUM OF 75% OF ALL LAMPS (LIGHTS) MUST BE HIGH EFFICACY LAMPS.

THIS CONTRACTOR ALSO RESPONSIBLE FOR GENERATING CERTIFICATE OF COMPLIANCE AND AFFIXING ELECTRICAL PANEL OR WITHIN 6 FEET OF THE ELECTRICAL PANEL AND BE READILY VISIBLE.

2015 IECC CODE COMPLIANCE

1. RAISED TRUSS HEEL: R-38 ATTIC INSULATION & MIN. R-30 OVER EXTERIOR WALL PLATE.
STANDARD TRUSS HEEL: R-49 INSULATION
2. WALLS R-20
3. BASEMENT WALLS R-10 CONTINUES OR R-13 CAVITY
4. SLAB PERIMETER R-10
5. CRAWL SPACE WALLS R-10
6. FLOORS R-19
7. WINDOWS MUST HAVE A U-VALUE OF .40.
8. WINDOW, SKYLIGHT & DOOR PERFORMANCE CRITERIA
WINDOW CRITERIA:

	U-FACTOR	SHGC
NORTH-CENTRAL	≤ 0.32	≤ 0.40

SKYLIGHT CRITERIA:

	U-FACTOR	SHGC
NORTH-CENTRAL	≤ 0.55	≤ 0.40

DOOR CRITERIA:

GLAZING LEVEL	U-FACTOR	SHGC
OPAQUE	≤ 0.21	NO RATING
≤ 1/2-LITE	≤ 0.27	≤ 0.30
> 1/2-LITE	> 0.32	> 0.30

PRESCRIPTIVE R-VALUE PATH

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM		
	SPEED (MPH)	TOPOGRAPHIC EFFECTS		WEATHERING	FROST LINE DEPTH	TERMITE
30 psf	115	B or C	A	SEVERE	30"	M-H

WINTER DESIGN TEMP.	ICE BARRIER UNDERLAYMENT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX	MEAN ANNUAL TEMP.
13	YES	YES	1500	52.8

HOWARD COUNTY DESIGN CRITERIA

REVIEWED FOR STRUCTURAL SUPPORT, FOUNDATION, STEEL BEAMS, MICRO-LAMS, HEADERS & WALL BRACING ONLY.
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland.
License No. 9862 , Expiration Date: 5-17-18
TMM CONSULTING SERVICES, LLC
7941 HOLLOW RD.
MIDDLETOWN, MD 21769
240-434-9518

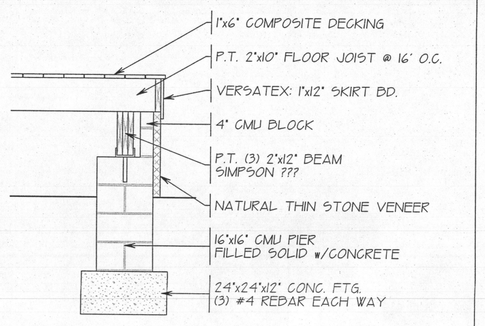
SHEET No.
2 of 11

RIGHT SIDE & LEFT SIDE ELEVATIONS

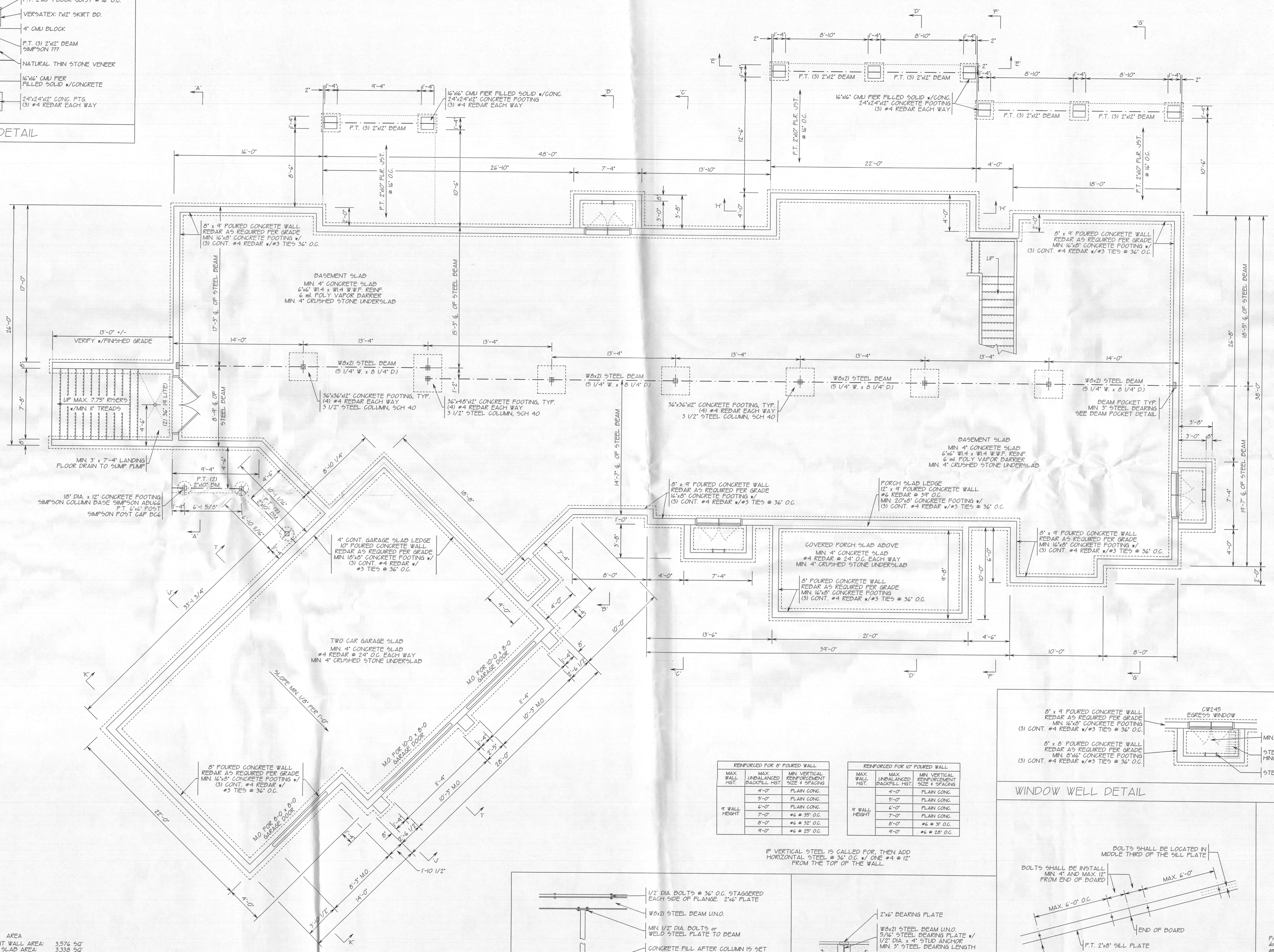
PROJECT FOR:
STEPHEN PETTIT
2600 McKENDREE RD.
GLENWOOD, MARYLAND 21738

DATE:	SCALE:	FILE NAME:	DRAWN BY:
MARCH 12, 2018	1/4" = 1'-0"	P-FINAL	P. GUGLIUZZA

CREATIVE OUTLOOKS, LLC
PHILIP F. GUGLIUZZA
CUSTOM HOME PLANNING & DESIGN
HOME ADDITION DESIGN
COMPLETE CONSTRUCTION PLANS
PHONE: 410-996-1062 P.G@CREATEOUTS.NET



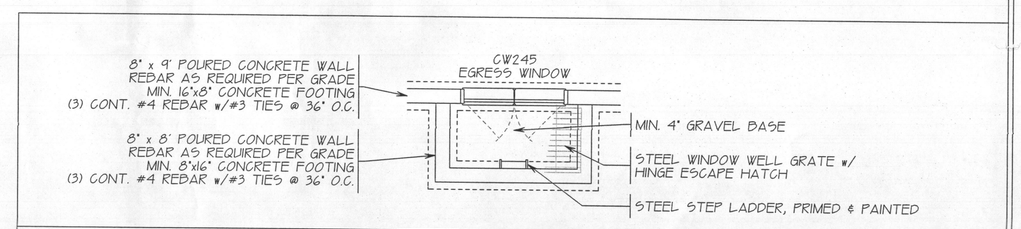
DECK PIER DETAIL



REINFORCED FOR 8" POURED WALL		
MAX. WALL HGT.	MAX. UNBALANCED BACKFILL HGT.	MIN. VERTICAL REINFORCEMENT SIZE & SPACING
9' WALL HEIGHT	4'-0"	PLAIN CONC.
	5'-0"	PLAIN CONC.
	6'-0"	PLAIN CONC.
	7'-0"	#6 @ 35" O.C.
	8'-0"	#6 @ 32" O.C.
	9'-0"	#6 @ 25" O.C.

REINFORCED FOR 10" POURED WALL		
MAX. WALL HGT.	MAX. UNBALANCED BACKFILL HGT.	MIN. VERTICAL REINFORCEMENT SIZE & SPACING
9' WALL HEIGHT	4'-0"	PLAIN CONC.
	5'-0"	PLAIN CONC.
	6'-0"	PLAIN CONC.
	7'-0"	PLAIN CONC.
	8'-0"	#6 @ 35" O.C.
	9'-0"	#6 @ 28" O.C.

IF VERTICAL STEEL IS CALLED FOR, THEN ADD HORIZONTAL STEEL @ 36" O.C. w/ ONE #4 @ 12" FROM THE TOP OF THE WALL.

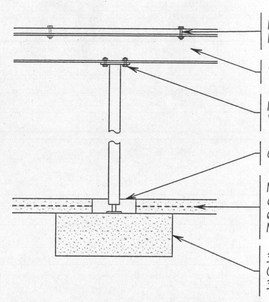


WINDOW WELL DETAIL

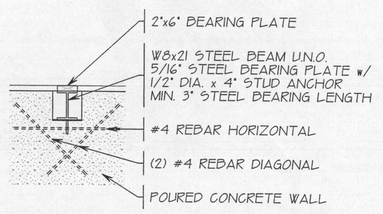
AREA	
OUTSIDE BASEMENT WALL AREA:	3,576 SQ'
INSIDE BASEMENT SLAB AREA:	3,338 SQ'
FRONT PORCH AREA:	210 SQ'
AREAWAY AREA:	117 SQ'
OUTSIDE GARAGE WALLS AREA:	1,036 SQ'
INSIDE GARAGE SLAB AREA:	936 SQ'

FOUNDATION PLAN

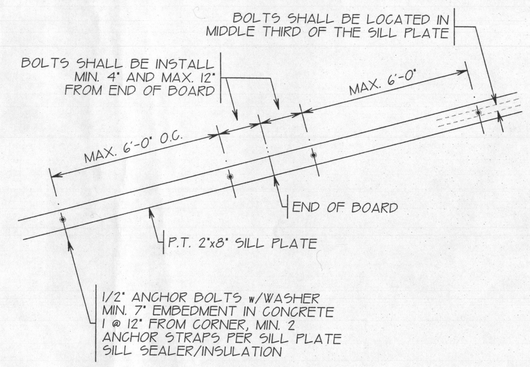
SCALE: 1/4" = 1' 0"



STEEL COLUMN DETAIL



BEAM POCKET DETAIL



SILL PLATE DETAIL

STATE OF MARYLAND
THOMAS MICHAEL MCDONNELL
No. 9862
PROFESSIONAL ENGINEER
3/13/18

REVIEWED FOR STRUCTURAL SUPPORT; FOUNDATION, STEEL BEAMS, MICRO-LAMS, HEADERS & WALL BRACING ONLY.
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland.
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MIDDLETOWN, MD 21769
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PROJECT FOR:

STEPHEN PETTIT
2600 McKENDREE RD.
GLENWOOD, MARYLAND 21738

FOUNDATION PLAN

DATE: MARCH 12, 2018	SCALE: 1/4" = 1'-0"	FILE NAME: P-FINAL	DRAWN BY: P. GUGLIUZZA

CREATIVE OUTLOOKS, LLC
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SHEET No.
3 of 11