



City of Portland  
**Bureau of Development Services**  
Land Use Services Division

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Portland, Oregon 97201  
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[www.portlandonline.com/bds](http://www.portlandonline.com/bds)

**Date:** May 23, 2008  
**To:** Interested Person  
**From:** Shawn Wood, Land Use Services  
503-823-6962

**NOTICE OF A TYPE I DECISION ON A PROPOSAL IN YOUR NEIGHBORHOOD**

The Bureau of Development Services has approved a proposal in your neighborhood. The reasons for the decision are included in this notice. If you disagree with the decision, you can appeal it to the Oregon Land Use Board of Appeals (LUBA) at 550 Capitol St. NE, Suite 235, Salem, OR 97301. The phone number for LUBA is 1-503-373-1265. Information on how to appeal this decision is listed at the end of this notice.

**CASE FILE NUMBER: LU 07-144655 HDZ – WHITE STAG PHOTO VOLTAICS**

**GENERAL INFORMATION**

**Applicant:** Alan Hichenbottom (Consultant)  
Tanner Creek Energy  
4210 SW Altadena Ave  
Portland, OR 97239  
  
White Stag Block LLC (Owner)  
322 NW 5th Ave #301  
Portland, OR 97209

**Site Address:** 5 NW FRONT AVE

**Legal Description:** BLOCK 9 LOT 1&3 EXC PT IN ST LOT 2 EXC PT IN STS LOT 4;5&8;  
HISTORIC PROPERTY 1998 15 YR; POTENTIAL ADDITIONAL TAX,  
COUCHS ADD

**Tax Account No.:** R180200150  
**State ID No.:** 1N1E34DB 00600  
**Quarter Section:** 3030

**Neighborhood:** Old Town-China Town, contact Carol McCreary at 503-984-4081.  
**Business District:** None  
**District Coalition:** None

**Plan District:** Central City - River District  
**Other Designations:** Historic Landmark

**Zoning:** Central Commercial with design overlay (CXd)  
**Case Type:** Historic Design Review (HDZ)  
**Procedure:** Type I, an administrative decision with appeal to the Oregon Land Use Board of Appeals (LUBA).

**Proposal:**

The applicant requests historic design review approval for the installation of solar panels and an electrical inverter on the historic White Stag Building. The solar panels will be located on top of two existing rooftop monitors. The inverter will be located on the north side of an existing elevator penthouse.

Exterior alterations to a historic landmark require historic design review.

**Relevant Approval Criteria:**

In order to be approved, this proposal must comply with the approval criteria of Title 33. The relevant approval criteria are:

- Central City Fundamental Design Guidelines
- Skidmore/Old Town Design Guidelines
- Design Criteria in Section 33.846.060.G of the Portland Zoning Code

**ANALYSIS**

**Site and Vicinity:** The White Stag building is located at the southeast corner of the block bounded by NW Couch Street to the north, NW Front Avenue (Naito Parkway) to the east, West Burnside Street to the south, and NW 1<sup>st</sup> Avenue to the west. The White Stag building is interconnected with, and abuts the Skidmore Block to the west. The Bickel Block building occupies the northeast corner of the block. The three buildings are contributing resources in the Skidmore/Old Town Historic District, and the White Stag and Skidmore Block are both also designated as individual local Historic Landmark structures. The "Made in Oregon" sign atop the White Stag building is also a designated Historic Landmark.

The White Stag building was constructed in 1907, originally perhaps as a factory and later used as an office and warehouse. The structure is reinforced concrete, with brick faces on Burnside and Front Avenue (Naito Parkway). The Front Avenue façade has diamond-shaped medallions where the concrete of the uprights shows through. The Burnside Street façade has tile medallions similarly mounted. The fifth floor was a later addition, and the original storefronts and fenestration were altered with the construction of the Burnside Bridge in 1926.

Portland's Transportation System classifies Front Avenue as a Traffic Access Street, Local Service Bikeway, and Community Main Street. West Burnside is classified as a Major City Traffic Street, Transit Access Street, City Bikeway, and Regional Main Street. The site is within the North of Burnside Pedestrian District, and both Burnside and Front are designated City Walkways.

**Zoning:** The **Central Commercial (CX) zone** is intended to provide for commercial development within Portland's most urban and intense areas. A broad range of uses is allowed to reflect Portland's role as a commercial, cultural and governmental center. Development is intended to be very intense with high building coverage, large buildings, and buildings placed close together.

The **design (d) overlay zone** promotes the conservation and enhancement of areas of the City with special historic, architectural or cultural value. New development and exterior modifications to existing development must meet the Community Design Standards (Chapter 33.218) or are subject to design review.

**Land Use History:** City records indicate that prior land use reviews include the following:

- **LUR 91-008623 HL** (Reference File Number 91-00368): Land Use Review Approval of the addition of stairs and entryway to an existing door on the south elevation of the building.
- **LUR 92-009680 DZ** (Reference File Number 92-00561): Design Review Approval of a painted wall sign.
- **LUR 95-012319 GW DZ AD** (Reference File Number 95-00426): Design Review Approval to modify the Historic Landmark known as the White Stag Sign, with an Adjustment to allow an incremental increase in sign area.

- **LU 06-124971 HDZM AD:** Historic Design Review Approval for renovations to the Skidmore, White Stag, and Bickel Block buildings, including Modifications to the Ground Floor Window Standard and the Building Sign Allowance for the White Stag building, and an Adjustment request for no loading on the site.
- **LU 06-177065 HDZM:** Historic Design Review Approval of one new blade sign of 96.25 square feet on the north façade of the building and an added under-canopy light and new wall lights, including a Modification to allow the sign to project into the right-of-way by more than 30 square feet.

**Agency Review:** A Notice of Proposal in your Neighborhood was mailed on **September 6, 2007**. The following Bureaus have responded with no issues or concerns about the proposal:

- Fire Bureau;
- Water Bureau;
- Bureau of Environmental Services;
- Bureau of Transportation Engineering;
- Urban Forestry Division of Portland Parks & Recreation;
- Site Development Section of the Bureau of Development Services; and
- Life Safety (Building Code) Section of the Bureau of Development Services

**Neighborhood Review:** A Notice of Proposal in Your Neighborhood was mailed on **September 6, 2007**. No written responses have been received from either the Neighborhood Association or notified property owners in response to the proposal.

## ZONING CODE APPROVAL CRITERIA

### **Chapter 33.846, Historic Reviews**

#### **Purpose of Historic Design Review**

Historic Design Review ensures the conservation and enhancement of the special characteristics of historic resources.

#### **Historic Design Review Approval Criteria**

Requests for historic design review will be approved if the review body finds the applicant has shown that all of the approval criteria have been met.

**Findings:** The site falls within a designated Historic District, and furthermore includes a designated Historic Landmark. The proposal includes exterior alterations to the structure; therefore the proposal requires historic design review approval. The relevant approval criteria are listed in 33.846.060 G. 1.-10. In addition, because the site is located both within the Central City Plan District and the Skidmore/Old Town Historic District, the relevant approval criteria are the Central City Fundamental Design Guidelines and the Skidmore/Old Town Historic Guidelines.

### **Central City Fundamental Design Guidelines and Historic Skidmore/Old Town Design Guidelines**

The Skidmore/Old Town Historic District is a unique asset to Portland and has been recognized nationally by its placement on the National Register of Historic Places. In addition, the Skidmore/Old Town Historic District has been identified as a National Landmark, of which there is only one other in Portland, Pioneer Courthouse. There are certain procedures and regulations the City has adopted for the protection and enhancement of the Skidmore/Old Town Historic District.

The Central City Fundamental Design Guidelines focus on four general categories. **(A) Portland Personality**, addresses design issues and elements that reinforce and enhance Portland's character. **(B) Pedestrian Emphasis**, addresses design issues and elements that contribute to a successful pedestrian environment. **(C) Project Design**, addresses specific building characteristics and their relationships to the public environment. **(D) Special Areas**, provides design guidelines for the four special areas of the Central City.

### **Central City Plan Design Goals**

This set of goals was developed to guide development throughout the Central City. They apply within the River District as well as to the other seven Central City policy areas. The nine goals for design review within the Central City are as follows:

1. Encourage urban design excellence in the Central City;
2. Integrate urban design and preservation of our heritage into the development process;
3. Enhance the character of the Central City's districts;
4. Promote the development of diversity and areas of special character within the Central City;
5. Establish an urban design relationship between the Central City's districts and the Central City as a whole;
6. Provide for a pleasant, rich and diverse pedestrian experience for pedestrians;
7. Provide for the humanization of the Central City through promotion of the arts;
8. Assist in creating a 24-hour Central City which is safe, humane and prosperous;
9. Ensure that new development is at a human scale and that it relates to the scale and desired character of its setting and the Central City as a whole.

*Staff has considered all guidelines and has addressed only those guidelines considered applicable to this project.*

### **Section 33.846.060.G, Other approval criteria**

1. **Historic character.** The historic character of the property will be retained and preserved. Removal of historic materials or alteration of features and spaces that contribute to the property's historic significance will be avoided;
2. **Record of its time.** The historic resource will remain a physical record of its time, place, and use. Changes that create a false sense of historic development, such as adding conjectural features or architectural elements from other buildings will be avoided;
3. **Historic changes.** Most properties change over time. Those changes that have acquired historic significance will be preserved;
4. **Historic features.** Generally, deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement, the new feature will match the old in design, color, texture, and other visual qualities and, where practical, in materials. Replacement of missing features must be substantiated by documentary, physical, or pictorial evidence;
5. **Historic materials.** Historic materials will be protected. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials will not be used;

**Findings for 1-5:** The proposed installation of solar panels and electrical inverter on the historic White Stag Building will not alter or affect features or spaces that contribute to the property's historic significance. The solar panels will be located on the top of two existing rooftop monitors, and the related inverter will be located next to an existing elevator penthouse. These additions will not create a false sense of historic development. In addition, no physical or chemical treatments that would adversely affect the historical materials associated with the building will be used during the installation process. *These guidelines are met.*

6. **Archaeological resources.** Significant archaeological resources affected by a proposal will be protected and preserved to the extent practical. When such resources are disturbed, mitigation measures will be undertaken;

**Findings:** No significant archaeological resources will be affected by the proposal. *This guideline is met.*

**7. Differentiate new from old.** New additions, exterior alterations, or related new construction will not destroy historic materials that characterize a property. New work will be differentiated from the old;

**Findings:** By virtue of its function as a solar power electric system, the proposed work will be easily differentiated as new. *This guideline is met.*

**8. Architectural compatibility.** New additions, exterior alterations, or related new construction will be compatible with the resource's massing, size, scale, and architectural features. When retrofitting buildings or sites to improve accessibility for persons with disabilities, design solutions will not compromise the architectural integrity of the historic resource;

**9. Preserve the form and integrity of historic resources.** New additions and adjacent or related new construction will be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic resource and its environment would be unimpaired; and

**10. Hierarchy of compatibility.** Exterior alterations and additions will be designed to be compatible primarily with the original resource, secondarily with adjacent properties, and finally, if located within a Historic or Conservation District, with the rest of the district. Where practical, compatibility will be pursued on all three levels.

**Findings for 8-10:** The proposal consists of the addition of a rooftop solar electric power system. This work is additive in nature and will not affect the building's historic materials or character. These alterations will protect the integrity of the historic resources and will be compatible with the specific resources as well as with the Skidmore/Old Town Historic District. *These guidelines are met.*

### **Historic Skidmore/Old Town Design Guidelines**

#### **General Guidelines: Alterations and Additions to Historic Landmarks, Potential Landmarks, and other Compatible Buildings:**

**A. Retention of Original Construction.** So far as practicable, all original exterior materials and details shall be preserved.

**Findings:** The installation of the proposed solar electric power system will not alter the building's original materials or details. The solar panels will be attached with mounting feet and a lag bolt or other hardware appropriate for attaching to roof beams. The panels will be mounted on top of two existing rooftop monitors on both the north and south roof spaces of the building. *This guideline is met.*

**B. Height.** Additional stories may be added to historic buildings provided that the following are addressed:

- The added height complies with requirements of the building and zoning codes. The Historic District has a FAR (Floor Area Ratio) designation of 4:1. The FAR may be increased to 5:1 if the 1:1 increase is for residential only. This residential bonus was established to stimulate new housing construction in order to enhance the vitality and economy of Downtown.
- The added height does not exceed that which was traditional for the style of the building. Example: Portland's cast iron buildings did not exceed four stories. The majority of Portland's masonry buildings did not exceed six stories.
- The added height does not alter the traditional scale and proportions of the building style.
- The added height is visually compatible with adjacent historic buildings.

**C. Scale and Proportion.** The scale and proportion of altered or added building elements, the relationship of voids to solids (i.e. openings such as doors and windows to walls and column elements) shall be visually compatible with the traditional

architectural character of the Historic District. An important element within the Historic District was the emphasis on the pedestrian scale activities, which were characterized with the addition of canvas awnings or permanent canopies. This defined an important scale and proportion element of the District and to the extent possible, this relationship at pedestrian level should be re-established within the District.

**Findings for Guidelines B and C:** The proposed solar electric power system components will only extend approximately 12 inches above the existing rooftop monitor and follow the same slope. Thus, the system will not jeopardize the building's compatibility with adjacent historic structures, and will not alter the traditional scale and proportions of the building style or the Historic District. *These guidelines are met.*

### **Central City Fundamental Design Guidelines**

**A2. Emphasize Portland Themes.** When provided, integrate Portland-related themes with the development's overall design concept.

**A4. Use Unifying Elements.** Integrate unifying elements and/or develop new features that help unify and connect individual buildings and different areas.

**A5. Enhance, Embellish, and Identify Areas.** Enhance an area by reflecting the local character within the right-of-way. Embellish an area by integrating elements in new development that build on the area's character. Identify an area's special features or qualities by integrating them into new development.

**A6. Reuse/Rehabilitate/Restore Buildings.** Where practical, reuse, rehabilitate, and restore buildings and/or building elements.

**Findings for Guidelines A2, A4, A5, and A6:** In general, the renovation and maintenance of historic structures benefits Portland and its specific neighborhoods by providing physical links to a district's original uses, methods of construction, and building typologies. These older buildings truly identify and enhance each district, especially when an area contains a number of historic resources as in the surrounding Skidmore/Old Town Historic District. The addition of solar panels to the building will not detract from the district's identity and its recognition by those within the vicinity or those passing through. *These guidelines are met.*

**C2. Promote Quality and Permanence in Development.** Use design principles and building materials that promote quality and permanence.

**C3. Respect Architectural Integrity.** Respect the original character of an existing building when modifying its exterior. Develop vertical and horizontal additions that are compatible with the existing building, to enhance the overall proposal's architectural integrity.

**C4. Complement the Context of Existing Buildings.** Complement the context of existing buildings by using and adding to the local design vocabulary.

**C5. Design for Coherency.** Integrate the different building and design elements including, but not limited to, construction materials, roofs, entrances, as well as window, door, sign, and lighting systems, to achieve a coherent composition.

**C11. Integrate Roofs and Use Rooftops.** Integrate roof function, shape, surface materials, and colors with the building's overall design concept. Size and place rooftop mechanical equipment, penthouses, other components, and related screening elements to enhance views of the Central City's skyline, as well as views from other buildings or vantage points. Develop rooftop terraces, gardens, and associated landscaped areas to be effective stormwater management tools.

**Findings for Guidelines C2, C3, C4, C5, and C11:** The proposed addition of the solar electric power system will respect the building's original architecture, scale, proportion, and quality of construction. The solar panels will be mounted to match the angle of the roofline and will not change the existing profile. The inverter will be adjacent to an existing elevator penthouse and rooftop monitor and will not be

visible from the street. Additionally, the inverter is located among additional rooftop equipment thereby reducing its overall impact when viewed from above.

The arrangement of solar panels on the rooftop must take into account the shadow caused by the large "Made in Oregon" sign (a landmark itself) located at the east elevation. There will be no panels located on the parts of the rooftop monitors located directly behind the sign, as the sign's shadow would prevent the panels from functioning properly. Given this restriction, the panels are arranged as cohesively as possible to render an integrated rooftop design.

The materials used in the proposed system are high-quality, durable materials. The solar panels are made of monocrystalline and multicrystalline silicon solar cells.. *These guidelines are met.*

## DEVELOPMENT STANDARDS

Unless specifically required in the approval criteria listed above, this proposal does not have to meet the development standards in order to be approved during this review process. The plans submitted for a building or zoning permit must demonstrate that all development standards of Title 33 can be met, or have received an Adjustment or Modification via a land use review prior to the approval of a building or zoning permit.

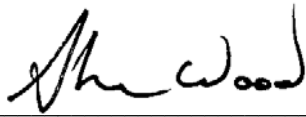
## CONCLUSIONS

The purpose of the historic design review process is to ensure that exterior alterations to existing buildings protect the integrity of the special characteristics of the historic resources. The proposed work is additive in nature and will not affect the building's historic materials or character. These alterations will protect the integrity of the historic resources and will be compatible with the specific resources as well as with the Skidmore/Old Town Historic District. The proposal meets the applicable design guidelines and therefore warrants approval.

## ADMINISTRATIVE DECISION

Approval of rooftop photo voltaic panels and associated inverter, per the approved plans, Exhibits C.1 through C.8, signed and dated May 21, 2008, subject to the following conditions:

- A. As part of the building permit application submittal, each of the 4 required site plans and any additional drawings must reflect the information and design approved by this land use review as indicated in Exhibits C.1-C.8. The sheets on which this information appears must be labeled, "Proposal and design as approved in Case File # LU 07-144655 HDZ."

Decision rendered by:  on (May 21, 2008)

By authority of the Director of the Bureau of Development Services

**Decision mailed (within 5 days of dec.) May 23, 2008**

**Staff Planner: Shawn Wood**

**About this Decision.** This land use decision is **not a permit** for development. A Final Plat must be completed and recorded before the proposed lots can be sold or developed. Permits may be required prior to any work. Contact the Development Services Center at 503-823-7310 for information about permits.

**Procedural Information.** The application for this land use review was submitted on June 29, 2007, and was determined to be complete on August 31, 2007.

*Zoning Code Section 33.700.080* states that Land Use Review applications are reviewed under the regulations in effect at the time the application was submitted, provided that the application is complete at the time of submittal, or complete within 180 days. Therefore this application was reviewed against the Zoning Code in effect on June 29, 2007.

*ORS 227.178* states the City must issue a final decision on Land Use Review applications within 120-days of the application being deemed complete. The 120-day review period may be waived or extended at the request of the applicant. In this case, the applicant did waive the 120-day review period. See Exhibit G.4 for additional details.

**Some of the information contained in this report was provided by the applicant.**

As required by Section 33.800.060 of the Portland Zoning Code, the burden of proof is on the applicant to show that the approval criteria are met. The Bureau of Development Services has independently reviewed the information submitted by the applicant and has included this information only where the Bureau of Development Services has determined the information satisfactorily demonstrates compliance with the applicable approval criteria. This report is the decision of the Bureau of Development Services with input from other City and public agencies.

**Conditions of Approval.** If approved, this project may be subject to a number of specific conditions, listed above. Compliance with the applicable conditions of approval must be documented in all related permit applications. Plans and drawings submitted during the permitting process must illustrate how applicable conditions of approval are met. Any project elements that are specifically required by conditions of approval must be shown on the plans, and labeled as such.

These conditions of approval run with the land, unless modified by future land use reviews. As used in the conditions, the term "applicant" includes the applicant for this land use review, any person undertaking development pursuant to this land use review, the proprietor of the use or development approved by this land use review, and the current owner and future owners of the property subject to this land use review.

**This decision, and any conditions associated with it, is final.** It may be appealed to the Oregon Land Use Board of Appeals (LUBA), within 21 days of the date of decision, as specified in the Oregon Revised Statute (ORS) 197.830. Among other things, ORS 197.830 requires that a petitioner at LUBA must have submitted written testimony during the comment period for this land use review. You may call LUBA at 1-503-373-1265 for further information on filing an appeal.

The file and all evidence on this case is available for your review by appointment. Please contact the receptionist at 503-823-7967 to schedule an appointment. Copies of all information in the file can be obtained for a fee equal to the cost for such services. You may also find additional information about the City of Portland and City Bureaus, as well as a digital copy of the Portland Zoning Code, by visiting the City's homepage on the Internet at [www.portlandonline.com](http://www.portlandonline.com).

**Recording the final decision.**

If this Land Use Review is approved, the final decision must be recorded with the Multnomah County Recorder. A building or zoning permit will be issued only after the final decision is recorded. The final decision may be recorded on or after **May 27, 2008**.

The applicant, builder, or a representative may record the final decision as follows:

- By Mail: Send the two recording sheets (sent in separate mailing) and the final Land Use Review decision with a check made payable to the Multnomah County Recorder to: Multnomah County Recorder, P.O. Box 5007, Portland OR 97208. The recording fee is identified on the recording sheet. Please include a self-addressed, stamped envelope.



- In Person: Bring the two recording sheets (sent in separate mailing) and the final Land Use Review decision with a check made payable to the Multnomah County Recorder to the County Recorder's office located at 501 SE Hawthorne Boulevard, #158, Portland OR 97214. The recording fee is identified on the recording sheet.

For further information on recording, please call the County Recorder at 503-988-3034  
For further information on your recording documents please call the Bureau of Development Services Land Use Services Division at 503-823-7967.

**Expiration of this approval.** An approval expires three years from the date the final decision is rendered unless a building permit has been issued, or the approved activity has begun.

Where a site has received approval for multiple developments, and a building permit is not issued for all of the approved development within three years of the date of the final decision, a new land use review will be required before a permit will be issued for the remaining development, subject to the Zoning Code in effect at that time.

**Applying for your permits.** A building permit, occupancy permit, or development permit may be required before carrying out an approved project. At the time they apply for a permit, permittees must demonstrate compliance with:

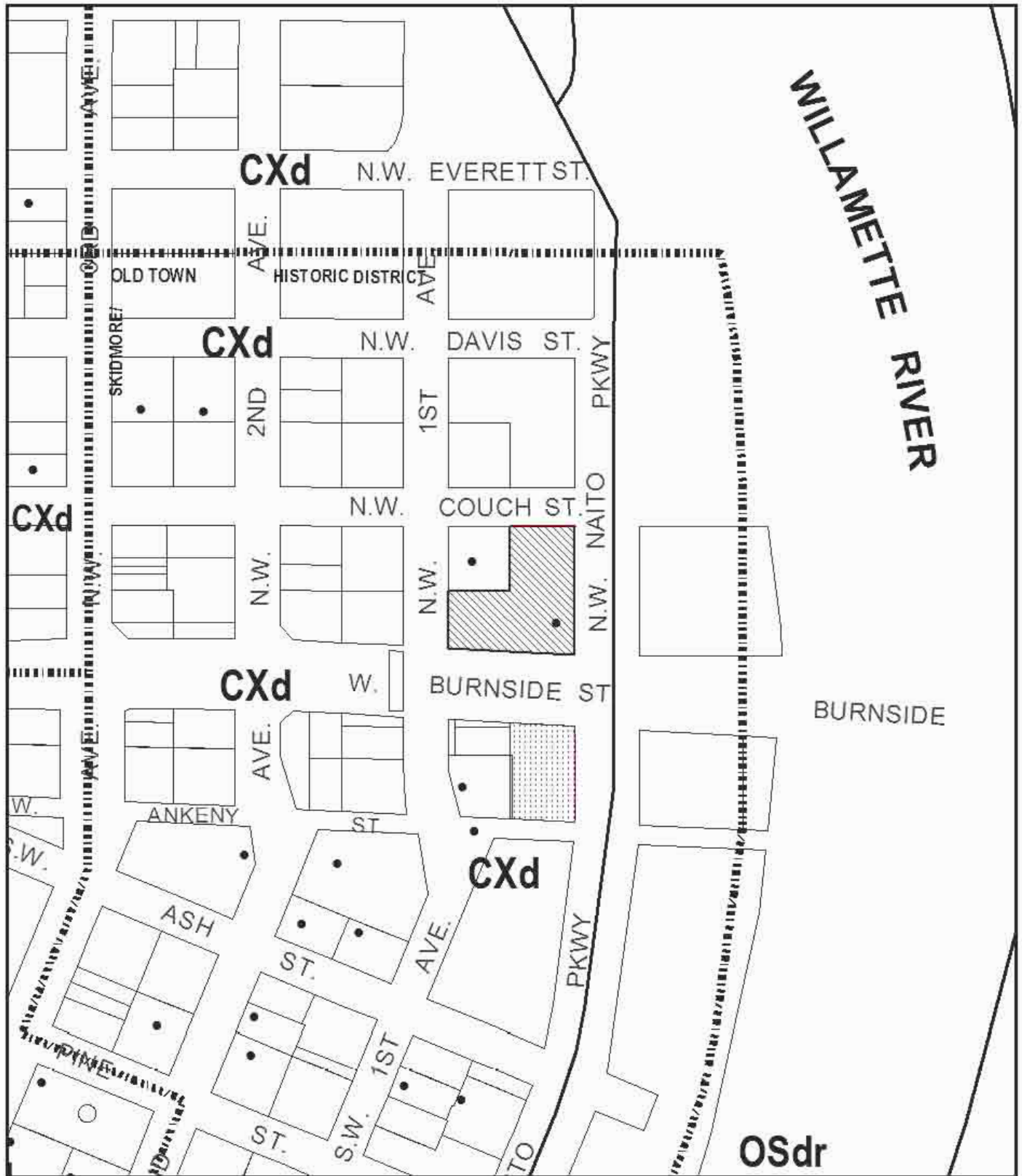
- All conditions imposed herein;
- All applicable development standards, unless specifically exempted as part of this land use review;
- All requirements of the building code; and
- All provisions of the Municipal Code for the City of Portland, and all other applicable ordinances, provisions and regulations of the City.

#### **EXHIBITS**

NOT ATTACHED UNLESS INDICATED

- A. Applicant's Statement
- B. Zoning Map (attached)
- C. Plans/Drawings:
  - 1. Site/Roof Plan (attached)
  - 2. Building/Panel Section (attached)
  - 3. Panel Layout
  - 4. Panel Attachment Plan (attached)
  - 5. Panel Cutsheet
  - 6. Inverter Cutsheet (2 pages)
  - 7. Curb Detail
  - 8. Inverter Location Photos (2 pages)
- D. Notification information:
  - 1. Mailing list
  - 2. Mailed notice
- E. Agency Responses:
  - No Concerns
- F. Correspondence:
  - None Received
- G. Other:
  - 1. Original LU Application
  - 2. Site History Research
  - 3. Incomplete Letter
  - 4. 120-Day Waiver

**The Bureau of Development Services is committed to providing equal access to information and hearings. If you need special accommodations, please call 503-823-0625 (TTY 503-823-6868).**



# ZONING

-  Site
-  Also Owned
-  Historic Landmark

This site lies within the:  
**SKIDMORE/OLD TOWN HISTORIC DISTRICT**  
**CENTRAL CITY PLAN DISTRICT**



File No.	LU 07-144655 HDZ
1/4 Section	3030
Scale	1 inch = 200 feet
State_Id	1N1E34DB 600
Exhibit	B (Jul 10 2007)

SKIDMORE SOLAR ARRAY

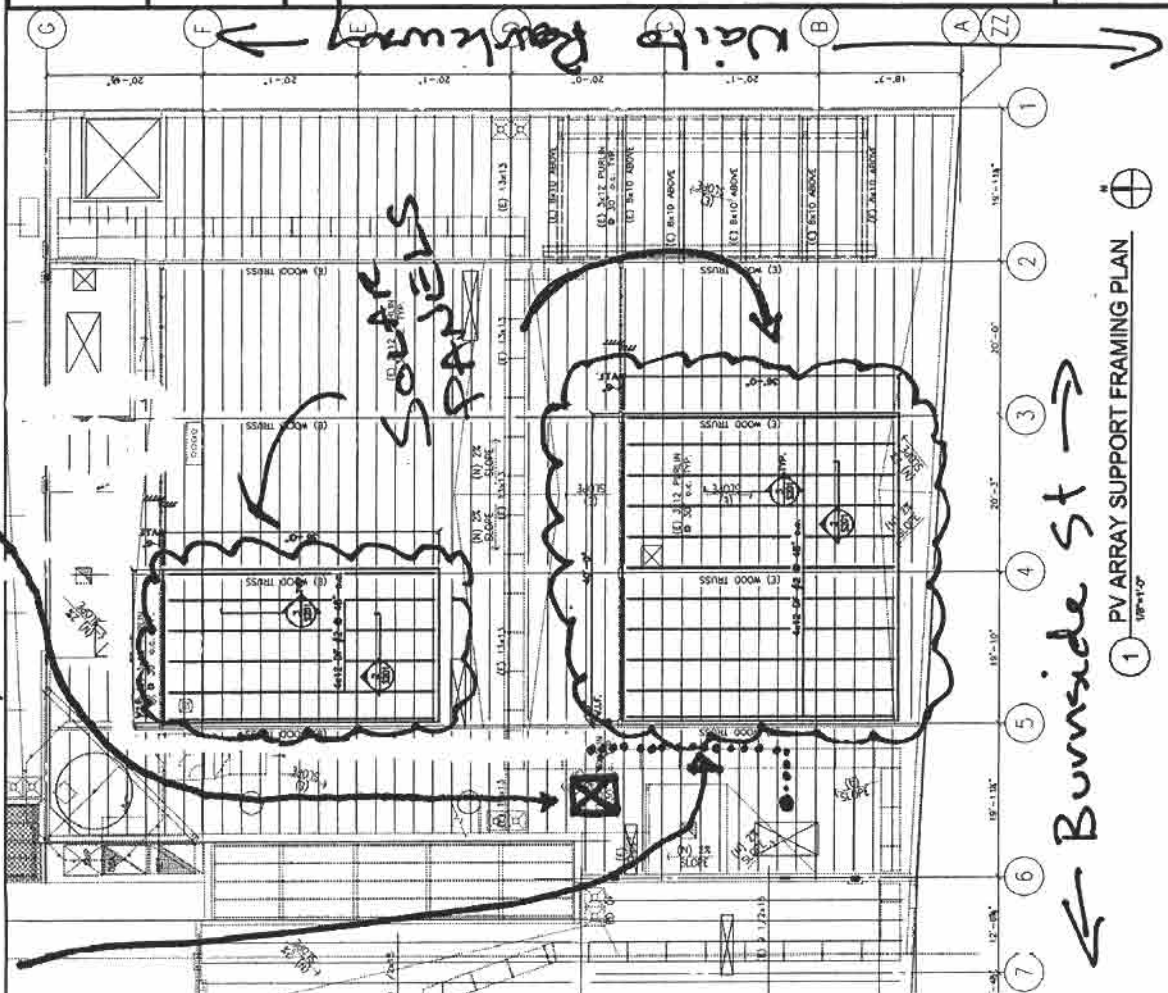
ISSUED / REVISED DATE

PROJECT NO. 20791  
 DATE 05-14-08  
 DRAWN BY DECED BY

SOLAR ARRAY PLAN  
 AND DETAILS

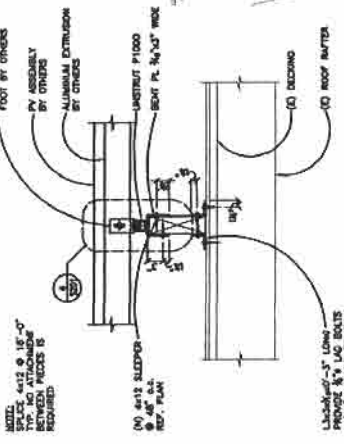
S201

*conduit path location of inverter (surface wanted)*

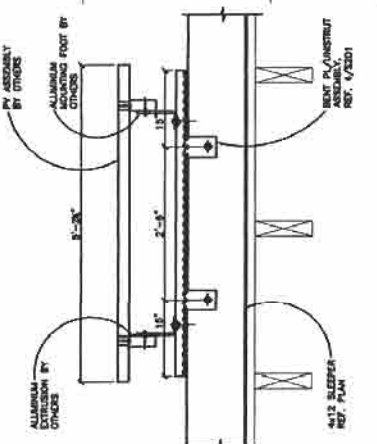


1 PV ARRAY SUPPORT FRAMING PLAN  
 18'-11/2" x 17'-0"

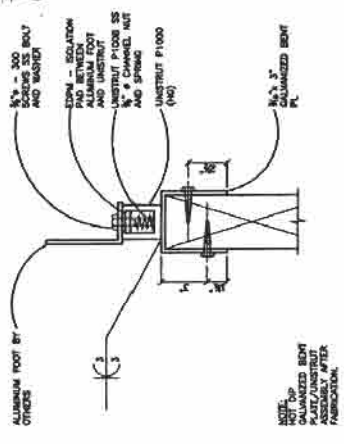
- NOTES:
1. FIELD VERIFY ALL DIMENSIONS AND COORDINATE WITH PV ARRAY SUPPLIER.
  2. COORDINATE FRAMING WITH ROOFING CONTRACTOR.
  3. ALL ROOFING AND WATERPROOFING BY OTHERS.



2 WOOD SLEEPER TO ROOF STRUCT.  
 18'-11/2" x 0"



3 STRUT ASSEMBLY TO SLEEPER  
 18'-11/2" x 0"



4 UNISTRUT CONNECTION  
 3'-11/2" x 0"

\*Approved\*

City of Portland - Bureau of Development Services

Planner *[Signature]* Date 5-21-08

\* This approval applies only to the reviews requested and is subject to all conditions of approval. Additional zoning requirements may apply.

EXHIBIT C.1

\*Approved\*

City of Portland - Bureau of Development Services

Planner *Sharon* Date **5-21-02**

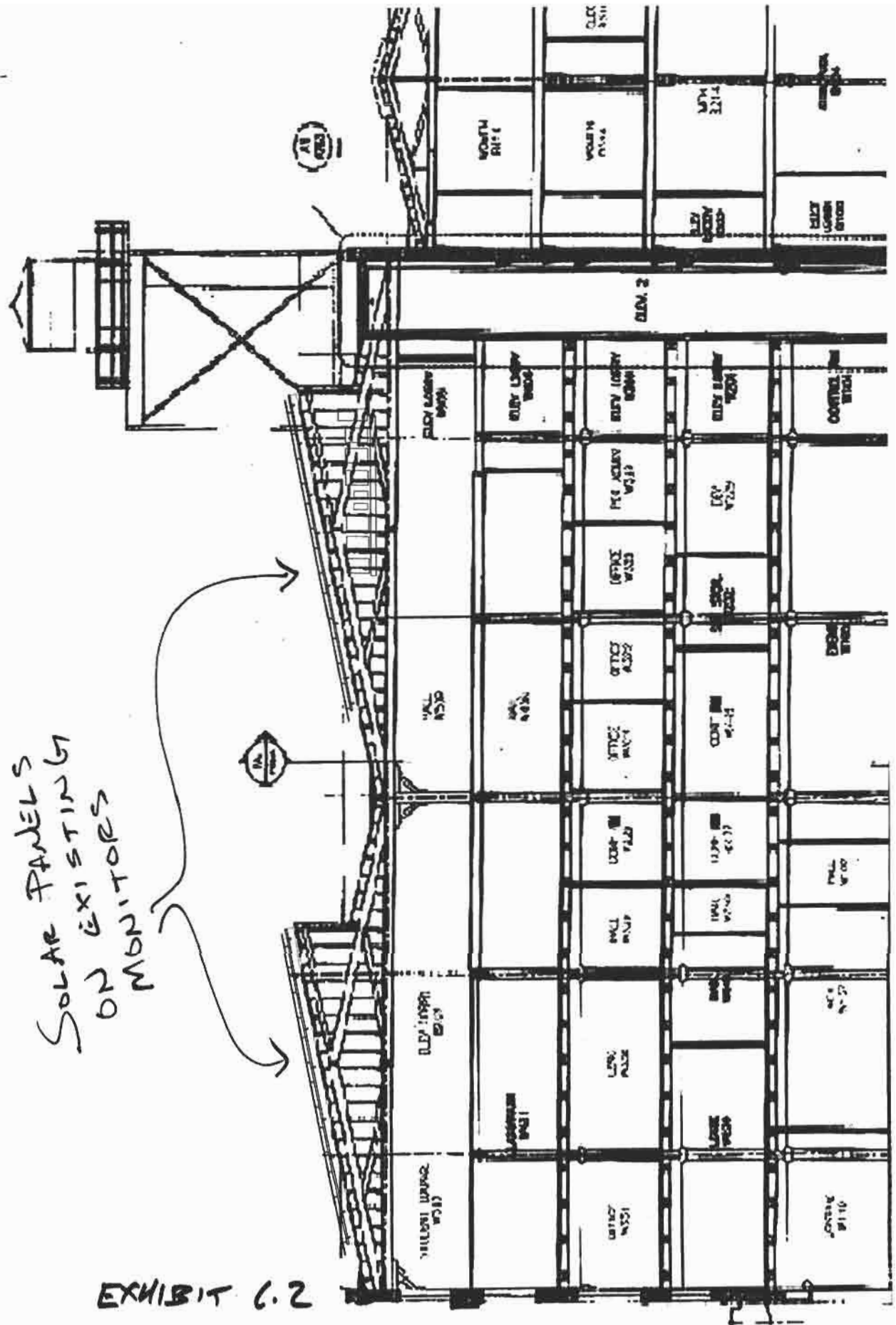
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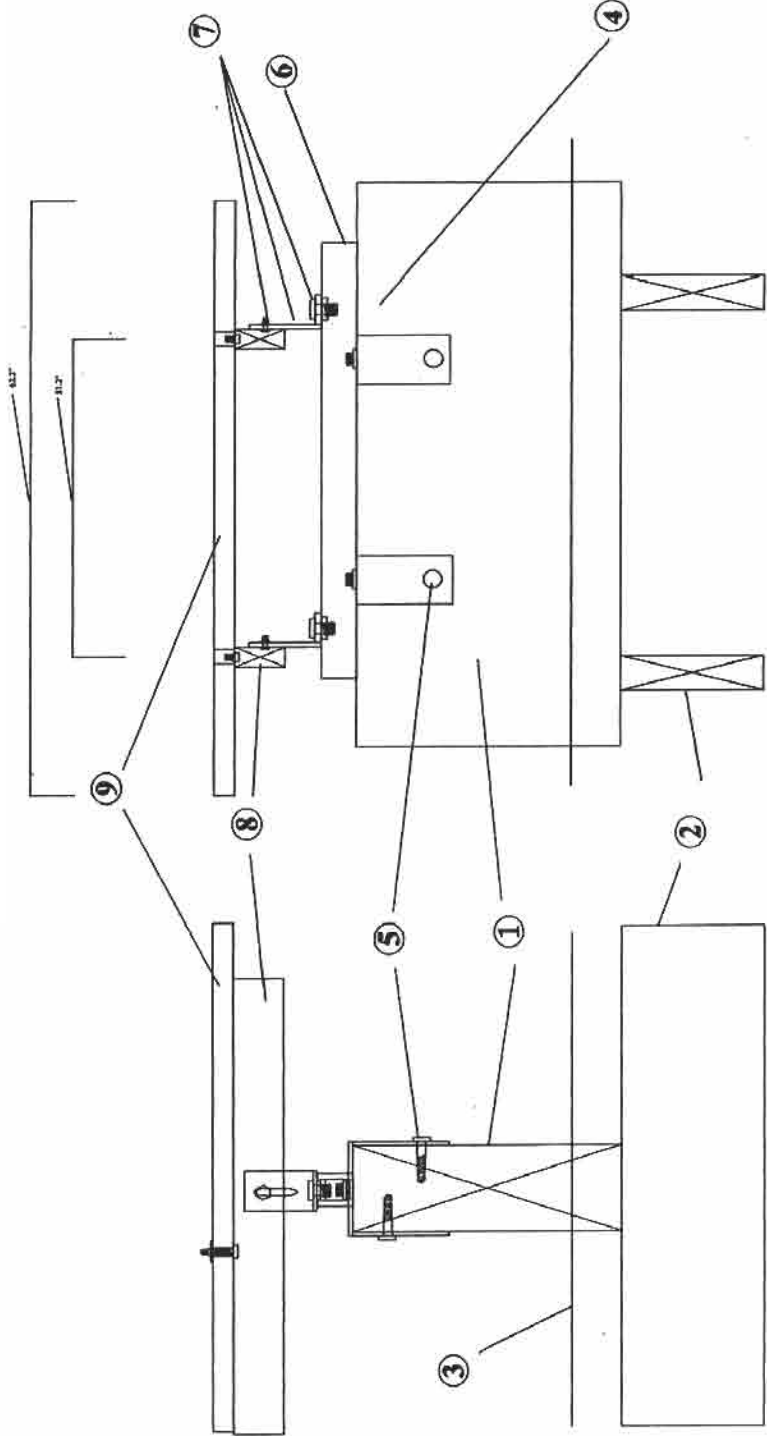
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F

SOLAR PANELS  
ON EXISTING  
MONITORS

EXHIBIT C.2





WEST VIEW DETAIL

WIND: 90mph  
 CATEGORY: C  
 BUILDING HEIGHT: 65ft

Additional zoning requirements may apply.  
 SOUTH VIEW DETAIL

**\* Approved \***  
 City of Portland  
 Bureau of Development Services  
 Planner *[Signature]*  
 Date 5-21-08

- ① ROOF BEAM: 4x12. CUT AND MATERIAL SPECIFIED BY ROOFER. ROOFING MEMBRANE COVERING ADDITIONAL SEALANT AT SCREW PENETRATION.
- ② ROOF TRUSS: EXISTING 2x8 EAST-WEST JOISTS. SPACING = 24" OC DOUGLAS FIR.
- ③ ROOF SURFACE: MULTIPLE PLY SRS MEMBRANE APPROX. 4" FROM ROOF JOIST METAL CAP ALONG BEAMS RIDGE.
- ④ C-CHANNEL CLAMPS: 6" x 6" x 1/4" GALVANIZED STEEL 5/8" HOLE ON BOTH SIDES HOLES ON EITHER SIDE OFFSET 2" 3/8" COUNTERSINK HOLES ON TOP.
- ⑤ SIDE SCREW: 1/2" x 2" SS LAG BOLT 1/2" SS WASHER 1/2" SS LOCKWASHER.
- ⑥ UNISTRUT CHANNEL: 1 5/8" x 1 5/8" x 60" SLOTTED GALVANIZED STEEL UNISTRUT TO C-CHANNEL HARDWARE: 3/8" SS HEXHEAD BOLT 3/8" SS LOCKWASHER 3/8" SS WASHER 3/8" SS NUT.
- ⑦ MOUNTING FEET: 3" x 2" x 1/8" ALUMINUM L-FEET - TO UNISTRUT 3/8" x 1 1/4" SS HEXHEAD BOLT 3/8" SS WASHER 3/8" SS LOCKWASHER 3/8" SS SPRING NUT RUBBER PAD BETWEEN UNISTRUT AND FEET - TO RAIL 1/4" x 1 1/2" SS BOLT 1/4" SS WASHER 1/4" SS LOCKWASHER 1/4" SS NUT.
- ⑧ MODULE MOUNTING RAIL SYSTEM: UNIRAC SOLARMOUNT EXTRUDED ALUMINUM RAIL 6105-T5 ANODIZED ALUMINUM 192" LENGTHS RAIL SPLICE KITS MID AND END TOP-MOUNT MODULE CLAMPS (SEE UNIRAC SPEC SHEETS).
- ⑨ MODULE FRAME: EXTRUDED ANODIZED ALUMINUM (SEE EVERGREEN SPEC SHEET).

ALL STAINLESS STEEL HARDWARE OF 300 SERIES OR 18-8 GRADE

PV MODULES ACCEPT UP TO 50 PSF DEAD LOADING (SNOW OR OTHERWISE). DEAD AND LIVE LOADING CALCULATIONS TO BE CONDUCTED BY PROFESSIONAL STRUCTURAL ENGINEER.

Energy Outfitters gr Solar	Author C. HOUGHTON	Title PV ARRAY ATTACHMENT PLAN / HARDWARE	Sh 1
	Date 29 APRIL 07	File Name WHITE STAG PV PROJECT	Rev

EXHIBIT C.4