

River Heights City

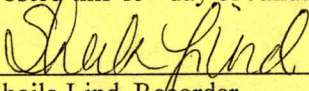
RIVER HEIGHTS CITY PLANNING COMMISSION AGENDA

Wednesday, January 20, 2016

Notice is hereby given that the River Heights City Planning Commission will hold their regular meeting beginning at 7:00 p.m. in the River Heights City Office Building at 520 S 500 E.

- 7:00 p.m. Adoption of Prior Minutes
- 7:05 p.m. Discuss the Possibility of a Tattoo Parlor as a Home Business
- 7:30 p.m. Discuss Solar Ordinance
- 8:00 p.m. Adjourn

Posted this 15th day of January 2016



Sheila Lind, Recorder

In compliance with the American Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify Sheila Lind, (435) 770-2061 at least 24 hours before the meeting.

River Heights City

1 River Heights City Planning Commission

2 Minutes of the Meeting

3 January 20, 2016

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5 Present: Commission members: Mark Malmstrom, Chairman
6 Nina Knowles
7 Danny Petersen
8 Cindy Schaub
9 Jake Zollinger

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11 Councilmember Blake Wright
12 Recorder Sheila Lind

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14 Others Present: Nathan and Darlin Russell

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16 Motions made During the Meeting

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18 Motion #1

19 Commissioner Petersen moved to “approve the minutes of the October 21, 2015
20 Commission Meeting.” Commissioner Knowles seconded the motion, which carried with
21 Knowles, Malmstrom, Petersen, Schaub and Zollinger in favor. No one opposed.

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24 Proceedings of the Meeting

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26 The River Heights City Planning Commission met at 7:00 p.m. in the Ervin R. Crosbie
27 Council Chambers on January 20, 2016.

28 Adoption of Prior Minutes: Minutes for the October 21, 2015 Planning Commission
29 Meeting were reviewed.

30 **Commissioner Petersen moved to “approve the minutes of the October 21, 2015**
31 **Commission Meeting.” Commissioner Knowles seconded the motion, which carried with**
32 **Knowles, Malmstrom, Petersen, Schaub and Zollinger in favor. No one opposed.**

33 Discuss the Possibility of a Tattoo Parlor as a Home Business: Commissioner Malmstrom
34 asked Darlin Russell to explain what she would be requesting, in regards to an in-home tattoo
35 business. Ms. Russell said she would like to run a tattoo parlor out of her home, by
36 appointment only. She might do a couple a week. She is new to the area and isn’t sure of the
37 licensing process. Mr. Malmstrom understands she needs to be licensed through the Health
38 Department. Commissioner Schaub has checked with other cities, and has found this to be

39 true. Ms. Schuab had a copy of Bear River Health Departments *Regulations for Body Art*
40 *Facilities*, which she obtained from their website. It was determined that the Health
41 Department would do the home inspections.

42 Commissioner Malmstrom drew attention to *10-12-1: A Land Use Chart*, of the city
43 code. The Commission discussed whether they thought a tattoo parlor would fall under a
44 beauty shop or an adult oriented business. They looked up the definition of *Adult Oriented*
45 *Business* in 3-4-4, and decided tattooing didn't fall under this definition, as it stands currently.
46 Nathan Russell explained that it is against the law in Utah to tattoo a minor, even with parental
47 permission.

48 They discussed 10-12-1:B, which explains how a non-classified use is handled. The
49 Planning Commission can categorize it under a current use or make a recommendation to the
50 Council to add it as a separate item to the Land Use Chart.

51 Commissioner Malmstrom feels a tattoo parlor wouldn't fit under any of the current
52 listed uses. He suggested the commissioners do some research on how to address it. The
53 Health Department regulations could help them come up with a recommendation.

54 Darlin Russell explained that she doesn't plan on having a lot of customers.
55 Commissioner Malmstrom stated there could be a business owner with little traffic, or one with
56 high traffic. They have to consider the worst case scenarios. They also need to consider which
57 zones to allow it. If its allowed in a residential zone, it could be regulated with a conditional use
58 permit. If they allow it in a commercial zone, they will need to consider how that is regulated,
59 as well.

60 Recorder Lind will get copies of the *Regulations for Body Art Facilities* for each member
61 to review before the next meeting. After a decision is made, a public hearing will be held
62 before the recommendation was passed to the Council. Commissioner Malmstrom asked
63 Darlin Russell about her timeframe for a decision. She would like to start her business soon,
64 but she is willing to wait for whatever is comfortable for the city. She and her husband are
65 interested in a process that works for the city. Councilmember Wright projected it will take a
66 couple months. Ms. Russell will get started with the Health Department.

67 Commissioner Malmstrom asked the Commission to come prepared to discuss it in two
68 weeks.

69 Discuss Solar Ordinance: Councilmember Wright explained that Commissioners Knowles
70 and Seeholzer drafted a solar ordinance last year and have asked him to review it. He has gone
71 through it and felt they did a great job. All he did was add all the definitions from the sample
72 ordinances they gave him. He said the information is very technical, which drives them to seek
73 consultation from a qualified person. He briefly reviewed the draft.

74 At one point, the commission thought they didn't want to allow ground mounted
75 panels, only roof. Councilmember Wright's personal opinion is that people who have a steep
76 roof, which won't accommodate panels, should have an opportunity to have ground mounted

77 panels. The Commission remembered the discussion and felt ground mounts could be okay if
78 there was no way to have a roof mount, and if they screened it.

79 Councilmember Wright said the County regulates the size of panels on the roof, as well
80 as other things, which the city will want to investigate. They will also want to discuss screening
81 for ground mounts. Mr. Wright feels setbacks for ground mounts could be regulated the same
82 as accessory uses.

83 Commissioner Malmstrom was curious how Conservice's solar panels would fit into this
84 ordinance draft. Councilmember Wright explained that, at the time, he and Engineer
85 Rasmussen discussed their request at length. He remembers they met the setback
86 requirements on their carports. The city did relax some setbacks on the south because they
87 were willing to do some extra things the city wanted, but weren't required to by code.

88 Building Inspector Donnie Davis has mentioned that roof mounted solar panels wouldn't
89 need a zoning clearance permit from the city because the roof would already be under
90 regulation. Applicants would, however, need to apply for a building permit from the County.

91 Councilmember Wright feels, generally, the draft is in good shape. It was recommended
92 that the city require licensed solar panel installers. They need to look into what type of
93 licensing they should require.

94 Commissioner Malmstrom explained that all the power generated by the panels goes to
95 the grid. Then the needed power is pulled back. If they use less than they generate, they get a
96 credit. They are not independent of the grid, but are still tied to Rocky Mountain Power.

97 At their next discussion they plan to clarify: roof mount as the preferred installation
98 method, ground/pole mount guidelines, height limitations, screening for ground mounts and
99 type of licensing required for installers. They will also discuss having a solar expert review the
100 draft and then hold a public hearing.

101 Councilmember Wright asked how they felt about panels on a flat roof, which would
102 require an angled elevation. Commissioner Petersen would rather have this, than ground
103 mounts. He doesn't believe the angle would need to be very steep.

104 Councilmember Wright asked who would be willing to take over the solar ordinance,
105 with his assistance. Commissioners Knowles and Malmstrom offered to work with him. Ms.
106 Knowles recommended seeking the advice of Jason Grimes (a licensed solar installer who she
107 talked with last year when they were getting started).

108 Commissioner Malmstrom suggested being prepared to discuss this again by the March
109 2 meeting.

110 The meeting adjourned at 8:00 p.m.

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Sheila Lind, Recorder

Mark Malmstrom, Chairman

Solar Ordinance Draft

January 20, 2016

1.0 Purpose

- 1.1 This ordinance aims to promote the accommodation of distributed, on-site residential and non-residential solar energy systems installed to reduce on-site energy consumption and associated equipment, as well as adequate access to sunlight necessary for such systems. This ordinance does not address utility-scale solar energy systems, intended for the sale of electricity to utilities, industries, and/or businesses.
- 1.2 This ordinance permits, as an accessory use, solar energy systems, while protecting the safety and welfare of adjacent and surrounding land uses through appropriate zoning and land use controls.
- 1.3 A solar energy system shall be permitted in any zoning district as an accessory use, subject to specific criteria as set forth below. Where general standards and specific criteria overlap, specific criteria shall supersede general standards.

2.0 Definitions

- 2.1 **Accessory Use:** A use customarily incidental and subordinate to the primary use or building and located on the same lot therewith. A use which dominates the primary use or building in area, extent, or purpose shall not be considered an accessory use.
- 2.2 **Battery Back-Up:** A battery system that stores electrical energy from a solar PV system, making the electricity available for future use. Battery Back-Up systems are common in Off-Grid Systems and Hybrid Systems.
- 2.3 **Combiner or Junction Box:** Combines the inputs (electrical flows) from multiple strings of solar panels (or micro-inverters) into one output circuit.
- 2.4 **Crystalline silicon cells:** Solar photovoltaic cells fashioned from either mono-crystalline, multi-crystalline, or ribbon silicon capable of converting sunlight into electricity. Crystalline silicon solar PV panels are the most commonly used and are generally the most efficient.
- 2.5 **Distributed Solar:** For the purposes of this Ordinance, distributed solar refers to solar energy systems located on-site and designed to provide solar thermal energy or solar PV electricity to a property owner, occupant, and/or facilities.
- 2.6 **Grid-tied Solar:** A solar PV system that is interconnected with the utility grid via net metering and interconnection agreements with the utility.

- 2.7 Electricity Generation (aka production, output): The amount of electric energy produced by transforming other forms of energy, commonly expressed in kilowatt-hours (kWh) or megawatt-hours (MWh).
- 2.8 Electrical Equipment: Any device associated with a solar energy system, such as an outdoor electrical unit/control box, that transfers the energy from the solar energy system to the intended on-site structure.
- 2.9 Grid-tied Solar Photovoltaic Systems (aka grid-tied PV, on-grid, grid-connected, utility-interactive, grid-intertied, or grid-direct): Solar photovoltaic electricity generation systems designed to serve the electricity needs of the building to which it is connected, thus offsetting a home's or business's electricity usage. Any excess electricity generated is sent to the electric utility grid, credited via a customer's net metering agreement with their local utility. Grid-tied are typically installed without battery back-up system to store electricity. As such, these systems provide no power during an outage. Typical system components: PV panels, inverter(s), and required electrical safety gear.
- 2.10 Ground-Mount System: A solar energy system that is directly installed on specialized solar racking systems, which are attached to an anchor in the ground and wired to connect to an adjacent home or building. Ground-mount systems may be applicable when insufficient space, structural and shading issues, or other restrictions prohibit rooftop solar.
- 2.11 Hybrid Solar Photovoltaic Systems (aka grid-tied PV with battery back-up): Solar photovoltaic electricity generation systems designed to serve the electricity needs of the building to which it is connected, thus offsetting a home's or business's electricity usage, while also utilizing a battery back-up in the event of a power outage. This is the only system that provides the ability to have power when the utility grid is down. Typical system components include: PV panels, inverter(s), and required electrical safety gear, battery bank, and a charge controller.
- 2.12 International Residential Code (IRC): Part of the International Building Code (IBC). The IRC sets buildings standards for residential structures.
- 2.13 Inverter: A device that converts the Direct Current (DC) electricity produced by a solar photovoltaic system to useable alternating current (AC).
- 2.14 Kilowatt (kW): Equal to 1000 Watts; a measure of the use of electrical power.
- 2.15 Kilowatt-hour (kWh): A unit of energy equivalent to one kilowatt (1 kW) of power expended for 1 hour of time.
- 2.16 Mounting: The manner in which a solar PV system is affixed to the roof or ground (i.e. roof mount, ground mount, pole mount).

- 2.17 Megawatt (MW): Equal to 1000 Kilowatts; a measure of the use of electrical power.
- 2.18 Megawatt-hour (MWh): A unit of energy equivalent to one Megawatt (1 MW) of power expended for 1 hour of time.
- 2.19 National Electric Code (NEC): Sets standards and best practices for wiring and electrical systems.
- 2.20 Net Meter: On-grid solar PV systems connected to the utility grid use a net meter, typically provided and installed by the local utility, to measure the flow of electricity from the solar system for the purposes of net metering.
- 2.21 Net Metering: A billing arrangement that allows customers with grid-connected solar electricity systems to receive credit for any excess electricity generated on-site and provided to the utility grid.
- 2.22 Off-Grid Solar Photovoltaic Systems with battery back-up: Solar photovoltaic electricity systems designed to operate independently from the local utility grid and provide electricity to a home, building, boat, RV (or remote agricultural pumps, gates, traffic signs, etc.). These systems typically require a battery bank to store the solar electricity for use during nighttime or cloudy weather (and/or other back-up generation). Typical system components include: PV panels, battery bank, a charge controller, inverter(s), required disconnects, and associated electrical safety gear.
- 2.23 Orientation (or Azimuth): In the northern hemisphere, true solar south is the optimal direction for maximizing the power output of solar PV. Systems can be oriented east, southeast, southwest, and west, while still providing 75%-85% of maximum production, depending on the tilt. Proper orientation and access to sun are critical for achieving maximum energy production potential (ideally, the orientation of the solar energy system ensures that solar access is not obstructed by other buildings, shade trees, chimneys, HVAC systems, or other equipment).
- 2.24 Passive Solar: Techniques, design, and materials designed to take advantage of the sun's position throughout the year (and the local climate) to heat, cool, and light a building with the sun. *Passive solar* incorporates the following elements strategically to maximize the solar potential of any home or building (namely, maximizing solar heat gain in winter months and minimizing solar heat gain in summer months to reduce heating/cooling demand; and maximizing the use of daylighting to reduce demand for electricity for lighting); strategic design and architecture, building materials, east-west and building lot orientation, windows, landscaping, awnings, and ventilation.
- 2.25 Photovoltaic (PV) System: A solar energy system that produces electricity by the use of semiconductor devices, called photovoltaic cells, which generate electricity when

exposed to sunlight. A PV system may be roof-mounted, ground-mounted, or pole-mounted.

- 2.26 Pole-Mount Systems: A solar energy system that is directly installed on specialized solar racking systems, which are attached to a pole, and which is anchored and firmly affixed to a concrete foundation in the ground, and wired underground to an attachment point at the building's meter. Unlike ground-mount systems, pole-mount systems are elevated from the ground. Pole-mounted systems can be designed to track the sun (with single-axis or dual-axis tracking motors) and maximize solar output throughout the year.
- 2.27 Power: The rate at which work is performed (the rate of producing, transferring, or using energy). Power is measured in Watts (W), kilowatts (kW), Megawatts (MW), etc.
- 2.28 PV-Direct Systems: The simplest of solar photovoltaic electric systems with the fewest components (no battery back-up and not interconnected with the utility) designed to only provide electricity when the sun is shining. Typical system components include: PV panels, required electrical safety gear, and wiring.
- 2.29 Racking: Solar energy systems are attached securely and anchored to structural sections of the roof-mounted or pole-mounted systems. Specially designed metal plates called flashings prevent leaks and are placed under shingles and over bolts to create a water-tight seal.
- 2.30 Roof-Mount System (aka rooftop mounted, building mounted): A solar energy system consisting of solar panels are installed directly on the roof of a home, commercial building, and/or an accessory structure, such as a garage, pergola, and/or shed. Solar panels are mounted and secured using racking systems specifically designed to minimize the impact on the roof and prevent any leaks or structural damage. Roof-mount systems can be mounted flush with the roof or tilted toward the sun at an angle.
- 2.31 Solar Access: The ability of one property to continue to receive sunlight across property lines without obstruction from another's property (buildings, foliage or other impediment). Solar access is calculated using a sun path diagram.
- 2.32 Solar Array: Multiple solar panels combined together to create one system.
- 2.33 Solar Collector: A solar PV cell, panel, or array, or solar thermal collector device, that relies upon solar radiation as an energy source for the generation electricity or transfer of stored heat.
- 2.34 Solar Easement: An easement recorded pursuant to U.C.A. §§ 57-13-1 and 57-13-2, the purpose of which is to secure the right to receive sunlight across the real property

of another for the continued access to sunlight necessary to operate a solar energy system. According to Utah law, parties may voluntarily enter into written solar easement contracts that are enforceable by law. An easement must be created in writing and filed, duly recorded and indexed in the office of the recorder of the county in which the easement is granted. A solar easement, once created, runs with the land and does not terminate unless specified by conditions of the easement.

- 2.35 Solar Energy System: A system capable of collecting and converting solar radiation into heat or mechanical or electrical energy and transferring these forms of energy by a separate apparatus to storage or to point of use, including, but not limited to, water heating, space heating or cooling, electric energy generation, or mechanical energy generation. This definition shall include Solar Thermal, Photovoltaic, and Passive Solar Systems.
- 2.36 Solar Glare: The potential for solar panels to reflect sunlight, with intensity sufficient to cause annoyance, discomfort, or loss in visual performance and visibility.
- 2.37 Solar Photovoltaic (Solar PV) System: Solar systems consisting of photovoltaic cells, made with semiconducting materials, that produce electricity (in the form of direct current (DC)) when they are exposed to sunlight. A typical PV system consist of PV panels (or modules) that combine to form an array; other system components may include mountain racks and hardware, wiring for electrical connections, power conditioning equipment, such as an inverter and/or batteries. For the purposes of this Ordinance, a solar PV system is defined as generating capacity of not more than 25 kilowatts for residential facilities and not more than two megawatts for non-residential facilities.
- 2.38 Solar Panel (or module): A device for the direct conversion of sunlight into useable solar energy (including electricity or heat).
- 2.39 Solar Process Heat technologies provide industrial specific applications, including ventilation air preheating, solar process heating, and solar cooling.
- 2.40 Solar-Ready: The concept of planning and building with the purpose of enabling future use of solar energy generation systems. Solar-ready buildings, lots, and developments make it easier and more cost-effective to utilize passive solar techniques and adopt active solar technologies in the future. Solar-Ready Buildings are built anticipating future installation of active solar energy systems (including structural reinforcement, pre-wiring or plumbing for solar and east-west building orientation). Solar-Ready Lots are oriented to take maximal advantage of a location's solar resource. Solar-Ready Developments expand this concept to entire subdivisions.
- 2.41 Solar Thermal System (aka Solar Hot Water or Solar Heating Systems): A solar energy system that directly heats water or other liquid using sunlight. It consists of a series of tubes that concentrate light to heat either water or a heat-transfer fluid (such

as food-grade propylene glycol, a non-toxic substance) in one of two types of collectors (flat-plate collectors and evacuated tube collectors). The heated liquid is used for such purposes as space heating and cooling, domestic hot water, and heating pool water.

2.42 Thin Film Solar PV: Capable of generating electricity from the sun, thin film solar PV cells consist of layers of semiconductor materials (made from amorphous silicon, cadmium telluride, copper indium gallium diselenide, among other materials) a few micrometers thick, which allow for greater flexibility. Thin film is made by depositing one or more thin layers of photovoltaic material on a substrate; products include rooftop shingles and tiles, building facades, the glazing for skylights, and other building integrated materials.

2.43 Tilt: The angle of the solar panels and/or solar collector relative to their latitude. The optimal tilt to maximize solar production is perpendicular, or 90 degrees, to the sun's rays at true solar noon. True solar noon is when the sun is at its highest during its daily east-west path across the sky (this is also known as 0 deg Azimuth). Solar energy systems can be manually or automatically adjusted throughout the year. Alternatively, fixed-tilt systems remain at a static tilt year-round.

2.44 Watts (W): A measure of the use of electrical power (power (Watts) = voltage (volts) X current (Amps)).

2.45 Wiring: Specified by electrical codes, solar PV system wires are routed from the panels or micro-inverters through conduit into the inverter and buildings meter.

3.0 Applicability

3.1 This ordinance applies to all distributed solar systems installed and constructed after the effective date of this Ordinance. For purpose of this Ordinance, "solar energy system" means a distributed solar energy system as defined herein.

3.2 Solar energy systems constructed prior to the effective date of this ordinance shall not be required to meet the requirements of this ordinance.

3.3 All solar energy systems shall be designed, erected, and installed in accordance with applicable local, state, utility, and national codes, regulations, and standards.

4.0 Solar Energy System Requirements

4.1 To the extent practicable, and in accordance with River Heights City law, the accommodation of solar energy systems and associated electrical equipment, and the protection of access to sunlight for such, shall be encouraged in the application of the various review and approval provisions of the River Heights City code.

- 4.2 Solar energy systems are permitted in all zoning districts as an accessory use to permitted and conditional uses.
- 4.3 A solar energy system shall provide power for the principal use and/or accessory use of the property on which the solar energy system is located.
- 4.4 The installation and construction of a roof-mount solar energy system shall be subject to the following development and design standards:
 - A. A roof or building mounted solar energy system may be mounted on a principal or accessory building.
 - B. Any height limitations of the River Heights City Code shall not be applicable to solar collectors provided that such structures are erected only to such height as is reasonably necessary to accomplish the purpose for which they are intended to serve, and that such structures do not obstruct solar access to neighboring properties.
 - C. Placement of solar collectors on flat roofs shall be allowed by right provided that panels do not extend horizontally past the roof line.
- 4.5 All electrical equipment associated with and necessary for the operation of solar energy systems shall comply with the following:
 - A. Electrical equipment shall comply with the setbacks specified for accessory structures in the underlying zoning district.
- 4.6 Solar panels are designed to absorb (not reflect) sunlight; and, as such, solar panels are generally less reflective than other varnished or glass exterior housing pieces. However, solar panel placement should be prioritized to minimize or negate any solar glare onto nearby properties or roadways, without unduly impacting the functionality or efficiency of the solar system.
- 4.7 A solar energy system shall not be used to display permanent or temporary advertising, including signage, streamers, pennants, spinners, reflectors, banners or similar materials. The manufacturers and equipment information, warning or indication of ownership shall be allowed on any equipment of the solar energy system provided they comply with the prevailing sign regulations.
- 4.8 A solar energy system shall not be constructed until a building/zoning permit has been approved and issued.

5.0 Safety and Inspections

- 5.1 The design of the solar energy system shall conform to applicable local, state and national solar codes and standards. A building permit reviewed by department staff

shall be obtained for a solar energy system. All design and installation work shall comply with all applicable provisions in the National Electric Code (NEC), the International residential Code (IRC), International Commercial Building Code, State Fire Code, and any additional requirements set forth by the local utility (for any grid-connected solar systems).

- 5.2 The solar energy system shall comply with all applicable River Heights City Ordinances and Codes so as to ensure the structural integrity of such solar energy system. Please note that the existing roof structure and the weight of the solar energy system shall be taken into consideration when applying for a solar energy system permit.
- 5.3 Prior to operation, electrical connections must be inspected by (an appropriate electrical inspection person or agency, as determined by the (municipality))?
- 5.4 Any connection to the public utility grid must be approved by the appropriate public utility. (Rocky Mountain Power)
- 5.5 If solar storage batteries are included as part of the solar collector system, they must be installed according to all requirements set forth in the National Electric Code and State Fire Code when in operation. When no longer in operation, the batteries shall be disposed of in accordance with the laws and regulations of River Heights City and any other applicable laws and regulations relating to hazardous waste disposal.
- 5.6 Unless otherwise specified through a contract or agreement, the property owner of record will be presumed to be the responsible party for owning and maintaining the solar energy system.

6.0 Abandonment and Removal

- 6.1 If a ground mounted solar energy system is removed, any earth disturbance as result of the removal shall be landscaped in accordance with River Heights City. A ground mounted solar energy system is considered to be abandoned or defective if it has not been in operation for a period of twelve (12) months. If abandoned, the solar energy system shall be repaired by the owner to meet federal, state, and local safety standards, or be removed by the owner within the time period designated by River Heights Building Code Official.
- 6.2 If the owner fails to remove or repair the defective or abandoned solar system, River Heights City may pursue a legal action to have the system removed at the owner's expense.

7.0 Appeals

- B. Subject to the City's setback requirements, structures should be sited as close to the north lot line as possible to increase yard space to the south for reduced shading of the south face of a structure.
 - C. A tall structure should be sited to the north of a short structure.
- 8.7 Solar-Ready zoning should be considered as one among multiple considerations in planning new developments.

9.0 Restrictions on Solar Prohibitions

- 9.1 In Accordance with the Utah Code, River Heights City maintains and reserves the right to refuse any plat or subdivision plan if deed restrictions, covenants or other agreements running with the land prohibit or have the effect of prohibiting reasonably sited and designed solar collectors or other renewable resource devices.