CITY OF FORT COLLINS
TYPE 1 ADMINISTRATIVE HEARING
FINDINGS AND DECISION

HEARING DATE: October 16, 2014

PROJECT NAME: Riverside Community Solar Garden

CASE NUMBER: PDP140013

APPLICANT: Michelle Zimmerman
Clean Energy Collective, LLC
3005 Center Green Drive, Suite 205
Boulder, CO 80301

OWNER: City of Fort Collins
PO Box 850
Fort Collins, CO 80522

HEARING OFFICER: Kendra L. Carberry

PROJECT DESCRIPTION: This is a request for approval of a Project Development Plan ("PDP") for the construction of a medium-scale solar energy system capable of generating up to 600 kilowatts of electricity. The site is located at the northeast corner of Riverside Avenue and Mulberry Street in the River Downtown Redevelopment (R-D-R) Zone District on land owned by the City of Fort Collins.

SUMMARY OF DECISION: Approved

ZONE DISTRICT: River Downtown Redevelopment (R-D-R)

HEARING: The Hearing Officer opened the hearing at approximately 5:30 p.m. on October 16, 2014, in Conference Room A, 281 North College Avenue, Fort Collins, Colorado.

EVIDENCE: During the hearing, the Hearing Officer accepted the following evidence: (1) Planning Department Staff Report; (2) application, plans, maps and other supporting documents submitted by the applicant; and (3) a copy of the public notice (the formally promulgated policies of the City are all considered part of the record considered by the Hearing Officer).

TESTIMONY: The following persons testified at the hearing:

From the City: Ryan Mounce

From the Applicant: Michelle Zimmerman

From the Public: Michael Thieme, Rick Coen, Fran Rivers

FINDINGS

1. Evidence presented to the Hearing Officer established the fact that the hearing was properly posted, legal notices mailed and notice published.

2. Although not required, a neighborhood meeting for the project was conducted on July 8, 2014, at which the public expressed concerns about project fencing, screening, insurance, wildlife, heat created by the panels, noise, and reflection from the panels. The Applicant and the City addressed many of these concerns at the neighborhood meeting.

3. At the hearing, two members of the public (Michael Thieme, Fran Rivers) questioned the Applicant about the visual impact of the solar garden, because their residences are close enough to see the panels. Mr. Mounce explained that the City may consider some type of streetscaping plan in the future, but no plan is currently in place. Another member of the public (Rick Coen) questioned the functionality of the panels, and the Applicant responded.

4. The PDP complies with the applicable General Development Standards contained in Article 3 of the Code.

a. The PDP complies with Section 3.2.1, Landscaping and Tree Protection, becausethe PDP provides for an alternative landscaping plan which proposes a mixture of shrubs and grass to preserve solar access to the panels that would otherwise be compromised by canopy tree shading.

b. The PDP complies with Section 3.4.1, Natural Habitats and Features, because the PDP includes a River Landscape Buffer and a 10' bicycle and pedestrian trail along the western boundary that could serve as a future connection to the Udall Natural Area.

c. The PDP complies with Section 3.4.2, Air Quality, because: the PDP provides for an alternative setback of 100' from the Mulberry Wastewater Treatment Facility aerated lagoons and the Utilities Executive Director has recommended approval of the alternative compliance request; and there are no habitable structures proposed as part of the solar energy system and no employees based onsite.

d. The PDP complies with Section 3.4.6, Glare or Heat, because the angle of the solar array and proposed landscape will reduce heat and glare.

e. The PDP complies with Section 3.6.1(E), Access Control Plans, because: the PDP includes a 10' bicycle and pedestrian trail along the western boundary which will connect to an existing sidewalk along Mulberry Street.

f. The PDP complies with Section 3.8.11, Fences, because the perimeter fencing is designed to be visually interesting and to avoid creating a "tunnel" effect by varying its alignment and softening its appearance with landscaping.

g. The PDP complies with Section 3.8.32(2), Medium Scale Solar Energy Systems, because: the location of the ground-mounted system complies with the height limits for accessory buildings and the applicable setbacks; the system will be enclosed by a 7'

perimeter fence with locked entrances and warning information; and the landscaping outside the perimeter fencing screens the system from public rights-of-way.

5. The PDP complies with the applicable standards contained in Article 4 of the Code for the R-D-R zone district.

a. The PDP complies with Section 4.17(B)(2)(d), Permitted Uses, because a medium-scale solar energy system is a permitted use in the R-D-R zone district subject to Administrative Review.

b. The PDP complies with Section 4.17(D)(1)(a), Transition, because the PDP includes a River Landscape Buffer between the solar energy system and the Poudre River, with native trees, shrubs, and a mix of native grasses.

c. The PDP complies with Section 4.17(D)(4)(a), River Landscape, because the perimeter landscape screening and River Landscape Buffer plantings will utilize plant materials and species native to the corridor.

d. The PDP complies with Section 4.17(D)(4)(b), Walls, Fences and Planters, because the fencing style is consistent with the context of the site near the Poudre River.

DECISION

Based on the foregoing findings, the Hearing Officer hereby enters the following rulings:

1. The PDP is approved as submitted.

DATED this 22nd day of October, 2014.

Kendra L. Carberry
Hearing Officer

ITEM NO 1
MEETING DATE Oct. 16, 2014
STAFF Ryan Mounce

ADMINISTRATIVE HEARING OFFICER

STAFF REPORT

PROJECT: Riverside Community Solar Garden, PDP140013

APPLICANT: Michelle Zimmerman
Clean Energy Collective, LLC
3005 Center Green Drive, Suite 205
Boulder, CO 80301

OWNERS: City of Fort Collins
PO Box 580
Fort Collins, CO 80522

PROJECT DESCRIPTION:
This is a request for consideration of a Project Development Plan for the construction of a medium-scale solar energy system capable of generating up to 600 kilowatts of electricity. The solar energy system, featuring rows of ground-mounted solar panels, would be enclosed by perimeter fencing and landscaping and establish a habitat buffer zone between the Poudre River and the development. The project site is located at the northeast corner of Riverside Avenue and Mulberry Street in the River Downtown Redevelopment (R-D-R) Zone District on land owned by the City of Fort Collins.

RECOMMENDATION: Staff recommends approval of the Riverside Community Solar Garden, PDP140013.

EXECUTIVE SUMMARY:
Staff finds the proposed Riverside Community Solar Garden complies with the applicable requirements of the City of Fort Collins Land Use Code (LUC), more specifically:

- The Project Development Plan complies with process located in Division 2.2 – Common Development Review Procedures for Development Applications of Article 2 – Administration.

- The Project Development Plan complies with relevant standards of Article 3 – General Development Standards.

- The Project Development Plan complies with relevant standards located in Division 4.17 River Downtown Redevelopment District (R-D-R) of Article 4 – Districts.

COMMENTS:

1. Background

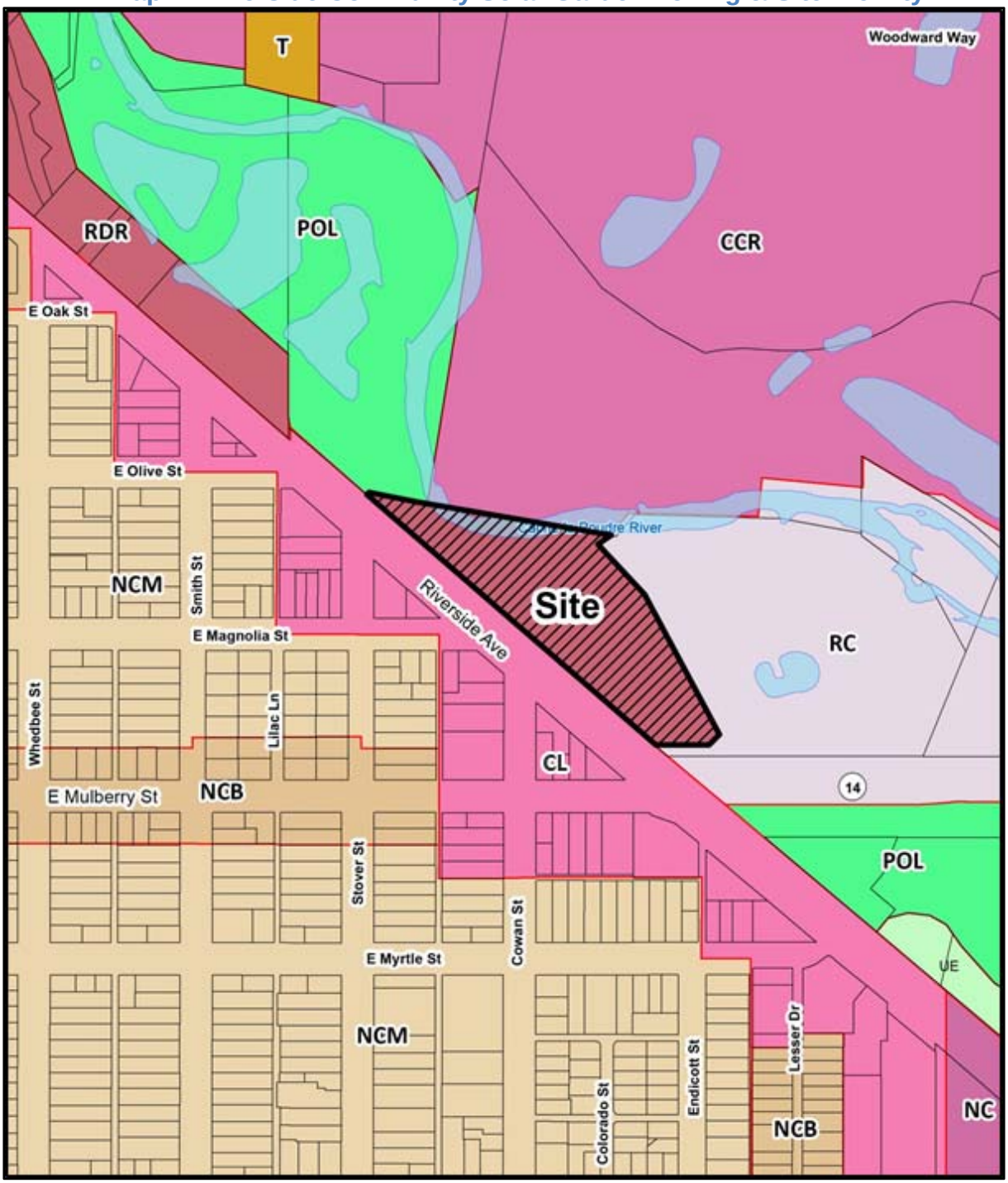
The property was annexed into the City of Fort Collins as a part of the East Lincoln Avenue Second Annexation in July, 1991, and was purchased by the City of Fort Collins in 1995. Prior to annexation and City-purchase, the site was developed as a pickle processing facility in the late 1940s, first operated by the Dreher family and then the Dean Pickle and Specialty Products Co. Several buildings associated with the pickle facility have been removed, leaving the site largely vacant with the exception of a small remnant structure. This structure is scheduled for demolition in early October, 2014.

The surrounding zoning and land uses are as follows:

Direction	Zone District	Existing Land Uses
North	Community Commercial – Poudre River (C-C-R), Public Open Lands (P-O-L)	Udall Natural Area, Woodward Natural Area & Woodward Campus (under construction)
South	Limited Commercial (C-L), Neighborhood Conservation, Medium Density (N-C-M)	Auto Repair, Auto Dealerships, Gas Station & Single Family Homes
East	River Conservation (R-C), Community Commercial – Poudre River (C-C-R)	Wastewater Treatment Facility
West	Limited Commercial (C-L), Neighborhood Conservation, Medium Density (N-C-M)	Auto Repair, Auto Dealerships, Gas Station & Single Family Homes

A zoning and site vicinity map is presented on the following page:

Map 1: Riverside Community Solar Garden Zoning & Site Vicinity



2. Compliance with Article 4 of the Land Use Code – River Downtown Redevelopment District (R-D-R), Division 4.17:

The project complies with all applicable Article 4 standards as follows:

A. Section 4.17(B)(2)(d) – Permitted Uses

The proposal is for a medium-scale solar energy system, a permitted use in the R-D-R District, subject to Administrative (Type 1) review.

New Land Use Code provisions, adopted July 2014, defined solar energy systems as a new land use and categorized their review process based on lot area. Section 3.8.23(D)(2)(a) of the Land Use Code defines a Medium-Scale Solar Energy System as being of a lot size between .5 to 5 acres. The proposed development is situated on a parcel approximately 6.9 acres in size, with the solar energy system covering approximately 3.5 acres of the lot. A recent Land Use Code Administrative Interpretation, #3-14, has clarified that the land area devoted to the solar energy system is the determining factor of lot size, and not the size of the lot upon which the system is sited.

B. Section 4.17(D)(1)(a) – Transition between the River and Development - River Landscape Buffer

This Code standard states:

In substitution for the provisions contained in subsection 3.4.1(E) (Establishment of Buffer Zones) requiring the establishment of "natural area buffer zones," the applicant shall establish, preserve or improve a continuous landscape buffer along the River as an integral part of a transition between development and the River. To the maximum extent feasible, the landscape buffer shall consist predominantly of native tree and shrub cover. (See Figure 20.) The landscape buffer shall be designed to prevent bank erosion and to stabilize the River bank in a manner adequate to withstand the hydraulic force of a 100-year flood event.

In compliance with the Land Use Code, the project proposes establishing a River Landscape Buffer between the solar energy system and the Poudre River, varying in width from 115’ to 150’ from the edge of the solar energy system to the top of slope above the Poudre River. As detailed in the project’s Ecological Characterization Study, the current conditions of the proposed buffer area are comprised of asphalt remnants, bare patches of ground, and annual weedy species providing minimal cover.

As part of the proposal, the area to be established as the River Landscape Buffer will be enhanced with additional native landscape plantings consisting of native trees, shrubs, and reseeding with a mix of native grasses that will provide a significantly increased diversity in vegetation structure.

No improvements are proposed to the existing conditions of the slope from the top of the site down to the Poudre River, a drop of approximately 50 to 60-feet. An existing strip of asphalt on the top lip of the slope is also proposed to remain. A letter provided by the applicant's engineer indicates the asphalt strip is serving to reduce erosion and undercutting at the top of the bank and should remain in place. A separate bank inspection conducted on-site with City stormwater staff indicated bank and slope erosion was not a concern, as the slope performed well during the September 2013 flooding event.

C. *Section 4.17(D)(4)(a) – River Landscape*

Both the proposed perimeter landscape screening and River Landscape Buffer plantings will utilize plant materials and species native to the corridor, complying with this code section.

D. Section 4.17(D)(4)(b) Walls, Fences and Planters

This code section requires walls, fences and planters to be consistent with the quality of materials, styles, and colors of nearby buildings and development. The proposed solar energy system perimeter fencing will consist of wood split-rail fencing with wire mesh. The fencing style is consistent with the context of the site near the Poudre River and several City-owned Natural Areas that also utilize a similar fencing design.

3. <u>Compliance with Article 3 of the Land Use Code – General Development Standards:</u>

The project complies with all applicable General Development Standards as follows:

A. Section 3.2.1 – Landscaping and Tree Protection

The proposed landscaping plan is consistent with the applicable requirements of Land Use Code Division 3.2.1*, Landscaping and Tree Protection*, with consideration of the applicant's request for alternative compliance to Section 3.2.1(D)(1)(c), *Tree Stocking*. Explanation of this code section requirement and the proposed alternative compliance request are outlined below:

1. *Section 3.2.1(D)(1)(c) – Tree Stocking*

   This Section requires all developments to provide "full tree stocking" within 50 feet of all buildings and structures by planting trees at 30' to 40' intervals. At least half of such trees to be planted must consist of canopy shade trees. The applicant has submitted a request for alternative compliance to this standard to substitute alternative landscape plantings around the solar panel structures in place of the typically-required tree stocking.

   Requests and evaluation of alternative compliance to landscaping and tree protection standards are governed by Section 3.2.1(N), which states,

   "Upon request by an applicant, the decision maker may approve an alternative landscape and tree protection plan that may be substituted in whole or in part for a landscape plan meeting the standards of this Section.

   (1) Procedure. *Alternative landscape plans shall be prepared and submitted in accordance with submittal requirements for landscape plans. Each such plan shall clearly identify and discuss the modifications and alternatives proposed and the ways in which the plan will better accomplish the purposes of this Section than would a plan which complies with the standards of this Section.*

   (2) Review Criteria. *To approve an alternative plan, the decision maker must first find that the proposed alternative plan accomplishes the purposes of this Section equally well or better than would a plan which complies with the standards of this Section.*

   In reviewing the proposed alternative plan for purposes of determining whether it accomplishes the purposes of this Section as required above, the decision maker shall take into account whether the alternative preserves and incorporates existing vegetation in excess of minimum standards, protects natural areas and features, maximizes tree canopy cover, enhances neighborhood continuity and connectivity, fosters non-vehicular access, or demonstrates innovative design and use of plant materials and other landscape elements."

In substitution to the requirements to plant trees around the solar panels to achieve full tree stocking, the alternative landscape plan proposes a mixture of shrubs and a low-grass seed mix along the solar energy system's fenced perimeter. The applicant's primary purpose for these substituted landscape elements are to preserve solar access to the panels used to generate electricity that would otherwise be compromised by canopy tree shading.

Staff has reviewed the alternative compliance request and proposed landscape plan and determined the alternative compliance request accomplishes this section equally well or better than would a plan which complies with the standards of this section based on the following elements and analysis:

- The alternative incorporates existing and proposed vegetation in excess of minimum standards:

  The substitution landscaping of a low-grass seed mix and shrubs exceeds the level of plantings in number and coverage were only trees to be planted at intervals of 30' to 40'. As a means of screening, the shrubs and grass are more impactful at the same height level as the solar panels (5' to 7' off the ground) than would be provided strictly by trees.

- Protects natural areas and features:

  By planting landscaping elements lower to the ground, existing views across the site from the Riverside Avenue public right of way to the Poudre River corridor and adjacent natural areas are maintained. The proposed native shrub plantings, being berry-producing, are both complementary to the shrub plantings proposed in the River Landscape Buffer and beneficial near a wildlife corridor.

- Fosters non-vehicular access & utilizes innovative design and landscape elements:

  A new, 10'-wide bicycle and pedestrian path is to be constructed along the western edge of the site where no facilities currently exist. The path will be sloped slightly to convey drainage to the shrub and grass beds, acting as a bio-swale and a means to help irrigate the plantings. These bio-swale and irrigation elements are an innovative approach to site and landscaping design where existing infrastructure to support both elements is limited.

- Protects access to sunshine:

  Land Use Code Section 3.2.3(D), *Access to Sunshine*, states, *"The elements of the development plan (e.g., buildings, circulation, open space and landscaping) shall be located and designed, to the maximum extent feasible, to protect access to sunshine for planned solar energy systems…"*

B. Section 3.4.1 – Natural Habitats and Features

The project complies with applicable standards of Section 3.4.1. As detailed in evaluation of Article 4, a River Landscape Buffer will be established as required by the R-D-R District, in substitution to the standards of Section 3.4.1(E). In addition, the project has been designed to be compatible with and complement the design and views of the surrounding natural environment and City-operated Natural Areas.

Screening of the solar energy system will consist of native plantings and a perimeter fence style that is consistent with the open feel of the nearby natural areas. The project will also construct a 10' bicycle and pedestrian trail on the site's western edge that can serve as a future connection to the Udall Natural Area.

C. Section 3.4.2 – Air Quality

The proposed solar energy facility is located adjacent to the City of Fort Collins Mulberry Wastewater Treatment Facility. A minimum 1,000' horizontal separation is a requirement from elements of wastewater treatment facilities for most land uses. The applicant has submitted a request for alternative compliance to this prescribed horizontal distance to permit a reduction in the setback distance to 100' from the treatment facility's aerated lagoons. Alternative Compliance requests to the Air Quality standards are overseen by Section 3.4.2(C):

Upon request by an applicant, the decision maker may approve an alternative setback distance that may be substituted for a setback distance meeting the standards of this Section.

> *(1)* Procedure. *Alternative compliance setback plans shall be prepared and submitted in accordance with the submittal requirements for plans as set forth in this Section. The plan shall clearly identify and discuss the setback modifications proposed and the ways in which the plan will equally well or better accomplish the*

purpose of this Section than would a plan which complies with the standards of this Section.

(2) Review Criteria. *To approve an alternative plan, the decision maker must first find that the proposed alternative plan accomplishes the purposes of this Section equally well or better than would a plan which complies with the standards of this Section.*

In reviewing the proposed alternative plan, the decision maker shall consider any mitigating factors that exist to counter the potential for odor problems and/or aerosol drift, including, without limitation, structural, chemical or technological mitigation occurring at the subject wastewater treatment works, established vegetation barriers and/or walls, berms, or other topographic features sufficient to serve as mitigation for odor problems and/or aerosol drift. In order to assist the decision maker in evaluating the proposed mitigation factors the Utilities Executive Director shall submit a written recommendation regarding such mitigation factors, which recommendation shall include the technical analysis and reasoning used in support of the Utilities Executive Director's recommendation.

Staff's evaluation of the request finds that the development plan accomplishes the purpose of Section 3.4.2 equally well or better than a plan complying with the standards of this Section. In support of this assessment, staff notes:

- Mitigating factors to counter the potential for odor problems:

  Within the past five years, the Mulberry Water Treatment Facility has implemented significant odor controls and treatment technologies to reduce instances and the potential for air quality impacts in the surrounding area.

  In addition, no habitable structures are proposed as a part of the solar energy system, and no employees will be based onsite. The proposed land use is consistent with other land uses that are already exempt from horizontal distance requirements of this section as they involve limited access by employees, visitors or residents.

- Written recommendation from the Utilities Executive Director:

  The applicant's request for alternative compliance has been reviewed by the Utilities Executive Director, who has provided a recommendation of approval to the alternative compliance request that the separation distance be reduced from 1000' to 100'. The Director notes the solar energy system use itself acts as a buffer for other nearby development from the wastewater facility.

D. Section 3.4.6 – Glare or Heat

The angle of the proposed solar energy system array and proposed landscape screening are incorporated into the project to reduce potential impacts from heat and glare.

The solar panels are fixed-units that do not track the path of the sun throughout the day or year. The proposed panels face south towards an existing stand of mature trees and open space across Mulberry Street. To the west of the panels along Riverside Avenue, fencing and the planting of shrubs of a height similar to the level of the panels is proposed to block potential glare.

A review of recent literature on the qualities of modern solar panels indicates that solar-electric installations, as opposed to solar thermal installations, are designed to maximize their absorption of the sun's incoming rays and feature anti-glare coatings. Studies indicate the reflective properties of modern solar panels are similar to those of car windshields or certain building façade materials.

Section 3.6.1(E) – Access Control Plans

The project is located along Riverside Avenue and Mulberry Streets, both a component of the US 287 / SH 14 Access Management Plan. The development will comply with the plan's adopted access and circulation control measures by providing a 10'-wide bicycle and pedestrian path along the western boundary of the property, north of the railroad tracks. The path will connect to an existing sidewalk along Mulberry Street near the shared access drive to the solar energy system and wastewater treatment facility.

E. Section 3.8.11 – Fences

The proposed perimeter fencing around the solar energy system has been designed to be visually interesting and to avoid creating a "tunnel" effect by varying its alignment and softening its appearance with landscaping.

F. Section 3.8.32(2) – Medium Scale Solar Energy Systems

1. *Section 3.8.32(2)(b) – Maximum Height*

   The ground-mounted solar energy system components are approximately 5' to 7' tall, complying with the height limits for accessory buildings and structures in the R-D-R Zone District.

2. *Section 3.8.32(2)(c) - Setbacks*

   The solar energy system is located outside of all front, side, and rear building setback areas.

3. *Section 3.8.32(2)(d) – Fencing/Access*

   The solar energy system will be enclosed by a 7' perimeter fence, with locked entrances and warning information placed along the perimeter and at the entrance to the facility. A knox box at the entrance will provide emergency access to the gated entry.

4. *Section 3.8.32(2)(e) – Visual Appearance*

   Landscaping is proposed outside the perimeter fencing to assist in screening the facility from the public rights-of-way along Riverside Avenue and Mulberry Street. The use of native species, and the design and materials of the fence will assist the facility in blending into the existing environment.

   Lighting is not proposed as part of the solar energy system and all electrical interconnections within the project boundary will be located underground.

4. Neighborhood Meeting

Although not required as part of a Type 1 project review, a neighborhood meeting for the project was conducted on July 8, 2014 to share information about the development

proposal. Key topics discussed at the meeting are presented below. The full summary of meeting notes can be found as an attachment to this staff report.

1. *Project Fencing / Screening*

   During the meeting, several comments and questions were raised as to the type of fencing or treatment that would be used along the perimeter of the facility, over concerns for security and for aesthetic purposes. Neighborhood meeting participants were evenly split between those would like to see a majority of the solar panels screened and those who wished to be able to see the panels.

   - Resolution / Update:

     The facility will be fenced with a wood, split-rail fence with wire mesh that is 7' in height, as required by Land Use Code standards. Horizontal elements of the fencing may be limited close to the top of the fence to reduce the ability of individuals to climb the fence to gain access to the facility.

     Land Use Code standards require fencing and/or landscaping to assist in screening along public right-of-way such as Riverside Avenue. The project has been designed with fencing and shrub-based landscaping that will cover a majority of views of the panels from Riverside Avenue.

2. *Will there be heat/glare? Do the panels generate noise?*

   Several questions were raised as to what impacts the solar panels may generate onto neighboring properties and the nearby natural areas.

   - Resolution / Update:

     Fencing, landscape screening, panel anti-glare coatings, and the orientation of the panels all serve to reduce the effects of glare. During the right conditions (time of day, time of year, angle of sun, viewing angle, etc.), the panels may briefly reflect light similar to the flicker of the sun off a vehicle's windshield.

     According to the applicant at the neighborhood meeting, the panels give off heat perceptible only very close to the panels. As a means to convert the sun's light to electricity, the panels are designed to absorb as much sunlight as possible. As heat is closely linked with reflected light, the mitigating factors for glare also serve to reduce potential heat impacts.

     An inverter built on a concrete pad will be constructed near the solar panels. The inverter produces a noise of the same frequency and decibel level as that

of a screen projector. For reasons related to both aesthetics/screening and noise, the project's inverter pad has been situated in the northeast quadrant of the site, away from nearby properties across Riverside Avenue.

3. Financial Considerations / Tax Credits

Other questions raised at the meeting related to the business model and financial impacts of the solar garden, and were not necessarily directly related to the review of the development proposal.

5. <u>Findings of Fact/Conclusion:</u>

In evaluating the request for the Riverside Community Solar Garden, PDP140013, Staff makes the following findings of fact:

A. The Project Development Plan complies with the applicable procedural and administrative requirements of Article 2 of the Land Use Code.

B. The Project Development Plan complies with relevant standards located in Article 3 – General Development Standards.

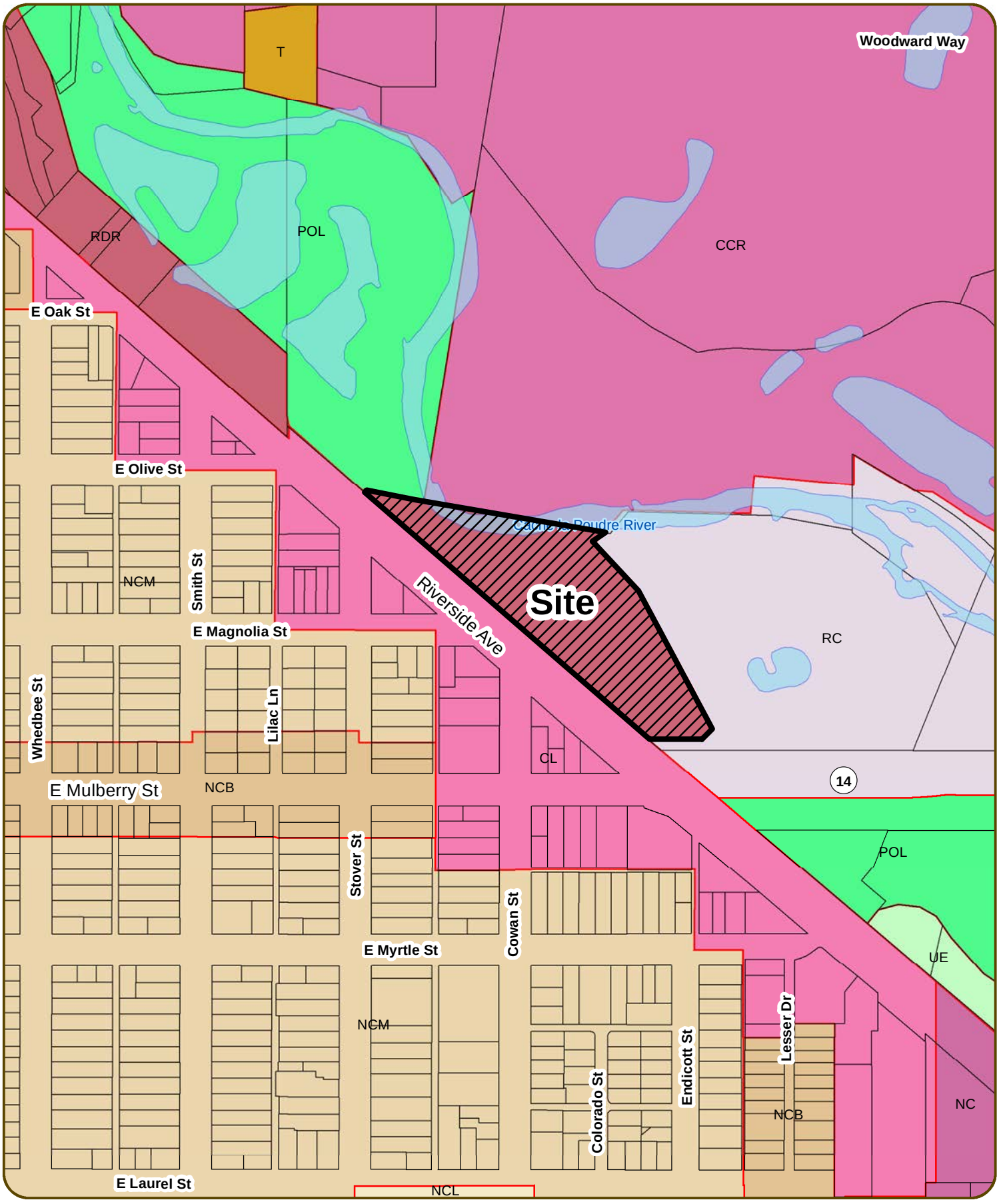
C. The Project Development Plan complies with relevant standards located in Division 4.17 River Downtown Redevelopment District (R-D-R) of Article 4 – Districts.

RECOMMENDATION:

Staff recommends approval of the Riverside Community Solar Garden Project Development Plan, PDP140013.

ATTACHMENTS:

1. Zoning & Site Vicinity Map
2. Applicant's Statement of Planning Objectives
3. Planning Document Set (Site Plan, Landscape Plan, Utility Plan)
4. Land Use Code Administrative Interpretation #3-14
5. Applicant's Riverbank Inspection Letter
6. Applicant's Letter for Alternative Compliance (Landscaping – Tree Stocking)
7. Applicant's Letter for Alternative Compliance (Air Quality)
8. Recommendation from the City's Utilities Executive Director Re: Air Quality
9. Project Ecological Characterization Checklist & Ecological Characterization Study
10. Neighborhood Meeting Summary



1 inch = 400 feet

Riverside Community Solar Garden

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Statement of Planning Objectives
Item (d) in PDP Submittal List

i) Statement of appropriate City Plan Principles and Policies achieved by the proposed plan.
   a. The Riverside Community Solar project touches on all three themes of the Plan Fort Collins vision: Innovate, Sustain, and Connect. Developing a community solar array allows for citizens to buy panels in the project and participate in an innovative project to make sustainable and renewable power accessible to more people in the community.
   b. The Community Solar project addresses aspects in the City Plan in at least 4 of the 7 chapters: Economic Health, Environmental Health, Community and Neighborhood Livability, and High Performing Community.
      i. Economic Health: Community owned solar projects allow for larger arrays to be built in an optimal location and then sold to residents and businesses at an affordable rate. This coupled with the generous rebate offered by the City makes purchase in the solar array available to a more broad section of the community.
      ii. Environmental Health: Development of community owned solar meets the visions of: Integration of renewable energy and new technologies for the electric grid, Leadership on environmental matters, Conservation of resources, and Improvements in air quality.
      iii. Community and Neighborhood Livability: the project helps to support ensuring there is adequate public infrastructure for existing and new growth, attractive community image and identity, and a new element to be considered in the design of gateways.
      iv. High Performing Community: the community solar brings both technology and fiscal responsibility by helping citizens save money on utilities through investing in a centrally located solar array.

ii) Description of proposed open space, wetlands, natural habitats and features, landscaping, circulation, transition areas, and associated buffering on site and in the general vicinity of the project.
   a. No open space is included in this project.
   b. Wetlands are not impacted.
   c. Natural habitat and features: one tree may have to be removed for the access drive. This will be confirmed with the Water Reclamation staff and the City Forester. Other features will not be affected.
   d. Landscaping will need to be discussed as a development agreement with Environmental Planning. Depending on what accommodations should be allowed for future Art in Public Places needs, landscaping may occur adjacent to the western edge fence line. Mowing and mechanical cutting will occur inside the solar array to keep vegetation below 2 feet to avoid shading of the solar panels. Revegetation will be implemented as needed post construction. Landscaping and revegetation will follow recommendations made in the Ecological Characterization Study by Cedar Creek Associates, Inc.
   e. Circulation: there will be one access drive for construction purposes (approximately 2 months) and then it will be used for maintenance (mowing and annual inspection).
   f. Transition areas: NA

g. Buffering: similar to landscaping, the site buffering from adjacent properties will be discussed with the Environmental Planner as a development agreement and be sure to accommodate for art in public places or other needs.

iii) Statement of proposed ownership and maintenance of public and private open space areas; applicant's intentions with regard to future ownership of all or portions of the project development plan.

a. The land is owned by the City of Fort Collins and the solar array portion will be leased by CEC Solar 1038, LLC. CEC Solar 1038, LLC will maintain the leased area. At the end of the lease term, the lease may renew or the array will be removed and site returned to pre-construction conditions.

iv) Estimate of number of employees for business, commercial, and industrial uses.

a. The construction will employ a crew of 8 for 8 weeks, but there will not be employees associated with the site after construction. One employee will perform one annual inspection and/or maintenance as required.

v) Description of rationale behind the assumptions and choices made by the applicant: NA

vi) The applicant shall submit as evidence of successful completion of the applicable criteria, the completed documents pursuant to these regulations for each proposed use. The Planning Director may require, or the applicant may choose to submit, evidence that is beyond what is required in that section. Any variance from the criteria shall be described. OK

vii) Narrative description of how conflicts between land uses or disturbances to wetlands, natural habitats and features and or wildlife are being avoided to the maximum extent feasible or are mitigated.

a. The fencing of the array will be situated as tight to the array space as possible to leave as much land for wildlife movement as possible. The ground surface disturbed by construction will be returned to its original state by reseeding and monitoring. Grading and ground disturbance will be kept to a minimum. Earth work will be kept to a minimum and completed as quickly as possible.

viii) Written narrative addressing each concern/issue raised at the neighborhood meeting, if a meeting has been held.

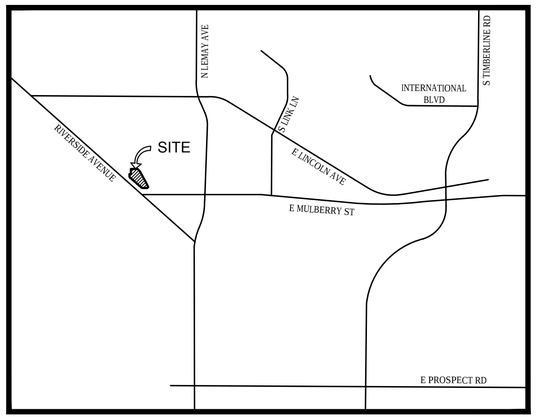
a. A neighborhood meeting was held and notes were taken by city staff. These notes are attached as a separate file. Concerns have been or will be addressed as a part of the development plan process.

ix) Name of the project as well as any previous name the project may have had during Conceptual Review.

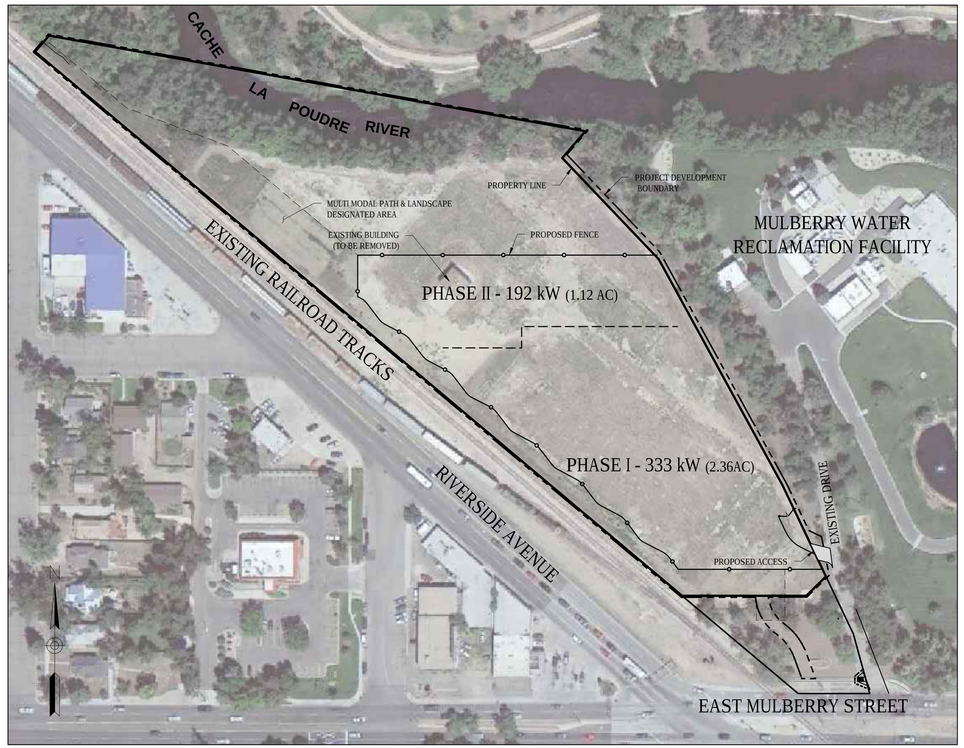
a. Riverside Community Solar Project
b. Fort Collins Community Solar Garden Project

CLEAN ENERGY COLLECTIVE
RIVERSIDE COMMUNITY SOLAR GARDEN
PLANNING DOCUMENTS

LOCATED IN THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 12,
TOWNSHIP 7 SOUTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN,
CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO



VICINITY MAP
SCALE 1" = 2000'±



OVERALL SITE AREA
SCALE 1" = 100'

SHEET INDEX:

GENERAL LEGEND

- PROJECT DEVELOPMENT BOUNDARY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED FENCE
- SETBACK LINE
- RIGHT-OF-WAY
- PROPERTY LINE
- E E EXISTING UNDERGROUND ELECTRIC
- T T EXISTING UNDERGROUND TELECOMMUNICATIONS
- G G EXISTING GAS LINE UTILITY

APPLICANT
CLEAN ENERGY COLLECTIVE
3005 CENTER GREEN DRIVE, SUITE 205
BOULDER, CO 80301
CONTACT: MICHELLE ZIMMERMAN
(303) 881-3087

ENGINEER
ENERTIA CONSULTING GROUP, LLC
1437 LARIMER STREET
DENVER, COLORADO 80202
CONTACT: SEAN O'HEARN, PE, PG
(303) 473-3131

SURVEYOR
PRECISION SURVEY
9145 EAST KENYON AVENUE #101
DENVER, COLORADO 80237
CONTACT: CHRIS JULIANA, PLS
(303) 825-4822

LEGAL DESCRIPTION:

BEGINNING at a point on a line which is parallel with the South side of Section 12, Township 7 North, Range 69 West of the 6th P.M., which line bears S. 89 degrees 38' E. and 110 feet Northerly therefrom, which point is 3762.6 feet S. 89 degrees 38' E. of the West side of said Section 12, thence by course and distance:
Thence N. 49 degrees 39' W. 1181.2 feet, along the NE line of Colorado Southern right of way,
Thence N. 41 degrees 15' E. 30 feet,
Thence S. 79 degrees 35' E. 761.4 feet,
Thence S. 41 degrees 15' W. 49.5 feet,
Thence S. 43 degrees 20' E. 195 feet,
Thence S. 28 degrees 25' E. 360.8 feet,
Thence S. 25 degrees 04' E. 140.3 feet,
Thence S. 45 degrees W. 38.5 feet,
Thence N. 89 degrees 38' W. 173.1 feet to the POINT OF BEGINNING;

STANDARD NOTES:

1. THE SPECIFIED SOLAR PANELS, RACKING SYSTEM, AND INVERTERS ARE INTENDED TO ILLUSTRATE GENERAL INFORMATION ABOUT THE COMPONENTS OF THE SOLAR FACILITY. COMPONENTS THAT ARE SIMILAR IN APPEARANCE AND FUNCTION MAY BE SUBSTITUTED FOR THE COMPONENTS SPECIFIED OR ILLUSTRATED ON THIS SITE PLAN. THE LOCATION OF THE ARRAYS AND INVERTERS MAY VARY SLIGHTLY FROM WHAT IS DEPICTED ON THIS SITE PLAN, PROVIDED THE INSTALLED COMPONENTS MEET ALL REQUIRED SETBACKS.
2. THE ENGINEER WHO HAS PREPARED THESE PLANS, BY EXECUTION AND/OR SEAL HEREOF, DOES HEREBY AFFIRM RESPONSIBILITY TO THE LOCAL ENTITY, AS BENEFICIARY OF SAID ENGINEER'S WORK, FOR ANY ERRORS AND OMISSIONS CONTAINED IN THESE PLANS, AND APPROVAL OF THESE PLANS BY THE LOCAL ENTITY ENGINEER SHALL NOT RELIEVE THE ENGINEER WHO HAS PREPARED THESE PLANS OF ALL SUCH RESPONSIBILITY. FURTHER, TO THE EXTENT PERMITTED BY LAW, THE ENGINEER HEREBY AGREES TO HOLD HARMLESS AND INDEMNIFY THE LOCAL ENTITY, AND ITS OFFICERS AND EMPLOYEES, FROM AND AGAINST ALL LIABILITIES, CLAIMS, AND DEMANDS WHICH MAY ARISE FROM ANY ERRORS AND OMISSIONS CONTAINED IN THESE PLANS.

DISCLAIMER STATEMENT:

THESE PLANS HAVE BEEN REVIEWED BY THE LOCAL ENTITY FOR CONCEPT ONLY. THE REVIEW DOES NOT IMPLY RESPONSIBILITY BY THE REVIEWING DEPARTMENT, THE LOCAL ENTITY ENGINEER, OR THE LOCAL ENTITY FOR ACCURACY AND CORRECTNESS OF THE CALCULATIONS. FURTHERMORE, THE REVIEW DOES NOT IMPLY THAT QUANTITIES OF ITEMS ON THE PLANS ARE THE FINAL QUANTITIES REQUIRED. THE REVIEW SHALL NOT BE CONSTRUED IN ANY REASON AS ACCEPTANCE OF FINANCIAL RESPONSIBILITY BY THE LOCAL ENTITY FOR ADDITIONAL QUANTITIES OF ITEMS SHOWN THAT MAY BE REQUIRED DURING THE CONSTRUCTION PHASE.

ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE CITY OF FORT COLLINS AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR THE ACCURACY OF ALL DESIGN, REVISIONS, AND RECORD CONDITIONS THAT I HAVE NOTED ON THESE PLANS.

DATE:

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED:	City Engineer	Date
CHECKED BY:	Water & Wastewater Utility	Date
CHECKED BY:	Stormwater Utility	Date
CHECKED BY:	Parks & Recreation	Date
CHECKED BY:	Traffic Engineer	Date
CHECKED BY:	Environmental Planner	Date
CHECKED BY:		Date

Owner's Certification of Approval:

THE UNDERSIGNED DOES/DO HEREBY CERTIFY THAT I/WE ARE THE LAWFUL OWNERS OF REAL PROPERTY DESCRIBED ON THIS SITE PLAN AND DO HEREBY CERTIFY THAT I/WE ACCEPT THE CONDITIONS AND RESTRICTIONS SET FORTH ON SAID SITE PLAN.

IN WITNESS WHEREOF, WE HAVE HEREUNTO SET OUR HANDS AND SEALS THIS THE _____ DAY OF _____ 20____.

NOTARIAL CERTIFICATE

STATE OF COLORADO)

COUNTY OF _____)

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME BY_____
THIS _____ DAY OF _____, 20____.

MY COMMISSION EXPIRES:_____ NOTARY PUBLIC

(SEAL)

Planning Approval:

BY THE DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES OF THE CITY OF FORT COLLINS, COLORADO THIS_____DAY OF _____ A.D., 20_____.

DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES

NO.	DATE	DSGN	DR	MGB	CHK	JSO	APVD	JSO
REVISION								

ENERTIA CONSULTING GROUP
1437 LARIMER STREET
DENVER, COLORADO 80202

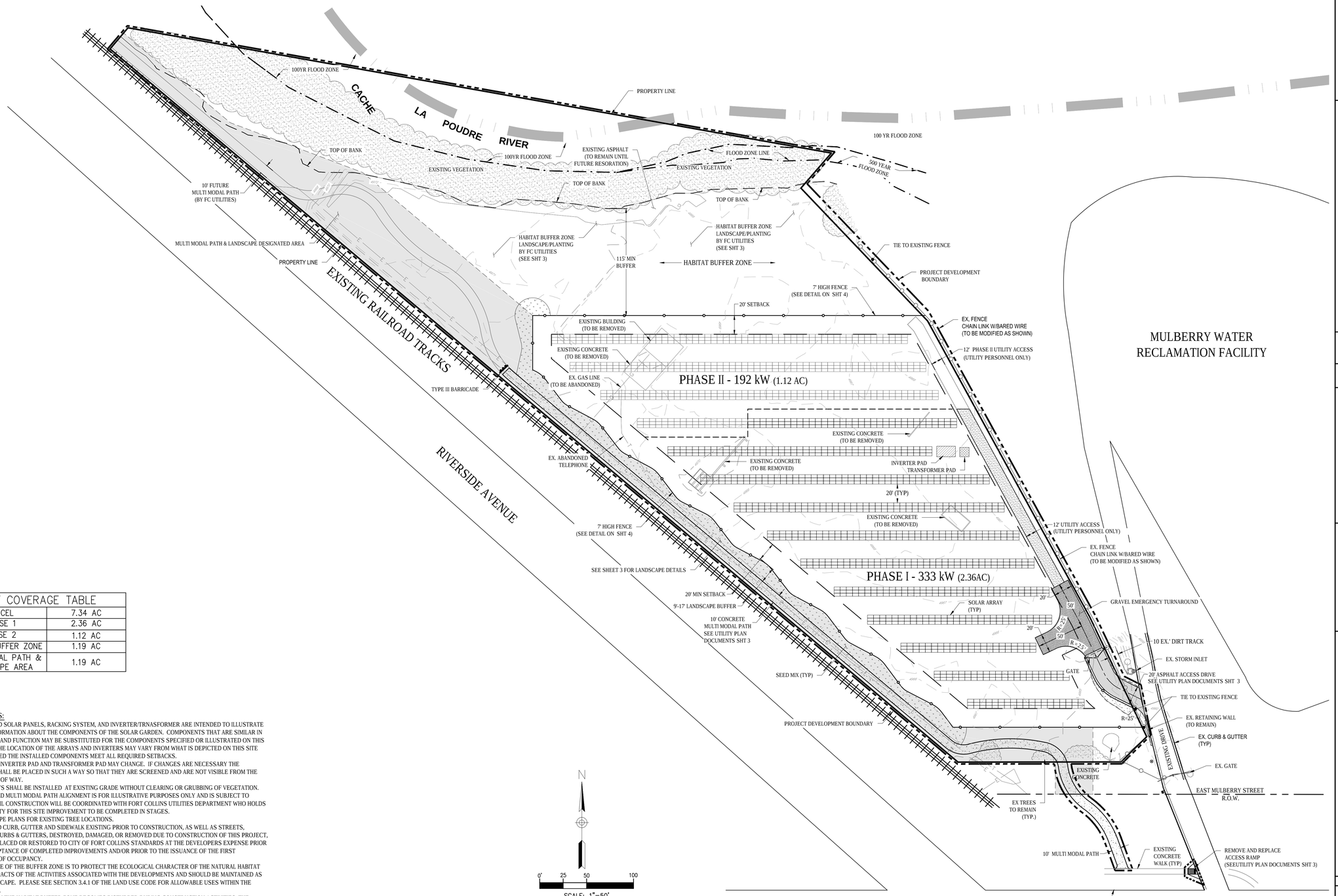
Clean Energy COLLECTIVE Community-owned Solar

CLEAN ENERGY COLLECTIVE
RIVERSIDE COMMUNITY SOLAR GARDEN
FORT COLLINS, COLORADO

PLANNING DOCUMENTS
COVER SHEET

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 SCALE

DATE	OCTOBER 09, 2014
FILE	PLNG
DWG	CVR
SHEET	1 OF 1



LOT COVERAGE TABLE	
PARCEL	7.34 AC
PHASE 1	2.36 AC
PHASE 2	1.12 AC
HABITAT BUFFER ZONE	1.19 AC
MULTI MODAL PATH & LANDSCAPE AREA	1.19 AC

GENERAL NOTES:

1. THE SPECIFIED SOLAR PANELS, RACKING SYSTEM, AND INVERTER/TRNASFORMER ARE INTENDED TO ILLUSTRATE GENERAL INFORMATION ABOUT THE COMPONENTS OF THE SOLAR GARDEN. COMPONENTS THAT ARE SIMILAR IN APPEARANCE AND FUNCTION MAY BE SUBSTITUTED FOR THE COMPONENTS SPECIFIED OR ILLUSTRATED ON THIS SITE PLAN. THE LOCATION OF THE ARRAYS AND INVERTERS MAY VARY FROM WHAT IS DEPICTED ON THIS SITE PLAN, PROVIDED THE INSTALLED COMPONENTS MEET ALL REQUIRED SETBACKS.
2. LOCATION OF INVERTER PAD AND TRANSFORMER PAD MAY CHANGE. IF CHANGES ARE NECESSARY THE EQUIPMENT SHALL BE PLACED IN SUCH A WAY SO THAT THEY ARE SCREENED AND ARE NOT VISIBLE FROM THE PUBLIC RIGHT OF WAY.
3. THE PV ARRAYS SHALL BE INSTALLED AT EXISTING GRADE WITHOUT CLEARING OR GRUBBING OF VEGETATION.
4. THE PROPOSED MULTI MODAL PATH ALIGNMENT IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS SUBJECT TO CHANGE. TRAIL CONSTRUCTION WILL BE COORDINATED WITH FORT COLLINS UTILITIES DEPARTMENT WHO HOLDS RESPONSIBILITY FOR THIS SITE IMPROVEMENT TO BE COMPLETED IN STAGES.
5. SEE LANDSCAPE PLANS FOR EXISTING TREE LOCATIONS.
6. ANY DAMAGED CURB, GUTTER AND SIDEWALK EXISTING PRIOR TO CONSTRUCTION, AS WELL AS STREETS, SIDEWALKS, CURBS & GUTTERS, DESTROYED, DAMAGED, OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT, SHALL BE REPLACED OR RESTORED TO CITY OF FORT COLLINS STANDARDS AT THE DEVELOPERS EXPENSE PRIOR TO THE ACCEPTANCE OF COMPLETED IMPROVEMENTS AND/OR PRIOR TO THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY.
7. THE OBJECTIVE OF THE BUFFER ZONE IS TO PROTECT THE ECOLOGICAL CHARACTER OF THE NATURAL HABITAT FROM THE IMPACTS OF THE ACTIVITIES ASSOCIATED WITH THE DEVELOPMENTS AND SHOULD BE MAINTAINED AS NATIVE LANDSCAPE. PLEASE SEE SECTION 3.4.1 OF THE LAND USE CODE FOR ALLOWABLE USES WITHIN THE BUFFER ZONE.
8. IF AREA WITHIN THE HABITAT BUFFER ZONE BECOMES DISTURBED DURING CONSTRUCTION ACTIVITIES, THE DEVELOPER SHALL RESEED THE AFFECTED AREA AND RESTORE NATIVE CONDITIONS SUFFICIENTLY. HOWEVER, ANY FURTHER LANDSCAPING, PLANTING AND MAINTENANCE OF THAT AREA SHALL BE THE RESPONSIBILITY OF FORT COLLINS UTILITIES DEPT.
9. THE VERTICAL CURB AND GUTTER ADJACENT TO THE ACCESS DRIVE SHALL REMAIN IN PLACE. GUTTER RAMPS SHALL BE USED DURING CONSTRUCTION ACTIVITIES TO PREVENT THE CURB AND GUTTER FROM BECOMING DAMAGED.

NO.	DATE	DR	CHK	APVD
DSGN	JSO	MGB	JSO	JSO

REVISION

ENERTIA CONSULTING GROUP
1437 LARIMER STREET
DENVER, COLORADO 80202

Clean Energy COLLECTIVE Community-owned Solar

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RIVERSIDE COMMUNITY SOLAR GARDEN
FORT COLLINS, COLORADO

PLANNING DOCUMENTS
SITE PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 SCALE

DATE	OCTOBER 09, 2014
FILE	PLNG
DWG	OSP
SHEET	1 OF 2

GENERAL NOTES:

1. PLANTS SHALL BE DROUGHT RESISTANT AND WILL INITIALLY BE HAND WATERED TO ESTABLISHMENT FOR A MINIMUM OF 3 YEARS. THE FREQUENCY AND AMOUNT OF IRRIGATION WATER APPLIED SHALL FOLLOW THE RECOMMENDATION OF A QUALIFIED LANDSCAPE HORTICULTURIST THE QUALIFIED HORTICULTURIST SHALL MAKE INSPECTIONS OF TREES AND SHRUBS DURING THE 3 YR ESTABLISHMENT PERIOD AND MAY ADVISE INCREASED IRRIGATION FREQUENCY OR EXTRA YEARS OF IRRIGATION TO ENSURE ESTABLISHMENT.
2. MULCHING SHALL BE PLACED IN AREAS WHERE SOIL COMPACTION AND DAMAGE TO ROOT SYSTEMS IS REQUIRED TO BE MINIMAL.
3. TRAIL ALIGNMENT IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS SUBJECT TO CHANGE.
4. SEE THIS SHEET FOR ADDITIONAL NOTES, DETAILS, AND PLANT SCHEDULE.
3. THE PV ARRAYS SHALL BE INSTALLED AT EXISTING GRADE WITHOUT CLEARING OR GRUBBING OF VEGETATION.
7. THE OBJECTIVE OF THE BUFFER ZONE IS TO PROTECT THE ECOLOGICAL CHARACTER OF THE NATURAL HABITAT FROM THE IMPACTS OF THE ACTIVITIES ASSOCIATED WITH THE DEVELOPMENTS AND SHOULD BE MAINTAINED AS NATIVE LANDSCAPE. PLEASE SEE SECTION 3.4.1 OF THE LAND USE CODE FOR ALLOWABLE USES WITHIN THE BUFFER ZONE.
8. IF AREA WITHIN THE HABITAT BUFFER ZONE BECOMES DISTURBED DURING CONSTRUCTION ACTIVITIES, THE DEVELOPER SHALL RESEED THE AFFECTED AREA AND RESTORE NATIVE CONDITIONS SUFFICIENTLY. HOWEVER, ANY FURTHER LANDSCAPING, PLANTING AND MAINTENANCE OF THAT AREA SHALL BE THE RESPONSIBILITY OF FORT COLLINS UTILITIES DEPT.
9. BARE AREAS WITHIN THE HABITAT BUFFER ZONE SHALL BE RE-SEEDED. RE-SEEDING SHALL BE THE RESPONSIBILITY OF THE FORT COLLINS UTILITY DEPARTMENT.

SEED NOTES:

1. SEED SHALL BE LABELED IN ACCORDANCE WITH THE U.S. DEPARTMENT OF AGRICULTURE, RULES AND REGULATIONS AND FEDERAL SEED ACT. SEED SHALL BE EQUAL IN QUALITY TO THE STANDARDS FOR "CERTIFIED SEED" AND SHALL BE FURNISHED IN SEALED, UNOPENED, STANDARD CONTAINERS. SEED SHALL BE FRESH, CLEAN, PURE LIVE SEED WITH THE VARIETIES MIXED IN PROPORTIONS BY WEIGHT SHOWN AND MEETING THE MINIMUM PERCENTAGES OF PURITY AND GERMINATION SPECIFIED.

2. SEED SHALL BE APPLIED AT A RATE SHOWN BY MIX. SEED SHALL PASS GOVERNMENT TEST OF GERMINATION OF EIGHTY PERCENT (80%) AND FOR PURITY OF NINETY PERCENT (90%). THE PURE LIVE SEED SHALL NOT BE LESS THAN SIXTY SEVEN ON ONE-HALF PERCENT (67.5%) FOR ANY ONE VARIETY, WITH THE AVERAGE OF THE MIXTURE, NO LESS THAN SEVENTY TWO PERCENT (72%). ALL SEED SHALL BE FREE OF POA ANNUA AND ALL NOXIOUS OBJECTIONABLE WEEDS WITH A MAXIMUM CROP OF ONE-TENTH PERCENT (0.1%) AND MAXIMUM WEED OF ONE TENTH PERCENT (0.1%). IF SEED AVAILABLE ON THE MARKET DOES NOT MEET THE MINIMUM PURITY AND GERMINATION PERCENTAGES SPECIFIED, THE CONTRACTOR MUST COMPENSATE BY FURNISHING SUFFICIENT ADDITIONAL SEED TO EQUAL THE SPECIFIED PRODUCT.

3. SPREAD ORGANIC SOIL AMENDMENT MATERIALS, AT A RATE OF 2 C.Y. PER 1000 SQUARE FEET, EVENLY OVER ENTIRE AREA AND THOROUGHLY INCORPORATE, BY MIXING, ROTOTILLING OR FINELY DISKING (MAX. 1" SIZE), TO A DEPTH OF SIX INCHES. ALL STONES, STICKS AND DEBRIS BROUGHT TO THE SURFACE SHALL BE REMOVED FROM THE SITE PROPERLY DISPOSED OF BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER. ALL SEED AREAS WILL THEN BE RAKED AND ROLLED TO THE DESIRED FINISHED GRADES WITH GENTLY SLOPING SURFACES TO ADEQUATELY DRAIN ALL SURFACE WATER RUNOFF. THE FINISHED SURFACE SHALL BE EVEN AND UNIFORM AND NO DIRT CLODS LARGER THAN ONE INCH (1") IN DIAMETER SHALL APPEAR ON THE SURFACE. THE SOIL SURFACE SHALL BE SMOOTH, LOOSE AND OF FINE TEXTURE, AND BE FLUSH WITH ALL PAVING EDGES.

4. CONTRACTOR SHALL USE APPROPRIATE MECHANICAL POWER (BRILLION SEEDER OR EQUAL) TO DRILL THE SEED INTO THE SEEDBED WHEREVER POSSIBLE. SEED SHALL BE SOWN TO A DEPTH OF ONE-HALF INCH (½"). DRILLING SHALL BE DONE IN 2 SEPARATE APPLICATIONS CROSSING THE AREA AT RIGHT ANGLES TO ONE ANOTHER TO GURANTEE PROPER COVERAGE. ON SLOPING LAND, SEEDING OPERATIONS SHALL FOLLOW THE GENERAL CONTOUR. AREAS TOO SMALL TO DRILL SEED MAY BE BROADCAST BY HAND AND APPLICATION RATES SHALL BE DOUBLED. SEEDING OF ANY KIND WILL NOT BE PERMITTED WHEN WIND VELOCITY IS SUCH AS TO PREVENT UNIFORM SEED DISTRIBUTION. NO APPLICATION SHALL TAKE PLACE WITH THE PRESENCE OF FREE SURFACE WATER OR WHEN GROUND IS FROZEN OR CANNOT BE TILLED.

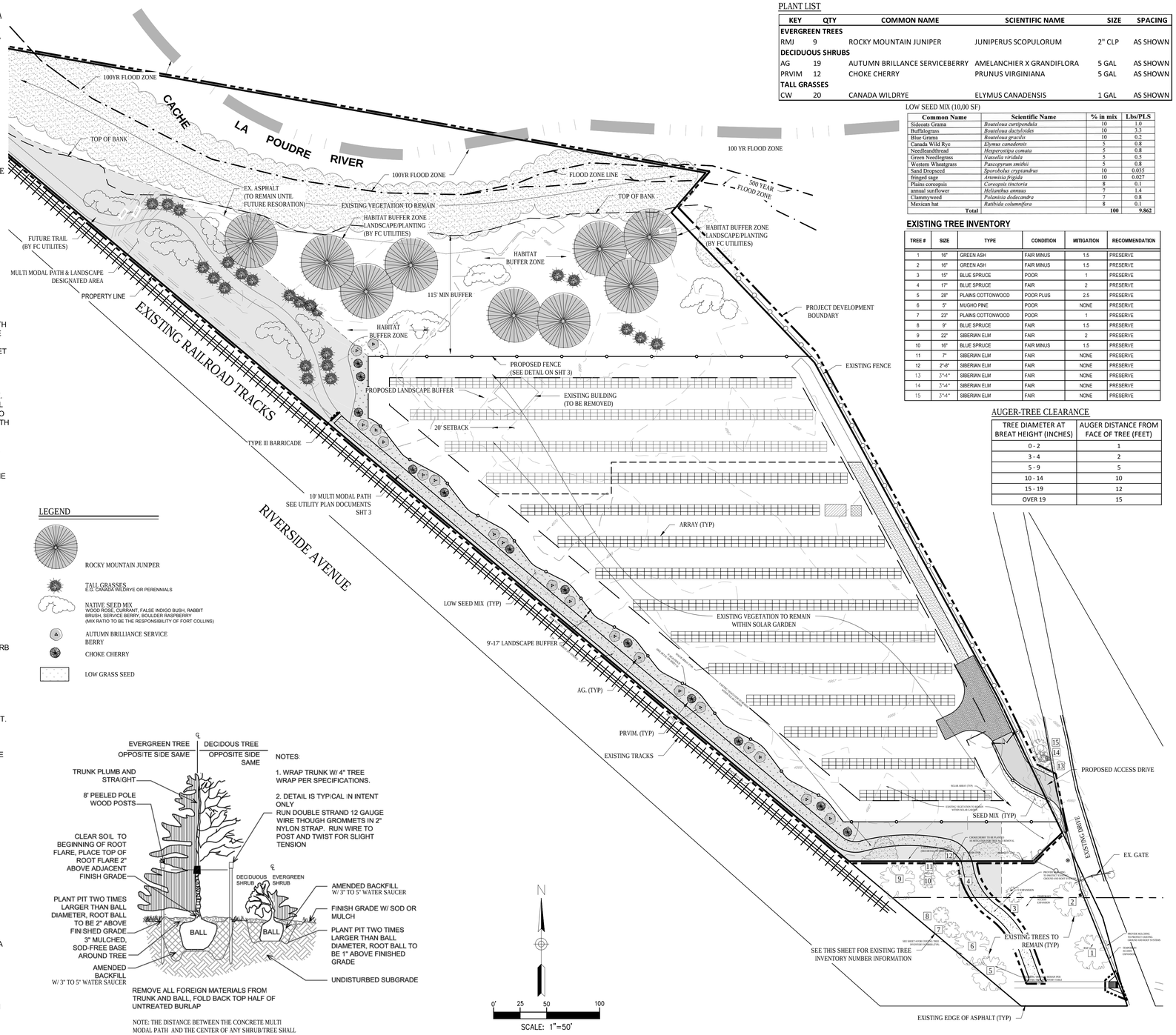
5. ALL SEED AREAS SHALL BE HYDRO MULCHED WITH A FIBROUS SLURRY MIXTURE CONTAINING A TACKIFIER AGENT WITHIN 24 HOURS OF DRILLING OR BROADCAST AT A RATE OF 2,000 LBS. PER ACRE.

LANDSCAPE & SOIL PREPARATION NOTES:

1. ALL PLANT MATERIALS ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. PLANT SPECIES MAY NOT BE SUBSTITUTED WITHOUT WRITTEN PERMISSION FROM THE LANDSCAPE ARCHITECT.
2. ALL SHRUB BEDS ARE TO BE MULCHED WITH FIR FIBER MULCH AT A CONSISTENT DEPTH OF 4". SUBMIT SAMPLE FOR APPROVAL PRIOR TO INSTALLATION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO EXISTING UTILITIES, CURB AND GUTTER, WALLS, OR WALKWAYS AND OTHER STRUCTURES THAT IS A RESULT OF THEIR WORK. THE REPAIR OF SUCH DAMAGE WILL BE AT NO ADDITIONAL COST TO THE OWNER.
4. THE CONTRACTOR SHALL FINE GRADE ALL AREAS TO BE PLANTED. THE CONTRACTOR SHALL REMOVE REQUIRED DEPTH OF SOIL ALONG WALKWAYS TO ACCOMMODATE SOD OR MULCH DEPTH.
5. TEST PRE-EXISTING SOIL IN LANDSCAPE AREA FOR MINERAL AND ORGANIC MATTER CONTENT TO DETERMINE PROPER SOIL AMENDMENTS BASED ON RESULTS OF THE SOIL TEST.
6. PREPARE PLANTING BEDS PER SPECIFICATIONS.
7. NON-DYED SHREDDED CEDAR MULCH IS THE PREFERRED MULCH IN ALL AREAS VISIBLE FROM THE STREET.
8. INSTALL A CONTINUOUS COMMERCIAL GRADE WEED BARRIER AT PLANTING TIME, WHERE APPROPRIATE.
9. INSTALL A CONTINUOUS EDGER BETWEEN THE PLANT BED AND LAWN, AND BETWEEN WOOD AND ROCK MULCH AREAS.
10. TREES PLANTED IN TURF AREAS SHOULD HAVE A MINIMUM 48" DIAMETER MULCH RING SURROUNDING THE TRUNK. DO NOT PLACE MULCH DIRECTLY AGAINST THE TREE TRUNK.
11. PLANT TREES AND SHRUBS PER DETAILS AND SPECIFICATIONS.
12. FORM SOIL INTO A 3" TO 5" TALL WATERING RING (SAUCER) AROUND PLANTING AREA. THIS IS NOT NECESSARY IN IRRIGATED TURF AREAS. APPLY 4" DEPTH OF SPECIFIED MULCH INSIDE WATERING RING.

TREE PROTECTION NOTES:

1. WITHIN THE DRIP LINE OF ANY PROTECTED EXISTING TREE, THERE SHALL BE NO CUT OR FILL OVER A FOUR-INCH DEPTH UNLESS A QUALIFIED ARBORIST OR FORESTER HAS EVALUATED AND APPROVED THE DISTURBANCE.
2. ALL PROTECTED EXISTING TREES SHALL BE PRUNED TO THE CITY OF FORT COLLINS FORESTRY STANDARDS.
3. PRIOR TO AND DURING CONSTRUCTION, BARRIERS SHALL BE ERECTED AROUND ALL PROTECTED EXISTING TREES WITH SUCH BARRIERS TO BE OF ORANGE FENCING A MINIMUM OF FOUR (4) FEET IN HEIGHT, SECURED WITH METAL T-POSTS, NO CLOSER THAN SIX (6) FEET FROM THE TRUNK OR ONE-HALF (½) OF THE DRIP LINE, WHICHEVER IS GREATER. THERE SHALL BE NO STORAGE OR MOVEMENT OF EQUIPMENT, MATERIAL, DEBRIS OR FILL WITHIN THE FENCED TREE PROTECTION ZONE.
4. DURING THE CONSTRUCTION STAGE OF DEVELOPMENT, THE APPLICANT SHALL PREVENT THE CLEANING OF EQUIPMENT OR MATERIAL OR THE STORAGE AND DISPOSAL OF WASTE MATERIAL SUCH AS PAINTS, OILS, SOLVENTS, ASPHALT, CONCRETE, MOTOR OIL OR ANY OTHER MATERIAL HARMFUL TO THE LIFE OF A TREE WITHIN THE DRIP LINE OF ANY PROTECTED TREE OR GROUP OF TREES.
5. NO DAMAGING ATTACHMENT, WIRES, SIGNS OR PERMITS MAY BE FASTENED TO ANY PROTECTED TREE.
6. LARGE PROPERTY AREAS CONTAINING PROTECTED TREES AND SEPARATED FROM CONSTRUCTION OR LAND CLEARING AREAS, ROAD RIGHTS-OF-WAY AND UTILITY EASEMENTS MAY BE "RIBBONED OFF," RATHER THAN ERECTING PROTECTIVE FENCING AROUND EACH TREE AS REQUIRED IN SUBSECTION (G)(3). THIS MAY BE ACCOMPLISHED BY PLACING METAL T-POST STAKES A MAXIMUM OF FIFTY (50) FEET APART AND TYING RIBBON OR ROPE FROM STAKE-TO-STAKE ALONG THE OUTSIDE PERIMETERS OF SUCH AREAS BEING CLEARED.
7. THE INSTALLATION OF UTILITIES, IRRIGATION LINES OR ANY UNDERGROUND FIXTURE REQUIRING EXCAVATION DEEPER THAN SIX (6) INCHES SHALL BE ACCOMPLISHED BY BORING UNDER THE ROOT SYSTEM OF PROTECTED EXISTING TREES AT A MINIMUM DEPTH OF TWENTY-FOUR (24) INCHES. THE AUGER DISTANCE IS ESTABLISHED FROM THE FACE OF THE TREE (OUTER BARK) AND IS SCALED FROM TREE DIAMETER AT BREAST HEIGHT AS DESCRIBED IN THE CHART ON THIS SHEET.



LEGEND

- ROCKY MOUNTAIN JUNIPER
- TALL GRASSES E.G. CANADA WILDRYE OR PERENNIALS
- NATIVE SEED MIX WOOD ROSE, CURRANT, FALSE INDIGO BUSH, RABBIT BRUSH, SERVICE BERRY, BOULDER RASPBERRY (MIX RATIO TO BE THE RESPONSIBILITY OF FORT COLLINS)
- AUTUMN BRILLIANCE SERVICE BERRY
- CHOKE CHERRY
- LOW GRASS SEED

N

0' 25 50 100

SCALE: 1"=50'

PLANT LIST

KEY	QTY	COMMON NAME	SCIENTIFIC NAME	SIZE	SPACING
EVERGREEN TREES					
RMJ	9	ROCKY MOUNTAIN JUNIPER	JUNIPERUS SCOPULORUM	2" CLP	AS SHOWN
DECIDUOUS SHRUBS					
AG	19	AUTUMN BRILLANCE SERVICEBERRY	AMELANCHIER X GRANDIFLORA	5 GAL	AS SHOWN
PRVIM	12	CHOKE CHERRY	PRUNUS VIRGINIANA	5 GAL	AS SHOWN
TALL GRASSES					
CW	20	CANADA WILDRYE	ELYMUS CANADENSIS	1 GAL	AS SHOWN

LOW SEED MIX (10,00 SF)

Common Name	Scientific Name	% in mix	Lbs/PLS
Sideoats Grama	*Bouteloua curtipendula*	10	1.0
Buffalograss	*Bouteloua dactyloides*	10	3.3
Blue Grama	*Bouteloua gracilis*	10	0.2
Canada Wild Rye	*Elymus canadensis*	5	0.8
Needleandthread	*Hesperostipa comata*	5	0.8
Green Needlegrass	*Nassella viridula*	5	0.5
Western Wheatgrass	*Pascopyrum smithii*	5	0.8
Sand Dropseed	*Sporobolus cryptandrus*	10	0.035
fringed sage	*Artemisia frigida*	10	0.027
Plains coreopsis	*Coreopsis tinctoria*	8	0.1
annual sunflower	*Helianthus annuus*	7	1.4
Clammyweed	*Polanisia dodecandra*	7	0.8
Mexican hat	*Ratibida columnifera*	8	0.1
Total		100	9.862

EXISTING TREE INVENTORY

TREE #	SIZE	TYPE	CONDITION	MITIGATION	RECOMMENDATION
1	16"	GREEN ASH	FAIR MINUS	1.5	PRESERVE
2	16"	GREEN ASH	FAIR MINUS	1.5	PRESERVE
3	15"	BLUE SPRUCE	POOR	1	PRESERVE
4	17"	BLUE SPRUCE	FAIR	2	PRESERVE
5	28"	PLAINS COTTONWOOD	POOR PLUS	2.5	PRESERVE
6	5"	MUGHO PINE	POOR	NONE	PRESERVE
7	23"	PLAINS COTTONWOOD	POOR	1	PRESERVE
8	9"	BLUE SPRUCE	FAIR	1.5	PRESERVE
9	22"	SIBERIAN ELM	FAIR	2	PRESERVE
10	16"	BLUE SPRUCE	FAIR MINUS	1.5	PRESERVE
11	7"	SIBERIAN ELM	FAIR	NONE	PRESERVE
12	2"-8"	SIBERIAN ELM	FAIR	NONE	PRESERVE
13	3"-4"	SIBERIAN ELM	FAIR	NONE	PRESERVE
14	3"-4"	SIBERIAN ELM	FAIR	NONE	PRESERVE
15	3"-4"	SIBERIAN ELM	FAIR	NONE	PRESERVE

AUGER-TREE CLEARANCE

TREE DIAMETER AT BREAT HEIGHT (INCHES)	AUGER DISTANCE FROM FACE OF TREE (FEET)
0 - 2	1
3 - 4	2
5 - 9	5
10 - 14	10
15 - 19	12
OVER 19	15

NOTES:

1. WRAP TRUNK W/ 4" TREE WRAP PER SPECIFICATIONS.
2. DETAIL IS TYPICAL IN INTENT ONLY RUN DOUBLE STRAND 12 GAUGE WIRE THOUGH GROMMETS IN 2" NYLON STRAP. RUN WIRE TO POST AND TWIST FOR SLIGHT TENSION

NOTE: THE DISTANCE BETWEEN THE CONCRETE MULTI MODAL PATH AND THE CENTER OF ANY SHRUB/TREE SHALL BE A MIN OF 5'

TREE AND SHRUB PLANTING

NO.	DATE	REVISION	DR	CHK	APVD
DSGN	JSO		MGB	JSO	JSO

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1437 LARIMER STREET
DENVER, COLORADO 80202

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DATE	OCTOBER 09, 2014
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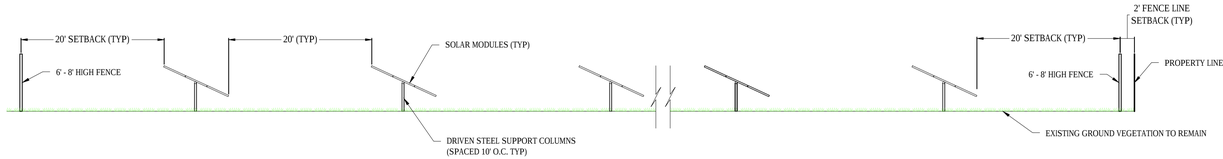
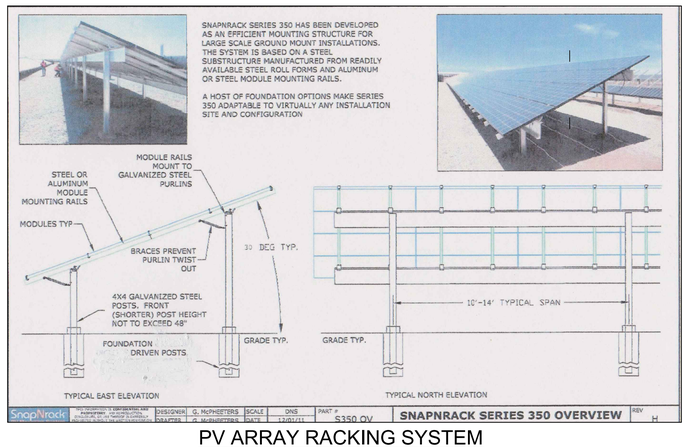
SHEET	1 OF 3



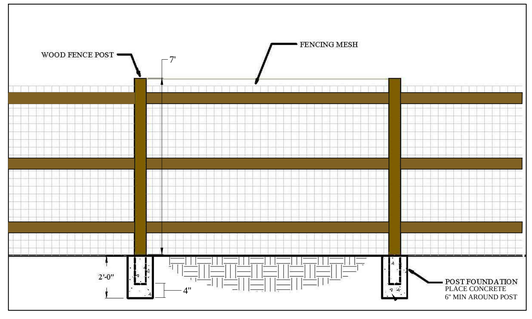
TYPICAL SOLAR GARDEN SECTION VIEW (VIEW FROM RIVERSIDE AVENUE)

SCALE: 1" = 10'



PV ARRAY RACKING SYSTEM

NOT TO SCALE



NOT TO SCALE

TYPICAL MESH FENCE DETAIL

NO.	DATE	DSGN	DR	CHK	APVD
REVISION		JSO	MGB	JSO	JSO

ENERTIA CONSULTING GROUP
1437 LARIMER STREET
DENVER, COLORADO 80202

Clean Energy COLLECTIVE
Community-owned Solar

CLEAN ENERGY COLLECTIVE
RIVERSIDE COMMUNITY SOLAR GARDEN
FORT COLLINS, COLORADO

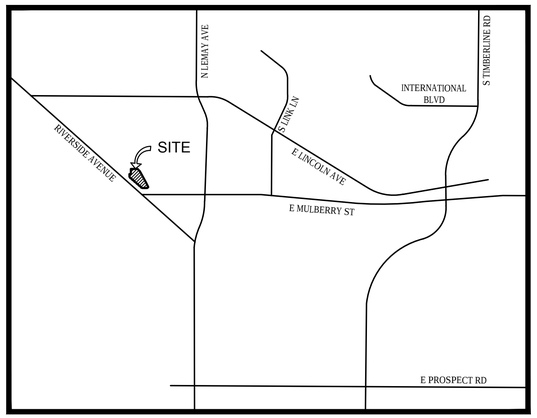
PLANNING DOCUMENTS
TYPICAL DETAILS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 SCALE

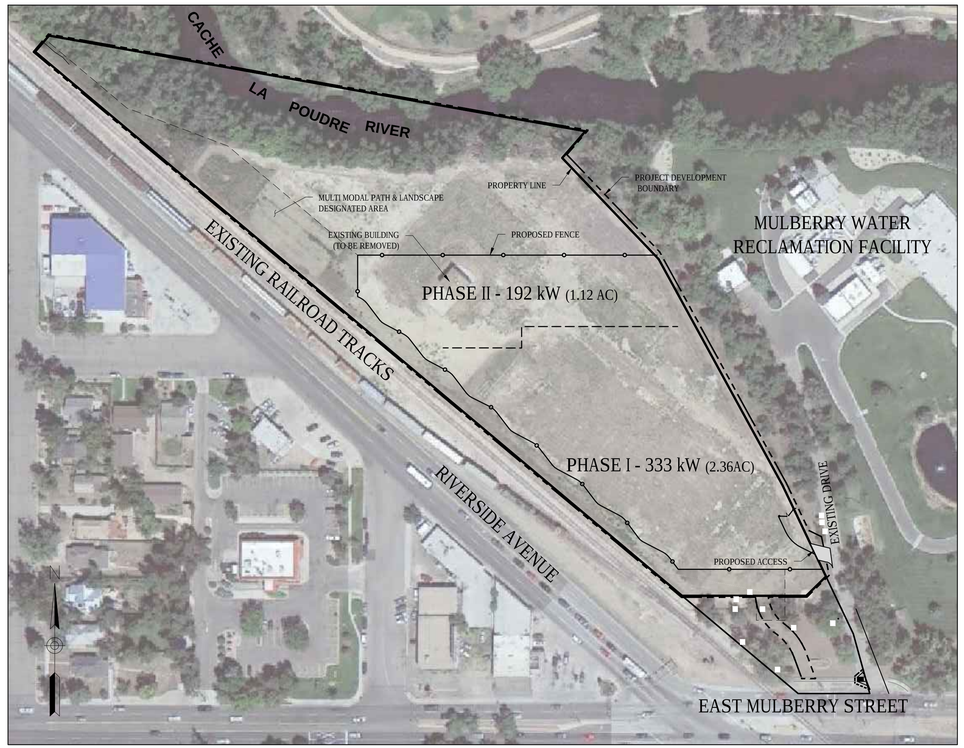
DATE	OCTOBER 09, 2014
FILE	PLNG
DWG	DTL
SHEET	1 OF 4

CLEAN ENERGY COLLECTIVE
RIVERSIDE COMMUNITY SOLAR GARDEN
UTILITY PLAN DOCUMENTS

LOCATED IN THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 12,
TOWNSHIP 7 SOUTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN,
CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO



VICINITY MAP
SCALE 1" = 2000'±



OVERALL SITE AREA
SCALE 1" = 100'

SHEET INDEX:

GENERAL LEGEND

- PROJECT DEVELOPMENT BOUNDARY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED FENCE
- SETBACK LINE
- RIGHT-OF-WAY
- PROPERTY LINE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING UNDERGROUND TELECOMMUNICATIONS
- EXISTING GAS LINE UTILITY

APPLICANT
CLEAN ENERGY COLLECTIVE
3005 CENTER GREEN DRIVE, SUITE 205
BOULDER, CO 80301
CONTACT: MICHELLE ZIMMERMAN
(303) 881-3087

ENGINEER
ENERTIA CONSULTING GROUP, LLC
1437 LARIMER STREET
DENVER, COLORADO 80202
CONTACT: SEAN O'HEARN, PE, PG
(303) 473-3131

SURVEYOR
PRECISION SURVEY
9145 EAST KENYON AVENUE #101
DENVER, COLORADO 80237
CONTACT: CHRIS JULIANA, PLS
(303) 825-4822

LEGAL DESCRIPTION:

BEGINNING at a point on a line which is parallel with the South side of Section 12, Township 7 North, Range 69 West of the 6th P.M., which line bears S. 89 degrees 38' E. and 110 feet Northerly therefrom, which point is 3762.6 feet S. 89 degrees 38' E. of the West side of said Section 12, thence by course and distance:
Thence N. 49 degrees 39' W. 1181.2 feet, along the NE line of Colorado Southern right of way,
Thence N. 41 degrees 15' E. 30 feet,
Thence S. 79 degrees 35' E. 761.4 feet,
Thence S. 41 degrees 15' W. 49.5 feet,
Thence S. 43 degrees 20' E. 195 feet,
Thence S. 28 degrees 25' E. 360.8 feet,
Thence S. 25 degrees 04' E. 140.3 feet,
Thence S. 45 degrees W. 38.5 feet,
Thence N. 89 degrees 38' W. 173.1 feet to the POINT OF BEGINNING;

STANDARD NOTES:

1. THE SPECIFIED SOLAR PANELS, RACKING SYSTEM, AND INVERTERS ARE INTENDED TO ILLUSTRATE GENERAL INFORMATION ABOUT THE COMPONENTS OF THE SOLAR FACILITY. COMPONENTS THAT ARE SIMILAR IN APPEARANCE AND FUNCTION MAY BE SUBSTITUTED FOR THE COMPONENTS SPECIFIED OR ILLUSTRATED ON THIS SITE PLAN. THE LOCATION OF THE ARRAYS AND INVERTERS MAY VARY SLIGHTLY FROM WHAT IS DEPICTED ON THIS SITE PLAN, PROVIDED THE INSTALLED COMPONENTS MEET ALL REQUIRED SETBACKS.
2. THE ENGINEER WHO HAS PREPARED THESE PLANS, BY EXECUTION AND/OR SEAL HEREOF, DOES HEREBY AFFIRM RESPONSIBILITY TO THE LOCAL ENTITY, AS BENEFICIARY OF SAID ENGINEER'S WORK, FOR ANY ERRORS AND OMISSIONS CONTAINED IN THESE PLANS, AND APPROVAL OF THESE PLANS BY THE LOCAL ENTITY ENGINEER SHALL NOT RELIEVE THE ENGINEER WHO HAS PREPARED THESE PLANS OF ALL SUCH RESPONSIBILITY. FURTHER, TO THE EXTENT PERMITTED BY LAW, THE ENGINEER HEREBY AGREES TO HOLD HARMLESS AND INDEMNIFY THE LOCAL ENTITY, AND ITS OFFICERS AND EMPLOYEES, FROM AND AGAINST ALL LIABILITIES, CLAIMS, AND DEMANDS WHICH MAY ARISE FROM ANY ERRORS AND OMISSIONS CONTAINED IN THESE PLANS.

DISCLAIMER STATEMENT:

THESE PLANS HAVE BEEN REVIEWED BY THE LOCAL ENTITY FOR CONCEPT ONLY. THE REVIEW DOES NOT IMPLY RESPONSIBILITY BY THE REVIEWING DEPARTMENT, THE LOCAL ENTITY ENGINEER, OR THE LOCAL ENTITY FOR ACCURACY AND CORRECTNESS OF THE CALCULATIONS. FURTHERMORE, THE REVIEW DOES NOT IMPLY THAT QUANTITIES OF ITEMS ON THE PLANS ARE THE FINAL QUANTITIES REQUIRED. THE REVIEW SHALL NOT BE CONSTRUED IN ANY REASON AS ACCEPTANCE OF FINANCIAL RESPONSIBILITY BY THE LOCAL ENTITY FOR ADDITIONAL QUANTITIES OF ITEMS SHOWN THAT MAY BE REQUIRED DURING THE CONSTRUCTION PHASE.

ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE CITY OF FORT COLLINS AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR THE ACCURACY OF ALL DESIGN, REVISIONS, AND RECORD CONDITIONS THAT I HAVE NOTED ON THESE PLANS.

DATE: _____

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED:	City Engineer	Date
CHECKED BY:	Water & Wastewater Utility	Date
CHECKED BY:	Stormwater Utility	Date
CHECKED BY:	Parks & Recreation	Date
CHECKED BY:	Traffic Engineer	Date
CHECKED BY:	Environmental Planner	Date
CHECKED BY:		Date

Owner's Certification of Approval:

THE UNDERSIGNED DOES/DO HEREBY CERTIFY THAT I/WE ARE THE LAWFUL OWNERS OF REAL PROPERTY DESCRIBED ON THIS SITE PLAN AND DO HEREBY CERTIFY THAT I/WE ACCEPT THE CONDITIONS AND RESTRICTIONS SET FORTH ON SAID SITE PLAN.

IN WITNESS WHEREOF, WE HAVE HEREUNTO SET OUR HANDS AND SEALS THIS THE _____ DAY OF _____ 20____.

_____

NOTARIAL CERTIFICATE

STATE OF COLORADO)

COUNTY OF _____)

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME BY_____
THIS _____ DAY OF _____ 20____.

MY COMMISSION EXPIRES: _____ _____
NOTARY PUBLIC

(SEAL)

Planning Approval:

BY THE DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES OF THE CITY OF FORT COLLINS, COLORADO THIS_____DAY OF _____ A.D., 20_____.

_____
DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES

NO.	DATE	DSGN	DR	MGB	CHK	JSO	APVD	JSO
REVISION								

ENERTIA CONSULTING GROUP
1437 LARIMER STREET
DENVER, COLORADO 80202

Clean Energy COLLECTIVE Community-owned Solar

CLEAN ENERGY COLLECTIVE
RIVERSIDE COMMUNITY SOLAR GARDEN
FORT COLLINS, COLORADO

UTILITY PLAN DOCUMENTS
COVER SHEET

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 SCALE

DATE	OCTOBER 09, 2014
FILE	UTIL
DWG	CVR
SHEET	1 OF 1

GENERAL NOTES - APPENDIX E-1-FC/LAR

1. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS SET FORTH IN THE *LARIMER COUNTY URBAN AREA STREET STANDARDS* AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE MOST RESTRICTIVE STANDARD SHALL APPLY. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE LOCAL ENTITY.
2. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD, UNLESS SPECIFICALLY STATED OTHERWISE.
3. THESE PUBLIC IMPROVEMENT CONSTRUCTION PLANS SHALL BE VALID FOR A PERIOD OF THREE YEARS FROM THE DATE OF APPROVAL BY THE LOCAL ENTITY ENGINEER. USE OF THESE PLANS AFTER THE EXPIRATION DATE WILL REQUIRE A NEW REVIEW AND APPROVAL PROCESS BY THE LOCAL ENTITY PRIOR TO COMMENCEMENT OF ANY WORK SHOWN IN THESE PLANS.
4. THE ENGINEER WHO HAS PREPARED THESE PLANS, BY EXECUTION AND/OR SEAL HEREOF, DOES HEREBY AFFIRM RESPONSIBILITY TO THE LOCAL ENTITY, AS BENEFICIARY OF SAID ENGINEER'S WORK, FOR ANY ERRORS AND OMISSIONS CONTAINED IN THESE PLANS, AND APPROVAL OF THESE PLANS BY THE LOCAL ENTITY ENGINEER SHALL NOT RELIEVE THE ENGINEER WHO HAS PREPARED THESE PLANS OF ALL SUCH RESPONSIBILITY. FURTHER, TO THE EXTENT PERMITTED BY LAW, THE ENGINEER HEREBY AGREES TO HOLD HARMLESS AND INDEMNIFY THE LOCAL ENTITY, AND ITS OFFICERS AND EMPLOYEES, FROM AND AGAINST ALL LIABILITIES, CLAIMS, AND DEMANDS WHICH MAY ARISE FROM ANY ERRORS AND OMISSIONS CONTAINED IN THESE PLANS.
5. ALL SANITARY SEWER, STORM SEWER, AND WATER LINE CONSTRUCTION, AS WELL AS POWER AND OTHER ìDRYî UTILITY INSTALLATIONS, SHALL CONFORM TO THE LOCAL ENTITY STANDARDS AND SPECIFICATIONS CURRENT AT THE DATE OF APPROVAL OF THE PLANS BY THE LOCAL ENTITY ENGINEER.
6. THE TYPE, SIZE, LOCATION AND NUMBER OF ALL KNOWN UNDERGROUND UTILITIES ARE APPROXIMATE WHEN SHOWN ON THE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK BEFORE COMMENCING NEW CONSTRUCTION. THE DEVELOPER SHALL BE RESPONSIBLE FOR UNKNOWN UNDERGROUND UTILITIES.
7. THE ENGINEER SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT 1-800-922-1987, AT LEAST 2 WORKING DAYS PRIOR TO BEGINNING EXCAVATION OR GRADING, TO HAVE ALL REGISTERED UTILITY LOCATIONS MARKED. OTHER UNREGISTERED UTILITY ENTITIES (I.E. DITCH / IRRIGATION COMPANY) ARE TO BE LOCATED BY CONTACTING THE RESPECTIVE REPRESENTATIVE. UTILITY SERVICE LATERALS ARE ALSO TO BE LOCATED PRIOR TO BEGINNING EXCAVATION OR GRADING. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
8. THE DEVELOPER SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES DURING CONSTRUCTION AND FOR COORDINATING WITH THE APPROPRIATE UTILITY COMPANY FOR ANY UTILITY CROSSINGS REQUIRED.
9. IF A CONFLICT EXISTS BETWEEN EXISTING AND PROPOSED UTILITIES AND/OR A DESIGN MODIFICATION IS REQUIRED, THE DEVELOPER SHALL COORDINATE WITH THE ENGINEER TO MODIFY THE DESIGN. DESIGN MODIFICATION(S) MUST BE APPROVED BY THE LOCAL ENTITY PRIOR TO BEGINNING CONSTRUCTION.
10. THE DEVELOPER SHALL COORDINATE AND COOPERATE WITH THE LOCAL ENTITY, AND ALL UTILITY COMPANIES INVOLVED, TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION AND WITH A MINIMUM DISRUPTION OF SERVICE. THE DEVELOPER SHALL BE RESPONSIBLE FOR CONTACTING, IN ADVANCE, ALL PARTIES AFFECTED BY ANY DISRUPTION OF ANY UTILITY SERVICE AS WELL AS THE UTILITY COMPANIES.
11. NO WORK MAY COMMENCE WITHIN ANY PUBLIC STORM WATER, SANITARY SEWER OR POTABLE WATER SYSTEM UNTIL THE DEVELOPER NOTIFIES THE UTILITY PROVIDER. NOTIFICATION SHALL BE A MINIMUM OF 2 WORKING DAYS PRIOR TO COMMENCEMENT OF ANY WORK. AT THE DISCRETION OF THE WATER UTILITY PROVIDER, A PRE-CONSTRUCTION MEETING MAY BE REQUIRED PRIOR TO COMMENCEMENT OF ANY WORK.
12. THE DEVELOPER SHALL SEQUENCE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO MINIMIZE POTENTIAL UTILITY CONFLICTS. IN GENERAL, STORM SEWER AND SANITARY SEWER SHOULD BE CONSTRUCTED PRIOR TO INSTALLATION OF THE WATER LINES AND DRY UTILITIES.
13. THE MINIMUM COVER OVER WATER LINES IS 4.5 FEET AND THE MAXIMUM COVER IS 5.5 FEET UNLESS OTHERWISE NOTED IN THE PLANS AND APPROVED BY THE WATER UTILITY.
14. A STATE CONSTRUCTION DEWATERING WASTEWATER DISCHARGE PERMIT IS REQUIRED IF DEWATERING IS REQUIRED IN ORDER TO INSTALL UTILITIES OR WATER IS DISCHARGED INTO A STORM SEWER, CHANNEL, IRRIGATION DITCH OR ANY WATERS OF THE UNITED STATES.
15. THE DEVELOPER SHALL COMPLY WITH ALL TERMS AND CONDITIONS OF THE COLORADO PERMIT FOR STORM WATER DISCHARGE (CONTACT COLORADO DEPARTMENT OF HEALTH, WATER QUALITY CONTROL DIVISION, (303) 692-3590), THE STORM WATER MANAGEMENT PLAN, AND THE EROSION CONTROL PLAN.
16. THE LOCAL ENTITY SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF STORM DRAINAGE FACILITIES LOCATED ON PRIVATE PROPERTY. MAINTENANCE OF ONSITE DRAINAGE FACILITIES SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER(S).
17. PRIOR TO FINAL INSPECTION AND ACCEPTANCE BY THE LOCAL ENTITY, CERTIFICATION OF THE DRAINAGE FACILITIES, BY A REGISTERED ENGINEER, MUST BE SUBMITTED TO AND APPROVED BY THE STORMWATER UTILITY DEPARTMENT. CERTIFICATION SHALL BE SUBMITTED TO THE STORMWATER UTILITY DEPARTMENT AT LEAST TWO WEEKS PRIOR TO THE RELEASE OF A CERTIFICATE OF OCCUPANCY FOR SINGLE FAMILY UNITS. FOR COMMERCIAL PROPERTIES, CERTIFICATION SHALL BE SUBMITTED TO THE STORMWATER UTILITY DEPARTMENT AT LEAST TWO WEEKS PRIOR TO THE RELEASE OF ANY BUILDING PERMITS IN EXCESS OF THOSE ALLOWED PRIOR TO CERTIFICATION PER THE DEVELOPMENT AGREEMENT.
18. THE LOCAL ENTITY SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES OR INJURIES SUSTAINED IN THIS DEVELOPMENT AS A RESULT OF GROUNDWATER SEEPAGE, WHETHER RESULTING FROM GROUNDWATER FLOODING, STRUCTURAL DAMAGE OR OTHER DAMAGE UNLESS SUCH DAMAGE OR INJURIES ARE SUSTAINED AS A RESULT OF THE LOCAL ENTITY FAILURE TO PROPERLY MAINTAIN ITS WATER, WASTEWATER, AND/OR STORM DRAINAGE FACILITIES IN THE DEVELOPMENT.
19. ALL RECOMMENDATIONS OF THE FINAL DRAINAGE AND EROSION CONTROL STUDY (DRAINAGE LETTER, 2014.09.10) BY ENERTIA CONSULTING GROUP SHALL BE FOLLOWED AND IMPLEMENTED.
20. TEMPORARY EROSION CONTROL DURING CONSTRUCTION SHALL BE PROVIDED AS SHOWN ON THE EROSION CONTROL PLAN. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE DEVELOPER, UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREAS IS STABILIZED WITH HARD SURFACE OR LANDSCAPING.
21. THE DEVELOPER SHALL BE RESPONSIBLE FOR INSURING THAT NO MUD OR DEBRIS SHALL BE TRACKED ONTO THE EXISTING PUBLIC STREET SYSTEM. MUD AND DEBRIS MUST BE REMOVED WITHIN 24 HOURS BY AN APPROPRIATE MECHANICAL METHOD (I.E. MACHINE BROOM SWEEP, LIGHT DUTY FRONT-END LOADER, ETC.) OR AS APPROVED BY THE LOCAL ENTITY STREET INSPECTOR.
22. NO WORK MAY COMMENCE WITHIN ANY IMPROVED OR UNIMPROVED PUBLIC RIGHT-OF-WAY UNTIL A RIGHT-OF-WAY PERMIT OR DEVELOPMENT CONSTRUCTION PERMIT IS OBTAINED, IF APPLICABLE.
23. THE DEVELOPER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR ALL APPLICABLE AGENCIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE DEVELOPER SHALL NOTIFY THE LOCAL ENTITY ENGINEERING INSPECTOR (FORT COLLINS - 221-6605) AND THE LOCAL ENTITY EROSION CONTROL INSPECTOR (FORT COLLINS - 221-6700) AT LEAST 2 WORKING DAYS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITY, OR CONSTRUCTION ON ANY AND ALL PUBLIC IMPROVEMENTS. IF THE LOCAL ENTITY ENGINEER IS NOT AVAILABLE AFTER PROPER NOTICE OF CONSTRUCTION ACTIVITY HAS BEEN PROVIDED, THE DEVELOPER MAY COMMENCE WORK IN THE ENGINEER ABSENCE. HOWEVER, THE LOCAL ENTITY RESERVES THE RIGHT NOT TO ACCEPT THE IMPROVEMENT IF SUBSEQUENT TESTING REVEALS AN IMPROPER INSTALLATION.
24. THE DEVELOPER SHALL BE RESPONSIBLE FOR OBTAINING SOILS TESTS WITHIN THE PUBLIC RIGHT-OF-WAY AFTER RIGHT OF WAY GRADING AND ALL UTILITY TRENCH WORK IS COMPLETE AND PRIOR TO THE PLACEMENT OF CURB, GUTTER, SIDEWALK AND PAVEMENT. IF THE FINAL SOILS/PAVEMENT DESIGN REPORT DOES NOT CORRESPOND WITH THE RESULTS OF THE ORIGINAL GEOTECHNICAL REPORT, THE DEVELOPER SHALL BE RESPONSIBLE FOR A RE-DESIGN OF THE SUBJECT PAVEMENT SECTION OR, THE DEVELOPER MAY USE THE LOCAL ENTITY'S DEFAULT PAVEMENT THICKNESS SECTION(S). REGARDLESS OF THE OPTION USED, ALL FINAL SOILS/PAVEMENT DESIGN REPORTS SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER. THE FINAL REPORT SHALL BE SUBMITTED TO THE INSPECTOR A MINIMUM OF 10 WORKING DAYS PRIOR TO PLACEMENT OF BASE AND ASPHALT. PLACEMENT OF CURB, GUTTER, SIDEWALK, BASE AND ASPHALT SHALL NOT OCCUR UNTIL THE LOCAL ENTITY ENGINEER APPROVES THE FINAL REPORT.
25. THE CONTRACTOR SHALL HIRE A LICENSED ENGINEER OR LAND SURVEYOR TO SURVEY THE CONSTRUCTED ELEVATIONS OF THE STREET SUBGRADE AND THE GUTTER FLOWLINE AT ALL INTERSECTIONS, INLETS, AND OTHER LOCATIONS REQUESTED BY THE LOCAL ENTITY INSPECTOR. THE ENGINEER OR SURVEYOR MUST CERTIFY IN A LETTER TO THE LOCAL ENTITY THAT THESE ELEVATIONS CONFORM TO THE APPROVED PLANS AND SPECIFICATIONS. ANY DEVIATIONS SHALL BE NOTED IN THE LETTER AND THEN RESOLVED WITH THE LOCAL ENTITY BEFORE INSTALLATION OF BASE COURSE OR ASPHALT WILL BE ALLOWED ON THE STREETS.
26. ALL UTILITY INSTALLATIONS WITHIN OR ACROSS THE ROADBED OF NEW RESIDENTIAL ROADS MUST BE COMPLETED PRIOR TO THE FINAL STAGES OF ROAD CONSTRUCTION. FOR THE PURPOSES OF THESE STANDARDS, ANY WORK EXCEPT C/G ABOVE THE SUBGRADE IS CONSIDERED FINAL STAGE WORK. ALL SERVICE LINES MUST BE STUBBED TO THE PROPERTY LINES AND MARKED SO AS TO REDUCE THE EXCAVATION NECESSARY FOR BUILDING CONNECTIONS.
27. PORTIONS OF LARIMER COUNTY ARE WITHIN OVERLAY DISTRICTS. THE *LARIMER COUNTY FLOODPLAIN RESOLUTION* SHOULD BE REFERRED TO FOR ADDITIONAL CRITERIA FOR ROADS WITHIN THESE DISTRICTS.
28. ALL ROAD CONSTRUCTION IN AREAS DESIGNATED AS WILD FIRE HAZARD AREAS SHALL BE DONE IN ACCORDANCE WITH THE CONSTRUCTION CRITERIA AS ESTABLISHED IN THE WILD FIRE HAZARD AREA MITIGATION REGULATIONS IN FORCE AT THE TIME OF FINAL PLAT APPROVAL.
29. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE LOCAL ENTITY FORESTER TO SCHEDULE A SITE INSPECTION FOR ANY TREE REMOVAL REQUIRING A PERMIT.
30. THE DEVELOPER SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY. REFER TO OSHA PUBLICATION 2226, *EXCAVATING AND TRENCHING*.
31. THE DEVELOPER SHALL SUBMIT A CONSTRUCTION TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH MUTCD, TO THE APPROPRIATE RIGHT-OF-WAY AUTHORITY. (LOCAL ENTITY, COUNTY OR STATE), FOR APPROVAL, PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN, OR AFFECTING, THE RIGHT-OF-WAY. THE DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TRAFFIC CONTROL DEVICES AS MAY BE REQUIRED BY THE CONSTRUCTION ACTIVITIES.
32. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION THAT WILL AFFECT TRAFFIC SIGNS OF ANY TYPE, THE CONTRACTOR SHALL CONTACT LOCAL ENTITY TRAFFIC OPERATIONS DEPARTMENT, WHO WILL TEMPORARILY REMOVE OR RELOCATE THE SIGN AT NO COST TO THE CONTRACTOR; HOWEVER, IF THE CONTRACTOR MOVES THE TRAFFIC SIGN THEN THE CONTRACTOR WILL BE CHARGED FOR THE LABOR, MATERIALS AND EQUIPMENT TO REINSTALL THE SIGN AS NEEDED.
33. THE DEVELOPER IS RESPONSIBLE FOR ALL COSTS FOR THE INITIAL INSTALLATION OF TRAFFIC SIGNING AND STRIPING FOR THE DEVELOPMENT RELATED TO THE DEVELOPMENT'S LOCAL STREET OPERATIONS. IN ADDITION, THE DEVELOPER IS RESPONSIBLE FOR ALL COSTS FOR TRAFFIC SIGNING AND STRIPING RELATED TO DIRECTING TRAFFIC ACCESS TO AND FROM THE DEVELOPMENT.
34. THERE SHALL BE NO SITE CONSTRUCTION ACTIVITIES ON SATURDAYS, UNLESS SPECIFICALLY APPROVED BY THE LOCAL ENTITY ENGINEER, AND NO SITE CONSTRUCTION ACTIVITIES ON SUNDAYS OR HOLIDAYS, UNLESS THERE IS PRIOR WRITTEN APPROVAL BY THE LOCAL ENTITY.
35. THE DEVELOPER IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS, SHOWN ON THESE DRAWINGS, OR DESIGNATED TO BE PROVIDED, INSTALLED, OR CONSTRUCTED, UNLESS SPECIFICALLY NOTED OTHERWISE.
36. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWING. IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTACT THE DESIGNER FOR CLARIFICATION, AND ANNOTATE THE DIMENSION ON THE AS-BUILT RECORD DRAWINGS.
37. THE DEVELOPER SHALL HAVE, ONSITE AT ALL TIMES, ONE (1) SIGNED COPY OF THE APPROVED PLANS, ONE (1) COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB.
38. IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE DEVELOPER SHALL CONTACT THE DESIGNER AND THE LOCAL ENTITY ENGINEER IMMEDIATELY.
39. THE DEVELOPER SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT INFORMATION ON A SET OF RECORD DRAWINGS KEPT ON THE CONSTRUCTION SITE, AND AVAILABLE TO THE LOCAL ENTITY'S INSPECTOR AT ALL TIMES. UPON COMPLETION OF THE WORK, THE CONTRACTOR(S) SHALL SUBMIT RECORD DRAWINGS TO THE LOCAL ENTITY ENGINEER.
40. THE DESIGNER SHALL PROVIDE, IN THIS LOCATION ON THE PLAN, THE LOCATION AND DESCRIPTION OF THE NEAREST SURVEY BENCHMARKS (2) FOR THE PROJECT AS WELL AS THE BASIS OF BEARINGS. THE INFORMATION SHALL BE AS FOLLOWS:

    BENCHMARKS--LOCAL ENTITY SURVEY.

    B.M.NUMBER____________________,ELEV.=______________________,

    DESCRIPTION____.
41. ALL STATIONING IS BASED ON CENTERLINE/FLOWLINW (INSERT PROPER WORD) OF ROADWAYS UNLESS OTHERWISE NOTED.
42. DAMAGED CURB, GUTTER AND SIDEWALK EXISTING PRIOR TO CONSTRUCTION, AS WELL AS EXISTING FENCES, TREES, STREETS, SIDEWALKS, CURBS AND GUTTERS, LANDSCAPING, STRUCTURES, AND IMPROVEMENTS DESTROYED, DAMAGED OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT, SHALL BE REPLACED OR RESTORED IN LIKE KIND AT THE DEVELOPER'S EXPENSE, UNLESS OTHERWISE INDICATED ON THESE PLANS, PRIOR TO THE ACCEPTANCE OF COMPLETED IMPROVEMENTS AND/OR PRIOR TO THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY.
43. WHEN AN EXISTING ASPHALT STREET MUST BE CUT, THE STREET MUST BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. THE EXISTING STREET CONDITION SHALL BE DOCUMENTED BY THE LOCAL ENTITY CONSTRUCTION INSPECTOR BEFORE ANY CUTS ARE MADE. PATCHING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL ENTITY STREET REPAIR STANDARDS. THE FINISHED PATCH SHALL BLEND IN SMOOTHLY INTO THE EXISTING SURFACE. ALL LARGE PATCHES SHALL BE PAVED WITH AN ASPHALT LAY-DOWN MACHINE. IN STREETS WHERE MORE THAN ONE CUT IS MADE, AN OVERLAY OF THE ENTIRE STREET WIDTH, INCLUDING THE PATCHED AREA, MAY BE REQUIRED. THE DETERMINATION OF NEED FOR A COMPLETE OVERLAY SHALL BE MADE BY THE LOCAL ENTITY ENGINEER AND/OR THE LOCAL ENTITY INSPECTOR AT THE TIME THE CUTS ARE MADE.
44. UPON COMPLETION OF CONSTRUCTION, THE SITE SHALL BE CLEANED AND RESTORED TO A CONDITION EQUAL TO, OR BETTER THAN, THAT WHICH EXISTED BEFORE CONSTRUCTION, OR TO THE GRADES AND CONDITION AS REQUIRED BY THESE PLANS.
45. STANDARD HANDICAP RAMPS ARE TO BE CONSTRUCTED AT ALL CURB RETURNS AND AT ALL ìTî INTERSECTIONS.
46. AFTER ACCEPTANCE BY THE LOCAL ENTITY, PUBLIC IMPROVEMENTS DEPICTED IN THESE PLANS SHALL BE GUARANTEED TO BE FREE FROM MATERIAL AND WORKMANSHIP DEFECTS FOR A MINIMUM PERIOD OF TWO YEARS FROM THE DATE OF ACCEPTANCE.
47. THE LOCAL ENTITY SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF ROADWAY AND APPURTENANT IMPROVEMENTS, INCLUDING STORM DRAINAGE STRUCTURES AND PIPES, FOR THE FOLLOWING PRIVATE STREETS.
48. APPROVED VARIANCES ARE LISTED AS FOLLOWS:

CONSTRUCTION NOTES - APPENDIX E-2

A. GRADING AND EROSION CONTROL NOTES

(THE MOST CURRENT GRADING AND EROSION CONTROL NOTES SHALL BE OBTAINED FROM STORMWATER)

B. STREET IMPROVEMENTS NOTES

1. ALL STREET CONSTRUCTION IS SUBJECT TO THE GENERAL NOTES ON THE COVER SHEET OF THESE PLANS AS WELL AS THE STREET IMPROVEMENTS NOTES LISTED HERE.
2. A PAVING SECTION DESIGN, SIGNED AND STAMPED BY A COLORADO LICENSED ENGINEER, MUST BE SUBMITTED TO THE LOCAL ENTITY ENGINEER FOR APPROVAL, PRIOR TO ANY STREET CONSTRUCTION ACTIVITY, (FULL DEPTH ASPHALT SECTIONS ARE NOT PERMITTED AT A DEPTH GREATER THAN 8 INCHES OF ASPHALT). THE JOB MIX SHALL BE SUBMITTED FOR APPROVAL PRIOR TO PLACEMENT OF ANY ASPHALT.
3. WHERE PROPOSED PAVING ADJOINS EXISTING ASPHALT, THE EXISTING ASPHALT SHALL BE SAW CUT, A MINIMUM DISTANCE OF 12 INCHES FROM THE EXISTING EDGE, TO CREATE A CLEAN CONSTRUCTION JOINT. THE DEVELOPER SHALL BE REQUIRED TO REMOVE EXISTING PAVEMENT TO A DISTANCE WHERE A CLEAN CONSTRUCTION JOINT CAN BE MADE. WHEEL CUTS SHALL NOT BE ALLOWED.
4. STREET SUBGRADES SHALL BE SCARIFIED THE TOP 12 INCHES AND RE-COMPACTED PRIOR TO SUBBASE INSTALLATION. NO BASE MATERIAL SHALL BE LAID UNTIL THE SUBGRADE HAS BEEN INSPECTED AND APPROVED BY THE LOCAL ENTITY ENGINEER.
5. FT. COLLINS ONLY. VALVE BOXES AND MANHOLES ARE TO BE BROUGHT UP TO GRADE AT THE TIME OF PAVEMENT PLACEMENT OR OVERLAY. VALVE BOX ADJUSTING RINGS ARE NOT ALLOWED.
6. WHEN AN EXISTING ASPHALT STREET MUST BE CUT, THE STREET MUST BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. THE EXISTING STREET CONDITION SHALL BE DOCUMENTED BY THE INSPECTOR BEFORE ANY CUTS ARE MADE. CUTTING AND PATCHING SHALL BE DONE IN CONFORMANCE WITH CHAPTER 25, RECONSTRUCTION AND REPAIR. THE FINISHED PATCH SHALL BLEND SMOOTHLY INTO THE EXISTING SURFACE. THE DETERMINATION OF NEED FOR A COMPLETE OVERLAY SHALL BE MADE BY THE LOCAL ENTITY ENGINEER. ALL OVERLAY WORK SHALL BE COORDINATED WITH ADJACENT LANDOWNERS SUCH THAT FUTURE PROJECTS DO NOT CUT THE NEW ASPHALT OVERLAY WORK.
7. ALL TRAFFIC CONTROL DEVICES SHALL BE IN CONFORMANCE WITH THESE PLANS OR AS OTHERWISE SPECIFIED IN M.U.T.C.D. (INCLUDING COLORADO SUPPLEMENT) AND AS PER THE RIGHT-OF-WAY WORK PERMIT TRAFFIC CONTROL PLAN.
8. THE DEVELOPER IS REQUIRED TO PERFORM A GUTTER WATER FLOW TEST IN THE PRESENCE OF THE LOCAL ENTITY INSPECTOR AND PRIOR TO INSTALLATION OF ASPHALT. GUTTERS THAT HOLD MORE THAN 1 INCH DEEP OR 5 FEET LONGITUDINALLY, OF WATER, SHALL BE COMPLETELY REMOVED AND RECONSTRUCTED TO DRAIN PROPERLY.
9. PRIOR TO PLACEMENT OF H.B.P. OR CONCRETE WITHIN THE STREET *AND* AFTER MOISTURE/DENSITY TESTS HAVE BEEN TAKEN ON THE SUBGRADE MATERIAL (WHEN A FULL DEPTH SECTION IS PROPOSED) OR ON THE SUBGRADE AND BASE MATERIAL (WHEN A COMPOSITE SECTION IS PROPOSED), A MECHANICAL "PROOF ROLL" WILL BE REQUIRED. THE ENTIRE SUBGRADE AND/OR BASE MATERIAL SHALL BE ROLLED WITH A HEAVILY LOADED VEHICLE HAVING A TOTAL GVW OF NOT LESS THAN 50,000 LBS. AND A SINGLE AXLE WEIGHT OF AT LEAST 18,000 LBS. WITH PNEUMATIC TIRES INFLATED TO NOT LESS THAT 90 P.S.I.G. ìPROOF ROLLî VEHICLES SHALL NOT TRAVEL AT SPEEDS GREATER THAN 3 M.P.H. ANY PORTION OF THE SUBGRADE OR BASE MATERIAL WHICH EXHIBITS EXCESSIVE PUMPING OR DEFORMATION, AS DETERMINED BY THE LOCAL ENTITY ENGINEER, SHALL BE REWORKED, REPLACED OR OTHERWISE MODIFIED TO FORM A SMOOTH, NON-YIELDING SURFACE. THE LOCAL ENTITY ENGINEER SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE ìPROOF ROLL.î ALL ìPROOF ROLLSî SHALL BE PREFORMED IN THE PRESENCE OF AN INSPECTOR.

C. TRAFFIC SIGNING AND PAVEMENT MARKING CONSTRUCTION NOTES

1. ALL SIGNAGE AND MARKING IS SUBJECT TO THE GENERAL NOTES ON THE COVER SHEET OF THESE PLANS, AS WELL AS THE TRAFFIC SIGNING AND MARKING CONSTRUCTION NOTES LISTED HERE.
2. ALL SYMBOLS, INCLUDING ARROWS, ONLYS, CROSSWALKS, STOP BARS, ETC. SHALL BE PRE-FORMED THERMO-PLASTIC.
3. ALL SIGNAGE SHALL BE PER LOCAL ENTITY STANDARDS AND THESE PLANS OR AS OTHERWISE SPECIFIED IN MUTCD.
4. ALL LANE LINES FOR ASPHALT PAVEMENT SHALL RECEIVE TWO COATS OF LATEX PAINT WITH GLASS BEADS.
5. ALL LANE LINES FOR CONCRETE PAVEMENT SHOULD BE EPOXY PAINT.
6. PRIOR TO PERMANENT INSTALLATION OF TRAFFIC STRIPING AND SYMBOLS, THE DEVELOPER SHALL PLACE TEMPORARY TABS OR TAPE DEPICTING ALIGNMENT AND PLACEMENT OF THE SAME. THEIR PLACEMENT SHALL BE APPROVED BY THE LOCAL ENTITY ENGINEER PRIOR TO PERMANENT INSTALLATION OF STRIPING AND SYMBOLS.
7. PRE-FORMED THERMO-PLASTIC APPLICATIONS SHALL BE AS SPECIFIED IN THESE PLANS AND/OR THESE STANDARDS.
8. EPOXY APPLICATIONS SHALL BE APPLIED AS SPECIFIED IN CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
9. ALL SURFACES SHALL BE THOROUGHLY CLEANED PRIOR TO INSTALLATION OF STRIPING OR MARKINGS.
10. ALL SIGN POSTS SHALL UTILIZE BREAK-AWAY ASSEMBLIES AND FASTENERS PER THE STANDARDS.
11. A FIELD INSPECTION OF LOCATION AND INSTALLATION OF ALL SIGNS SHALL BE PERFORMED BY THE LOCAL ENTITY ENGINEER. ALL DISCREPANCIES IDENTIFIED DURING THE FIELD INSPECTION MUST BE CORRECTED BEFORE THE 2-YEAR WARRANTY PERIOD WILL BEGIN.
12. THE DEVELOPER INSTALLING SIGNS SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES.
13. SPECIAL CARE SHALL BE TAKEN IN SIGN LOCATION TO ENSURE AN UNOBSTRUCTED VIEW OF EACH SIGN.
14. SIGNAGE AND STRIPING HAS BEEN DETERMINED BY INFORMATION AVAILABLE AT THE TIME OF REVIEW. PRIOR TO INITIATION OF THE WARRANTY PERIOD, THE LOCAL ENTITY ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL SIGNAGE AND/OR STRIPING IF THE LOCAL ENTITY ENGINEER DETERMINES THAT AN UNFORESEEN CONDITION WARRANTS SUCH SIGNAGE ACCORDING TO THE MUTCD OR THE CDOT *M AND S STANDARDS*. ALL SIGNAGE AND STRIPING SHALL FALL UNDER THE REQUIREMENTS OF THE 2-YEAR WARRANTY PERIOD FOR NEW CONSTRUCTION (EXCEPT FAIR WEAR ON TRAFFIC MARKINGS).
15. SLEEVES FOR SIGN POSTS SHALL BE REQUIRED FOR USE IN ISLANDS/MEDIANS. REFER TO CHAPTER 14, TRAFFIC CONTROL DEVICES, FOR ADDITIONAL DETAIL.

D. STORM DRAINAGE NOTES

1. THE CITY OF FORT COLLINS SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF STORM DRAINAGE FACILITIES LOCATED ON PRIVATE PROPERTY. MAINTENANCE OF ONSITE DRAINAGE FACILITIES SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER(S).
2. ALL RECOMMENDATIONS OF THE FINAL DRAINAGE AND EROSION CONTROL STUDY (DRAINAGE LETTER, 2014.09.10) BY ENERTIA CONSULTING GROUP SHALL BE FOLLOWED AND IMPLEMENTED.
3. PRIOR TO FINAL INSPECTION AND ACCEPTANCE BY THE CITY OF FORT COLLINS, CERTIFICATION OF THE DRAINAGE FACILITIES, BY A REGISTERED ENGINEER, MUST BY SUBMITTED TO AND APPROVED BY THE STORMWATER UTILITY DEPARTMENT. CERTIFICATION SHALL BE SUBMITTED TO THE STORMWATER UTILITY DEPARTMENT AT LEAST TWO WEEKS PRIOR TO THE RELEASE OF A CERTIFICATE OF OCCUPANCY FOR SINGLE FAMILY UNITS. FOR COMMERCIAL PROPERTIES, CERTIFICATION SHALL BY SUBMITTED TO THE STORMWATER UTILITY DEPARTMENT AT LEAST TWO WEEKS PRIOR TO THE RELEASE OF ANY BUILDING PERMITS IN EXCESS OF THOSE ALLOWED PRIOR TO CERTIFICATION PER THE DEVELOPMENT AGREEMENT.

E. WATERLINE NOTE

1. THE MINIMUM COVER OVER WATER LINES IS 4.5 FEET AND THE MAXIMUM COVER IS 5.5 FEET UNLESS OTHERWISE NOTED IN THE PLANS AND APPROVED BY THE WATER UTILITY.

"GENERAL CONSTRUCTION NOTES #1 THROUGH 18, 20 THROUGH 39, AND 42 THROUGH 46 AS LISTED IN APPENDIX E-1 OF THE LARIMER COUNTY URBAN AREA STREET STANDARDS (LCUASS) SHALL APPLY AND BE FOLLOWED FOR THIS PROJECT."

"THE CONSTRUCTION NOTES UNDER SUBSECTION STREET IMPROVEMENT NOTES AND TRAFFIC SIGNING, AND PAVEMENT MARKING CONSTRUCTION NOTES IN APPENDIX E-2 OF THE LARIMER COUNTY URBAN AREA STREET STANDARDS (LCUASS) SHALL APPLY AND BE FOLLOWED BY THIS PROJECT AS APPLICABLE."

NO.	DATE	REVISION

DSGN JSO | DR MGB | CHK JSO | APVD JSO

ENERTIA CONSULTING GROUP
1437 LARIMER STREET
DENVER, COLORADO 80202

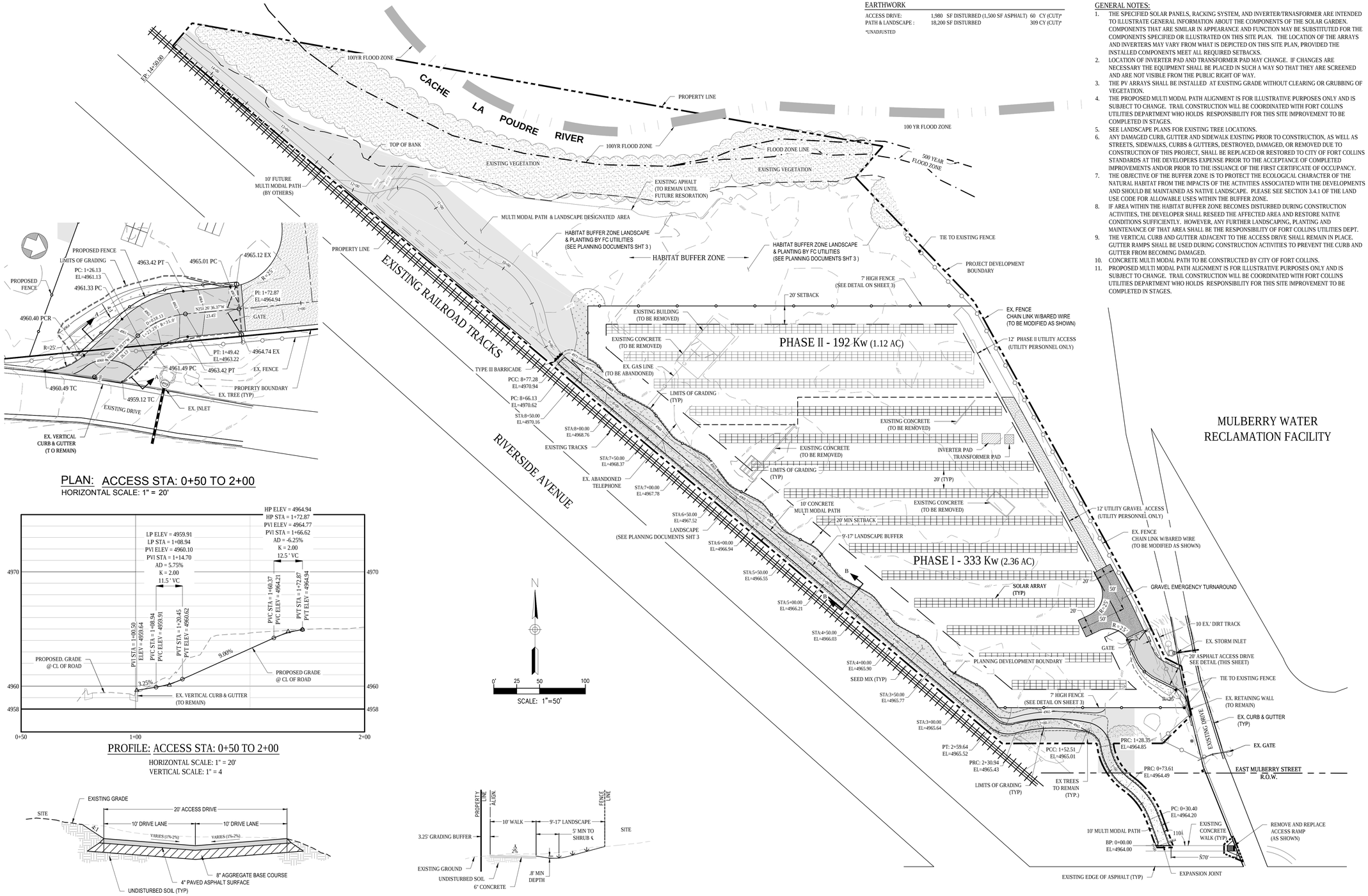
Clean Energy COLLECTIVE Community-owned Solar

CLEAN ENERGY COLLECTIVE
RIVERSIDE COMMUNITY SOLAR GARDEN
FORT COLLINS, COLORADO

UTILITY PLAN DOCUMENTS
GENERAL NOTES

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 SCALE

DATE	OCTOBER 09, 2014
FILE	UTIL
DWG	GEN
SHEET	1 OF 2



PLAN: ACCESS STA: 0+50 TO 2+00

HORIZONTAL SCALE: 1" = 20'

PROFILE: ACCESS STA: 0+50 TO 2+00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 4

A-A TYPICAL ALL WEATHER ACCESS DRIVE SECTION
NTS

B-B MULTI MODAL PATH SECTION
NTS

EARTHWORK

ACCESS DRIVE:	1,980 SF DISTURBED (1,500 SF ASPHALT)	60 CY (CUT)*
PATH & LANDSCAPE :	18,200 SF DISTURBED	309 CY (CUT)*

*UNADJUSTED

GENERAL NOTES:

1. THE SPECIFIED SOLAR PANELS, RACKING SYSTEM, AND INVERTER/TRNASFORMER ARE INTENDED TO ILLUSTRATE GENERAL INFORMATION ABOUT THE COMPONENTS OF THE SOLAR GARDEN. COMPONENTS THAT ARE SIMILAR IN APPEARANCE AND FUNCTION MAY BE SUBSTITUTED FOR THE COMPONENTS SPECIFIED OR ILLUSTRATED ON THIS SITE PLAN. THE LOCATION OF THE ARRAYS AND INVERTERS MAY VARY FROM WHAT IS DEPICTED ON THIS SITE PLAN, PROVIDED THE INSTALLED COMPONENTS MEET ALL REQUIRED SETBACKS.
2. LOCATION OF INVERTER PAD AND TRANSFORMER PAD MAY CHANGE. IF CHANGES ARE NECESSARY THE EQUIPMENT SHALL BE PLACED IN SUCH A WAY SO THAT THEY ARE SCREENED AND ARE NOT VISIBLE FROM THE PUBLIC RIGHT OF WAY.
3. THE PV ARRAYS SHALL BE INSTALLED AT EXISTING GRADE WITHOUT CLEARING OR GRUBBING OF VEGETATION.
4. THE PROPOSED MULTI MODAL PATH ALIGNMENT IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS SUBJECT TO CHANGE. TRAIL CONSTRUCTION WILL BE COORDINATED WITH FORT COLLINS UTILITIES DEPARTMENT WHO HOLDS RESPONSIBILITY FOR THIS SITE IMPROVEMENT TO BE COMPLETED IN STAGES.
5. SEE LANDSCAPE PLANS FOR EXISTING TREE LOCATIONS.
6. ANY DAMAGED CURB, GUTTER AND SIDEWALK EXISTING PRIOR TO CONSTRUCTION, AS WELL AS STREETS, SIDEWALKS, CURBS & GUTTERS, DESTROYED, DAMAGED, OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT, SHALL BE REPLACED OR RESTORED TO CITY OF FORT COLLINS STANDARDS AT THE DEVELOPERS EXPENSE PRIOR TO THE ACCEPTANCE OF COMPLETED IMPROVEMENTS AND/OR PRIOR TO THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY.
7. THE OBJECTIVE OF THE BUFFER ZONE IS TO PROTECT THE ECOLOGICAL CHARACTER OF THE NATURAL HABITAT FROM THE IMPACTS OF THE ACTIVITIES ASSOCIATED WITH THE DEVELOPMENTS AND SHOULD BE MAINTAINED AS NATIVE LANDSCAPE. PLEASE SEE SECTION 3.4.1 OF THE LAND USE CODE FOR ALLOWABLE USES WITHIN THE BUFFER ZONE.
8. IF AREA WITHIN THE HABITAT BUFFER ZONE BECOMES DISTURBED DURING CONSTRUCTION ACTIVITIES, THE DEVELOPER SHALL RESEED THE AFFECTED AREA AND RESTORE NATIVE CONDITIONS SUFFICIENTLY. HOWEVER, ANY FURTHER LANDSCAPING, PLANTING AND MAINTENANCE OF THAT AREA SHALL BE THE RESPONSIBILITY OF FORT COLLINS UTILITIES DEPT.
9. THE VERTICAL CURB AND GUTTER ADJACENT TO THE ACCESS DRIVE SHALL REMAIN IN PLACE. GUTTER RAMPS SHALL BE USED DURING CONSTRUCTION ACTIVITIES TO PREVENT THE CURB AND GUTTER FROM BECOMING DAMAGED.
10. CONCRETE MULTI MODAL PATH TO BE CONSTRUCTED BY CITY OF FORT COLLINS.
11. PROPOSED MULTI MODAL PATH ALIGNMENT IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS SUBJECT TO CHANGE. TRAIL CONSTRUCTION WILL BE COORDINATED WITH FORT COLLINS UTILITIES DEPARTMENT WHO HOLDS RESPONSIBILITY FOR THIS SITE IMPROVEMENT TO BE COMPLETED IN STAGES.

COLORADO LICENSED JEFFREY SEAN NEHAN 33568 PROFESSIONAL ENGINEER

NO.	DATE	DSGN	DR	CHK	APVD
		JSO	MGB	JSO	JSO

REVISION

ENERTIA CONSULTING GROUP
1437 LARIMER STREET
DENVER, COLORADO 80202

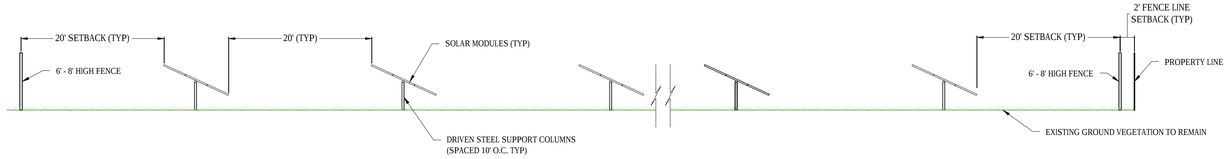
Clean Energy COLLECTIVE Community-owned Solar

CLEAN ENERGY COLLECTIVE
RIVERSIDE COMMUNITY SOLAR GARDEN
FORT COLLINS, COLORADO

UTILITY PLAN DOCUMENTS
UTILITY & GRADING PLAN

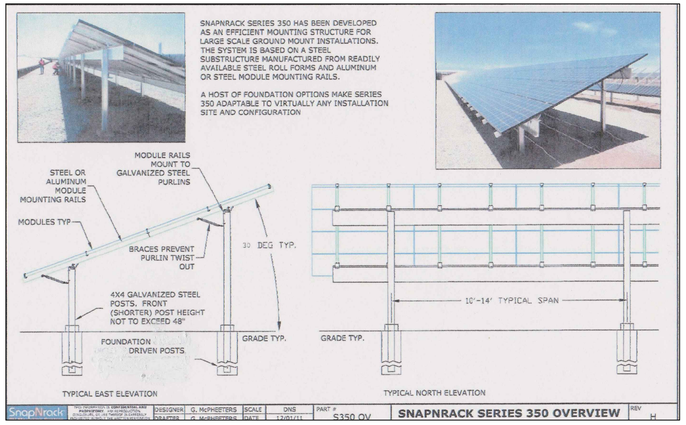
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 SCALE

DATE	OCTOBER 09, 2014
FILE	UTIL
DWG	UTP
SHEET	1 OF 3



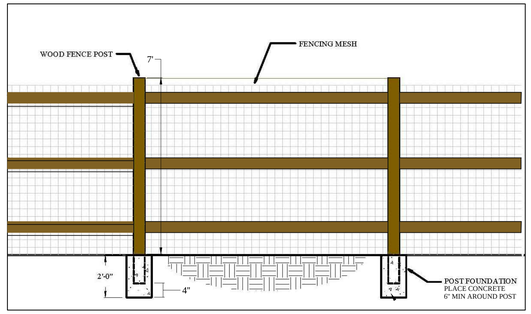
TYPICAL SOLAR GARDEN SECTION VIEW (VIEW FROM RIVERSIDE AVENUE)

SCALE: 1" = 10'



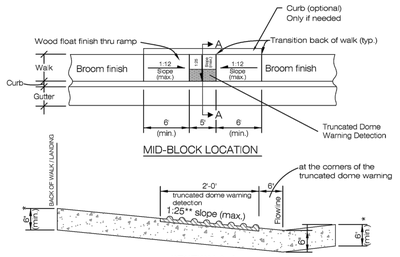
PV ARRAY RACKING SYSTEM

NOT TO SCALE



NOT TO SCALE

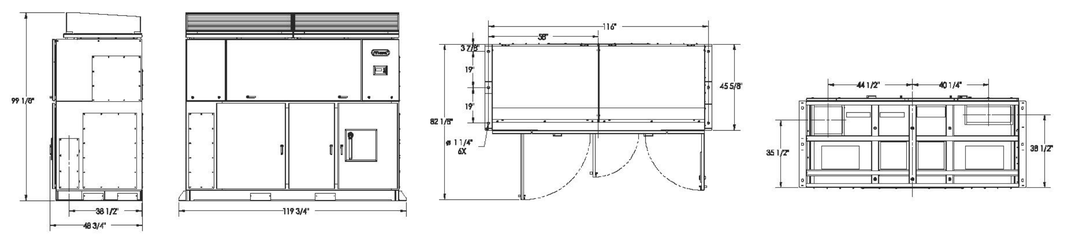
TYPICAL MESH FENCE DETAIL



NOTES:
1. * 6" Thickness applies to entire ramp area.
2. ** 1:25 Unless a landing behind ramp (then ramp can be 1:12 with 1:20 on the truncated dome warning.)
3. See **CONST. DWG. 1606(a) and 1607** for Fort Collins.
4. See **CONST. DWG. 1614, 1615 and 1616** for Loveland.

TYPICAL ACCESS RAMP

NOT TO SCALE



SIDE FRONT TOP BOTTOM

INVERTER PAD

NOT TO SCALE

NO.	DATE	DSGN	DR	CHK	APVD
REVISION		JSO	MGB	JSO	JSO

ENERTIA CONSULTING GROUP
1437 LARIMER STREET
DENVER, COLORADO 80202

Clean Energy COLLECTIVE Community-owned Solar

CLEAN ENERGY COLLECTIVE
RIVERSIDE COMMUNITY SOLAR GARDEN
FORT COLLINS, COLORADO

UTILITY PLAN DOCUMENTS
TYPICAL DETAILS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 SCALE

DATE OCTOBER 09, 2014
FILE UTIL
DWG DTL
SHEET 1 OF 4

City of Fort Collins

Planning, Development & Transportation

Community Development & Neighborhood Services
281 North College Ave.
P.O. Box 580
Fort Collins, CO 80522-0580
970.224.6046
970.224.6050 - fax
fcgov.com

MEMORANDUM

TO: Interested Parties

FROM: Laurie Kadrich, Director of Community Development and Neighborhood Services
Cameron Gloss, Planning Manager

DATE: September 26, 2014

SUBJECT: Administrative Interpretation #3-14 Regarding the Application of Sections 3.8.32(D)(1)(a), 3.8.32(D)(2)(a) and 3.8.32(D)(3)(a) of the Land Use Code – Solar Energy Systems.

BACKGROUND:

Ryan Mounce, on behalf of Planning Services, has submitted a request for interpretation of Land Use Code Sections 3.8.32(D)(1)(a), 3.8.32(D)(2)(a) and 3.8.32(D)(3)(a), defining the type and size of solar energy systems. A Project Development Plan for a solar energy system has been submitted that is on a parcel of land approximately 6.9 acres in size, but the land area dedicated to solar energy collection is approximately 3.5 acres in size.

Small-Scale, Medium-Scale and Large-Scale Solar Energy Systems are regulated by lot size based on the specific text described in Section 3.8.32.

The following question has been posed for interpretation:

Is the lot size meant to be representative of the size of the area devoted to solar energy collection, or the size of the parcel of land on which the solar energy system will be situated?

Within Article 5, Terms and Definitions, of the Land Use Code,

> "*Solar energy system* shall mean a system of solar collectors and other equipment that relies upon sunshine as an energy source and is capable of collecting, distributing and storing (if appropriate to the technology) the sun's radiant energy. A *solar energy system* includes, but is not limited to, ground-mounted and building-mounted photovoltaic, solar thermal or solar hot water panels, and light pole and electric charging station-mounted solar panels. Solar energy systems may be considered accessory uses to other uses on a lot, or principal uses if located on vacant lots."

Solar energy system is further defined based on the scale of the facility, as follows:

Solar energy system, large-scale shall mean a solar energy system **covering** more than five (5) acres.

Solar energy system, medium-scale shall mean a solar energy system covering between one half (0.5) acre and five (5) acres.

Solar energy system, small-scale shall mean a solar energy system covering less than one-half (0.5) acre."

INTERPRETATION:

Definitions within Article 5 accurately describe how land "coverage" of the solar energy system determines its size. It is the "footprint" of the system, including all of the attendant components, i.e.-solar arrays, inverters and security fencing, which provides the only consistent way to define the scale.

Therefore, land area devoted to the solar energy system dictates the scale of the system, not the lot area upon which the system is sited.

CONCLUSION:

Land Use Code Sections 3.8.32(D)(1)(a), 3.8.32(D)(2)(a) and 3.8.32(D)(3)(a) should be amended to be consistent with the specific definitions for solar energy systems as contained in Article 5.

1437 Larimer St.
Denver, CO 80202
720•473•3131
sean.ohearn@enertiacg.com

August 29, 2014

Ms. Michelle Zimmerman, Land Manager
Clean Energy Collective
3005 Center Green Drive, Suite 205
Boulder, CO 80301

RE: Existing Conditions Inspection Report
South Bank of the Cache La Poudre River
500 Riverside Avenue, Fort Collins

Dear Ms. Zimmerman:

Enertia Consulting Group (Enertia) has performed a visual inspection of areas along the upper bank of the Cache La Poudre River at 500 Riverside Avenue in Fort Collins (the Property). The Property, located northeast of the East Mulberry St/Riverside Ave intersection, is the planned Clean Energy Collective (CEC) Riverside Community Solar Garden site and the former location of a pickle processing plant.

As shown on the attached site plan, the Cache La Poudre River transects the northern limit of the Property. In the past, asphalt has been placed on the ground surface at the top of the river bank. In addition to the asphalt along the top of the river bank, concrete and other materials/debris have been placed or dumped over the bank. The attached existing conditions photographs illustrate the location of these materials at the top of the bank and along the upper bank.

While the reason for placing the asphalt at the top of the bank is not known, it's our opinion that this material serves to reduce erosion at the top of the bank without degrading the surrounding ground surface and vegetation. Since the installation and operation of the planned solar garden will not significantly change surface water runoff characteristics, it's recommended that the asphalt remain in place.

We trust that the information provided is acceptable and complete. Please let me know if you have any questions or require additional information.

Sincerely,

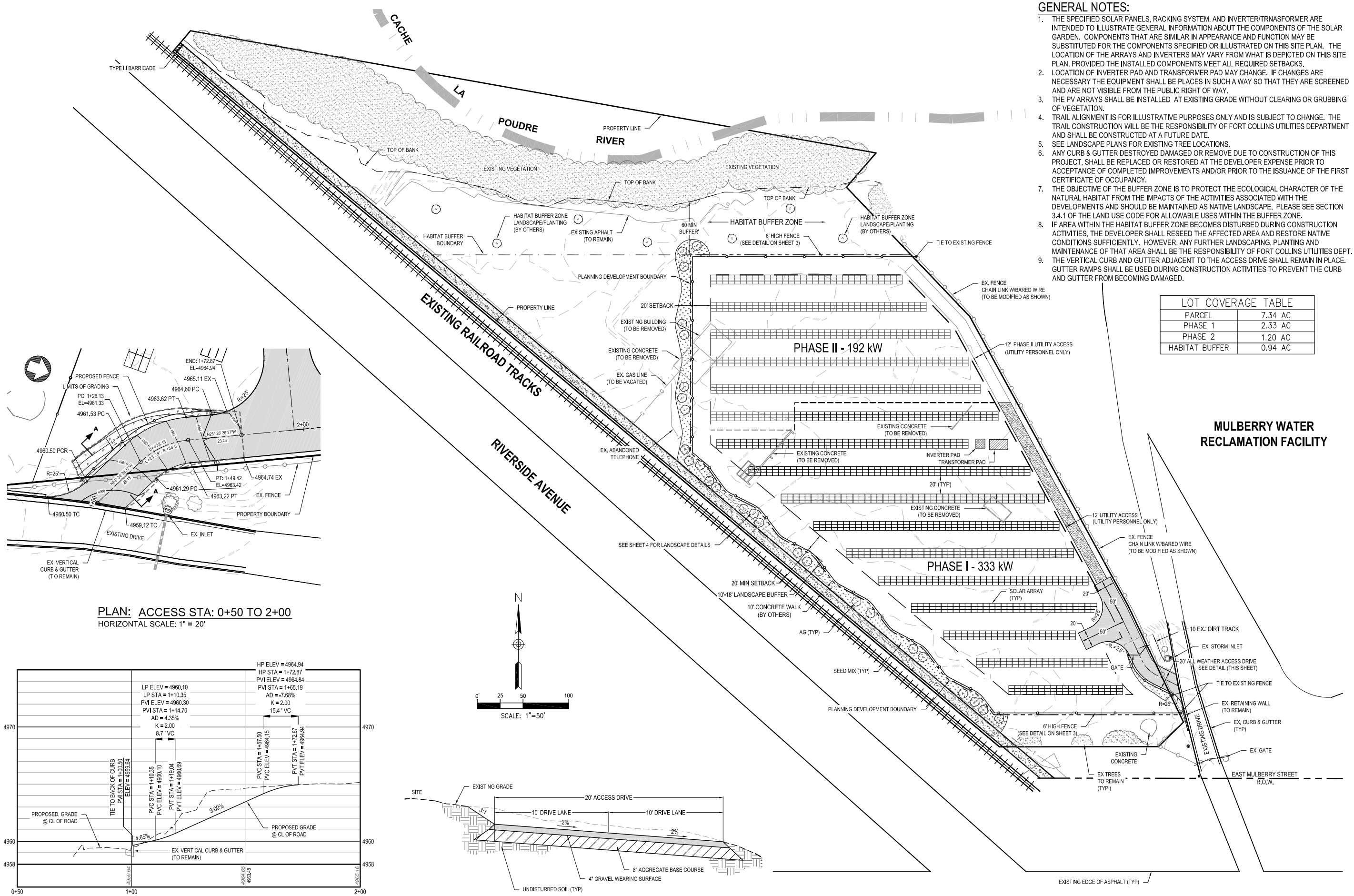
Sean O'Hearn, PE, PG
Managing Partner

attachments

GENERAL NOTES:

1. THE SPECIFIED SOLAR PANELS, RACKING SYSTEM, AND INVERTER/TRNASFORMER ARE INTENDED TO ILLUSTRATE GENERAL INFORMATION ABOUT THE COMPONENTS OF THE SOLAR GARDEN. COMPONENTS THAT ARE SIMILAR IN APPEARANCE AND FUNCTION MAY BE SUBSTITUTED FOR THE COMPONENTS SPECIFIED OR ILLUSTRATED ON THIS SITE PLAN. THE LOCATION OF THE ARRAYS AND INVERTERS MAY VARY FROM WHAT IS DEPICTED ON THIS SITE PLAN, PROVIDED THE INSTALLED COMPONENTS MEET ALL REQUIRED SETBACKS.
2. LOCATION OF INVERTER PAD AND TRANSFORMER PAD MAY CHANGE. IF CHANGES ARE NECESSARY THE EQUIPMENT SHALL BE PLACES IN SUCH A WAY SO THAT THEY ARE SCREENED AND ARE NOT VISIBLE FROM THE PUBLIC RIGHT OF WAY.
3. THE PV ARRAYS SHALL BE INSTALLED AT EXISTING GRADE WITHOUT CLEARING OR GRUBBING OF VEGETATION.
4. TRAIL ALIGNMENT IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS SUBJECT TO CHANGE. THE TRAIL CONSTRUCTION WILL BE THE RESPONSIBILITY OF FORT COLLINS UTILITIES DEPARTMENT AND SHALL BE CONSTRUCTED AT A FUTURE DATE.
5. SEE LANDSCAPE PLANS FOR EXISTING TREE LOCATIONS.
6. ANY CURB & GUTTER DESTROYED DAMAGED OR REMOVE DUE TO CONSTRUCTION OF THIS PROJECT, SHALL BE REPLACED OR RESTORED AT THE DEVELOPER EXPENSE PRIOR TO ACCEPTANCE OF COMPLETED IMPROVEMENTS AND/OR PRIOR TO THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY.
7. THE OBJECTIVE OF THE BUFFER ZONE IS TO PROTECT THE ECOLOGICAL CHARACTER OF THE NATURAL HABITAT FROM THE IMPACTS OF THE ACTIVITIES ASSOCIATED WITH THE DEVELOPMENTS AND SHOULD BE MAINTAINED AS NATIVE LANDSCAPE. PLEASE SEE SECTION 3.4.1 OF THE LAND USE CODE FOR ALLOWABLE USES WITHIN THE BUFFER ZONE.
8. IF AREA WITHIN THE HABITAT BUFFER ZONE BECOMES DISTURBED DURING CONSTRUCTION ACTIVITIES, THE DEVELOPER SHALL RESEED THE AFFECTED AREA AND RESTORE NATIVE CONDITIONS SUFFICIENTLY. HOWEVER, ANY FURTHER LANDSCAPING, PLANTING AND MAINTENANCE OF THAT AREA SHALL BE THE RESPONSIBILITY OF FORT COLLINS UTILITIES DEPT.
9. THE VERTICAL CURB AND GUTTER ADJACENT TO THE ACCESS DRIVE SHALL REMAIN IN PLACE. GUTTER RAMPS SHALL BE USED DURING CONSTRUCTION ACTIVITIES TO PREVENT THE CURB AND GUTTER FROM BECOMING DAMAGED.

LOT COVERAGE TABLE	
PARCEL	7.34 AC
PHASE 1	2.33 AC
PHASE 2	1.20 AC
HABITAT BUFFER	0.94 AC



PLAN: ACCESS STA: 0+50 TO 2+00
HORIZONTAL SCALE: 1" = 20'

PROFILE: ACCESS STA: 0+50 TO 2+00
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 4

TYPICAL ALL WEATHER ACCESS DRIVE
SECTION A-A

MULBERRY WATER RECLAMATION FACILITY

NO.	DATE	DSGN	DR	MGB	CHK	JSO	APVD	JSO
				REVISION				

ENERTIA CONSULTING GROUP
1437 LARIMER STREET
DENVER, COLORADO 80202

Clean Energy COLLECTIVE Community-owned Solar

CLEAN ENERGY COLLECTIVE
RIVERSIDE COMMUNITY SOLAR GARDEN
FORT COLLINS, COLORADO

SITE PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1" SCALE

DATE	AUGUST 27, 2014
FILE	
DWG	SP
SHEET	2 OF 4

Existing Conditions Photographs

South Bank of Cache La Poudre River
500 Riverside Avenue, Fort Collins

ENERTIA CONSULTING GROUP LLC

powered by Clean Energy COLLECTIVE®

Clean Energy COLLECTIVE®

August 26, 2014

City of Fort Collins
Ryan Mounce
Current Planning
218 N College Ave
Fort Collins, CO 80542

Dear Mr. Mounce,

We would like to request the following Alternative Compliance for Landscape Requirements.

The current standard calls for landscaping and trees associated with a development project be planted and maintained on the project site.

The Riverside Community Solar Project is requesting an alternative compliance to this standard for the following reasons:

1. The project is a solar array that when shaded, severely reduces production. Therefore, planting trees or plants that will be tall enough to shade the panels are not recommended.
2. The current condition at the site is a very open, grassy field. To maintain the condition of the property and view to the river corridor from the public right of way on Riverside Avenue, we propose smaller, shorter, and more open character landscaping.
3. The historical use of the property resulted in a higher salinity soil condition. While this soil condition is coming back to normal according to a study by Walsh Environmental, it is still enough at the surface that certain plants may not be recommended.
4. There is not currently irrigation on the site and because the development of the solar project will not require any water, no water lines or irrigation will be proposed.

The solar installation will use fencing in the style of a game fence including wooden round posts with wire square mesh (about 4" grid pattern) in a wavy or meandering fashion to break up the view from the public right of way. Landscaping of grasses and shrubs will be planted along this fence as well as to the north of the lease area between the solar project and the top of the bank of the river corridor.

We would like to request an alternative compliance to the landscaping requirements for the reasons listed above. Please contact me with any questions or for clarification.

Sincerely,

Michelle Zimmerman
Land Manager

401 Tree Farm Drive, Carbondale, CO 81623 // phone 800.646.0323 // fax 970.692.2592 // easycleanenergy.com

Clean Energy COLLECTIVE®

July 24, 2014

City of Fort Collins
Ryan Mounce
Current Planning
218 N College Ave
Fort Collins, CO 80542

Dear Mr. Mounce,

We would like to request the following Alternative Compliance with Section 3.4.2(B) regarding Setbacks from Domestic Wastewater Treatment Works to Habitable Structures.

Current Standard
3.4.2(B) - Setbacks from Domestic Wastewater Treatment Works to Habitable Structures – Unless specifically authorized pursuant to the provisions of paragraph (C) below, the minimum horizontal distances set forth in subparagraph (2) of this subsection shall be maintained between the various kinds of wastewater treatment works listed in said subparagraph and any of the following uses:

(a) any residential use;
(b) any commercial/retail use except frozen food lockers, enclosed mini-storage facilities and properties used principally as parking lots or parking garages;
(c) any industrial use except warehouses, properties used for recreational vehicle, boat or truck storage, composting facilities, outdoor storage facilities, junkyards, transport terminals, recycling facilities, and resource extraction;
(d) any institutional/civic/public use except cemeteries, golf courses, public facilities, parks, recreation and other open lands, places of worship or assembly; and
(e) any accessory/miscellaneous uses except agricultural activities, farm animals, satellite dishes (greater than thirty-nine [39] inches in diameter), wireless telecommunications equipment and wireless telecommunications facilities.

Description of need for Alternative Compliance
The Riverside Community Solar Project is being developed to provide a community solar opportunity for ratepayers in the Fort Collins Utilities territory to purchase off-site solar panels as well as show the progressive efforts of the City of Fort Collins by locating this project in a gateway area for the City.

The solar installation will not house any employees beyond the 6-8 week construction period and an annual inspection performed by one employee for an average or 1-2 hours. The development will not omit emissions, noise, runoff, heat, or pollution. Additionally, this use of the property is similar to other uses that have been granted buffer exemptions or alternative compliance.

The current setback for the Mulberry Water Reclamation Facility is 1000' (see attached exhibit). A portion of the development site falls within the 1000' setback line. However, the Mulberry Water

Clean Energy COLLECTIVE

Reclamation Facility has been significantly upgraded with aggressive odor controls and additional treatment technologies.

We would like to request an alternative setback distance from 1000' to 100', acknowledging the upgrades and treatment technologies that have been implemented, as well as the limited number of humans that will be on-site post the 6-8 week construction phase, and the consistency with other uses subject to buffer exemptions, to be substituted for the setback distance within the standard 3.4.2(B) - Setbacks from Domestic Wastewater Treatment Works to Habitable Structures.

Sincerely,

Michelle Zimmerman
Land Manager

401 Tree Farm Drive, Carbondale, CO 81623 // phone 800.646.0323 // fax 970.692.2592 // easycleanenergy.com

City of Fort Collins

Utilities Executive Director
700 Wood Street
PO Box 580
Fort Collins, CO 80522
970.221-6702
fcgov.com

MEMORANDUM

Date: September 22, 2014

To: Ryan Mounce, Associate Planner, Community Development and Neighborhood Services

From: Kevin R. Gertig, Utilities Executive Director KRG

Re: Clean Energy Collective request for Alternative Compliance reduction to the Land Use Code Air Quality Odor Buffer

Clean Energy Collective has requested a reduction of the Air Quality odor buffer distance from the Mulberry Water Reclamation Facility (MWRF) from 1000' to 100' as part of their Overall Development Plan submittal. The setback distance is set in the Land Use Code section 3.4.2(B) while Alternative Compliance to this standard is allowed per Section 3.4.2(C), as shown below:

3.4.2 Air Quality

(A) ***General Standard.*** The project shall conform to all applicable local, state and federal air quality regulations and standards, including, but not limited to, those regulating odor, dust, fumes or gases which are noxious, toxic or corrosive, and suspended solid or liquid particles.

(B) ***Setbacks from Domestic Wastewater Treatment Works to Habitable Structures.***

(1) Unless specifically authorized pursuant to the provisions of paragraph (C) below, the minimum horizontal distances set forth in subparagraph (2) of this subsection shall be maintained between the various kinds of wastewater treatment works listed in said subparagraph and any of the following uses:

(a) any residential use;

(b) any commercial/retail use except frozen food lockers, enclosed mini-storage facilities and properties used principally as parking lots or parking garages;

(c) any industrial use except warehouses, properties used for recreational vehicle, boat or truck storage, composting facilities,

outdoor storage facilities, junkyards, transport terminals, recycling facilities, and resource extraction;

(d) any institutional/civic/public use except cemeteries, golf courses, public facilities, parks, recreation and other open lands, places of worship or assembly; and

(e) any accessory/miscellaneous uses except agricultural activities, farm animals, satellite dishes (greater than thirty-nine [39] inches in diameter), wireless telecommunications equipment and wireless telecommunications facilities.

(2) The following minimum horizontal distances shall apply to the kinds of wastewater treatment works listed below and the uses specified in subparagraph (1) above:

(a) Non-aerated lagoons: one thousand three hundred twenty (1,320) feet (¼ mile).

(b) Aerated lagoons containing less than two (2) total surface acres with no surface aeration: one hundred (100) feet.

(c) Aerated lagoons containing greater than two (2) total surface acres and/or with surface aeration: one thousand (1,000) feet, or with established vegetation barriers, and/or walls, berms or other topographic features to reduce aerosol drift as approved pursuant to paragraph (C) below: five hundred (500) feet.

(d) Small mechanical plants with less than one hundred thousand (100,000) gpd capacity and all facilities with building enclosure: one hundred (100) feet.

(e) All other mechanical plants: one thousand (1,000) feet.

(C) ***Alternative Compliance.*** Upon request by an applicant, the decision maker may approve an alternative setback distance that may be substituted for a setback distance meeting the standards of this Section.

(1) *Procedure.* Alternative compliance setback plans shall be prepared and submitted in accordance with the submittal requirements for plans as set forth in this Section. The plan shall clearly identify and discuss the setback modifications proposed and the ways in which the plan will equally well or better accomplish the purpose of this Section than would a plan which complies with the standards of this Section.

(2) *Review Criteria.* To approve an alternative plan, the decision maker must first find that the proposed alternative plan accomplishes the

purposes of this Section equally well or better than would a plan which complies with the standards of this Section.

In reviewing the proposed alternative plan, the decision maker shall consider any mitigating factors that exist to counter the potential for odor problems and/or aerosol drift, including, without limitation, structural, chemical or technological mitigation occurring at the subject wastewater treatment works, established vegetation barriers and/or walls, berms, or other topographic features sufficient to serve as mitigation for odor problems and/or aerosol drift. In order to assist the decision maker in evaluating the proposed mitigation factors the Utilities Executive Director shall submit a written recommendation regarding such mitigation factors, which recommendation shall include the technical analysis and reasoning used in support of the Utilities Executive Director's recommendation.

The Alternative Compliance letter submitted by Clean Energy Collective as part of their request has been reviewed by Utilities staff and it is believed that sufficient mitigation will exist to meet the Alternative Compliance standard. Finding of sufficient mitigation is based on the following:

a) The applicant acknowledges that after construction, no staff will regularly be on-site;
b) The applicant acknowledges that they are building next to a wastewater treatment plant;
c) The solar panels themselves potentially could serve as an aerosol drift odor control measure;
d) While many upgrades and treatment technologies have been implemented; plant upsets remain possible and can cause odors;
e) Plant maintenance will be required where the odor control may be off for short periods of time;
f) The applicant and any subcontractors, must inform wastewater staff directly and immediately if any unusual odors are detected (970-221-6900); and
g) The applicant must inform future tenants of the aforementioned facts.

Based on this information, I recommend approval of the proposed alternative plan to include an alternative setback distance of 100'.

CEDAR CREEK ASSOCIATES, INC.
916 Willshire Ave. • Fort Collins, Colorado 80521

June 26, 2104

Mark Zwieg
Land Manager
Clean Energy Collective
3005 Center Green Drive, #205
Boulder, CO 80301

RE: Updated Ecological Characterization Study (ECS) Report for the Pickle Plant Project Site

Scott:

This letter report is submitted in response to the City of Fort Collins' requirement for an ECS Report summarizing the ecological features of the Pickle Plant site, which is proposed for solar energy development. This letter report is an updated report of a previous Pickle Plant ECS Reported submitted on February 15, 2011. The Pickle Plant project site is located at the northeast corner of Riverside Avenue and East Mulberry Street. The property is bounded by the Cache la Poudre River to the north, the City of Fort Collins' Wastewater Treatment Facility to the East, Riverside Avenue to the west, and Mulberry Street and existing landscaping to the south (see attached Figure 1). This report was prepared in accordance with Section 3.4.1 of the Land Use Code of the City of Fort Collins regarding the preparation of an ECS Report.

A previous field survey was completed to review site characteristics of the project area with Lindsay Ex with the City of Fort Collins on February 7, 2011. A second site reconnaissance was completed with Clean Energy Collective and City of Fort Collins staff on May 19, 2014. The field surveys were conducted to characterize existing wildlife habitats, as well as identify any unique or sensitive natural resource features. Observations recorded during the wildlife habitat field evaluation included: major vegetation communities/wildlife habitats present within the property, dominant vegetation associated with each community/habitat, and unique habitat features. Existing habitats were also evaluated regarding their ability to support populations of threatened, endangered, and other sensitive plant and wildlife species.

The following provides a summary of information required by Fort Collins Land Use Code under 3.4.1 (D) (1) items (a) through (k).

ECOLOGICAL STUDY CHARACTERIZATION CHECKLIST

(a & i) The project site was formerly occupied by a pickle production facility and was cleared of all native vegetation. As a result the majority of the site is nearly level and dominated primarily by annual weedy species or nearly bare areas with minimal vegetation cover (see attached Figure 1 and Photo 1). Common weedy species recorded on the property included kochia (*Bassia scoparia*[1]), Russian thistle (*Salsola tragus*), cheatgrass (*Bromus tectorum*), common dandelion (*Taraxacum officinale*), redstem stork's bill (*Erodium cicutarium*), knotweed (*Polygonum arenastrum*), field bindweed (*Convolvulus arvensis*), common ragweed (*Ambrosia artemisiifolia*), and mouse barley (*Hordeum murinum*). Small pockets of leafy spurge (*Euphorbia esula*), a Larimer County noxious weed, are also growing along the eastern property boundary fenceline. Areas with minimal vegetation cover appear to be the result of highly compacted soils with a high percentage of rock in the surface layer. A remnant swath of asphalt

[1] Scientific nomenclature follows USDA, NRCS Plants Database. Available online at: http://plants.usda.gov/java/

paving further degrades the ground surface at the north edge of the property (see attached Figure 1 and Photo 2). The only other habitat within the project area is riparian woodland/disturbed at the north end of the property. This riparian woodland is supported on a steep slope down to the river. The drop off from the nearly level edge of the site down to the river is approximately 50 to 60 feet with a slope of ranging from 1.25:1 to 1:1 (80 to 100 percent slope). It was classified as disturbed because it has been cleared in the past and embedded with timbers, concrete blocks, and other inorganic materials to stabilize the slope. Small areas of caving asphalt along the top edge of the slope indicate there are still some problems with slope stability. As a result of past stabilization activities, relatively small, non-native Siberian elms (*Ulmus pumila*) and boxelders (*Acer negundo*) are the principal trees growing on the slope. The only other woody species present are a few native rubber rabbitbrush (*Ericameria nauseosa*) shrubs growing along the top edge of the slope.

Past clearing and commercial activities on the Pickle Plant site has removed all natural habitat features except for the Cache la Poudre River corridor along the northern property edge. The river corridor, riparian woodlands and a narrow strip of wetlands along the river edge represent the only ecologically important habitats within the property boundaries. However, even the riparian woodlands have been degraded by past slope stabilization measures, and the steep slope restricts wetland development along the river's edge (see attached Photos 3 and 4). Surrounding land uses of highways, railroad tracks, wastewater treatment plant, golf course, and commercial properties further limit habitat value and wildlife use of the Pickle Plant property.

Wildlife sign noted on the Pickle Plant site indicate Canada geese, deer, and raccoon occasionally move the area. However, the lack of any cover and food sources for most wildlife species, as well as surrounding land uses, restrict any consistent or important wildlife use of the site.

Features of ecological value within 500 feet of the Pickle Plant site include the Cache la Poudre River corridor and riparian woodland between the east side of the property and the Wastewater Treatment Plant. This stand of riparian woodland is also on a relatively steep slope but does not appear to have been exposed to the extent of past disturbance exhibited along the slope at the north property boundary. Trees growing in the eastern riparian woodlands are also dominated by Siberian elms and boxelders, although these are more mature and of much larger stature than the trees growing along the north end of the property. These trees are contained within the Wastewater Treatment Facility property and are separated from the Pickle Plant property boundary by a 30 to 50-foot nearly level bench that does not support any woody species.

(b) No wetlands are located on the property except at the north end of the parcel along the edge of the Cache la Poudre River. Because of the very steep slope from the level edge of the property down to the river, wetland development is restricted to a narrow (3 to 5-foot wide), shoreline strip of reed canarygrass (*Phalaris arundinacea*) immediately adjacent to the river. The wetlands are jurisdictional but were not mapped since project development would have no impact on the river corridor.

(c) The project does not provide any significant or unobstructed views of natural areas or other important visual features. Views of the Cache la Poudre River corridor from all but the north edge of the property are precluded by the steep drop off from the north edge of the property down to the river.

(d) As indicated under (a & i) there are no significant native trees or other stands of native vegetation on the property.

(e) The only natural drainage in the project area is the Cache la Poudre River. The river corridor is isolated from the majority of the project area by a steep slope at the north edge of the property.

(f) Suitable habitat conditions for Preble's meadow jumping mouse (*Zapus hudsonius preblei*), Ute ladies'-tresses orchid (*Spiranthes diluvialis*), and Colorado butterfly plant (*Gaura neomexicana coloradensis*) were judged not to be present within the project area. Slopes down to the river are too steep to support suitable soil moisture conditions for the orchid or butterfly plant, and wetland herbaceous cover preferred by the jumping mouse is absent along the this portion of the river shoreline because of steep slopes and extensive amounts of concrete blocks and other inorganic materials embedded in the slope to prevent erosion.

(g) Because of past disturbances and over most portions of the project area, there are no special habitat features present except for the Cache la Poudre River corridor.

(h) The Cache la Poudre River provides a movement corridor for urban-adapted wildlife species. The river corridor is isolated from the project area, both physically and visually by the steep slope between the river and the remainder of the property.

(j) There are no issues regarding the timing of solar panel array construction on the Pickle Plant property and ecological features or wildlife use of the project area. None of the trees on or near the property exhibited any evidence of raptor nesting activity, and it is unlikely any raptors would nest near the property because of its degraded condition and the intensity of human activities surrounding the area.

(k) Development of the Pickle Plant parcel would create no additional impacts to the Cache la Poudre River corridor beyond those that currently exist with the degraded Pickle Plant site, railroad, and commercial land uses. The property is zoned RDR (River Downtown Redevelopment District) and City buffer zone standards (LUC 3.4.1) do not apply to RDR zones. Based on its current zone designation; lack of any natural habitat features; type of project proposed: and its location by existing roadways, commercial developments; and railroad right-of-way, I do not believe that any habitat enhancement or mitigation measures are appropriate for the majority of proposed development parcel. However, it would be appropriate to maintain an average 50-foot buffer between development and the upper bank edge of the Poudre River, where possible, because of slope stability concerns and to provide some habitat enhancement for this degraded section of the river corridor. Existing asphalt paving and weedy species should be removed to permit enhancement of the buffer with plantings of native shrubs, grasses, and forbs. Weedy species should also be eradicated from the remainder of the property to prevent their spread back into any buffer zone areas. Planting of trees is not feasible because of shading implications for development of a solar array project. Removal of remnant asphalt paving should be contingent on geotechnical and slope stability evaluations to be completed for the property prior to development. Plantings of native vegetation within the buffer would create additional habitat diversity adjacent to the river corridor and provide additional visual screening between the proposed development and the edge of the river corridor.

Any habitat enhancement plantings would likely require soil treatment to relieve compaction (ripping) and improve fertility (fertilizer amendments). Selection of species to be used for revegetation should focus on dryland drought tolerant species since the buffer area is elevated well above the river corridor. Even with the use of drought tolerant species, supplemental irrigation may be required for initial establishment. Since some stability (caving soils) issues were observed in the field, the entire proposed buffer zone along the top of the river embankment should receive a stability evaluation prior to attempting any enhancement measures. Ideally enhancement measures for the north edge of the property would include restoration efforts for the steep slope down to the river, but issues with the steep (1:1) slope, slope stability, and past stabilization measures (embedded concrete blocks and other materials) may likely preclude any meaningful restoration efforts.

It is also recommended a sufficient buffer be maintained from the riparian woodlands outside of the east property boundary to protect these trees. The standard recommended tree protection measure is to

restrict surface disturbance, to the extent possible, to areas outside of the drip lines of the trees. This tree protection measure should be relatively easy to achieve with minimal constraints on development since the tree canopy edge is outside of the Pickle Plant property boundary. In addition, the existing bench between the property and the riparian woodland zone provides a suitable buffer width for this strip of riparian woodland. Creating a buffer beyond this recommendation would not provide additional enhancement for this riparian woodland since existing commercial development (the Wastewater Treatment Facility) encroaches up to the east edge of this riparian woodland and the south end of the woodland has no connection to any other natural area. If solar array development plans allow for any undeveloped surface along the east property boundary, habitat enhancement recommendations for these non-facility areas would be the same as for the buffer at the north end of the property.

One final mitigation recommendation relates to the remaining pickle plant building on the property. The building currently exhibits holes in the east-facing wall that could permit ingress and egress for bats and possibly owl species such as great horned or barn owls. If the decision is made to demolish this building, the interior should be surveyed prior to demolition to ensure a lack of bat or owl use. If wildlife species are present, they should be flushed from the building and holes sealed to prevent wildlife re-entry prior to demolition.

Mark, this concludes my evaluation of the Pickle Plant solar array project area. If you have any questions or require additional input regarding my evaluation, please give me a call.

Sincerely,
CEDAR CREEK ASSOCIATES, INC.

T. Michael Phelan, Principal

attachments: Habitat Mapping and Photos

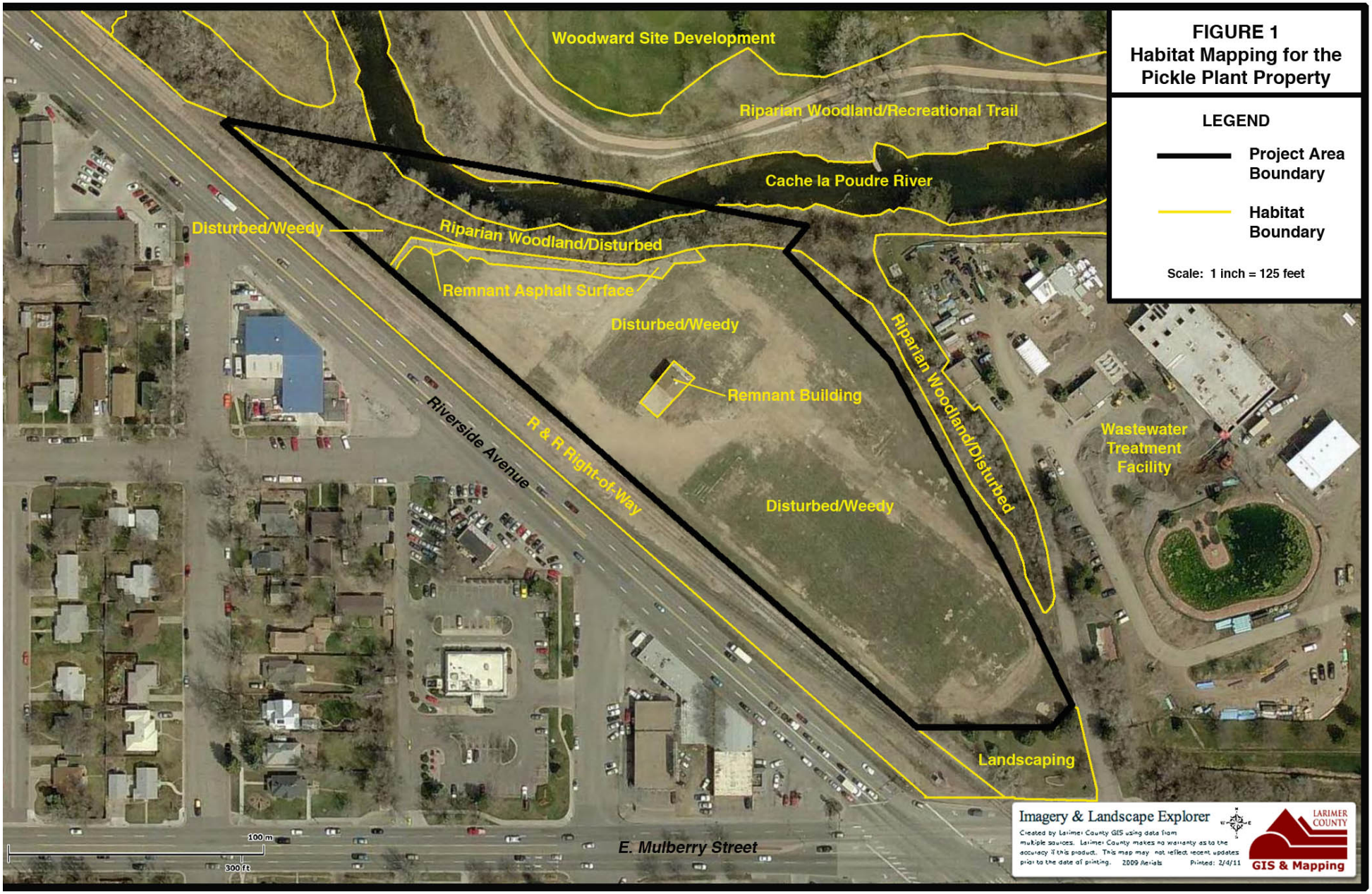

Woodward Site Development
Riparian Woodland/Recreational Trail
Cache la Poudre River
Disturbed/Weedy
Riparian Woodland/Disturbed
Remnant Asphalt Surface
Disturbed/Weedy
Remnant Building
Riparian Woodland/Disturbed
Riverside Avenue
R & R Right-of-Way
Wastewater Treatment Facility
Disturbed/Weedy
Landscaping
E. Mulberry Street
100 m
300 ft
FIGURE 1
Habitat Mapping for the Pickle Plant Property
LEGEND
Project Area Boundary
Habitat Boundary
Scale: 1 inch = 125 feet
Imagery & Landscape Explorer
Created by Larimer County GIS using data from multiple sources. Larimer County makes no warranty as to the accuracy of this product. This map may not reflect recent updates prior to the date of printing. 2009 Aerials Printed: 2/4/11
LARIMER COUNTY
GIS & Mapping

Photo 1. Representative View of the Disturbed Level Portions of the Pickle Plant Project Area. (View is from the south end of the property looking northwest.)

Photo 2. View of North End of the Property along the Top Edge of the Slope Down to the Cache la Poudre River. (View is from north end of property looking east. Note remnant asphalt paving along top edge of embankment.)

Photo 3. Representative View of Slope At North Property Edge Down to Cache la Poudre River. (Trees are Siberian elms. Note concrete blocks embedded in slope for erosion control.)

Photo 4. View of Cache la Poudre River Corridor at North End of Pickle Plant Project Area. (View is from northeast corner of property looking west. Note steep slope down to the river from upper portion of project area.)

Ecological Characterization Study Review

Project Name: Riverside Community Solar Garden

Project Planner: Ryan Mounce

ECS Consultant: Michael Phelan

Review Date: June 26th, 2014

Project Description: The applicants are proposing a 600kw community solar garden facility. The property is bounded by the Cache la Poudre River to the north, the City of Fort Collins' Wastewater Treatment Facility to the East, Riverside Avenue to the west, and Mulberry Street to the south – it is zoned RDR.

Ecological Characterization Study (ECS) Requirements and Evaluation – Section 3.4.1(D) of the Land Use Code				
	Yes	**No**	**N/A**	**Comments**
Is the project within 500' of a Natural Habitat or Feature? If yes, which features?	þ	¨	¨	The project is immediately adjacent to the Poudre River which supports riparian woodland to the north and east of the project.
Is the wildlife use and value of the area described?	þ	¨	¨	The site is occasionally used by Canada geese, deer and raccoons, but a lack of cover and food sources limits the sites use.
Are there wetlands present? If yes, have the boundaries and functions been described?	þ	¨	¨	The Poudre River supports a shoreline strip of reed canarygrass 3-5 feet wide. The steep bank does not allow extensive wetland development.
Are there any prominent views from or across the site?	¨	þ	¨	The steep drop off of the bank on the north side of the property limits any views of the Poudre River.
Are the pattern, species, and location of significant native trees and vegetation described?	þ	¨	¨	There are no significant native trees or other native vegetation on the site. A few native rubber rabbitbrush grow on the top of bank.
Are the pattern, species, and location of significant non-native trees and vegetation described?	þ	¨	¨	The site is dominated by annual weedy species or nearly bare areas. Siberian elms and boxelders grow on the slope down to the river.
Is a stream or perennial body of water present? If yes, is top of bank located?	þ	¨	¨	The Cache la Poudre River is on the north end of the property. Top of bank has been located.
Are sensitive or specially valued species present? If yes, are the areas of use identified?	¨	þ	¨	N/A

Ecological Characterization Study (ECS) Requirements and Evaluation – Section 3.4.1(D) of the Land Use Code				
Are other special habitat features located on the site?	¨	þ	¨	N/A
Does the site contain wildlife movement corridors?	þ	¨	¨	The river is used as a wildlife corridor by urban-adapted species.
Are the general ecological functions of the site described?	þ	¨	¨	Besides the river, the site has little ecological value due to previous use on the site. It is now used occasionally by urban adapted species of wildlife and weedy plant species.
Are there any issues regarding development related timing that should be addressed?	þ	¨	¨	The old pickle plant building should be checked for owls or bats before being demolished.
Are any measures needed to mitigate adverse impacts projected by the development?	þ	¨	¨	The ECS recommends a 50’ minimum buffer should be maintained between the project and the top of bank because of slope stability concerns and to provide some habitat enhancement along the river. The project has provided a buffer that varies in width from 115’ to approximately 150’ and is proposing to plant this buffer with native plants that will provide a significantly increased diversity in vegetation structure.

NEIGHBORHOOD INFORMATION MEETING

Project: Riverside Solar Garden (500 Riverside Avenue)

Date: July 8, 2014

Applicant: Clean Energy Collective

Project Planner: Ryan Mounce

Project Planner & Applicant Presentation Summary:

The meeting began at approximately 6:05 p.m. The Project Planner gave a brief overview of the City's development review process for the project and next steps. No formal development application has yet been submitted to the City for review. If and when the project moves forward, this project will be an Administrative, or Type 1, project. The decision maker for Type 1 projects are Administrative Hearing Officers, and not the Planning & Zoning Board.

New Land Use Code standards are set to go into effect in early July, creating a new Solar Energy System Use, and creating requirements for these systems such that they should include perimeter fencing and landscape screening, and for systems on building rooftops, regulating height and pitch of the solar panels.

The applicant gave a brief presentation, outlining the size, phasing and site plan for the project. The initial phase one system size is estimated at 333 kilowatts, with the potential for an additional 192 kw of solar collections in phase two.

The solar panels and racking will be two to three feet off the ground, and have a fixed tilt. In some locations of the world, panels track the sun, but given latitude at this location it is not necessary. There will be a small shelter that houses an inverter and metering equipment.

The panels will be community-owned; Fort Collins Utility customers can purchase panels and receive credits for the power generated by the panels on utility bills. Real time monitoring of the power your panels are generating is also available.

Questions, Comments, Concerns & Responses:

Question (Citizen): The handout showing the Development Review process doesn't show they are on step two, is this correct?
Response (City): These are two separate handouts, the one you have illustrates the ways to provide feedback and communicate during the overall development review process.

Question (Citizen): This is not a net metering? A sell back?
Response (Applicant): Kilowatts used as a credit. Amount of credit is monetized and then subtracted from your bill. This is not the same as if you had installed solar panels on your roof sold energy back into the grid directly.

Question (Citizen): Is the tax credit used for Operations & Maintenance (O&M)?
Response (Applicant): A portion of the purchase amount is deposited into an account for Operations & Maintenance, and a portion of the monthly production is deposited into O&M.

Question (Citizen): What is the amount of credit used for O&M?
Response (Applicant): I don't have the exact figure, but it is around 6 or 7%.

Question (Citizen): What is the limiting factor to get the extra kilowatts (Phase 2)?
Response (Applicant): The City rebate is only approved and appropriated for the first 333kilowatts. There is already a proposal for money for the rebate past this threshold for the remaining 192 kilowatts.

Question (Citizen): Is the site in the Floodplain?
Response (City): A small portion of the site is in the floodplain – on the north, but most of the site is not as it is elevated approximately 30' above the river. Where panels are currently proposed is not within the floodplain.

Question (Citizen): Will the site be fenced to protect it from vandalism?
Response (City): The new requirements for solar energy systems require fencing to be placed around the solar panels.
Question (Citizen): Will the fence be higher than 6 feet? Is that enough to protect from vandalism? Will there be barbwire?
Response (City): It could be higher than 6 feet; the new requirements are for a fence between 5 to 7 feet tall. There is no plan for barbwire.

Question (Citizen): Will there be insurance, and what does that cover?
Response (Applicant): Vandalism, hail damage, etc.

Question (Citizen): Does each panel have a microinverter?
Response (Applicant): No, there is a central inverter.
Question (Citizen): Is there a tradeoff in overall production efficiency for microinverters versus a central inverter?
Response (Applicant): Could depend on who you talk with, we believe central inverter has better efficiency.

Question (Citizen): Will the fence issue be resolved before the project is approved?
Response (City): For other projects, fencing is approved with the project and we expect that to occur with this project. There have been very preliminary discussions about an Art in Public Places project at the site, and whether that could be incorporated into the fencing design and construction.

Question (Citizen): There are a lot of animals on site or that pass through. How will this project effect their movement?
Response (City): As part of the City's development process the applicants have submitted an Ecological Characterization Study for the site that will document these types of qualities. The study recommended an area along the east of the site and near the river to be preserved as a riparian or movement corridor. Wildlife could continue to utilize those spaces.

Question (Citizen): What is the intention of the north western corner and along Riverside?

Response (City): There is a plan for a trail along the eastside of the railroad tracks that would extend up to the tracks, but I am not aware of other plans specifically for the northwestern corner.

Question (Citizen): Why is there space between the two phases?
Response (Applicant): It is just a visual to delineate the difference between the two phases.

Question (Citizen): Utilities provides a rebate for a 3kw array – is this going to change?
Response (City): We are going to keep the threshold at 3kw for the time being.

Question (Citizen): How is Clean Energy Collective (CEC) governed? Is there a board?
Response (Applicant): It is a privately owned company, and we do have a governing board.

Question (Citizen): Will there be electromagnetic emissions?? Will CEC be using the safest converter and inverters? I've read the safest kind is sine converters.
Response (Applicant): Our converters will be sine wave, both for safety and because they are the most efficient converters – it makes sense to use them.

Question (Citizen): Are heat and glare a problem?
Response (Applicant): The panels can put off a lot of heat if you're standing right next to them– this is good in winter to clean off the snow, but panels work better when colder and they're designed to absorb the light and convert to electricity, not generate heat/glare. The panels are also coated with an anti-glare solution.
Response (City): The Land Use Code also has requirements that the applicants will have to demonstrate heat and glare will not be an issue beyond the perimeter of their site.
Question (Citizen): Would you be able to feel the heat within 500ft?
Response (Applicant): No, you'd have to be much closer to the panel to feel heat effects.
Question (Citizen): Will drivers on Riverside be affected? Very rarely – glare studies show a very low chance. There may be a brief flash, just as might happen if you drive by a parked car and the sun hits the windshield just right.

Question (Citizen): is there the intent to use the fencing to block the view of the panels?
Response (City): We would like feedback for that, so far we've heard of multiple viewpoints – some want the panels to be completed screened, while others would like to see the panels, to know there is this green energy production source taking place. It could fit in with the concept of FortZED.
Question/Informal Poll: Should we have a show of hands on if people want the panels fully screened?
*About half the audience wanted the panels screened; the other half of the audience visible
Comment (Citizen): If we didn't want to see it we should put it on a different part of town. I'd like to see the panels.

Comment (Citizen): I'd like to see the fencing done in an artistic way, and that could help both viewpoints.
Response (City): There will also be some landscaping that will accompany the fence and trail along the Riverside frontage.
Response (City): There have also been other creative ideas suggested, both recently and in past proposals at this site for putting in waves or berms.
Comment (Applicant): Developers care about safety first. Then cost – however we are in a unique location. We would like to find a middle ground between fencing and aesthetics. We will follow what the city feels is best.

Question (Citizen): Is this for business or residential users?
Response (City): The City allows small and mid-size business to buy in as well as residential users.

Question (Citizen): Will this make any noise?
Response (Applicant): you can only hear it if you are close – outside of the fence area will be quiet. If you are next to the inverter it sounds similar to the projector in this room. There is also only noise when electricity is being generated, it is silent at night.
Comment (Citizen): The area is already really loud with car/truck traffic on Riverside and the trains.

Question (Citizen): How long does the equipment last?
Response (Applicant): The panels have a 25-yearwarranty. The inverter is insured for 10years. We have seen panels used as long as 30 years; they are still generating electricity, but not as much as when they were first installed – there is some degradation over time. We would like to be here for 50 years, so we may have to replace panels along the way, but panels don't go obsolete as fast as computers

Question (Citizen): What is CEC's goal --you said it's in your interest to take care of the project and O&M?
Response (Applicant): Developers want to develop a project and make a profit. We also have a long term motivation – our name is on it. This industry is very reputation-oriented. We can't make very much money off just one project, but many, so we make sure these sites and our reputation is looked after.

Question (Citizen): Is the LLC company setup for O&M its own entity?
Response (Applicant): Yes, it would continue to operate independently even if CEC went bankrupt in the future. This protects buyers.

Question (Citizen): Is this an investment? Can the value depreciate?
Response (Applicant): This is not considered an investment in the traditional sense, that isn't allowed by law and the SEC. You can sell the panels you buy to another interested buyer within Fort Collins Utilities, or work with us to remarket it.
Question (Citizen): Is there tax depreciation?
Response (Applicant): No.
Response (Applicant): Buyers own the panel, not a share of the company.

Question (Citizen): So if I move, do I keep getting credit?
Response (Applicant): Yes if you are still served by FC utilities
Question (Citizen): What if you are in the County not the City?
Response (Applicant): If you are inside the service area of FC utilities then you are eligible.

Question (Citizen): How much of the project has already been bought?
Response (Applicant): Taking reservations right now. Can't official buy until two to three weeks before it is built, but approximately thirty percent has already been reserved.

Question (Citizen): Do all the panels have to be bought before construction?
Response (Applicant): No, we build the project using our own funds, there aren't pre-leasing requirements. We believe it will all be bought.