

Please feel free to contact our office if you have any questions regarding this investigation. We appreciate this opportunity to be of service to you and thank you for selecting CORE 4 Engineering, Inc.

Sincerely,
CORE 4 Engineering, Inc.

Matthew N. Christianson, P.E., S.E.
President

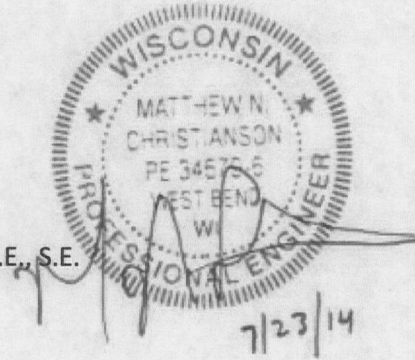




Photo 1 – Loose bearing block (note gap between block & joist)



Photo 2 – Bridging incomplete



Photo 3 – Southwest corner – missing brick and joists turned 90 degrees unreinforced



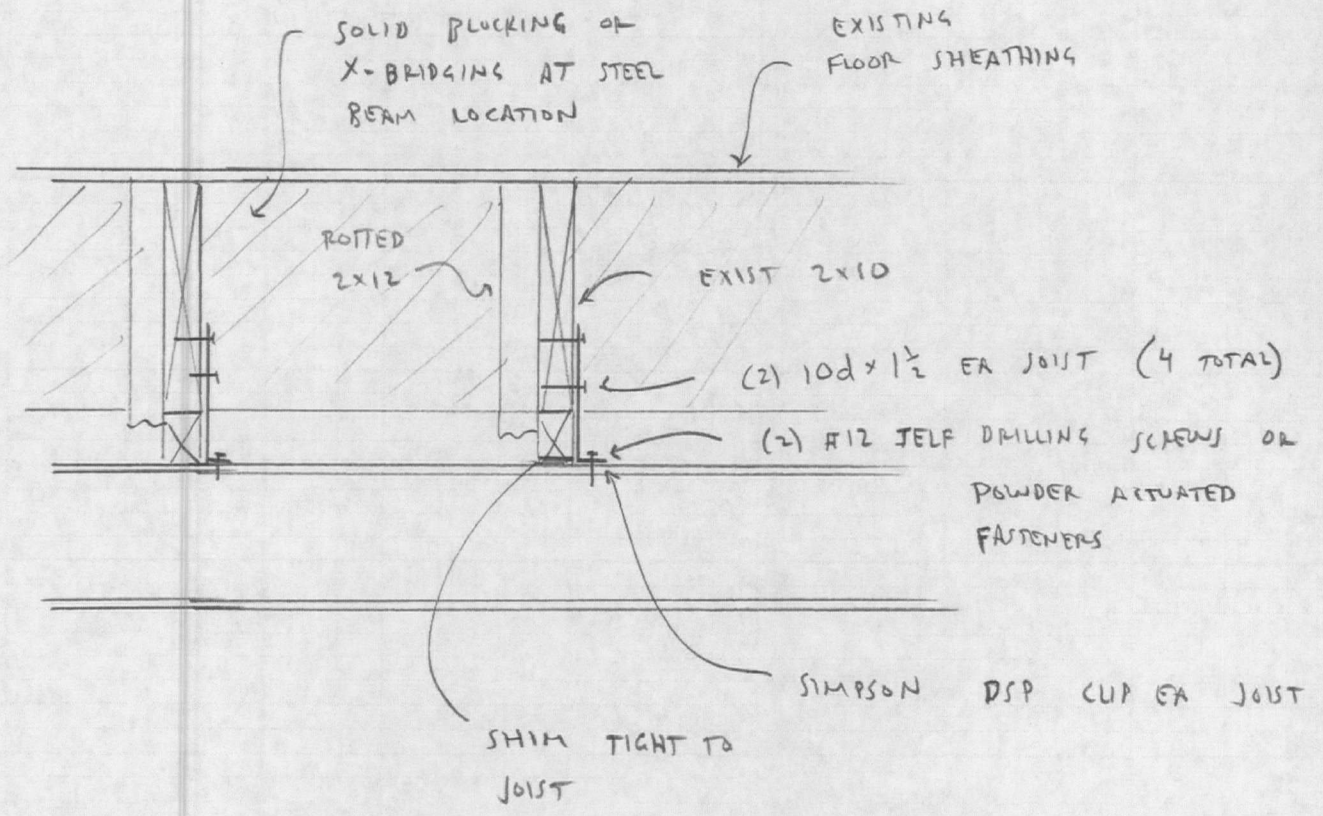
Photo 4 – Typical brick infill



Photo 5 – Steel beam bearing condition at north concrete wall



Photo 6 – Interior steel beam bearing condition



A JOIST CONNECTION DETAIL

DSP/SSP/SP/SPH/RSP4/TSP Stud Plate Ties



This product is preferable to similar connectors because of a) easier installation, b) higher loads, c) lower installed cost, or a combination of these features.

The Stud Plate Tie series offers various solutions for connecting the stud to the top and bottom plates. All models can be used to make a connection to either the top or bottom plate, and several are suitable for double top plates and studs.

MATERIAL: DSP/SSP/SPH—18 gauge; TSP—16 gauge; all others—20 gauge
FINISH: Galvanized. Some products available in ZMAX® coating; see Corrosion Information, page 14-15.

INSTALLATION: • Use all specified fasteners; see General Notes.

- TSP/DSP/SSP—sill plate installation—fill all round holes.
- TSP/DSP/SSP—top plate installation—fill all round and triangle holes
- SP1/SP2/SP3/SP5—one of the 10d common stud nails is driven at a 45° angle through the stud into the plate.

CODES: See page 13 for Code Reference Key Chart.

These products are available with additional corrosion protection. Additional products on this page may also be available with this option, check with Simpson Strong-Tie for details.

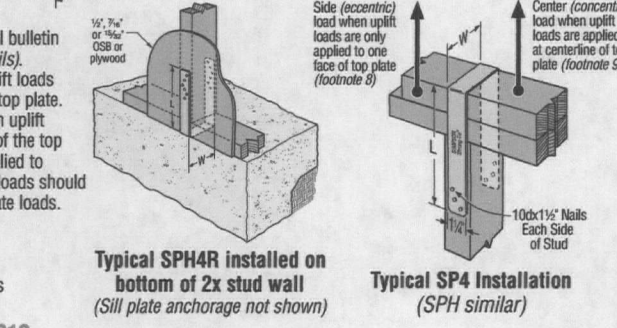
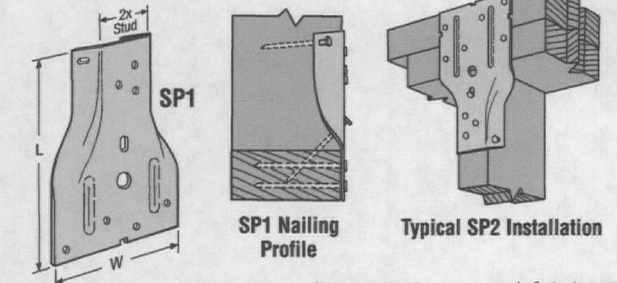
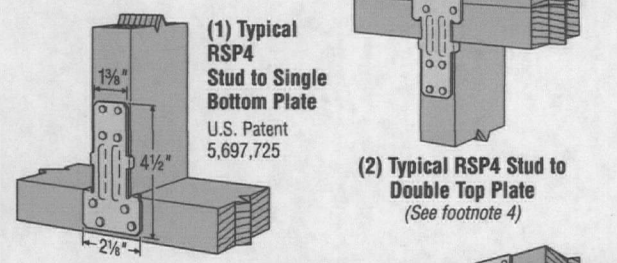
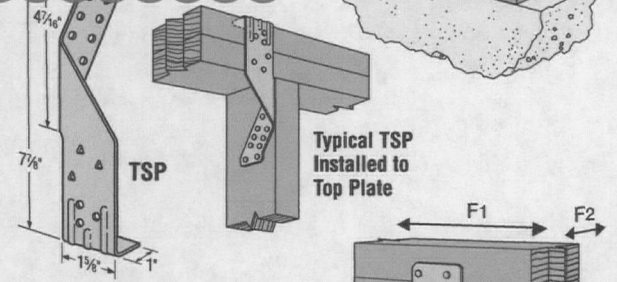
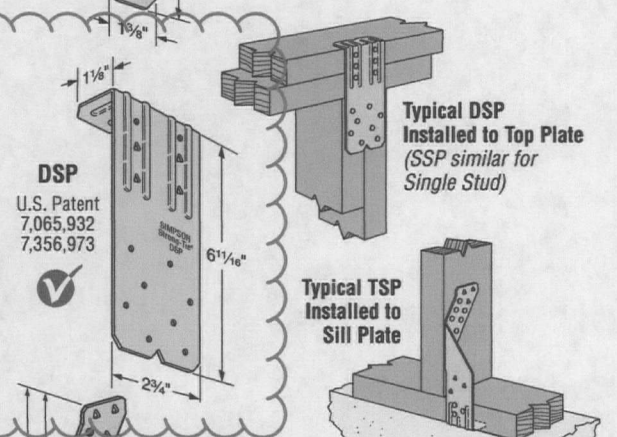
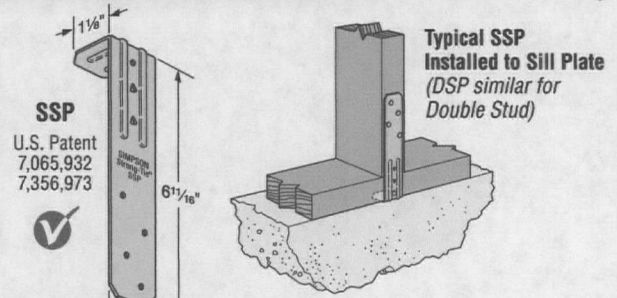
These products are approved for installation with the Strong-Drive SD Structural-Connector screw. See page 27 for more information.

Model No.	Dim.		Studs	Fasteners		Allowable Uplift Loads (160)			Code Ref.
	W	L		Double Top Plate	Single Sill Plate	Double Top Plate	Single Sill Plate	Code Ref.	
				DF/SP/SPF	DF/SP	SPF/HF			
SSP	1 1/2"	6 1/16"	4-10dx1 1/2"	3-10dx1 1/2"	—	350	—	—	I17, L18, F16
				—	1-10dx1 1/2"	—	420	325	
			4-10d	—	—	435	—	—	
DSP	2 3/4"	6 1/16"	8-10dx1 1/2"	6-10dx1 1/2"	—	775	—	—	
				—	2-10dx1 1/2"	—	660	545	
			8-10d	6-10d	—	825	—	—	
TSP	1 1/2"	7 7/8"	6-10dx1 1/2"	—	3-10dx1 1/2"	—	470 ⁵	425	F26
				6-10dx1 1/2"	—	755 ⁴	—	—	
			9-10dx1 1/2"	6-10d	—	1015 ⁴	—	—	

1. Allowable loads have been increased 60% for wind or earthquake loading with no further increase allowed.
2. When cross-grain bending or cross-grain tension cannot be avoided, mechanical reinforcement to resist such forces should be considered.
3. Allowable loads for DSP installed to a rim joist are 660 lbs. (DF/SP), 545 lbs. (SPF/HF).
4. Noted values only apply to DF/SP members. For SPF values, multiply by 0.86.
5. Southern pine allowable uplift load is 585 lbs.
6. **NAILS:** 10d = 0.148" dia. x 3" long, 10dx1 1/2" = 0.148" dia. x 1 1/2" long. See page 22-23 for other nail sizes and information.

Model No.	Dim.		Stud	Plate Width	Fasteners		Allowable Uplift Loads				Code Ref.
	W	L			Stud ¹	Plate	DF/SP		SPF/HF		
							Side ² (160)	Center ³ (160)	Side ² (160)	Center ³ (160)	
SP1	3 1/2"	5 1/8"	2x	—	6-10d	4-10d	585	585	535	535	I17, F16
SP2	3 1/2"	6"	2x	—	6-10d	6-10d	1065	1065	605	605	
SP4	3 3/16"	7 1/4"	2x	4x	6-10dx1 1/2"	—	440	885	380	760	I17, F16
SP6	5 9/16"	7 3/4"	2x	6x	6-10dx1 1/2"	—	440	885	380	760	I17, F16
SP8	7 1/8"	8 1/8"	2x	8x	6-10dx1 1/2"	—	440	885	380	760	
SPH4 or SPH4R	3 3/16"	8 3/4"	2x	4x	10-10dx1 1/2"	—	620	1240	530	1065	I17, F16
SPH6 or SPH6R	4 1/8"	8 1/4"	2x	4x	12-10dx1 1/2"	—	680	1360	585	1170	170
SPH8	5 9/16"	9 1/4"	2x	6x	10-10dx1 1/2"	—	620	1240	530	1065	I17, F16
SPH8	6 1/8"	8 3/4"	2x	8x	12-10dx1 1/2"	—	680	1360	585	1170	
RSP4(1)	2 1/2"	4 1/2"	2x	—	4-8dx1 1/2"	4-8dx1 1/2"	315	315	285	285	I17,
RSP4(2)	2 1/2"	4 1/2"	2x	—	4-8dx1 1/2"	4-8dx1 1/2"	450	450	370	370	L6, F16

1. SP1/SP2—drive one stud nail at an angle through the stud into the plate to achieve the table load (see illustration).
2. Allowable loads have been increased for wind or earthquake loading with no further increase allowed. Reduce where other loads govern.
3. RSP4—see Installation details (1) and (2) for reference.
4. RSP4 F₂ is 250 lbs. (installation 1) and 250 lbs. (installation 2). F₁ load is 210 lbs. for both installations.
5. Maximum load for SPH in Southern Yellow Pine is 1490 lbs for center loading and 745 lbs for side loading.
6. When cross-grain bending or cross-grain tension cannot be avoided, mechanical reinforcement to resist such forces should be considered.
7. For retrofit application see technical bulletin T-STRAPS (see page 232 for details).
8. Use Side (eccentric) load when uplift loads are applied to only one face of the top plate.
9. Use Center (concentric) loads when uplift loads are applied at the centerline of the top plate, or where equal loads are applied to both sides of the top plate. Center loads should also be used for stud to bottom plate loads.
10. **NAILS:** 10d = 0.148" dia. x 3" long, 10dx1 1/2" = 0.148" dia. x 1 1/2" long, 8dx1 1/2" = 0.131" dia. x 1 1/2" long. See page 22-23 for other nail sizes and information.





CONTRACT

July 21, 2014


Ms. Debbie Tychkowsky
916 E. Ogden Ave. #112
Milwaukee WI 53202
Cell (803) 979-5019

RE: Foundation Repairs
J/A: 1046 E. Thorne Lane, Fox Point 53217

Recommendation from Independent Drain Tile Testing is to do the work listed below. They found problems with the drain tile system.

Wall Excavation and Reinforcing 

1. Excavate to footing and remove soil.
2. Scrape clean and brush outside of wall.
3. Grind out cracks.
4. Re-mortar exterior cracks.
5. Seal wall with fibrated trowel grade mastic.
6. Cover sealer with protective plastic sheet.
7. Clean and flush bleeders to inside drain tile.
8. Check condition of inside drain tile.
9. Install new 4" outside drain tile.
10. Fill trench with clean crushed #1 stone.
11. Install geotextile fabric filter barrier between stone and topsoil.
12. Install 12" to 18" of topsoil.
13. Lay plywood around work area.
14. Remove brick and tile-concrete walks as necessary for excavation. Not replaced.
15. Install support from footing for future walk at front door.

Drain Tile and Bleeder System 

1. Break out edge of floor approximately 16".
2. Trench and remove old drain tile and debris.
3. Clean and flush bleeders to outside drain tile.
4. Install new 4" inside drain tile.
5. Install stone around drain tile.
6. Re-patch edge of floor.

Miscellaneous

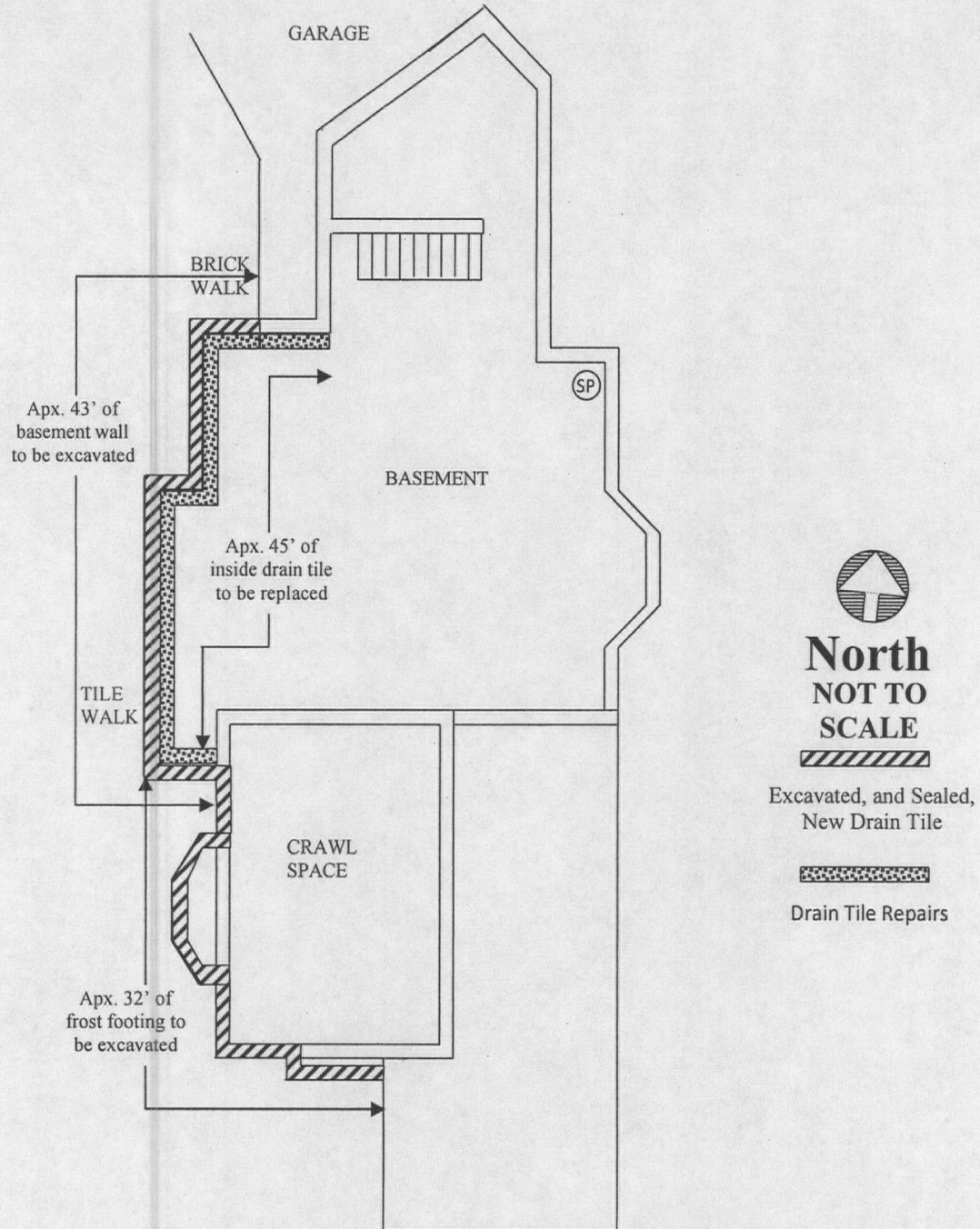
1. Remove all debris.
2. Sweep clean.
3. Obtain permit.

Initial _____

Initial _____

July 21, 2014

RE: Foundation Repairs
J/A: 1046 E. Thorne Lane, Fox Point 53217



Initial _____

Initial _____



Basement Specialists, Inc.

4335 South 114th Street . Greenfield, WI 53228

Foundation Repairs

414.425.0600 . Fax: 414.425.0670

July 24, 2014

**Village of Fox Point
Building Inspection Department
7200 N. Santa Monica Blvd.
Fox Point Wi 53217**

Re: 1046 E. Thorne Lane (Ms. Tychkowsky)

Dear Sir or Madam:

Enclosed please find the necessary paperwork for the permit required for foundation repairs we will be doing at the above address. A check for the cost of the permit is also enclosed.

Please process the paperwork and forward the necessary permit as soon as possible, or contact our office if it is necessary for us to pick up the permit.

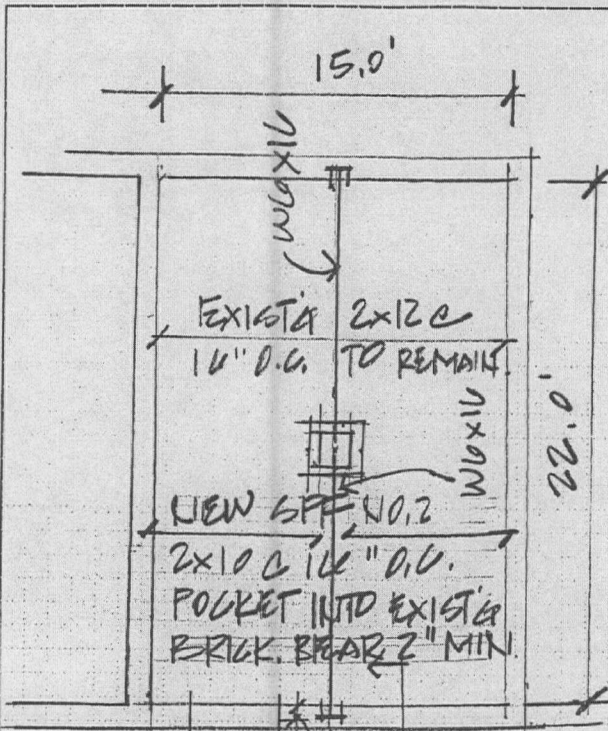
So as not to delay any processing, if our cost in determining this permit should be incorrect, we respectfully ask that you contact our office as soon as possible. We will be happy to forward any additional fees due.

In the meantime, should you have any other questions, please do not hesitate to contact us.

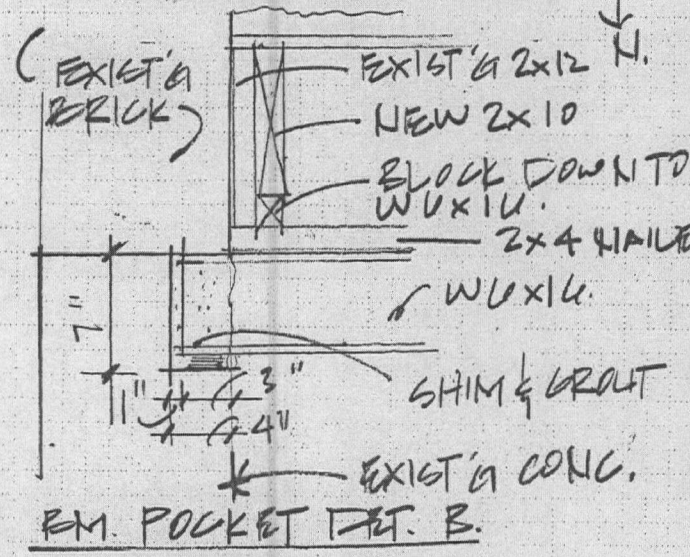
Sincerely,

Margie Dobbe

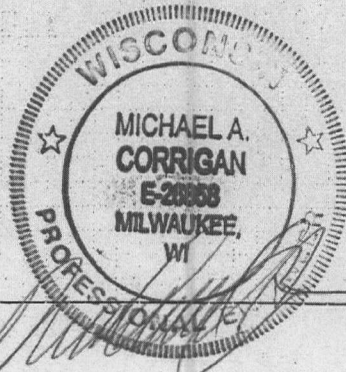
Enclosures



FRAMING PLAN



RM. POCKET DET. B.



4.1.14

1st FL. LOAD	PER
LL	40
DL	40
BRICK	40
CONC./MISC.	38
DECK	3
JOISTS	4
TL	125

CON. REMS
 $W = 125 \left(\frac{15}{2} \right) = 938$
 $W_{RM} = \frac{15}{953}$

SPAN = 11.0'
 $M = 0.95 \left(\frac{11}{8} \right)^2 = 14.4 \text{ FT-K}$

$f_b = \frac{14.4 \left(\frac{12}{30} \right)}{10} = 5.75 \text{ in}^3$
 $W6x10 \quad (S = 10.2 \text{ in}^3)$

$\Delta = \frac{5 \left(953 \times 11 \left(\frac{12 \times 11}{30} \right)^3 \right)}{TL \cdot 394 \left(29 \times 10^4 \right) \left(\frac{1}{30} \right)} = 0.34 = \frac{1}{391}$

$\Delta_w = \frac{40}{125} (0.34) = 0.11 = \frac{1}{1213}$

USE W6x10

CHK. SPF NO. 2 - 2x10 JOISTS

$W_{CIU} = 125 (1.33) = 166 \text{ PLF}$

SPAN = 7.5'
 $M = 166 \left(\frac{7.5}{8} \right)^2 = 1167 \text{ FT-LB}$

$f_b = \frac{1167 \left(\frac{12}{30} \right)}{10} = 654 \text{ PSI OK}$

$V = \frac{166 \left(\frac{2.14}{7.5} \right)}{2} = 623 \text{ V} = \frac{3}{2} \frac{623}{13.9} = 67 \text{ PSI}$

$\Delta_w = \frac{623}{(1.5)(2)} = 208 \text{ PSI OK}$

Project No.

Adjustment of Reference Design Values for Sawn Lumber (2" - 4" Thick; ASD)
Reference NDS 2005 Edition Ch. 4.3

Wood Species:	Spruce-Pine-Fir
Grade:	No.2

Member Width	<input type="text" value="2"/>	inches
Member Depth	<input type="text" value="10"/>	inches

Base Design Values:

$F_b =$	875 psi	Load Duration Factor, $C_D =$	1.15	(4.3.2)
$F_t =$	450 psi	Wet Service Factor, $C_M =$	1	(4.3.3)
$F_v =$	135 psi	Temperature Factor, $C_t =$	1	(4.3.4)
$F_{c\perp} =$	425 psi	Beam Stability Factor, $C_L =$	<input type="text" value="1"/>	(4.3.5)
$F_c =$	1,150 psi	Size Factor, $C_F =$	VARIABLES	(4.3.6)
$E =$	1,400,000 psi	Flat Use Factor, $C_{fu} =$	1	(4.3.7)
$E_{min} =$	510,000 psi	Incising Factor, $C_i =$	1	(4.3.8)
		Repetitive Member Factor, $C_r =$	1.15	(4.3.9)
		Column Stability Factor, $C_p =$	<input type="text" value="1"/>	(4.3.10)
		Buckling Stiffness Factor, $C_T =$	<input type="text" value="1"/>	(4.3.11)
		Bearing Area Factor, $C_b =$	1.13	(4.3.12)

If factors don't apply, use 1.0

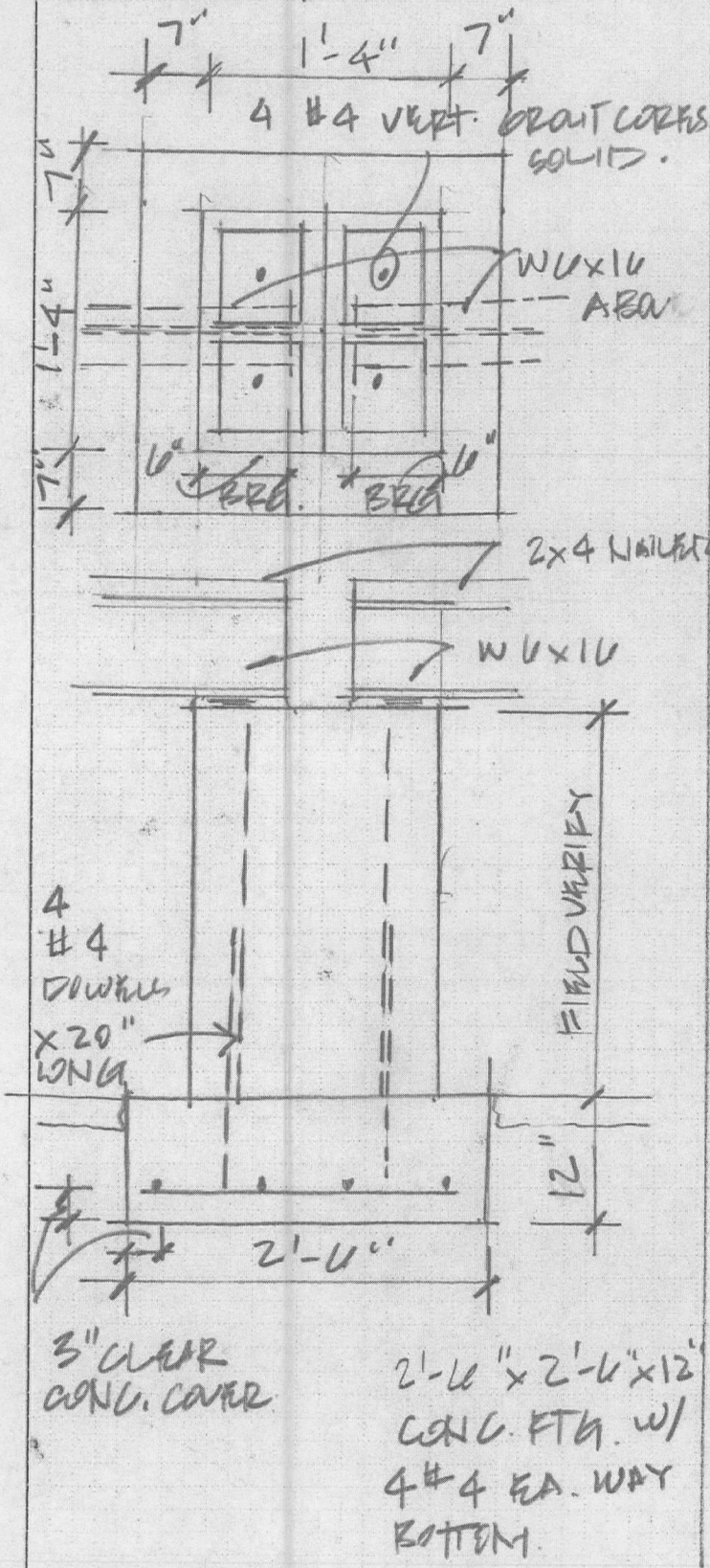
Adjusted Design Values:

$F'_b =$	1,273 psi
$F'_t =$	569 psi
$F'_v =$	155 psi
$F'_{c\perp} =$	480 psi
$F'^*_c =$	1,323 psi
$E' =$	1,400,000 psi
$E'_{min} =$	510,000 psi

Michael A. Corrigan P.E., ALA
 architects engineers
 10521 north port washington road, suite 220
 mequon, wisconsin 53092
 telephone: (262) 241-9700 fax: (262) 241-9701

date: _____
 project name: _____
 project number: _____
 subject: _____
 sheet number: 3
 prepared by: _____

MAS. PIER & CONG. FTG.



$P = 0.95(11.0) = 10.5 \text{ K}$
 $q = \frac{10.5}{4} = 2.6 \text{ KSF}$
 CHECK 2'-0" x 2'-0" x 12" CONG. FTG.
 $q = \frac{10.5}{2.5^2} = 1.68 < 2.0 \text{ OK}$
4 #4 BARS EA. WAY BOTTOM.

BRIT SHALL BE MIN 5000 PSI.
 CONG. SHALL BE 4000 PSI.

F O R T U N A D E S I G N

Mr. Anthony Enea
Ruin Bros. Artisans & Trades, Inc.
8601 North 43rd Street
Brown Deer, WI 53209

4-1-2014

REPAIR SPECIFICATION

Project : 1046 East Thorn Lane, Fox Point, WI

Location: Crawl Space under south garden room

Objective: To reinforce all deteriorated existing floor joists in a constructible manner.

Area of interior crawl space is approximately 15" in width and 22'-3" +/- in length.

Interior grade is the level at top of the unexcavated soils.

-Contractor must comply with all Structural calculations and Directions seen on additional pages. Contractor must comply with all local and State building Codes.

Preparation: Remove or re-locate all utility pipes, conduits, electrical circuitry, or other wood blocking not needed. Remove cardboard at all undersides of floor deck.

-Remove existing concrete patio east of Garden Room.

-Option: If contractor requires opening in crawl space to remove materials and debris, a modest opening can be cut into the existing foundation wall. After excavation, the opening must be cleanly sawn from top of wall down and no wider than the existing door opening in east wall above. Provide a temporary steel lintel to support wood. To replace concrete foundation wall: Provide steel dowels inset 6" with epoxy at 12" o.c. at bottom and sides. Provide a professional grade concrete to concrete joint coating to existing cut wall surfaces. Provide temporary forms and replace concrete to match existing. Once cured, provide professional grade exterior damp proofing coating to exterior surface coating as much surface outside of joint as possible. Provide a means to keep all rain water from entering interior during construction.

- Measure for pier location and excavate existing clay soils at interior grade.

-Provide concrete reinforced footing and masonry pier per specification. (See additional pages)

-Infill around new pier to level with surrounding grade.

-Provide 10 mil. string reinforced polyethylene vapor barrier or equal over level and smooth grade at crawl space. The crawl space liners must meet or exceed ASTM E1745 Class C Standard (plastic water vapor retarders used in contact with soil or granular fill) Fasten vapor barrier to side walls as recommended. Follow manufacturer's recommendations fully.

-Cut appropriate beam pockets into top of existing concrete foundation walls along centerline of crawl space width.

-Steel beams to be W6x16. Install Steel beams with connector plates into beam pockets and on top of masonry pier, level and true. Shim beams tight to underside of existing wood floor joists. Beam pockets are to be 4" deep by 6" wide by 7" in height. Steel beam to be set into pocket minimum of 3". Grout around steel beams at beam pockets

MICHAEL S. FORTUNA

1021 EAST PEARSON STREET

MILWAUKEE, WI 53202

M-414.364.8862

with high strength grout. We recommend painting the Steel Beams with a Rustoleum type of industrial finish coating prior to installation.

-To install "sistered" wood joists:

-All wood joists to be 2x10, no. 2 or better Douglas Fir.

-After surveying all existing wood joists in the area, choose which side new joists are to be attached to. They must all be located on the same side of the existing joists to preserve even bearing.

-Joist sistering must be done initially at every other joist intervals to guarantee support to the brick bearing walls supporting the second story.

-Remove every other brick infill between joists at top of foundation wall.

-Install new wood joists with water-proof construction adhesive and Simpson Strong-Drive® SD Structural-Connector Screws. Install 2 screws vertically at 16" o.c. Prep all existing joist faces as necessary. Provide glue in 3 continuous beads length wise on each joist face.

-Provide full length solid wood blocking at top of steel beam bearing surface. Nail into place. All wood blocking and shims must be tight and under bearing pressure.

-Replace brick infill between joists at bearing wall tight to underside of wood deck..

-Repeat process to complete wood joist installation and replace all brick infill at bearing wall.

-Replace all wood joist bracing as required.

-Once wood joists are installed and foundation wall is patched, replace exterior concrete slab. Provide similar vapor barrier on top of leveled compacted substrate under the new slab.

-Provide 4" concrete slab with a drainage slope away from the building at 1/2" /foot minimum. Make sure to finish the drainage slopes of the new slab so that water will drain to openings at the existing knee walls and flow away into the yard. Fill expansion joint at building to slab with backer rod and exterior grade polyurethane sealant to match concrete color.

Please call with any questions.

Michael S. Fortuna
Assoc. AIA, LEED GA

.....
MICHAEL S. FORTUNA

1021 EAST PEARSON STREET

MILWAUKEE, WI 53202

M-414.364.8862
.....

AUG. -27 97 (WED) 11:20 FEDERATED BROOKFIELD

TEL: 414 785 4399

P. 002

WISCONSIN REALTORS® ASSOCIATION
4801 Forest Run Road
Madison, Wisconsin 53704



DISCLOSURE OF REAL ESTATE AGENCY

1 This is a disclosure of the duties a real estate broker owes to all parties in a real estate transaction under Wisconsin law (see lines 4 to 20) and
2 the duties owed to the broker's clients in the transaction (see 21 to 29). This form will also provide each party an area to identify information the
3 party would wish to keep confidential in the transaction (see lines 30 to 44).

DUTIES TO ALL PARTIES

Wisconsin Statute section 452.133(1) states that in providing brokerage services to a party to a transaction (including

both clients and customers), a broker shall do all of the following:

- 4 (a) Provide brokerage services to all parties to the transaction honestly, fairly and in good faith.
- 5 (b) Diligently exercise reasonable skill and care in providing brokerage services to all parties.
- 6 (c) Disclose to each party all material adverse facts that the broker knows and that the party does not know or cannot discover through
- 7 reasonably vigilant observation, unless the disclosure of a material adverse fact is prohibited by law.
- 8 (d) Keep confidential any information given to the broker in confidence, or any information obtained by the broker that he or she knows a
- 9 reasonable party would want to be kept confidential, unless the information must be disclosed under (c) or Wis. Stats. sec. 452.23
- 10 (Information contradicting third party inspection or investigation reports) or is otherwise required by law to be disclosed or the party
- 11 whose interests may be adversely affected by the disclosure specifically authorizes the disclosure of particular confidential information
- 12 (see lines 45 to 49). A broker shall continue to keep the information confidential after the transaction is complete and after the broker is no
- 13 longer providing brokerage services to the party.
- 14 (e) Provide accurate information about market conditions that affect a transaction, to any party who requests the information, within a
- 15 reasonable time of the party's request, unless disclosure of the information is prohibited by law.
- 16 (f) Account for all property coming into the possession of a broker that belongs to any party within a reasonable time of receiving the property.
- 17 (g) When negotiating on behalf of a party, present contract proposals in an objective and unbiased manner and disclose the advantages
- 18 and disadvantages of the proposals.
- 19
- 20

DUTIES TO A CLIENT

Wisconsin Statute section 452.133(2) states that in addition to his or her duties under lines 4 to 20, a broker providing

brokerage services to his or her client shall do all of the following:

- 21 (a) Loyal represent the client's interests by placing the client's interests ahead of the interests of any other party, unless loyalty to a client
- 22 violates the broker's duties under lines 4 to 20 or Wis. Stats. sec. 452.137(2) (duties to all clients in multiple representation situations).
- 23 (b) Disclose to the client all information known by the broker that is material to the transaction and that is not known by the client or
- 24 discoverable by the client through reasonably vigilant observation, except for confidential information (see lines 10 to 15) and other
- 25 information, the disclosure of which is prohibited by law.
- 26 (c) Fulfill any obligation required by the agency agreement, and any order of the client that is within the scope of the agency agreement,
- 27 that are not inconsistent with another duty that the broker has under this chapter or any other law.
- 28
- 29

CONFIDENTIALITY NOTICE TO CLIENTS AND CUSTOMERS

A BROKER IS REQUIRED TO MAINTAIN THE CONFIDENTIALITY OF ALL INFORMATION GIVEN TO THE BROKER IN CONFIDENCE AND OF ALL INFORMATION OBTAINED BY THE BROKER THAT HE OR SHE KNOWS A REASONABLE PARTY WOULD WANT TO BE KEPT CONFIDENTIAL, UNLESS THE INFORMATION IS REQUIRED TO BE DISCLOSED BY LAW (SEE LINES 10 TO 15). THE FOLLOWING INFORMATION IS REQUIRED TO BE DISCLOSED BY LAW:

- 31 1) MATERIAL ADVERSE FACTS AS DEFINED IN SECTION 452.01(5g) OF THE WISCONSIN STATUTES (SEE REVERSE SIDE).
- 32 2) ANY FACTS KNOWN BY THE BROKER THAT CONTRADICT ANY INFORMATION INCLUDED IN A WRITTEN INSPECTION REPORT
- 33 ON THE PROPERTY OR REAL ESTATE THAT IS THE SUBJECT OF THE TRANSACTION.

TO ENSURE THAT THE BROKER IS AWARE OF WHAT SPECIFIC INFORMATION YOU CONSIDER CONFIDENTIAL, YOU MAY LIST THAT INFORMATION IN THE SPACE BELOW THAT IS MARKED "CONFIDENTIAL INFORMATION". AT A LATER TIME, YOU MAY ALSO PROVIDE THE BROKER WITH OTHER WRITTEN NOTIFICATION OF WHAT INFORMATION YOU CONSIDER TO BE CONFIDENTIAL.

CONFIDENTIAL INFORMATION: _____

WAIVER OF CONFIDENTIALITY

Identify information which you authorize Broker to disclose but which might otherwise be considered confidential, such as financial qualification information. The following may be disclosed by Broker:

NON-CONFIDENTIAL INFORMATION: _____

I, (WE) ACKNOWLEDGE RECEIPT OF A COPY OF THIS DISCLOSURE AND THE ATTACHED FEDERATED REALTY GROUP BUSINESS RELATIONSHIP DISCLOSURE AND THAT **FEDERATED REALTY GROUP, INC.** AND Marilyn Frouin Sales Associate

ARE WORKING AS Owner's Agent Buyer's / Tenant's Agent

(x) Eric Ann Kern 8/27/97
Signature Date
Print Name

(x) Barry L. Grossman 8/27/97
Signature Date
Print Name

WHITE - Closing Dept
YELLOW - Agent
PINK - Client
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Drafted by: Attorney Richard J. Staff
No representation is made as to the legal validity of any provision or the adequacy of any provision in any specific transaction.