

T. 9. a.

Executive Summary

Financial Summary

Lane County contracted with McKinstry to perform a Solar Feasibility Analysis of two (2) potential sites, and subsequently expanded the scope to include (10) sites. The following report identifies eight (8) sites that were found to be feasible for solar photovoltaic (PV) installations. These renewable energy projects offer electrical energy savings that would reduce the long-term energy costs for these facilities, and the carbon footprint associated with Lane County's operations. This Executive Summary presents financial analyses for two (2) scenarios.

Scenario A - Basic "Power Purchase Agreement" (PPA)

The first scenario is the basic "Power Purchase Agreement" (PPA) in which a third-party investor (System Owner) provides the investment capital to procure, install, own, operate and maintain the solar PV system on the property owner's (Customer) premises. The third-party investor receives the benefit of all tax credits, depreciation, and other incentives associated with installation of the PV system, as well as the monthly revenue from the sale of the electricity generated by the PV system.

As the Customer, Lane County would benefit by purchasing power from the System Owner at a pre-determined below market rate with a fixed annual escalation rate lower than the average annual electric utility escalation rate. The typical starting rate is 90% to 95% of the current market rate (approximately \$0.005 per kWh reduction) with a fixed annual escalation rate of 3%. In comparison EWEB's 10-year forecast for future electricity rates is equivalent to 4.3% annual escalation rate. The typical PPA term is for 20-25 years.

The benefits to Lane County include:

- No up-front cost
- Tax-exempt government agency realizes immediate electricity cost savings, through a third-party investor who passes along a portion of their savings (accrued from tax credits, incentives, and depreciation) in the form of reduced electricity rates
- Predictable cost of electricity through a long-term PPA contract simplifies utility budgeting, and hedges against volatility of rising energy costs
- Third-party investor deals with all the complexities of system design, permitting, and installation
- Third-party investor assumes all of the costs and responsibilities for operation and maintenance

Contractually, the PPA is structured in two parts: 1) Solar Easement and License Agreement; and 2) Power Purchase Agreement. In the Solar Easement and License Agreement, the property owner (Customer) grants to the investor (System Owner) a license and easement to install, operate, and maintain the solar PV system at the Customer's facilities for the purpose of generating electricity to be purchased by the Customer from the System Owner.

The Power Purchase Agreement between the property owner (Customer) and the investor (System Owner) specifies that the Customer agrees to purchase all of the electricity generated by the photovoltaic system from the System Owner at a pre-determined kWh rate, with a fixed annual escalation rate over the contract term. The System Owner bills the Customer on a monthly basis for the actual electricity produced as measured by the utility-grade electrical meter. The PPA also specifies that the System Owner is responsible for all installation, operation, maintenance, and insurance costs for the solar PV system.

Table 1 on the following page summarizes the potential system size and electricity savings under the Basic PPA Option for each of the (10) sites investigated.

Table 1: Scenario A - Basic PPA Option

FIM #	Building FIM Description	System kW dc	Owner Budget	Savings (25 yrs)
24.01 - CCC	Community Corrections Center Infeasible	-	-	-
24.01 - PSP	Public Service Bldg Parking Lot Infeasible	-	-	-
24.01 - JTF	Juvenile Treatment Facilities (2) PV rooftop system	62.1	\$ 0	\$ 34,781
24.01 - MHF	Mental Health Facility PV rooftop system	75.6	\$ 0	\$ 42,342
24.01 - LCA	Adult Corrections Facility PV rooftop system	97.7	\$ 0	\$ 54,719
24.01 - JJC	Juvenile Justice Center PV rooftop system	118.8	\$ 0	\$ 66,537
24.01 - CHP	Courthouse-Public Service Bldg PV rooftop system	157.5	\$ 0	\$ 88,212
24.01 - ARM	Armory PV rooftop system	170.1	\$ 0	\$ 95,269
24.01 - MLK	John Serbu Youth Campus Multiple PV ground systems	428.4	\$ 0	\$ 239,936
TOTAL	ALL SITES	1,110	\$ 0	\$ 621,795

Scenario A - Basic "Power Purchase Agreement" (PPA)

The basic PPA option results in a total electricity cost savings of \$ 621,795 spread over a 25-year PPA term, with a net present value of \$ 355,660 in today's dollars.

Total estimated green-house gas reduction is 602 metric tonnes CO₂ e. Estimated reduction in pollutants with known adverse health impacts is a combined total of 2,830 lbs for Sulfur Dioxide (SO₂) and Nitrogen Oxides (NO_x). The environmental reduction is identical for either scenario A or B.

Scenario B - "Power Purchase Agreement" (PPA) with Buy-out Option

The second scenario is the "Power Purchase Agreement" (PPA) with the buy-out option. It begins as in Scenario A however, at the end of Year 6, the property owner (Customer) exercises their option to purchase the fully depreciated PV system after the investor (System Owner) has captured all of the tax credits, incentives and accelerated depreciation. The buy-out option price is specified in the PPA as the "Fair Market Value" (FMV) of an arms-length sale between informed and willing parties. Practically, the FMV falls within the range of either: 15% of the original system cost; or the net present value of the revenue resulting from residual electricity sales over the remaining PPA contract term. After exercising the buy-out option to purchase the PV system, the Customer assumes all of the benefits and responsibilities of system ownership including:

- Reduced system cost (partially subsidized by tax credits, incentives, and accelerated depreciation realized by the investor)
- Greater electricity cost savings since the System Owner pays nothing for the electricity generated
- Option to collect revenue by selling the electricity to EWEB in exchange for a direct generation incentive (currently \$ 0.12 per kWh)
- Customer assumes all of the costs and responsibilities for operation, maintenance, and insurance

Table 2 on the following page summarizes the potential system size and electricity savings under the PPA Buy-out Option for each of the (10) sites investigated.

Table 2: Scenario B – PPA with Buy-Out Option

FIM #	Building FIM Description	System kW dc	Owner Budget	Savings (25 years)
24.01 - CCC	Community Corrections Center Infeasible	-	-	-
24.01 - PSP	Public Service Bldg Parking Lot Infeasible	-	-	-
24.01 - JTF	Juvenile Treatment Facilities (2) PV rooftop system	62.1	\$ 50,301	\$ 90,726
24.01 - MHF	Mental Health Facility PV rooftop system	75.6	\$ 61,236	\$ 110,449
24.01 - LCA	Adult Corrections Facility PV rooftop system	97.7	\$ 79,097	\$ 142,737
24.01 - JJC	Juvenile Justice Center PV rooftop system	118.8	\$ 96,228	\$ 173,563
24.01 - CHP	Courthouse-Public Service Bldg PV rooftop system	157.5	\$ 127,575	\$ 230,103
24.01 - ARM	Armory PV rooftop system	170.1	\$ 137,781	\$ 248,511
24.01 - MLK	John Serbu Youth Campus Multiple PV ground systems	428.4	\$ 334,152	\$ 625,879
TOTAL	ALL SITES	1,110	\$ 886,370	\$ 1,236,906

Scenario B - "Power Purchase Agreement" (PPA) with Buy-out Option

The PPA with the buy-out option results in greater total cost savings of \$ 1,236,906 over the same 25-year period, but requires a capital infusion of \$ 886,370 at the end of Year 6 to purchase the PV systems with approximately 19+ years of expected life remaining. While the \$ 510,156 net present value of the buy-out option is substantially higher than for the basic PPA option, the overall rate of return will be somewhat lower due to the capital investment required to purchase the PV system.

Each of the feasible projects is discussed in more detail in Section 3 of this TEA. Any or all of these projects can be developed in further detail in a follow-up Project Development Plan (PDP) phase. Please refer to the project cash flow models at the end of this section for further financial details.

Recommendation & Next Steps

This initial feasibility study provides budget estimates for eight (8) identified projects with significant financial and environmental benefits, and offers a potential road map to help determine which projects are worthy of further pursuit.

If Lane County chooses to move to the next phase, the Project Development Plan (PDP), a final list of projects could be explored in greater detail. Individual site data would be gathered and analyzed to calculate guaranteed annual production output and utility savings. Constructability issues would be carefully evaluated (including any needed roof repairs), detailed scopes defined, and pricing provided for each project to determine a guaranteed maximum price for construction.

PPA terms are negotiable, and the Customer may exercise their buy-out option at multiple specified points during the term of the PPA. This flexibility provides the Customer with opportunities to maximize their financial benefit depending on the spread between the specified PPA rate and fluctuating market electricity rates, as well as benefit from new incentives or sources of capital. The PDP can analyze the benefits of various PPA terms and buy-out options, and recommend an optimized solution tailored to achieve Lane County's overall goals and objectives. Lane County may then elect to grant a Solar Easement & License Agreement, and enter into a Power Purchasing Agreement (PPA) with a qualified investor.

1. Summary of Project

1.1 General Description of Existing Facilities

GENERAL OVERVIEW

Lane County has contracted with McKinstry to perform a Solar Feasibility Analysis for the following ten (10) sites which are described in detail below:

LOCATION	ADDRESS
Lane County Courthouse Public Service Building	125 E. 8 th Avenue
Lane County Adult Corrections Facility	101 W. 5 th Avenue
Community Corrections Center	75 W. 5 th Avenue
Public Service Building Parking Lot	E. 6 th Avenue (between Pearl & Oak)
Armory	2515 Martin Luther King Blvd
Juvenile Justice Center	2727 Martin Luther King Blvd
Mental Health Facility	2411 Martin Luther King Blvd
Juvenile Treatment Facility # 1	2655 Martin Luther King Blvd
Juvenile Treatment Facility # 2	2675 Martin Luther King Blvd
John Serbu Youth Campus	(multiple) Martin Luther King Blvd

Courthouse

The Courthouse is a four-story building originally constructed in 1957. The roof system is a newer single-ply membrane which appears to be in relatively good condition. The age and remaining years of warranty on the roof are unknown.

Solar access is generally good with the exception of shading from the rooftop penthouse, cooling tower, elevator shaft and mechanical air-handling units. The red, cross-hatched roof areas, in Figure 1 – Courthouse | PSB Aerial View (areas 1, 2 & 10) indicate locations that are either shaded or unusable due to the placement of rooftop equipment.

Public Service Building

The Public Service Building is a two-story structure built in 1976. The roof system is an older single-ply membrane, which appears to be approaching the end of its useful life. The age and warranty status of the roof are unknown.

Solar access is generally good for the South wing with the exception of shading from the rooftop penthouse, and shading of the lower covered walkways by trees on east and west and the upper floors of the PSB to the east. The red, cross-hatched roof areas, in Figure 1 – Courthouse | PSB Aerial View (areas 3 through 6) indicate locations that are either shaded by trees and the rooftop penthouse, or are unusable due to the setback requirements from the edge of the roof necessary for control of wind uplift forces on the solar panels.

Solar access for the North wing is extremely poor as there is practically no usable area due to the shading from the upper stories of the Courthouse. The shading extends eastward, leaving insufficient width for solar panels with the minimum required setback from the east edge of the roof to control wind uplift. The only exception is the eastern half of the North penthouse roof, but the usable area is so small and isolated, as there are no other adjacent usable areas, that it is not viable. The red, cross-hatched roof areas, in Figure 1 – Courthouse | PSB Aerial View (areas 7 through 9) indicate locations that are either shaded or infeasible due to small size and distance from adjacent usable areas. For additional views see Figures 2 through 5, for details of the Southern, Western, Northern, and Eastern exposures.

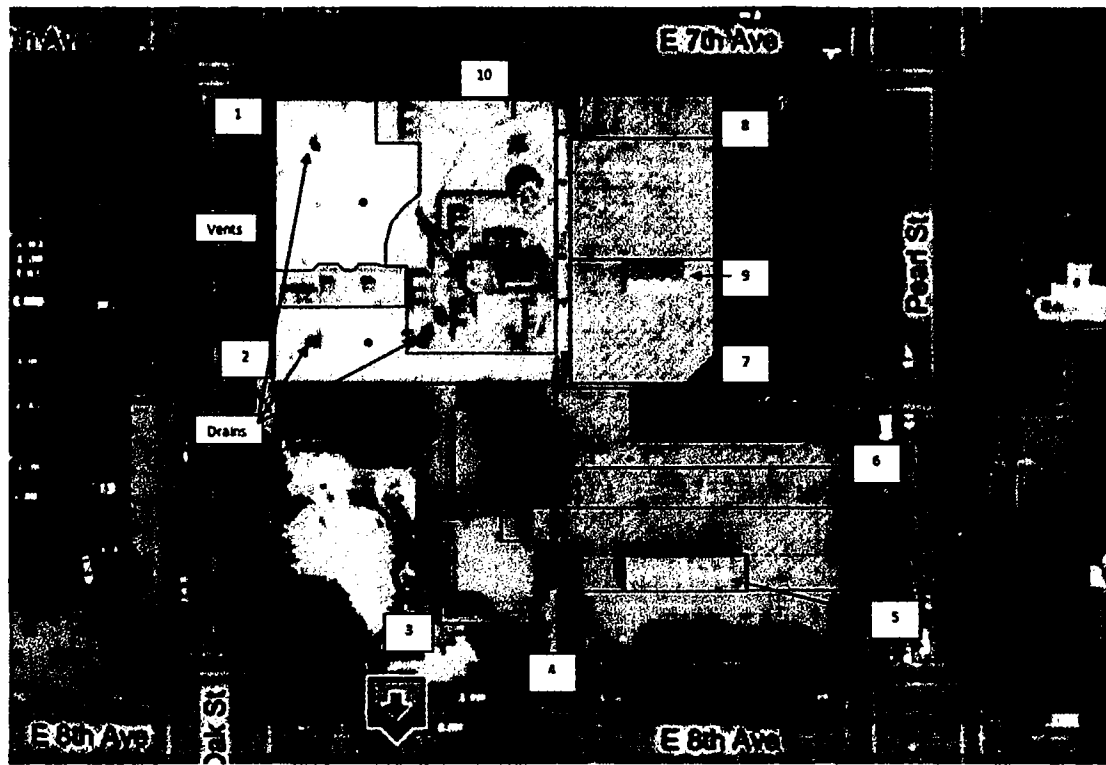


Figure 1 - Courthouse | PSB Aerial View

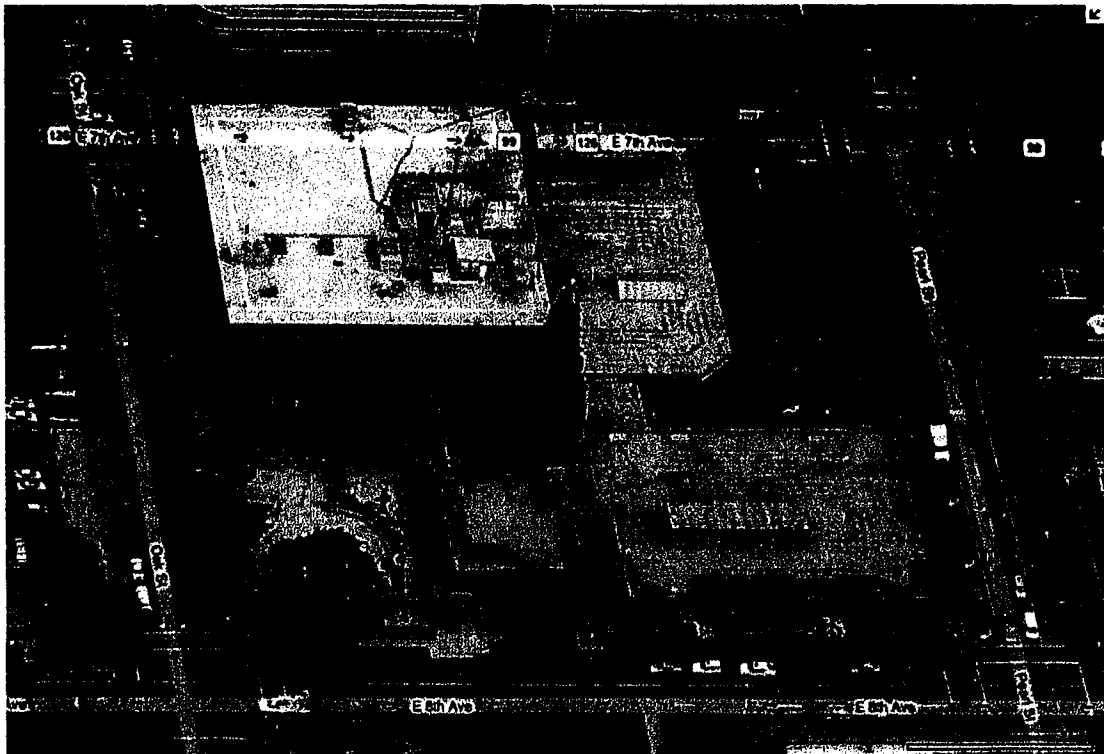


Figure 2 - Courthouse | PSB Southern Exposure

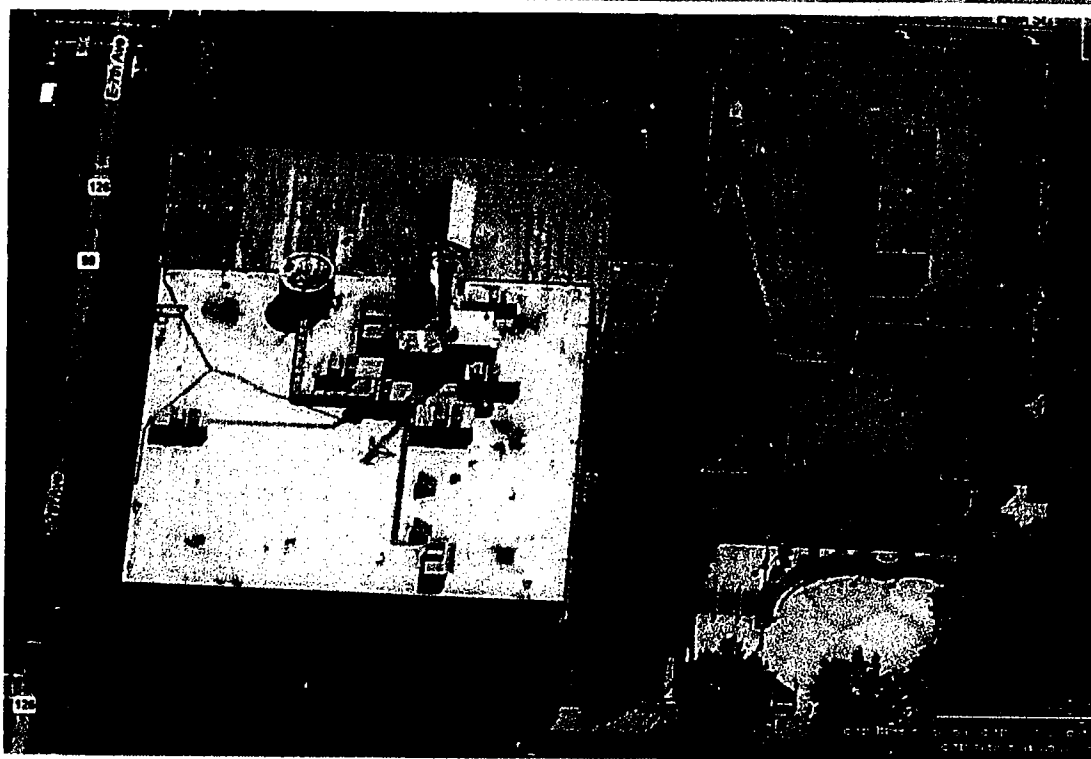


Figure 3 - Courthouse | PSB Western Exposure



Figure 4 - Courthouse | PSB Northern Exposure



Figure 5 – Courthouse | PSB Eastern Exposure



Figure 6 – Adult Corrections Facility | Community Corrections Center Aerial View

Adult Corrections Facility

The Lane County Adult Corrections Facility is an approximately 164,000 square-foot, two and four-story building, built in three main phases.

Main Jail

The Main Jail constructed in 1978, is a four-story structure that includes three (3) floors and a basement, with Mechanical and Electrical equipment rooms. Per Figure 7 below, the roofs are flat and most are gravel-ballasted membrane systems (all except areas 14 & 20). The area 14 roof is a fully adhered Hypalon membrane system in average condition (age unknown). Some roof areas were recently replaced and additional areas are scheduled for replacement.

Solar access for the main jail is poor, due to shading from the varying roof heights (areas 13, 15, & 21 through 26); shading of the lower roof areas by trees located next to the building along the south side (areas 1 through 5, 8, & 10 through 12); and the location of mechanical equipment (areas 6, 9, 17, & 19). The exercise yard (area 20) is unusable since this screened area provides diffuse light to the area below and cannot be shaded. The red, cross-hatched roof areas, in Figure 6 indicate the areas that are unusable due to shading from adjoining roof areas, trees, and mechanical equipment. Suitable locations for solar panels include areas 7 and 14.

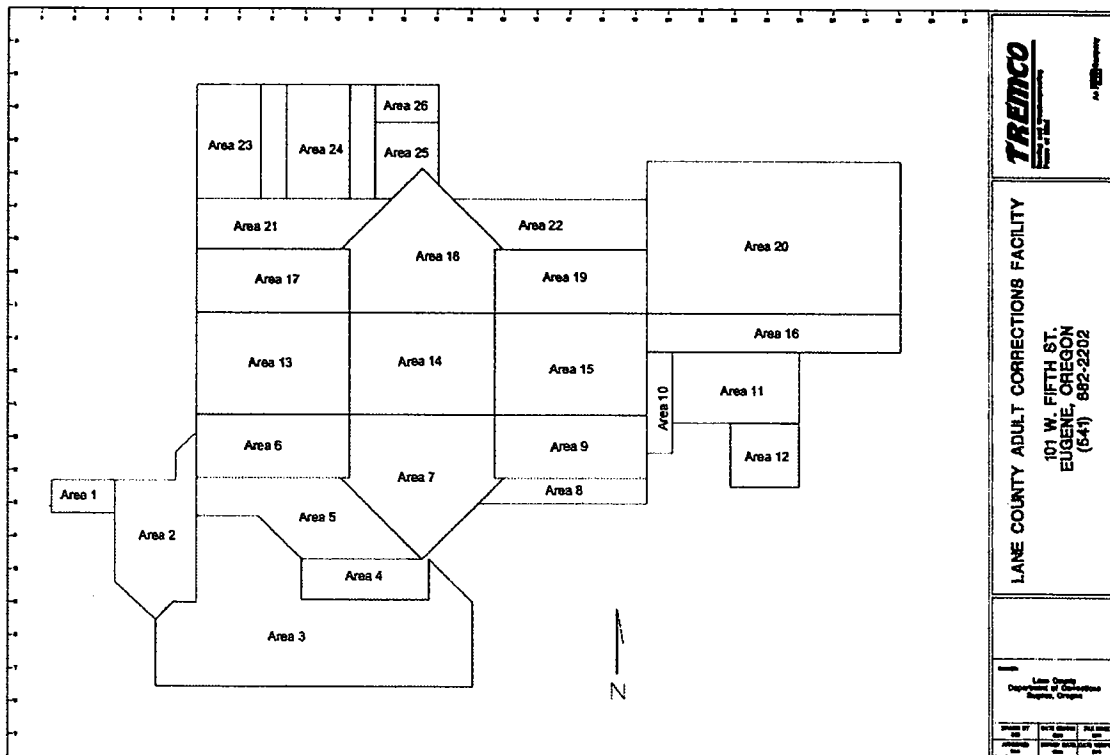


Figure 7 – Adult Corrections Facility Roof Areas

North & East Annex

The North & East Annex constructed in 1998, is a two-story structure and has gravel-ballasted roof systems which appear to be in very good condition. The roof systems have 4-6" rigid insulation. There are thirty-one (31) metal-clad, skylight monitors distributed across the roof areas. The East Annex has one large Mechanical Penthouse.

Solar access for the North (area 27) & East Annex (areas 28 & 29) is reduced by shading from the higher roof area of the adjoining Main Jail (area 20), the Mechanical Penthouse (area 29), and the skylights which extend approx. 3.5' to 4' above the roof surface.

South Annex

The South Annex constructed in 1988, is a two-story structure, and has a roof which appears to be a cap sheet or single-ply membrane in average condition. There are twenty-four (24) low-profile skylights distributed across the roof area. The South Annex has one large Mechanical Penthouse.

Solar access for the South Annex (areas 30 & 31) is reduced by shading from the large Mechanical Penthouse (area 31), and the location of the skylights (area 30).

For additional views see Figures 7 through 11, for details of the Southern, Western, Northern, and Eastern exposures

Community Corrections Center

The Community Corrections Center is a two-story structure located just east of the Jail Annex, separated from it by a narrow alley. As indicated by the red cross-hatched areas in Figure 6, the north roof area is unsuitable for solar production due to shading from the large mechanical penthouse. The south roof area is unusable due to the placement of mechanical equipment.



Figure 8 – Adult Corrections Facility Southern Exposure

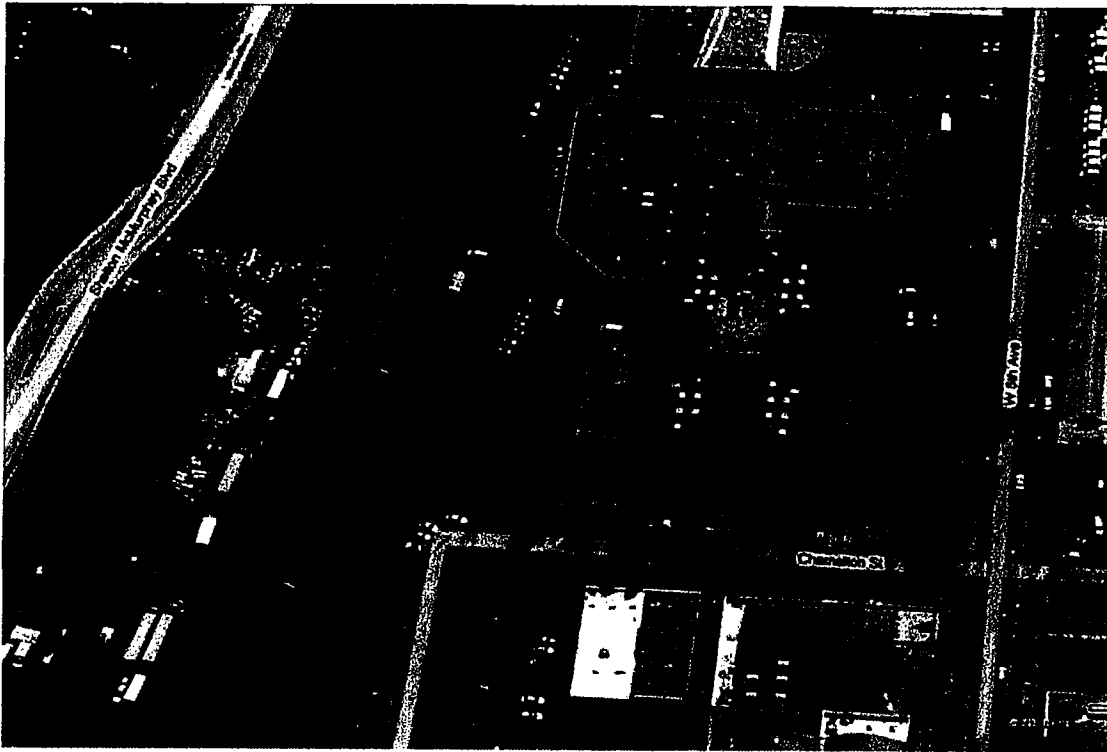


Figure 9 – Adult Corrections Facility Western Exposure



Figure 10 – Adult Corrections Facility Northern Exposure



Figure 11 – Adult Corrections Facility Eastern Exposure

Public Service Building Parking Lot

The Public Service Building Parking Lot is located north of the Courthouse | PSB on E. 6th Avenue, between Oak St. and Pearl St. The lot occupies the northern 2/3 of the city block and is bordered by two buildings on the south, and a perimeter of deciduous trees around the north, east and west sides. The shading from the four-story and three-story buildings located on the south side, and the trees on the east and west sides renders the majority of the lot unusable as indicated by the red, cross-hatched areas, in Figure 12 below.

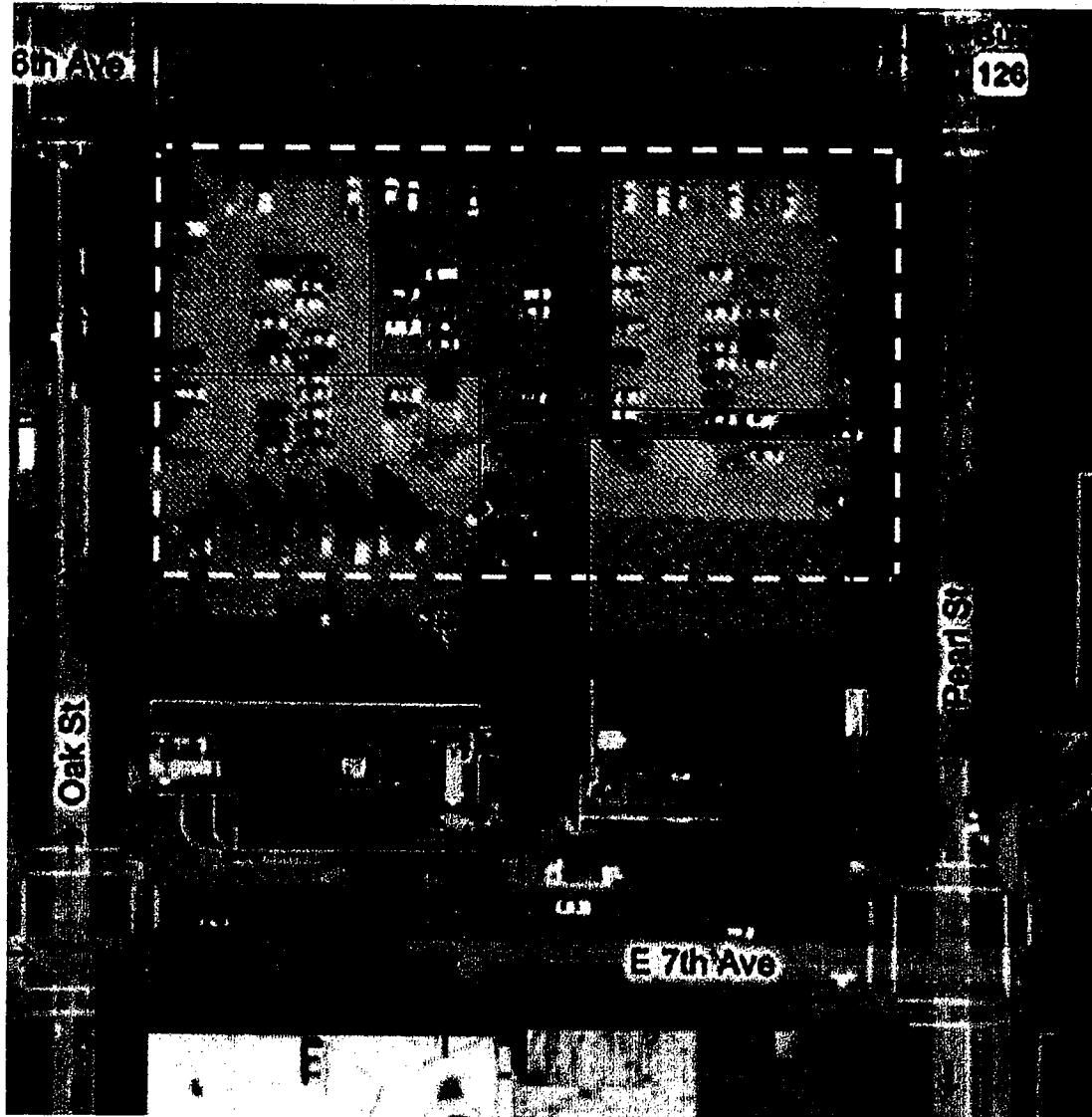


Figure 12 – Public Service Building Parking Lot Aerial View

Armory

The Armory is located north of Autzen Stadium, bordered by Martin Luther King Blvd on the south, and Highway 126 on the north. It consists of two (2) separate, single-story buildings and has been recently upgraded with a complete new roof and installation of new package mechanical rooftop HVAC units. Solar access is good with only a slight potential for shading from deciduous trees located to the south and east. The red, cross-hatched areas, in Figure 13 below indicate areas shaded by the rooftop HVAC equipment.

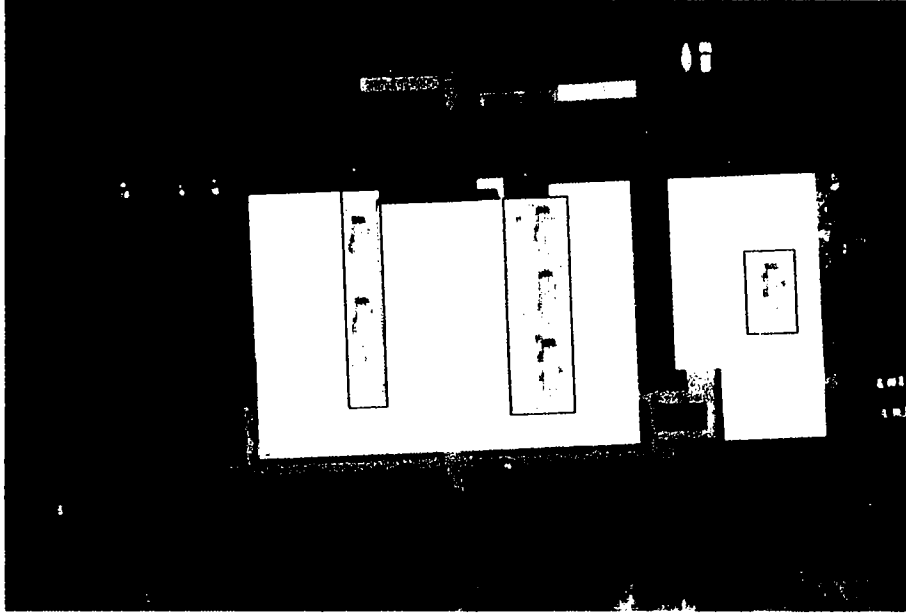


Figure 13 – Armory Aerial View

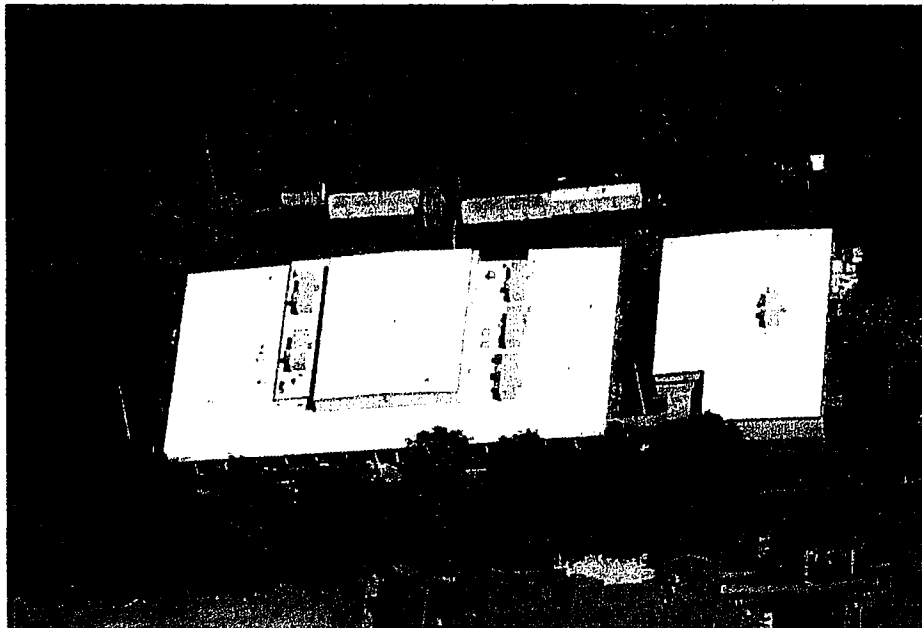


Figure 14 – Armory Southern Exposure

Juvenile Justice Center

The Juvenile Justice Center is located just west of the Armory, and north of Autzen Stadium, bordered by Martin Luther King Blvd on the south, and Highway 126 on the north. It consists of a two-story central building with its long axis oriented east to west, and three two-story detention pods located along the north side, separated by walled courtyards. Solar access is good on the south facing sloped roofs of the central building, and the flat roofs at the east end of the central building. The red, cross-hatched areas, in Figure 15 indicate the shaded areas.

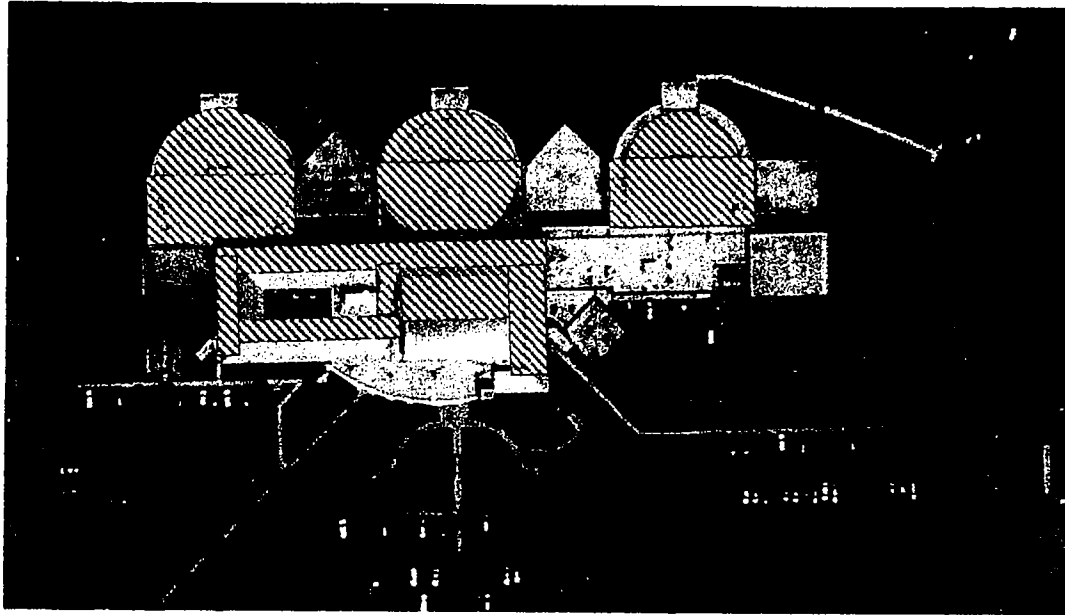


Figure 15 – Juvenile Justice Center Aerial View

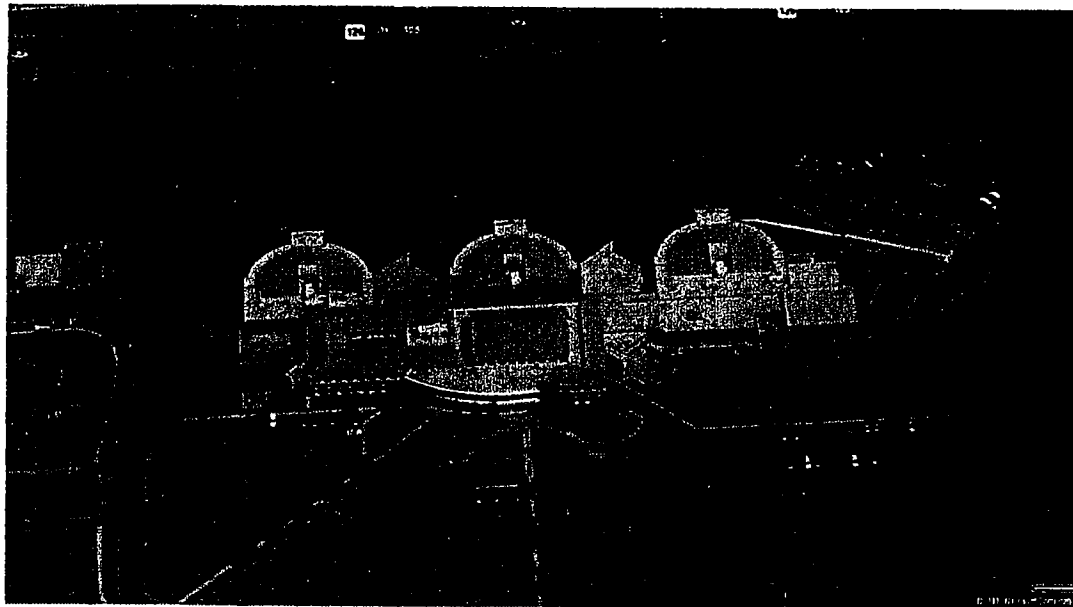


Figure 16 – Juvenile Justice Center Southern Exposure

Mental Health Facility

The Mental Health Facility is located just west of the Armory, bordered by Martin Luther King Blvd on the south, and Highway 126 on the north. It consists of a two-story building with its long axis oriented north to south, and a wing projecting to the west. Solar access is generally good on the flat roof except for the areas shaded by the centrally located skylights, and by rooftop mechanical equipment. The red, cross-hatched areas, in Figure 17 indicate these shaded areas.

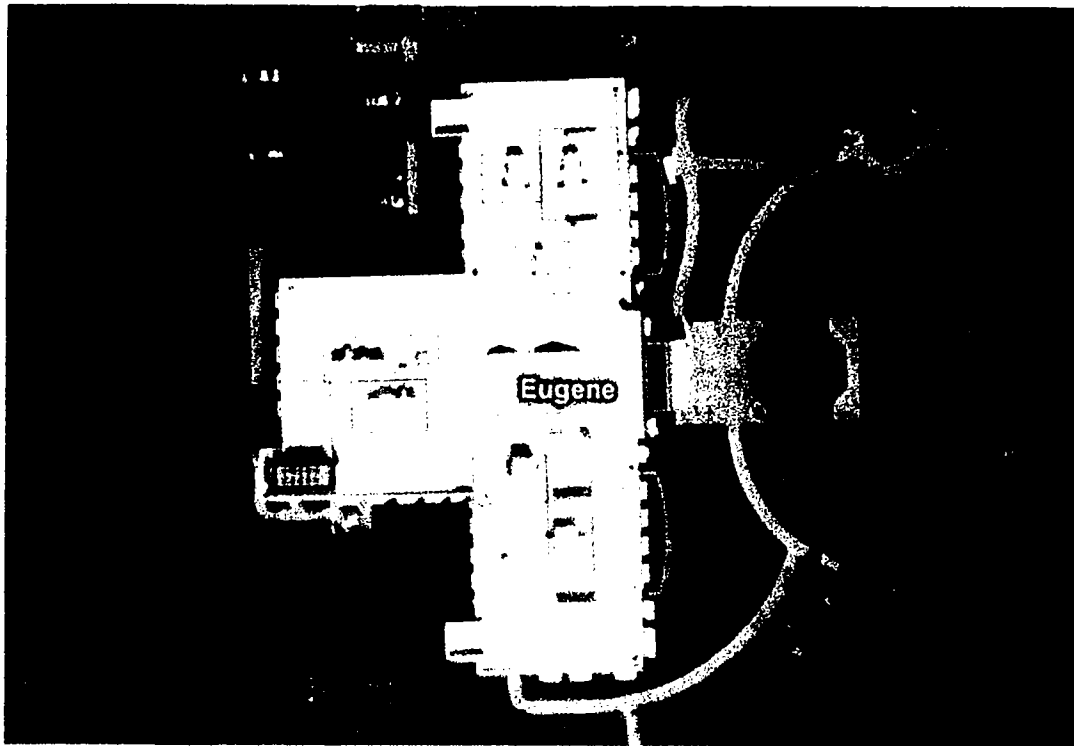


Figure 17 – Mental Health Facility Aerial View

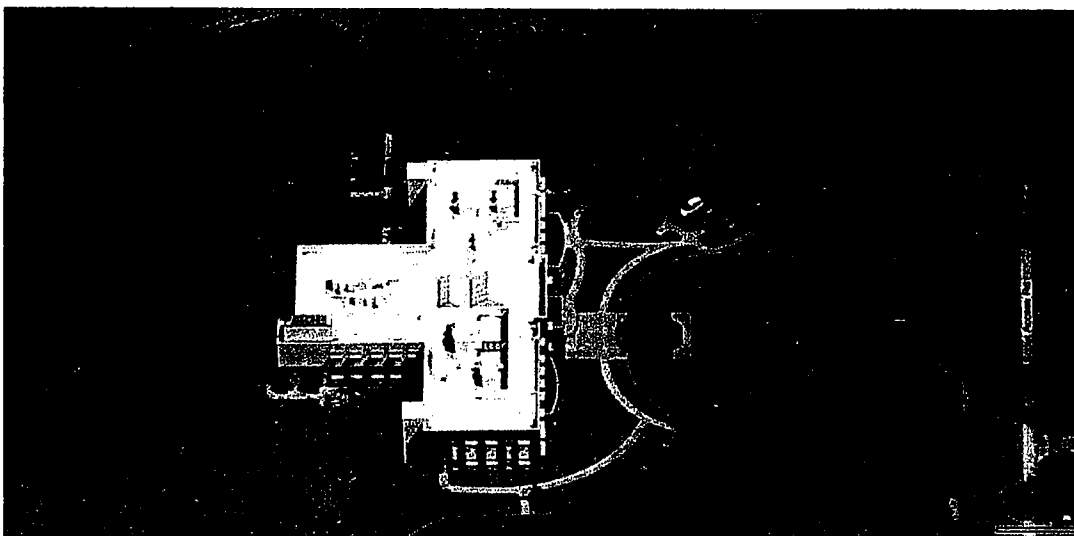


Figure 18 – Mental Health Facility Southern Exposure

Juvenile Treatment Facilities

The two Juvenile Treatment Facilities are located just south of the Armory, bordered by Martin Luther King Blvd on the south, and Highway 126 on the north. They consist of two single-story buildings with their long axis oriented east to west, and a wing projecting to the west. Solar access is generally good on the south facing hip roofs. The red, cross-hatched areas, in Figure 19 indicate the areas that have slopes unsuitable for solar panels or are shaded by the adjoining roof areas or trees.

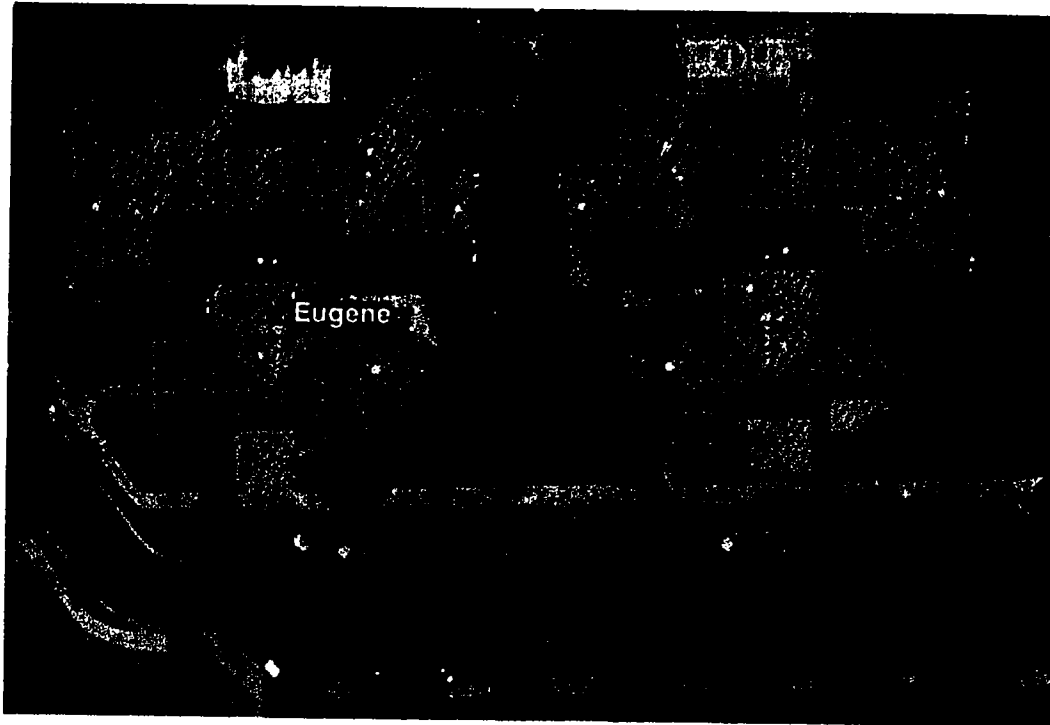


Figure 19 – Juvenile Treatment Facilities Aerial View

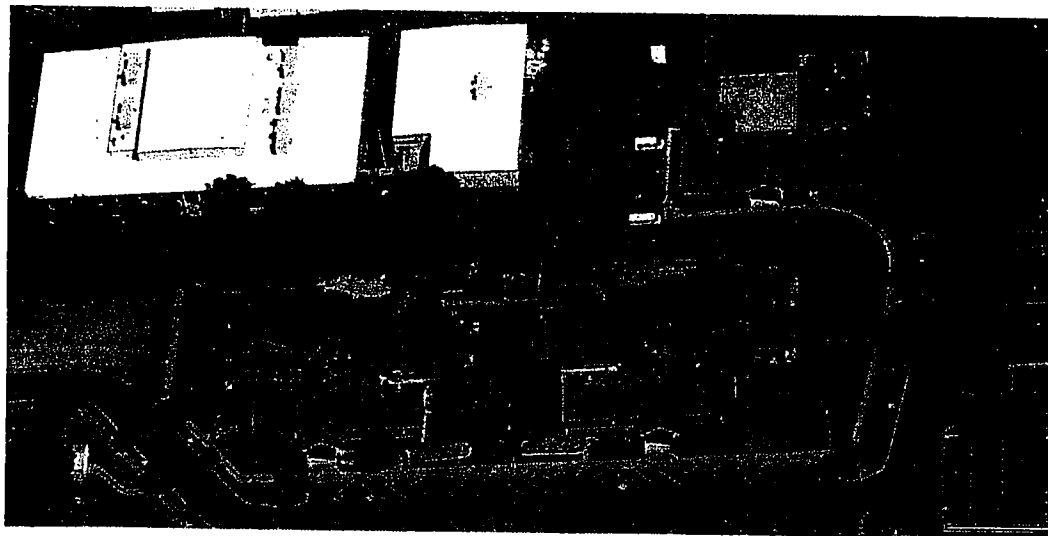


Figure 20 – Juvenile Treatment Facilities Southern Exposure

Martin Luther King Blvd – Miscellaneous Ground Mount Systems

The fields and open areas surrounding the John Serbu Youth campus have good solar access and potential for ground mounted solar arrays. Nine possible locations for ground mounted arrays are located adjacent to the Mental Health Facility (4 areas), Juvenile Treatment Facilities (1 area), and Juvenile Justice Center (4 areas). See Figure 21 below for an aerial view of tentative locations.



Figure 21 – MLK Blvd Potential Locations for Ground-Mounted Solar Arrays

1.2 Summary Table of Recommended Facility Improvement Measures (FIM Matrix)

For recommended FIM's for Lane County Correctional refer to Section 4 Appendices – "Table 4.2 FIM Matrix (Facility Improvement Measures)" which summarizes all of the renewable energy improvement measures that were identified in this solar feasibility of Lane County facilities.

Below is a description of what you will find in this table:

The following items are the descriptors in each column:

- FIM # - The number and three letter acronym are used by McKinstry to identify measures
- FIM Names - The name assigned to the measure.
- General Description- A short general description of the measure.
- Description (Existing Conditions) - A description of how a system/systems, or pre-retrofit impacted area is operating
- Description (Proposed Conditions) - A description of how a system/systems, or post-retrofit impacted area is operating
- Building - The facility where the measure will be installed
- Budget - A ROUGH Order of Magnitude (ROM) cost estimate for implementation of the FIM Measure.
- Annual Utility Savings- a dollar amount that the implemented measure will save if installed using current utility rates.
- Annual CO₂ savings (lbs) - the lbs. of CO₂, or green house gasses, saved if the measure is implemented.
- Annual Operational Savings - hard dollar cost savings that are attributed to maintenance avoidance if the measure is implemented.
- Potential Utility Rebate - Shown for reference only, all rebates are contingent on programs, funding availability and measure qualification with the Energy Trust of Oregon. Rebates are not guaranteed.
- Net Customer Cost (with Utility Incentive) - A ROUGH Order of Magnitude (ROM) budget cost for the project after operational savings and the potential utility rebates are taken off of the budget amount.
- Simple Payback (with Utility Incentive) - This takes the Net Customer Cost with utility incentive divided by the energy savings to provide the payback figure.
- Federal or BETC Potential Funding- A preliminary estimate for reference only of BETC Incentives that may be available if the FIM is implemented. Incentives are contingent on programs, funding availability and measure qualification. Rebates are not guaranteed.
- Net Customer Cost (Including BETC) - a ROUGH Order of Magnitude (ROM) budget cost for the project after operational savings and the potential utility rebates and potential BETC Incentives are taken off of the budget amount.
- Simple Payback (Including BETC) - This takes the Net Customer Cost Including BETC divided by the energy savings to provide the payback figure.

1.3 Summary of Annual Retrofit Energy Use

The savings for each measure is shown on the FIM Summary Sheets (TEA report section 3.3, Detailed FIM Analysis), under Section 4a. "Annual Utility Savings (Present Utility Rates)".

The type of fuel saved is listed in the column "Fuel Type." The amount of each fuel saved is listed in the next column, "Units saved," and the bottom of this column converts these to common units (MMBTU) and totals them. The final column converts the energy units to dollars (using the rates listed in the appendix) to show dollars saved.

A. Fuel Type

B. Energy saved

Fuel Type	Baseline		Proposed		Savings	
	Energy	Cost	Energy	Cost	Energy	Value
Electric Cons.	873,904 kWh	\$57,153	848,112 kWh	\$55,467	25,792 kWh	\$1,687
Electric Dmd.	1002 kW	\$5,762	970 kW	\$5,575	32 kW	\$186
Natural Gas	0 Therm	\$0	0 Therm	\$0	0 Therm	\$0
Fossil Fuel	0 MMBTU	\$0	0 MMBTU	\$0	0 MMBTU	\$0
Steam	0 kLbs	\$0	0 kLbs	\$0	0 kLbs	\$0
Heating Penalty ¹	0 kBtu	\$0	0 kBtu	\$0	0 kBtu	\$0
Cooling Credit ¹	0 kWh	\$0	0 kWh	\$0	0 kWh	\$0
Water	0 CCF	\$0	0 CCF	\$0	0 CCF	\$0
Sewer	0 CCF	\$0	0 CCF	\$0	0 CCF	\$0
Other	N/A	\$0	N/A	\$0	N/A	\$0
Total Per Year	2,982 MMBTU	\$62,915	2,894 MMBTU	\$61,042	88 MMBTU	\$1,873

C. Dollars saved

1.4 Preliminary Code Analysis

As part of the analysis of potential energy efficiency measures, the current requirements of the Oregon Electrical Specialty Code, the Oregon Plumbing Specialty Code, and the Oregon Energy Code were evaluated with respect to the energy efficiency measures. Code compliance will be done in a more detailed fashion during the PDP and the Design and Construction period.

All potential EEM's and FIM's meet code. Certain initiatives have specific requirements, as detailed below.

1.5 Solar Code Analysis:

McKinstry Engineering has reviewed the referenced project for the applicable Oregon State Building Codes as they pertain to work within the respective occupancies of the facilities studied. Highlights of our code search that might affect our work are listed below.

The Lane County Adult Corrections Facility, and the Courthouse | PSB are located within the EWEB downtown secondary network, and the PV system must be sized so its output never exceeds the building electrical demand, or an alternative analysis of the load capacity and feeders of the downtown network must be reviewed and approved by EWEB.

CODE EVALUATION - PROJECT DESIGN BASIS				
ITEM #	SYSTEM	CRITERIA	CRITERIA SOURCE	Subject
1-1	Solar Thermal DHW Piping	2008 OREGON STATE ENERGY CODE (Table 1314)	OREGON STATE BUILDING CODE DIVISION	Insulation Requirements.
1-2	Solar Thermal Plumbing	2008 OREGON PLUMBING SPECIALTY CODE	OREGON STATE BUILDING CODE DIVISION	Waste, vent, make-up water, etc.
1-3	Electrical Service	CURRENT UTILITY SERVICE STANDARDS	EWEB STANDARDS	Utility Connections / Coordination
1-4	Solar Electric Inter-Connection	DOWNTOWN SECONDARY NETWORK SYSTEM	EWEB STANDARDS	Electrical Distribution / Policy & Procedures
1-5	Solar Electric Inter-Connection	INTER-CONNECTION REQUIREMENTS	EWEB STANDARDS	Inter-Connection Agreement
1-6	Net Metered Solar Systems	SOLAR ELECTRIC PROGRAM	EWEB STANDARDS	Solar Electric Program Info Requirements
1-7	Direct Generation Solar Systems	SOLAR ELECTRIC PROGRAM	EWEB STANDARDS	Solar Electric Program Info Requirements
1-8	Solar Thermal & Electric PV Facilities	BETC TECHNICAL REQUIREMENTS	OREGON DEPT OF ENERGY	Solar Thermal & Photovoltaic Facilities

1.6 Preliminary Project Schedule

The proposed project schedule milestone dates are as follows:

DATES	MILESTONES
Jan 2010	Deliver Solar Feasibility Study
	Presentation to Lane County Commissioners
Feb 2010	Lane County Internal Planning – Begin site evaluations
	Project Development Plan (PDP) - Contract
Mar 2010	Public Hearing for BETC Rule-making
	Letter of Intent - Power Purchasing Agreement (PPA)
Apr 2010	Official filing of permanent BETC rules
	Deliver Project Development Plan (PDP)
May 2010	Lane County Internal Planning – Complete final site selection
	Solar Easement & Power Purchasing Agreement (PPA)
	Design & Construction - Contract
	Detailed Design development
	Submit BETC & EWEB incentive applications
	Order Equipment
Jun 2010	Issue Final Design documents
	Obtain permits
	Construction Start
Oct 2010	Construction Finish
Nov 2010	System Commissioning
	System Performance Monitoring & Verification
	Commencement of O&M services
Dec 2010	Final BETC CPA certification letter
	Submit Final BETC application

Dates are subject to change based on contract acceptance by Lane County, and potential impact of changes in the BETC rule-making process, and availability of capital provided by tax equity investor(s).