

Great Northern Services 2020

Request for Proposal for Weatherization Materials CA Lic 629328

Background

Purpose

The purpose of this Request for Proposal (RFP) is to invite prospective vendors to submit a proposal to supply weatherization (WX) materials to Great Northern Services (GNS) Weatherization Department. The RFP provides vendors with the relevant requirements for these services.

Per federal guidelines GNS's Weatherization Department is required to procure all services and supplies through an RFP process. **This allows GNS to establish subcontracts with vendors in order to provide tax payers the best services and materials for the price.**

The Organization

GNS is a private non-profit organization which invigorates communities by initiating social change to improve economic conditions. GNS has successfully run the weatherization program for Low Income Home Energy Assistance Program (LIHEAP), Department of Energy (DOE) and Pacific Power contracts. The programs serve Siskiyou County low income households. The LIHEAP and DOE contracts are federally funded grants administered by the state through the California Department of Community Services and Development (CSD). The Pacific Power contract is funded through PacifiCorp. All services are free to our clients. The programs are able to repair or replace windows and doors, install insulation, weather-stripping, pipe wrap, etcetera to improve the energy efficiency and health and safety of a home. This RFP is for general WX materials used on a day to day basis.

Proposal Preparation Instructions

Schedule of Events

The following is a tentative schedule that will apply to this RFP but may change in accordance with the organization's needs or unforeseen circumstances.

Issuance of RFP	June 10, 2020
Technical Questions/Inquiries Due	June 24, 2020, 1:00 p.m. PDT
Proposal Due	July 8, 2020 1:00 p.m. PDT
Final Award Notification	July 15, 2020

Original RFP Document

GNS shall retain the RFP, and all related terms and conditions, exhibits, and other attachments in original form in an archival copy. Any modification of these, in the vendor's submission, is grounds for immediate disqualification. The RFP may not be distributed without prior written permission of GNS.

Vendor's Understanding of the RFP

In responding to this RFP, the vendor accepts the responsibility to fully understand the RFP in its entirety, and in detail, including making any inquiries to GNS as necessary to gain such understanding. GNS reserves the right to disqualify any vendor who demonstrates less than such understanding. Furthermore, GNS reserves the right to determine, at its sole discretion, whether the vendor has demonstrated such understanding. That right extends to cancellation of award if award has been made. Such disqualification and/or cancellation shall be at no fault, cost, or liability whatsoever to GNS.

Good Faith Statement

All information provided by GNS in this RFP is offered in good faith. Individual items are subject to change at any time. GNS makes no certification that any item is without error. GNS is not responsible or liable for any use of the information or for any claims asserted there from.

Communication

Verbal communication shall not be effective unless formally confirmed in writing by Brandy Caporaso who is in charge of managing this RFP process. In no case shall verbal communication govern over written communication.

Vendor's inquiries, questions, and requests for clarification related to this RFP are to be directed by email to:

Great Northern Services
Nichole Smith
nsmith@gnservices.org
Phone: 530-938-4115 ext. 118

Informal Communications shall include, but are not limited to: requests from/to vendors or vendors' representatives in any capacity, to/from any GNS employee or representative of any kind or capacity with the exception of GNS for information, comments, speculation, etc. Inquiries for clarifications and information that will not require addenda may be submitted verbally to the named above at any time. Inquiries for clarifications/information that will not require addenda may be submitted verbally to the representative named above at any time during this process.

Formal Communications must be submitted in writing and shall include, but are not limited to:

- Errors and omissions in this RFP and enhancements: Vendors shall bring to GNS any discrepancies, errors, or omissions that may exist within this RFP. With respect to this RFP, vendors shall recommend to GNS any enhancements, which might be in GNS's best interests.

- Inquiries about technical interpretations

Addenda: GNS will make a good-faith effort to provide a written response to each question or request for clarification that requires addenda within two business days.

Proposal Submission

Proposals must be delivered by email to:

nsmith@gnservices.org

Vendors are to submit one original response. The email should have the subject line “WX Materials RFP”.

All submitted proposals become the property of GNS.

Selection & Notification

Vendors determined by GNS to possess the highest points will win the contract. Upon a tie GNS will go into negotiations with each vendor. Written notification will be sent to these vendors via email or fax. Those vendors not selected for the negotiation phase will be notified via email unless GNS is given a fax number.

The purpose of this RFP is to identify those suppliers that have the interest, capability, and financial strength to supply GNS with weatherization and building materials identified in the Scope of Work.

Each response will be evaluated on the following:

- Price Estimate for Materials 45 points
If your company does not stock or cannot order the items please indicate the price as N/A.
We fully expect that not every company we send this RFP to will have all materials listed. GNS reserves the right to award multiple subcontracts.
This form must be completed to be responsive. We cannot accept general price lists. You are able to include a general price list in order that we may see what other items the company supplies.
- Scope of Work 15 points
- Vendor Information 15 points
- Service Information 15 points
- Small, woman or minority-owned business enterprise certificate 5 points

Scope of Work, Specifications & Requirements

All vendors must provide the following information in order for their proposal to be considered:

Scope of Work (15pts)

Are you able to supply all or a portion of the listed materials in Exhibit A	All / Portion
Do your products meet or exceed CSD guidelines as stated in Exhibit A? (Full guidelines available upon request)	Yes / No
Please include specifications (cut sheets) for each product.	Included Not Included
Ability to maintain records for 3 years of all invoices with the understanding that GNS can review those files.	Yes / No
Ability to apply all standard guarantees and warranties unless otherwise noted in Exhibit A.	Yes / No
Ability to enter into a 3 year contract with an option for a 1 year extension.	Yes / No

Vendor Information (20pts=15pts for Vendor Information+5pts for Small, woman, minority owned business)

Full legal name of the company	
Company Address	
Year business was established	
Copy of current SAM listing from https://sam.gov (this is to let GNS and CSD know that your company is not on the federal debarred list)	Yes / No
Copy of Equal Opportunity Employment Policy	Yes / No
Copy of Drug Free Work Place Policy	Yes / No
Copy of non-discrimination and posting policy	Yes / No
Small, woman or minority-owned business enterprise certificate (if applicable)	Yes / No / N/A

Service Information (15pts)

Delivery charge	
Delivery to GNS or your shop	GNS/Your Shop
Delivery time	
Terms for 60 day pay for invoice	

Price Estimate for Materials (45pts)

The material specification must be met to satisfy state requirements. Substitutions are allowed for brand name items.

We desire to buy items in bulk when possible in order to obtain price breaks. Quote the minimum quantity we require (you may indicate a different minimum quantity than what's listed) and the cost for each. And then quote the quantity(ies) needed to receive a price break and the cost for each. Please see the example below. We have included the materials specification sheets from our installation manual for those materials where it is available.

Material	Specification	Standard Unit	Minimum Order Quantity	Min. Qty. \$/Ea.	Price Break Quantity	Price Break \$/Ea.
Example	-- This is for an example only --	Bag	5 bags	\$1.45 / bag	10 bags 50 bags	\$1.24 / bag \$1.04 / bag
	---Example 2 ---	Case of 12	1 case	\$24.99/ case	1 pallet (48 cases)	\$ 12.99 / case
Alarms						
Carbon Monoxide Alarms	Defender CA6150 or equivalent <ul style="list-style-type: none"> Listed to ANSI/UL 2034-09. Alarm shall be battery-powered, and the battery shall be: <ul style="list-style-type: none"> Non-rechargeable, long-life lithium type. Tamper-resistant- Warranted by Alarm manufacturer to power the Alarm for a minimum of five years. Sensor shall be water-based electrochemical type. Alarm shall provide audible and visual warning signals when: <ul style="list-style-type: none"> An internal malfunction occurs (i.e., electrical short or failure). The electrochemical sensor's life has expired. The battery power is low (reaches the end of its useful life). 					
Smoke Alarms	First Alert 0827B OR EQUIVALENT <ul style="list-style-type: none"> Listed to UL 217, with Ionization or Photoelectric sensor. Single-purpose Alarm (Smoke Alarm only) Test and Hush Buttons Battery-Powered <ul style="list-style-type: none"> Battery shall be <ul style="list-style-type: none"> Non-rechargeable, long-life lithium ion type. Tamper-resistant• Warning Signal shall provide an audible signal when battery has reached the end of its useful life. Tamper-resistant Mounting System , such as a locking pin or tamper resistant tabs. Minimum ten-year manufacturer's written material and workmanship warranty.					

Material	Specification	Standard Unit	Minimum Order Quantity	Min. Qty. \$/Ea.	Price Break Quantity	Price Break \$/Ea.
Weatherization/Energy Saving Materials						
Insulated Flex Ducting	<ul style="list-style-type: none"> • Maximum flame-spread index of 25 and smoke-developed index of 50, per ASTM E84, UL 723 or NFPA 255 • FSK foil or vinyl facing • R-8 	• 4" Diameter				
		• 16" diameter				
Insulation	<ul style="list-style-type: none"> • R19 Kraft Faced Insulation • Conformance to ASTM C665 	• 16" Batts				
		• 24" Batts				
	<ul style="list-style-type: none"> • R19 Unfaced Insulation • Conformance to ASTM C665 	• 16" Batts				
		• 24" Batts				
	<ul style="list-style-type: none"> • R38 Kraft Faced Insulation • Conformance to ASTM C665 	• 16" Batts				
		• 24" Batts				
Pipe Wrap	<ul style="list-style-type: none"> • Maximum flame-spread index of 25 and smoke-developed index of 450, per ASTM E84, UL 723 or UBC Standard 8-1 • Closed cell polyethylene conforming to ASTM C534 • Minimum thermal performance rating of 180°F 	• 5/8"x3/4" self-seal				
		• 7/8"x3/4" self-seal				
		• 1" insulation value self-seal				
Water Heater Blankets	Thermo Guard WZ660 or equivalent <ul style="list-style-type: none"> • Maximum flame-spread index of 25 and maximum smoke-developed index of 50, per ASTM E84, or UL 723, or NFPA 255. • Mineral fiber only, with vinyl or fiber-reinforced foil facing. • Vinyl or fiber-reinforced foil tape compatible with facing. Minimum width 3". • R-6 minimum 	Fits up to 60 gallon				

Material	Specification		Standard Unit	Minimum Order Quantity	Min. Qty. \$/Ea.	Price Break Quantity	Price Break \$/Ea.
Water Heater Earthquake Strap	<ul style="list-style-type: none"> • Polypropylene blanket straps and compatible buckles or other mechanical strap locks; • 17' Strap 						
Weatherstripping	WZRSA3680K or equivalent <ul style="list-style-type: none"> •Solid aluminum carrier with elongated mounting holes •Pliable gasket of vinyl, TPE, silicone or equivalent 						
	•Kerf Weatherstripping Brown & White Vinyl		80" sticks				
Closed Cell Foam Tape	<ul style="list-style-type: none"> •Shall be UV-resistant with self-adhesive backing •3/8 x 3/4 17' 						
Open Cell Foam Tape	<ul style="list-style-type: none"> •Shall have self-adhesive backing •3/16 x 3/8 17' 						
Junction Box Cover							
Fuel Cap	1 3/8-Inch Brass Flare Cap						
Vent Covers for Coolers	<ul style="list-style-type: none"> • Rigid plastic • With clips • Maximum perm rating of 1.0 	• 22 x 22 x 4					
		• 28 x 20 x 5.5					
Furnace Filters	<ul style="list-style-type: none"> • "Hog Hair" type or other bonded fiber 1" thickness, washable, UL listed Class 2, ARI Standard 680 and UL-900. 		____ yrd Roll				

Doors – pre-hung	<ul style="list-style-type: none">• Standard solid core slab• In compliance with the fire-resistance requirements of local code• Hinged doors only, exterior grade	1 – 3/8” thick	30 x 80				
			32 x 80				
			34 x 80				
			36 x 80				
		1 – 3/4” thick	30 x 80				
			32 x 80				
			34 x 80				
			36 x 80				
Door Shoes	<ul style="list-style-type: none">•Solid aluminum carrier 0.05” nominal thickness with elongated mounting holes 9” OC maximum.• Gasket shall be pliable vinyl, TPE, silicone or equivalent “L” Door w/Drip 36”		Box of _____				
	<ul style="list-style-type: none">• “U” 1 3/8” DR w/drip 36”		Box of _____				
	<ul style="list-style-type: none">• “U” Aluminum 1 3/4” w/drip 36”		Box of _____				
	<ul style="list-style-type: none">•Plastic		Box of _____				

Door Thresholds	• Low Saddle 36"					
	• Sold aluminum saddle threshold with vinyl, TPE, silicone or equivalent floor sealer gasket. • Saddle 1/4" x 3"					
	• Sold aluminum saddle threshold with vinyl, TPE, silicone or equivalent floor sealer gasket. • Flat 1 3/4" x 36"					
Door Sweep	Aluminum 1 3/4" x 36"	each				
Door Corner Pads		Pkg of				
Door Hinges	•Conform to ANSI/GHMA A156.1 •Brass minimum 0.120" thick •Loose pin type •4"x4"	Pkg of _____				
Door Locksets	•Kwikset Tylo 400T 3 Keyed Entry Knob Bright Brass (keyed separately) or equivalent					

Lumber	<ul style="list-style-type: none"> • pressure treated or redwood • Douglas fir of standard grade or better 	1 x 4 x 10					
		1 x 6 x 10					
		2 x 6 x 10					
		Door Stop (8') 5/16" x 1 1/4" minimum dimensions					
Gaskets – Outlet & Switch	<ul style="list-style-type: none"> •Fire-resistant •Pre-cut to fit •Closed cell foam •1/8" thick 						
Outlet Plate Covers	•Single outlet plate cover-ivory						
	•Double outlet plate cover-ivory						
Switch Plate Covers	•Single switch plate cover-ivory						
	•Double switch plate cover-ivory						
Switch-Outlet Plate Cover	•Switch-outlet plate cover-ivory						

White Vinyl Tape	<ul style="list-style-type: none"> •UL 181A-P or UL 181B-FX •3" wide 		____ yrd Roll				
Aluminum Foil Tape	3M 1581A or equivalent <ul style="list-style-type: none"> •UL 181A-P or UL 181B-FX 	• 2.5"	____ yrd Roll				
		• 3 "	____ yrd Roll				
Butyl Tape	Polyken 367-17 or equivalent <ul style="list-style-type: none"> • mastic adhesive • UL 181A-P or UL 181B-FX • 3" wide 		____ yrd Roll				
Duct Tape	3M 2979 Contractor Grade Multi-Use or equivalent <ul style="list-style-type: none"> • 7.0 mil • 1.88" wide 		____ yrd Roll				
Painters Tape	ScotchBlue #2090 or equivalent <ul style="list-style-type: none"> • 1.88" wide 		____ yrd Roll				
Batteries	<ul style="list-style-type: none"> • Alkaline 	• AA batteries					
		• AAA batteries					
		• 9 Volt batteries					
Drywall Screws	<ul style="list-style-type: none"> • Metal and non-corrosive 	• 1 1/8"					
		• 2"					
		• 3"					
Caulking	<ul style="list-style-type: none"> • Alex Plus 35 YR or equivalent 	Clear	10.1 oz				
		White	10.1 oz				
	<ul style="list-style-type: none"> • Sidewinder DAP 801 or equivalent 	Clear	10.1 oz				
		White	10.1 oz				

Showerheads & Adapters	<ul style="list-style-type: none"> • Compliance with California Energy Commission Title 24 2008 Residential Manual, Section 5.2.5. • Conformance to ANSI/ASME A112.18.1-2005. • Minimum three-year warranty. <p>All Showerheads</p> <ul style="list-style-type: none"> • "Self-cleaning" type or cleanable without being unscrewed from the showerarm. • Non-aerating type. • Ball joint shall be metal (e.g., chrome-plated brass). • Maximum flow rate: 2.50 gpm at 80 psi; Minimum flow rate: 1.25 gpm at 80 psi. <p>Hand-held Showerheads</p> <ul style="list-style-type: none"> • Hose: Minimum 48" length, Flexible vinyl or PVC; Reinforced (e.g., with nylon), and capable of swiveling at both ends. • Mounting bracket: Heavy-duty thermoplastic (e.g., ABS) or equivalent • Designed to attach to showerarm (not the wall). • Swivel ball shall be all-metal (e.g., chrome-plated brass). • Attachment: must fit standard-thread showerarms and standard adapters. <p>Showerarm Adapters</p> <ul style="list-style-type: none"> • Adapter shall be metal (e.g., chrome-plated brass). • Minimum 5/8" long male pipe threads with a minimum taper of 3% on showerhead end. 		Showerhead				
			Handheld Showerhead				
			Showerarm Adapters				
Aerators	<ul style="list-style-type: none"> • Shall be metal (e.g., chrome-plated brass); • Maximum flow rate: 2.2 gpm at 60 psi. • Standard dual thread 		Box (100)				
Programmable Thermostat	<ul style="list-style-type: none"> • ENERGY STAR® qualified. • System powered, not battery powered, on 24 volt systems. • Digital with anti-short-cycle feature. • Minimum setback capability of at least 10 degrees F. • At least four setback periods per 24 hour day • Manual override • Lithium battery backup or other program-saving backup system. • Positive on/off switch that is easily accessible. 						
Range Hood Materials	Butterfly Backdraft Damper or equivalent	4"					
		5"					
		7"					
	Range Adapter	3-1/4 in. x 10 in. to 7 in. round					

Lighting							
LED Bulbs	<ul style="list-style-type: none">• 800 Lumens (60 Watt equivalent)• Energy Star certified, A-Lamp type bulb• Minimum 3 year warranty			Case (60)			
LED Night Light	<ul style="list-style-type: none">• Maximum wattage .5 watts• photoelectric switch			Case (60)			
Personal Protection Equipment							
Coveralls	<ul style="list-style-type: none">• Tyvek® Disposable Coveralls with Hood, Boots, & Elastic Wrists or equivalent	XL	Box (25)				
		2XL	Box (25)				
		3XL	Box (25)				
Vinyl Gloves	<ul style="list-style-type: none">• Large			Box (50)			
Safety Glasses	<ul style="list-style-type: none">• ANSI Z87.1-1989• N-Specs® Tridon® Safety Glasses with Anti-Fog Lens or similar		Clear				
			Box (12)				
			Grey or brown Box (12)				

Vendor Certification-RFP for Weatherization Materials Vendor

This certification attests to the vendor's awareness and agreement to the content of this RFP, and all accompanying calendar schedules and provisions contained herein.

The vendor must ensure that the following certificate is duly completed and correctly executed by an authorized officer of your company.

This proposal is submitted in response to the Request for Proposal for weatherization and/or building materials for Great Northern Services' weatherization clients. The undersigned is a duly authorized officer, and hereby certifies that:

(Vendor Name)

agrees to be bound by the content of this proposal and agrees to comply with the terms, conditions, and provisions of the referenced RFP and any addenda thereto in the event of an award. Exceptions are to be noted as stated in the RFP.

The undersigned further certify that their firm IS NOT currently debarred, suspended, or proposed for debarment by any federal entity. The undersigned agree to notify Great Northern Services of any change in this status, should one occur, until such time as an award has been made under this procurement action.

Signature of Authorized Officer:

Name: _____ Title: _____

Signature: _____ Date: _____

CEILING INSULATION FOR CONVENTIONAL HOMES (WIS Section 20A)

<i>Materials</i>	<i>Requirements</i>
APPROVED MATERIALS	<div data-bbox="316 315 990 651"> <ul style="list-style-type: none"> – ALL INSULATION <ul style="list-style-type: none"> • Shall be certified to comply with the material specifications in CCR, Title 24, Part 12, Chapters 12-13, and “Standards for Insulating Material.” • Maximum R-value for LIHEAP Contract: <ul style="list-style-type: none"> – Climate Zones 1 & 11 – 16: R-38 – Climate Zones 2 – 10: R-30 • R-value for DOE Contract shall be determined by: <ul style="list-style-type: none"> – the DOE Priority List Table; or – Energy Audit result. – MINERAL FIBER <ul style="list-style-type: none"> • Flexible (Batts): Conformance to ASTM C665. • Loose Fill: Conformance to ASTM C764. – CELLULOSE <ul style="list-style-type: none"> • Loose Fill <ul style="list-style-type: none"> – Licensed for sale in California. – Listed in Department of Consumer Affairs’ “Directory of Certified Insulation Materials.” – RIGID <ul style="list-style-type: none"> • Preformed Polyisocyanurate Board Foil Faced on Both Sides. <ul style="list-style-type: none"> – Conformance to FS HH-1-1972. • High Density Fiberglass Board: Conformance to ASTM C726. </div> <div data-bbox="1063 331 1534 634"> </div> <div data-bbox="1088 638 1450 663"> <p><i>Photo Credit: CAP of San Luis Obispo</i></p> </div> <div data-bbox="876 850 1526 1165"> </div>

CARBON MONOXIDE (CO) ALARMS

(WIS Section 4)

Material	Description
ALARM ACCESSIBILITY	<ul style="list-style-type: none"> – COMPONENT ACCESSIBILITY <ul style="list-style-type: none"> • Sensor and any field sensitivity adjustment shall <u>not</u> be accessible without removing Alarm from its mounting.
CO ALARM	<ul style="list-style-type: none"> – ALL CO ALARMS SHALL BE: <ul style="list-style-type: none"> • Alarm shall include a digital readout that, with the single touch of a button, displays the current CO level as low as 10 PPM (low-level display CO alarm). • Alarm shall have the capacity to display peak CO level as low as 10 PPM and the time duration of the peak CO level. • UL-tested and -listed to latest ANSI/UL 2034 standard • Manufactured after August 2009. • Included on the State Fire Marshal's list of approved products. • A single-purpose alarm (CO only). • Alarm shall be battery-powered, and the battery shall be: <ul style="list-style-type: none"> – Non-rechargeable, long-life lithium type. <ul style="list-style-type: none"> • Warranted by alarm manufacturer to power the alarm for a minimum of five years. – Non-removable: <ul style="list-style-type: none"> • Factory installed behind a door secured with tamper-resistant screw (i.e., battery door cannot be opened with standard screwdriver/wrench), <u>or</u> • Factory sealed with soldered connections. • Sensor shall be electrochemical type. • Alarm shall provide audible <u>and</u> visual warning signals when: <ul style="list-style-type: none"> – An internal malfunction occurs (i.e., electrical short or failure). – The sensor's life has expired. – The battery power is low (reaches the end of its useful life). – <u>HARD-WIRED</u> CO ALARM REQUIREMENTS <ul style="list-style-type: none"> • Shall be installed only when: <ul style="list-style-type: none"> – Interconnection is required to be compatible with the existing hardwired system, or – When required by the local jurisdiction (requires a program waiver or – To provide a CO alarm for a hearing-impaired person (requires a program waiver). • Hard-wired alarm shall be: <ul style="list-style-type: none"> – 120 VAC. – Factory preinstalled lithium battery back-up. – Inter-connected, when required by the local jurisdiction.
MOUNTING SYSTEM	<ul style="list-style-type: none"> – MOUNTING SYSTEM <ul style="list-style-type: none"> • The mounting system shall be designed so the alarm is secured to the mounting plate or wall with one or more standard screws that extend through the alarm cover/body and into the mounting plate or wall.
SPECIALTY ALARM	<ul style="list-style-type: none"> – ALARM FOR THE HEARING IMPAIRED <ul style="list-style-type: none"> • When a home is occupied by a hearing-impaired person who qualifies for a CO alarm and requests an alarm for the hearing impaired: <ul style="list-style-type: none"> – A waiver shall be sought from CSD to install a special hard-wired alarm with strobe lights.



Photo Credit: Defender

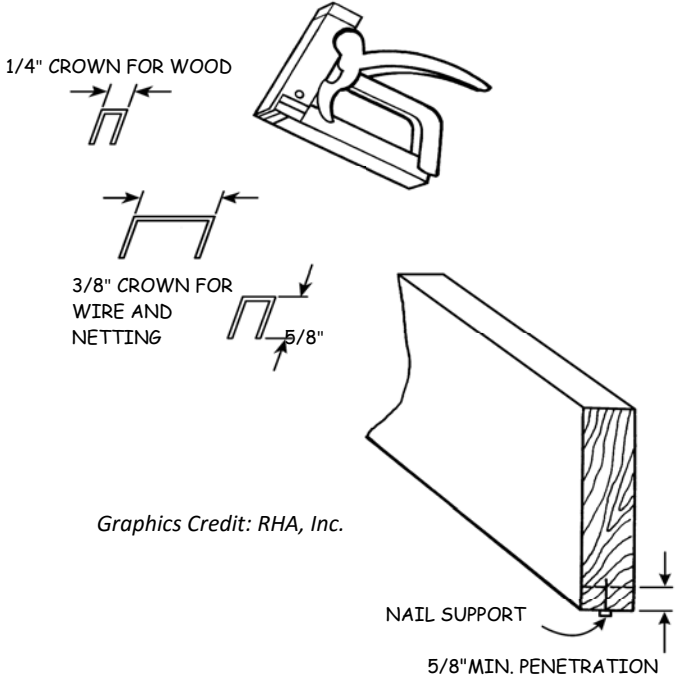
FLOOR INSULATION FOR CONVENTIONAL HOMES

(WIS Section 22A)



<i>Materials</i>	<i>Requirements</i>
INSULATION MATERIAL	<ul style="list-style-type: none"> - ALL FLOOR INSULATION MATERIAL <ul style="list-style-type: none"> • All insulation shall be certified to comply with the CCR, Title 24, Part 12, Chapters 12-13, "Standards for Insulating Material." - MINERAL FIBER <ul style="list-style-type: none"> • Flexible (Batts and Blankets) <ul style="list-style-type: none"> - Conformance to ASTM C665. • High Density Fiberglass Board <ul style="list-style-type: none"> - Conformance to ASTM C726. - RIGID FOAM <ul style="list-style-type: none"> • Preformed polyisocyanurate board foil faced on both sides <ul style="list-style-type: none"> - Conformance to FS HH-I-1972 or ASTM C1289. • Rigid, cellular Polystyrene Thermal Insulation <ul style="list-style-type: none"> - Conformance to ASTM C578. - INSULATION COVER <ul style="list-style-type: none"> • For Floor Insulation, where no foundation wall exists: <ul style="list-style-type: none"> - If <u>not</u> exposed to precipitation, wind, and the elements support with woven wire or minimum 70 perm breathable cover is required.
R-VALUE	<ul style="list-style-type: none"> - ALL INSULATION MATERIALS <ul style="list-style-type: none"> • R-value shall be determined in accordance with: <ul style="list-style-type: none"> - the DOE Priority List Table; or - By Energy Audit; or - By LIHEAP contract guideline, when no existing insulation is present, insulation shall be installed to R-19. - CRAWLSPACE PERIMETER INSULATION—INTERIOR <u>OR</u> EXTERIOR <ul style="list-style-type: none"> • R-value shall be R-13. - BASEMENT WALL INSULATION <ul style="list-style-type: none"> • R-value shall be R-13
SUPPORTS AND ANCHORS	<ul style="list-style-type: none"> - LIFE EXPECTANCY <ul style="list-style-type: none"> • All attachment materials shall have a minimum expected service life of 10 years. - STAPLES <ul style="list-style-type: none"> • Zinc-coated, stainless steel, or similar corrosion-resistant material. • 18-gauge minimum diameter. • Minimum 1/4" crown for wood lath. • Minimum 3/8" crown for other insulation support systems. • Minimum 5/8" joist penetration. - NAILS <ul style="list-style-type: none"> • Galvanized nails. • 5/8" minimum joist penetration - WIRE SUPPORTS <ul style="list-style-type: none"> • Wire shall be zinc-coated, stainless, or similar corrosion-resistant material. • Minimum 20-gauge.



Photo Credit: RHA, Inc.

Materials	Requirements
	<ul style="list-style-type: none"> - NETTING FOR FLEXIBLE INSULATION TYPE <ul style="list-style-type: none"> • Woven wire shall be galvanized. • Netting shall be propylene or equivalent with a minimum 75-pound breaking strength. <div style="text-align: right;">  <p>1/4" CROWN FOR WOOD</p> <p>3/8" CROWN FOR WIRE AND NETTING</p> <p>5/8"</p> <p>NAIL SUPPORT</p> <p>5/8" MIN. PENETRATION</p> <p>Graphics Credit: RHA, Inc.</p> </div>
VAPOR RETARDER	<ul style="list-style-type: none"> - EXISTING VAPOR RETARDER <ul style="list-style-type: none"> • Existing undamaged ground cover acceptable if at least 4 mil thick and in good condition after insulation is installed. - NEW VAPOR RETARDER <ul style="list-style-type: none"> • A <u>new</u> vapor retarder shall be installed in conformance with the Title 24 requirements below. • Vapor Barrier Material for Climate Zones 1-16: <ul style="list-style-type: none"> - A Class I or Class II vapor retarder shall be installed: <ul style="list-style-type: none"> • Class I – perm rating less than 0.1 (vapor retarder or barrier) • Class II – perm rating between 0.1 and 1.0 (vapor retarder). A ground moisture barrier shall be used that meets tear and puncture resistance standard ASTM D703.

LED BULBS (WIS Section 53)

Materials	Requirements											
APPROVED MATERIALS	<ul style="list-style-type: none">- ALL LED BULBS SHALL BE:<ul style="list-style-type: none">• ENERGY STAR–certified, A-Lamp type bulbs.• In compliance with the requirements of CSD WIS Section 53, manufacturer’s instructions and recommendations, and local code.• Warrantied for 3 years by the manufacturer.• Omni-directional (capable of at least 300° light direction)• Dimmable, for those locations on a dimming switch.• Light Quality (Correlated Color Temperature or CCT) shall be:											
	<table><tr><th>Installation Location</th><th>Color Correlated Temperature (CCT)</th><th>Lighting Characteristic</th></tr><tr><td>Indoors</td><td>2700Kelvin (K) to 3699K</td><td>Warmer, yellowish to natural white (daylight) lighting</td></tr><tr><td>Outdoors</td><td>3700Kelvin (K) to 5000K</td><td>Natural white (daylight) to bluish lighting</td></tr></table>	Installation Location	Color Correlated Temperature (CCT)	Lighting Characteristic	Indoors	2700Kelvin (K) to 3699K	Warmer, yellowish to natural white (daylight) lighting	Outdoors	3700Kelvin (K) to 5000K	Natural white (daylight) to bluish lighting		
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<ul style="list-style-type: none">• Color-Rendering Index or CRI: Shall be a minimum of 80.<ul style="list-style-type: none">- Note: In some cases, CRI of 90 or higher will improve a client’s perception of color “true-ness” and may improve client satisfaction with the measure.• Incandescent or Halogen Wattage Equivalencies: LED Bulbs shall provide light output (lumens) levels sufficient to maintain pre-existing levels, and in accordance with the specifications below, unless prohibited by the fixture manufacturer.												
<table><tr><th>Old Incandescent and Halogen Bulbs (Watts)</th><th>ENERGY STAR Brightness (Minimum Lumens)</th></tr><tr><td>40</td><td>450</td></tr><tr><td>60</td><td>800</td></tr><tr><td>75</td><td>1,100</td></tr><tr><td>100</td><td>1,600</td></tr><tr><td>150</td><td>2,600</td></tr></table>	Old Incandescent and Halogen Bulbs (Watts)	ENERGY STAR Brightness (Minimum Lumens)	40	450	60	800	75	1,100	100	1,600	150	2,600
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	<div></div> <div><p>Graphic Credit: RHA, Inc.</p></div>											

SHOWERHEADS AND FAUCET AERATORS

(WIS Section 45)

Materials	Requirements
AERATORS AND SHOWERHEADS	<ul style="list-style-type: none"> GENERAL SPECIFICATIONS <ul style="list-style-type: none"> WaterSense® labeled. Self-cleaning” or cleanable without being unscrewed from the shower arm. Features will be selected that meet any special needs of the occupant (e.g., shut off, swivel, handheld showers) . AERATORS <ul style="list-style-type: none"> Shall be metal (e.g., chrome-plated brass). Shall conform to ANSI/ASME A112.18.1 (2012) Shall be metal (e.g., chrome-plated brass). SHOWERHEADS <ul style="list-style-type: none"> Features will be selected that meet any special needs of the occupant (e.g., shut off, swivel, handheld showers) in compliance with the CSD Field Guide. All showerheads shall be pressure-compensating type for consistent performance (i.e., maintain constant temperature under varying pressures). REQUIRED FLOW RATES <ul style="list-style-type: none"> Showerhead: Maximum flow rate: 2.0 gpm at 80 psi. Faucet Aerators <ul style="list-style-type: none"> Maximum flow rate: <ul style="list-style-type: none"> Kitchen: 1.8 gpm with optional temporary flow of 2.2 gpm at 60 psi Bath: 1.2 gpm at 60 psi. Minimum flow rate: 0.8 gpm at 20 psi
SHOWER CONTROL VALVE	<ul style="list-style-type: none"> SHOWER CONTROL VALVE (“TRICKLE VALVE”) <ul style="list-style-type: none"> Chrome-plated brass. Designed to fit standard 1/2" showerheads and arms. Flow rate from 2.5 gpm to a trickle. May be separate or built into the showerhead.
SHOWERARM ADAPTER	<ul style="list-style-type: none"> SHOWERARM ADAPTERS <ul style="list-style-type: none"> Adapter shall be metal (e.g., chrome-plated brass). Minimum 5/8" long male pipe threads with a minimum taper of 3% on showerhead end.
SHOWERHEADS, HAND-HELD	<ul style="list-style-type: none"> HAND-HELD SHOWERHEADS SHALL HAVE: <ul style="list-style-type: none"> Hose: Minimum 48" length, capable of swiveling at both ends, and constructed of flexible vinyl or PVC material, reinforced (e.g., with nylon). Mounting Bracket: Designed to attach to the shower arm (not wall), and constructed of heavy-duty thermoplastic (e.g., ABS) or equivalent, with all-metal swivel ball (e.g., chrome-plated brass). Attachment: Shall fit standard-thread shower arms and standard adapters. An anti-siphon valve.
SHOWERHEADS, WALL-MOUNT	<ul style="list-style-type: none"> WALL-MOUNT SHOWERHEADS <ul style="list-style-type: none"> “Self-cleaning” type or cleanable without being unscrewed from the showerarm. Non-aerating type. Ball joint shall be metal (e.g., chrome-plated brass).




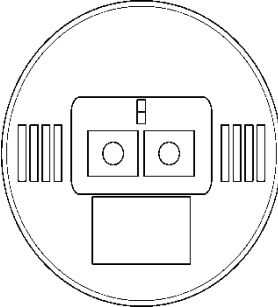
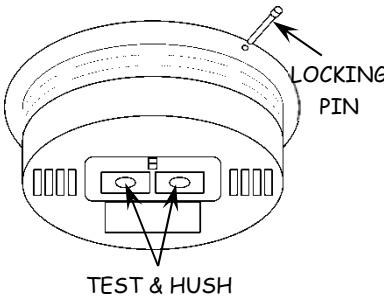
Photo Credit: CAP of San Luis Obispo





Photo Credit: RHA, Inc.

SMOKE ALARMS

(WIS Section 5)

Materials	Requirements
INTERCONNECTED ALARMS	<ul style="list-style-type: none"> INTERCONNECTED ALARMS <ul style="list-style-type: none"> If more than one hard-wired alarm is installed, they shall be interconnected, if required by code. If multiple hard-wired smoke alarms are present and interconnected, and at least one within the group will be replaced: <ul style="list-style-type: none"> The replacement alarm shall be compatible with the existing interconnection system, or All of the interconnected smoke alarms shall be replaced, when required by the local jurisdiction (condition shall be documented in the permanent file).
MOUNTING SYSTEM	<ul style="list-style-type: none"> MOUNTING SYSTEM <ul style="list-style-type: none"> Alarm shall: <ul style="list-style-type: none"> Have tamper-resistant mounting, such as a locking pin or tamper-resistant tabs, <u>and</u> Be secured to the mounting surface by at least two standard screws.
SMOKE ALARM	<ul style="list-style-type: none"> ALL ALARMS <ul style="list-style-type: none"> Listed to UL 217. Single-purpose alarm (smoke only). Photoelectric or Ionization-type. <ul style="list-style-type: none"> <u>Note</u>: When the required 20' minimum horizontal distance from an open combustion appliance cannot be met, installation of a <i>photoelectric-type</i> alarm shall reduce the minimum distance to as little as 10'. On the California State Fire Marshal's list of approved smoke alarms, and have these features: <ul style="list-style-type: none"> Date of manufacture on the alarm label. Test and hush buttons to check alarm electronics and temporarily silence unwanted nuisance alarms. End-of-life feature that indicates the alarm must be replaced. BATTERY-POWERED <ul style="list-style-type: none"> Battery(ies) shall be non-replaceable, non-removable, and capable of powering the alarm for a minimum of 10 years. HARD-WIRED <ul style="list-style-type: none"> 120 VAC. Factory preinstalled lithium battery backup. Inter-connectable, when required as described above in "Interconnected Alarms." <div style="text-align: right;">  <p>Photo Credit: Public Domain</p> </div> <div style="text-align: center;">  <p>BATTERY-POWERED SMOKE ALARM</p> </div> <div style="text-align: right;">  <p>LOCKING PIN TEST & HUSH</p> </div> <p style="text-align: right;">Graphic Credit: RHA, Inc.</p>

THERMOSTATS—PROGRAMMABLE AND MANUAL (WIS Section 27)

Materials	Requirements
MANUAL THERMOSTAT	<div> <div> <ul style="list-style-type: none"> MANUAL REQUIREMENTS Alternative when client refuses programmable thermostat. Digital with built in anti-short-cycle feature. Conforms with HVAC manufacturer’s instructions. Compatible with HVAC equipment it will control. Includes a positive on/off switch. </div> <div>  <p>Photo Credit: WAPTAC.org</p> </div> </div>
PROGRAMMABLE THERMOSTAT	<div> <div> <ul style="list-style-type: none"> REPLACEMENT PROGRAMMABLE THERMOSTATS SHALL BE/HAVE: Programmable and ENERGY STAR–certified. System powered, not battery powered, on 24 volt systems. Battery backup, or other program-saving backup system. Lithium battery for power and for backup. Digital with anti-short-cycle feature. At least 4 setback periods per 24-hour day, with: <ul style="list-style-type: none"> Change cycle increments ≤ 30 minutes. Setback capability ≥ 10°F Programmable for both weekdays and weekends. Manual override and positive on/off switch that is easily accessible. Compatible with the HVAC equipment it will control. </div> <div> <ul style="list-style-type: none"> THERMOSTATS FOR HEAT PUMPS Shall prevent supplementary electric resistance heater operation when the heat pump alone can meet the heating load. May be a “smart thermostat” with intelligent recovery, staging, ramping, or other control that prevents unnecessary use of electric resistance heating; however installation of a “smart thermostat” requires a waiver from CSD. </div> <div>  <p>Photo Credit: RHA, Inc.</p> </div> </div>

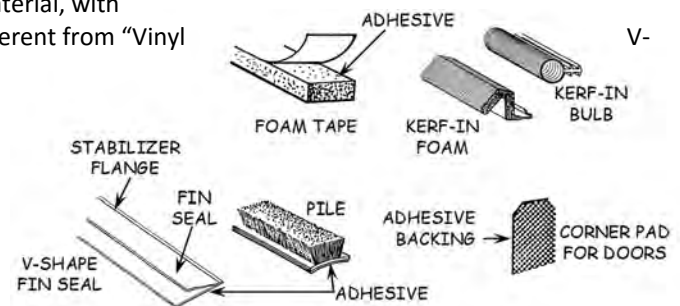
WEATHERSTRIPPING

(WIS Section 9)

Materials	Requirements
WEATHER-STRIPPING MATERIALS	<ul style="list-style-type: none"> – RIGID GASKET JAMB MATERIALS (ALUMINUM CARRIER) <ul style="list-style-type: none"> • Solid extruded aluminum carrier 0.05" minimum nominal thickness. • Pliable gasket of vinyl, thermoplastic elastomer (TPE), silicone, or equivalent. • Carrier shall have elongated mounting holes, 9" OC maximum. • Secondary seal between carrier and mounting surface shall be a minimum of 1/8" wide and extend the full length of the carrier. – SPRING AND CUSHION METAL <ul style="list-style-type: none"> • Brass, bronze, or stainless steel only; aluminum <u>not</u> allowed. – CUSHION SYNTHETIC PRESSURE SENSITIVE DOOR GASKETING <ul style="list-style-type: none"> • Polypropylene, TPE, silicone, or equivalent. • L-shaped stabilizer with self-adhesive backing. – FLANGED BULB (COMPRESSION BULB) <ul style="list-style-type: none"> • Pliable gasket of TPE or silicone (e.g., teardrop-shaped Seal). • Minimum 3/8" wide with self-adhesive stabilizer flange. – ROUND TUBE <ul style="list-style-type: none"> • Pliable gasket of TPE, silicone, or equivalent. – FOAM TAPE <ul style="list-style-type: none"> • Color shall be compatible with surrounding materials (i.e., light color foam for light color surfaces). • Closed Cell Foam Tape <ul style="list-style-type: none"> – Shall be UV-resistant with self-adhesive backing. • Open Cell Foam Tape <ul style="list-style-type: none"> – Shall have self-adhesive backing. – V-SHAPE FIN SEAL <ul style="list-style-type: none"> • Durable V-seal of silicone or equivalent material, with stabilizer flange and adhesive backing (different from "Vinyl Strip"). – REPLACEMENT KERF-IN BULB AND FOAM <ul style="list-style-type: none"> • Properly sized for retaining channel. – REPLACEMENT PILE <ul style="list-style-type: none"> • Fin seal type, whenever feasible. • Properly sized for retaining channel. – CORNER PADS <ul style="list-style-type: none"> • Pile pad with self-adhesive backing. – MECHANICAL ATTACHMENTS <ul style="list-style-type: none"> • All screws, nails, staples, and other fasteners shall be: <ul style="list-style-type: none"> – Metal and non-corrosive. – Properly sized for each application. – PRESSURE-SENSITIVE ADHESIVE <ul style="list-style-type: none"> • Minimum adhesion strength of 65 oz./in. on all self-adhesive products. • Required on all self-adhesive products.



Photo Credit: CAP of San Luis Obispo



Graphic Credit: RHA, Inc.