REQUEST FOR PROPOSALS (RFP)

ARCHITECTURAL/ENGINEERING DESIGN SERVICES FOR A NEW PARKING STRUCTURE

4TH WARD, CITY OF PITTSBURGH

RFP Issue Date: Thursday, August 29, 2019

Proposal Due Date: Friday, September 27, 2019 at Noon ET
INTRODUCTION

The Urban Redevelopment Authority of Pittsburgh (URA) is soliciting proposals for a Professional Design Consultant (Consultant) team to design a new above ground parking structure along Technology Drive in the Pittsburgh Technology Center (the Parking Structure).

Current development plans consist of an above ground Parking Structure to be constructed on a portion of Parcel No. 7 along Technology Drive at Second Avenue. Pursuant to an agreement between the URA and Hitachi Rail STS USA, Inc. (Hitachi), Parcel No. 7 will be subdivided in a manner consistent with the draft subdivision plan attached as Exhibit “A.” Hitachi will retain ownership of the currently existing parking garage (referenced as 5-Story Concrete Parking Garage on Exhibit “A”) that is located on Parcel No. 7A as shown on Exhibit “A,” and the Parking Structure will be constructed on Parcel No. 7B (to be owned by the URA). The Parking Structure will front Technology Drive. Note that it is likely that the subdivision plan attached as Exhibit “A” will be revised to accommodate the spatial needs of the proposed Parking Structure and the URA. A sketch of the full URA parcel available for Parking Structure construction is attached as Exhibit “B.” The Utility Record Drawing is attached as Exhibit “C”, additional record plans are available upon request. The required number of parking spaces and stories will be determined by a demand study performed by the Consultant. The first story of the Parking Structure is intended to be designed to accommodate Hitachi’s current surface parking on Parcel No. 7B, with a 10-foot high deck. Design coordination with Hitachi will be required.

The overall development plan, as well as the design guidelines for the Parking Structure, are an ongoing progression, but must be consistent with other elements of the Pittsburgh Technology Center development and the guidelines of the current SP-5 Zoning and Preliminary Land Development Plan (click here to access the PLDP) for Pittsburgh Technology Center. The design guidelines will need to be established based upon the schematic design provided to the URA by the selected Consultant and will include the approximate size, layout of the garage, site layout, facade treatments, access, control, and security. Alterations to the right-of-way and/or cart way may also be required.

The Consultant should expect to work with a varied team of professionals and outside agencies during the design process. The Consultant will be required to attend the Pittsburgh Technology Center Association’s November 2019 Briefing (date and location TBD). It is anticipated that a Construction Manager will be retained separately by the URA to assist in the construction of the Parking Structure.

The URA has adopted a goal of 18% minority participation and 7% women’s participation in its contract work and the URA wishes to achieve this level of significant MWBE participation in these
contracts. To that end, majority consultants are encouraged to team with, subcontract and/or joint venture with certified minority and women-owned firms.

**SCOPE OF SERVICES**

The professional services and the corresponding fees will include professional services up to the award of construction contracts (pre-construction services); through design and financial feasibility analysis; and services during construction through completion of punchlist work, acceptance by the owner, and completion of record drawings. The Consultant will be required to provide the full range of professional services including financial feasibility analysis, traffic consulting, survey, site civil, landscaping, geotechnical and foundation engineering, structural engineering, mechanical engineering, and electrical engineering services. The Scope of Design Services requested can be generally described by the following tasks:

1. Complete a base property, utility, and topographic survey for the site. In addition to accurate topographic information, the location, depth and inverts of existing sewers and utilities is critical to the proposed Parking Structure design.

2. Conduct a geotechnical investigation and prepare foundation recommendations to the extent that the construction and development of the Parking Structure will involve excavation of soils and/or fill materials (e.g., for installation of footers, drilling of geotechnical borings, etc.). Required sampling and laboratory analysis shall be conducted to determine if the excavated soils/materials must be managed as “hazardous waste,” “solid waste,” “regulated fill,” etc. If the excavated soils/materials must be removed from the property, URA shall be designated as the generator of the soils/materials and URA or its designated representative shall sign and use URA’s generator identification number on any and all hazardous and non-hazardous waste manifests related to such soils/materials.

3. Comply with any and all environmental laws, regulations and requirements applicable to the construction and development of the Parking Structure including, without limitation, (i) requirements contained in the Consent Order and Agreement between the URA and the Commonwealth of Pennsylvania, Department of Environmental Resources dated July 9, 1993 and recorded in the Allegheny County Department of Real Estate at Deed Book Vol. 10184, pg. 391, as amended by the First Amendment to Consent Order and Agreement dated July 9, 1993 between the URA and the Commonwealth of Pennsylvania, Department of Environmental Protection (the “DEP”), dated October 19, 1995, and as further amended by the Second Amendment to Consent Order and Agreement dated July 9, 1993 between the URA, the DEP and PTC Lodging, LLC dated July 9, 2016 (all three together the “Consent Order”); (ii) stormwater and sediment control requirements of the Pennsylvania Clean Streams Law, 35 P.S. § 691.1 et seq., and the Dam Safety and Encroachments Act, 32 P.S. § 693.1 et seq., and applicable DEP regulations including applying for any required permits; and (iii) waste management requirements of the Pennsylvania Solid Waste Management Act, 35 P.S. § 6018.101 et seq., applicable DEP regulations and the DEP’s “Management of Fill” policy.
4. Assess the relative merits of alternative structural systems, considering the subsurface conditions, maintenance and construction costs and the architectural features, and recommend a particular structural system.

5. Perform a demand study to determine the required number of spaces and stories.

6. Perform a traffic study to understand traffic circulation in the area and the flow of traffic to and from the Parking Structure.

7. Generate a financial feasibility analysis.
   a. Generate a financial model that includes revenues, expenses, and net operating income for the proposed Parking Structure, over a 10-year period, evidencing the ability of net operating income to cover debt service. Generate an alternative financial model based on your firm’s projections on the size of the Parking Structure.
   b. Provide capital costs analysis of the proposed Parking Structure and incorporate it into a financial model.
   c. Determine a cost estimate (with assumptions) for the proposed Parking Structure and debt service requirements based upon current market conditions.
   d. Provide an analysis of the feasibility of the proposed Parking Structure.
   e. Submit a final report and materials and participate in the presentation(s) of the final report.

8. Perform all electrical and mechanical design to accommodate the needs of the potential user(s).

9. The Parking Structure must be designed in accordance with all Federal, State, community and local regulations and guidelines, including Pittsburgh Department of City Planning (DCP) requirements for stormwater quality and retention.

10. The Consultant should expect to work closely with the City of Pittsburgh Department of Mobility and Infrastructure (DOMI) and the Pittsburgh Water and Sewer Authority (PWSA). Design submission standards must be adhered to and attendance is required at Pre-Application meetings.

11. The Consultant should expect to work very closely with DCP in order to receive City approval for the Parking Structure design. It is anticipated that the Consultant will be required to assist in preparation of drawings for a Final Land Development Plan (FLDP) to be submitted to DCP. This will include color renderings and other drawings to be submitted in addition to the Design Development (DD) drawings.

Prior to the Consultant’s first meeting with DCP, the Consultant will be required to meet with the Oakland Planning and Development Corporation (OPDC), a new Registered Community Organization (RCO), as per RCO legislation (date and location TBD).
It is anticipated that the Consultant will be required to attend (a minimum of) six (6) meetings with DCP, as follows:

- **COMMUNITY REVIEW** - When Conceptual Design (CD) is complete; The Consultant is to prepare in advance of the Community Review, a colored site plan with elevations and imagery, including, but not limited to, contextual information and some information about materials.
- **CONTEXTUAL DESIGN ADVISORY PANEL (CDAP)** – Same deliverables required from the Consultant as in the Community Review; The meeting date will be determined by the Zoning Review staff, most likely in the same month either before or shortly after the Community Review.
- **FINAL COMMUNITY REVIEW** – When the DD phase is completed, usually a review near the end of the month; Provide a colored site plan with landscaping, elevations, and rendered perspective as needed, particularly context information and final materials (i.e. material palette board).
- **FINAL CDAP REVIEW** – When the DD phase is completed simultaneously with Final Community Review (provide the same deliverables as in Final Community Review or as otherwise requested by Zoning Staff).
- **PLANNING COMMISSION BRIEFING** – Pre-Agenda Briefing on Site Plan Amendment (as needed) and FLDP; This usually occurs two (2) weeks after the Final CDAP Review. URA will internally prepare the document/application; the Consultant is to provide digital files for a colored site plan with landscaping, elevations, and rendered perspective as needed, particularly context information and final materials, including material palette board, and at least conceptual subdivision. The Consultant shall also prepare a SMART Board presentation.
- **PLANNING COMMISSION APPROVAL** (Hearing and Action on Site Plan Amendment and FLDP) – Two (2) weeks after the Planning Commission Briefing; The Consultant is to provide revised deliverables and a SMART Board presentation (the Consultant should bring Presentation Boards as backup). The Consultant is to provide a subdivision signed by all parties for final signature by the Commission Chair.

12. Schematic Design and Design Development of the architecture of the Parking Structure is to be developed in coordination with the evaluation of structural systems and presented to the URA and DCP for approval at appropriate times. Detailed Cost Estimates, based on materials and systems rather than square feet costs, shall be prepared at the schematic design and design development stages, and at other times as necessary during the design process.

13. The URA is committed to fostering, encouraging, and supporting sustainable development and green building practices to the maximum extent possible. Respondent(s) shall demonstrate how sustainable building, parking, and transportation practices can be incorporated into the design, management, and operation of the proposed Parking Structure. The final design should enable the proposed Parking Structure to obtain Parksmart Certification through Green Business Certification, Inc. (GBCI), the certifying body for LEED. The Parksmart Scorecard is attached as Exhibit “D.”
The URA will collaborate with the successful respondent on which sustainable development measures are to be incorporated into the proposed Parking Structure design. Current assumptions are that rooftop solar canopies will be part of the final design. An example solar canopy system is attached as Exhibit “E”. Respondent(s) may include an International Parking Institute/GBCI Parksmart Advisor on their team to demonstrate expertise and familiarity with this standard.

14. Prepare an Erosion and Sedimentation Control Permit Application for the Allegheny County Conservation District.

15. Consult with the URA to develop the criteria for control and security systems and recommend such systems.

16. In accordance with Pennsylvania’s Separations Act, it is anticipated that four (4) separate construction contracts will be required: general construction (site work and landscaping), structural, mechanical, and electrical. For each contract, prepare one (1) original reproducible set of mylar construction plans and specifications, to enable the URA to receive bids for construction of the parking garage. The URA will reproduce the documents for bidding.

17. Attend the pre-bid meeting and prepare and distribute meeting minutes and prepare any required addenda.

18. Provide professional services during construction, including limited inspection services. The Consultant will attend bi-weekly construction meetings, review and approve shop drawings and other contractor submittals, conduct periodic inspections to assure compliance with the plans and specifications, prepare design revisions as required, and assist the URA as necessary throughout the process. Note that the full-time inspection of the Parking Structure construction will be performed by another party, not the Parking Structure designer.

19. Prepare a timeline schedule of anticipated major work activities contained in this RFP.

20. Prepare record drawings of the completed construction, utilizing redline drawings prepared by the contractor and construction manager. As-built drawings shall include complete sets of both PDF and CAD electronic files as well as a set of full-scale hard copy drawings.

**PROPOSAL REQUIREMENTS**

1. Identify your firm’s strengths in performing the architectural/engineering and financial feasibility analysis services listed in this RFP.
2. Provide qualifications of the staff that will be available to provide these services (please identify the Project Manager who will be the URA’s primary point of contact during the work).

3. Provide a design schedule for the project and an anticipated timeline for construction.

4. The URA has a long history of diversity and inclusion within all its programs and other activities. The URA encourages the full participation of minority and women business owners and professionals in this effort. The URA requires that all respondents demonstrate a good faith effort to obtain minority and women-owned business enterprise (MWBE) participation in work performed in connection with URA projects. In the form of a narrative, state as succinctly as possible your firm’s efforts to provide opportunities for MWBE firms. MWBE participation can be satisfied by:
   
a. Ownership/partnership of firm;

b. Use of minority or women-owned businesses as vendors for legal, printing, office supplies, travel, etc.; and

c. Subcontracting with organizations owned and controlled by minorities and/or women. If this is to be done, the name(s) of the proposed subcontracting organizations, must be clearly identified in the proposal.

Any questions about MWBE requirements should be directed to mwbe@ura.org.

5. Indicate the MWBE status of your firm, if applicable.

6. Submit a cost proposal that documents the hours and personnel for each of the tasks. These tasks shall include as a minimum: schematic design, design development, construction documents, and construction administration. Include cost and staff hour tables, rates, and markups used to calculate the summarized costs. **Include a master spreadsheet that includes total level of effort (staff hours) for each task.** The spreadsheet shall list employee name, job classification, projected hours, pay rates, overhead factors, direct costs, and profit in separate columns. Prime sub-consultants/subcontractors which make up your team must also be included in the master spreadsheet. The following shall be clearly identified in your proposal:
   
   • The job classifications and direct hourly rates applied to the work tasks
   • The proposed overhead factor to be applied to the salary cost
   • The fee or percentage of profit proposed for the services
   • The reimbursable/direct costs projected, including subconsultant fees

7. Identify examples of past projects designed by your firm that demonstrate your firm’s ability to incorporate sustainable design solutions.

PRE-PROPOSAL MEETING

A pre-proposal meeting will be held on Monday, September 16, 2019 at 10:00 a.m. ET at the proposed Parking Structure site location (adjacent to 3000 Technology Drive Pittsburgh, PA 15219).

CONSULTANT SELECTION CRITERIA

Selection for this assignment will be made based on the following criteria:

1. Understanding of the scope of services requested and your technical approach to creatively accomplish the tasks and your experience with similar projects
2. The qualifications of the staff and subcontractors assigned to the project and their professional experience with similar type projects
3. Experience of the project team in LEED/sustainable design projects and incorporation of sustainability issues in the proposal, where appropriate
4. Organization and management of the project, including efficient staff utilization
5. Schedule for completion of the work
6. The MWBE narrative and the overview of the firm’s strategy toward MWBE participation
7. The fee proposal

PROPOSAL SUBMISSION

Three (3) copies of the proposal must be submitted.

Proposals are to be submitted at the offices of the Urban Redevelopment Authority of Pittsburgh, to:

Martin Kaminski  
Director of Engineering and Construction  
Urban Redevelopment Authority of Pittsburgh  
200 Ross Street, 11th Floor  
Pittsburgh, PA 15219

no later than Noon ET, Friday, September 27, 2019. Proposals will not be returned.

All questions regarding this correspondence should be made in writing to Mr. McGarry Luginski, project engineer at mluginski@ura.org.
LEGAL INFORMATION

The URA shall have the right to verify the accuracy of all information submitted and to make such investigation as it deems necessary to determine the ability of the Consultant to perform the obligations in the response. The URA in its discretion reserves the right to reject any response when the available evidence or information does not satisfy the URA that the Consultant is qualified to carry out properly the obligations of the response; is a person or firm of good reputation or character for strict, complete and faithful performance of business obligations; or if the Consultant refuses to cooperate with and assist URA in the making of such investigation.

1. **Inspection of Parcel**: The Consultant shall be given an opportunity to inspect the property and the title to the property.

2. **Disclaimer of Liability**: The Consultant acknowledges by submitting information and proposals to the URA that the URA does not undertake any obligations and shall have no liability with respect to this RFP, and responses thereto.

3. **Sustainability Requirements**: The selected Consultant will be required to demonstrate a good faith effort to incorporate environmentally sustainable features and practices into their design.

4. The Consultant, for itself and its employees, contractors, and primary subcontractors, agrees not to discriminate against or segregate any person or group of persons on any unlawful basis.

5. The URA reserves the right to accept an offer or proposal other than the lowest offer.

6. The URA reserves the right to negotiate with any, all, or none of the Consultants and to recommend another Consultant in the event that the originally selected Consultant defaults or fails to execute a contract.

7. The URA shall be the sole judge as to which, if any, proposals and Consultants best meet the selection criteria. Notwithstanding anything in this RFP to the contrary, URA reserves the right to reject any or all proposals received, to waive any submission requirements contained within this RFP, and to waive any irregularities in any submitted proposal.

8. This RFP is submitted subject to errors, omissions, and/or withdrawal without notice by the URA at any time.

9. All proposals, including attachments, supplementary materials, addenda, etc., shall become the property of the URA and will not be returned.
10. Addenda will be posted on Public Purchase. All such addenda shall become part of the RFP documents. All Consultants shall be bound by such addenda, whether or not received by the Consultants.

11. Conflicts of Interest: Responsive firms and their team members must have no conflicts of interest with regards to any other work performed by the Consultant for the URA, the City, or any related entity.

12. RFP Compliance: All responsive firms must adhere to the instructions contained in this RFP in preparing the submitted proposal.

13. Waiver of Defects: The URA shall be the sole judge as to which Consultant best meets the selection criteria. The URA reserves the right to reject any or all qualifications submitted. The URA reserves the right to reject any proposal for failure to comply with the requirements of this RFP. The URA further reserves the right, in its sole discretion, to waive any such defect(s) or failure(s). Submission of a response indicates acceptance by the firm of the conditions contained in this RFP.

14. Nondiscrimination: Each responsive firm agrees not to discriminate, whether in employment, contracting or otherwise, in violation of any federal, state, or local law and/or on the basis of sexual orientation, gender identity and/or gender expression.

[EXHIBITS ON FOLLOWING PAGES]
## Parksmart Scorecard

### Project Name:

### Project Registration #:

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<th>Parksmart Certification Measure</th>
<th>Options</th>
<th>Max Points Available</th>
<th>Points Attempted</th>
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<td>A1 - Parking Pricing</td>
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<td>Shared Parking Program</td>
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<td>Purchasing of Product Groups</td>
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<td>A6 - Proactive Operational Maintenance</td>
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<td>A7 - Cleaning Procedures - Occupied Spaces</td>
<td>Cleaning Products &amp; Hand Cleaners</td>
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<td>A8 - Cleaning Procedures - Parking Decks</td>
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<td>A9 - Building Systems Commissioning</td>
<td>LEED 2009 or v4 Enhanced Commissioning Credit</td>
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<td>LEED 2009 Fundamental Commissioning of Building Energy Systems prerequisite or v4 Fundamental Commissioning and Verification prerequisite</td>
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<td>ASHRAE Guideline 0-2005 and ASHRAE Guideline 1.1-2007</td>
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<td>Alternative Program</td>
<td>4</td>
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<tr>
<td>A16 - Life Cycle Assessment</td>
<td>LCA performed and savings implemented on project totaling over $2 million</td>
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<td>LCA performed and savings implemented on project totaling over $1 million</td>
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<td>LCA performed and savings implemented on project totaling over $500,000</td>
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<td>LCA performed and savings implemented on project totaling over $100,000</td>
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<td>Subtotal</td>
<td>90</td>
<td>0</td>
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</tbody>
</table>

**PROGRAMS**

<p>| B1 - Placemaking   | Placemaking               | 6                    |                  |               |               |
| B3 - Wayfinding Systems - External | Dynamic Signage       | 1                    |                  |               |               |
|                                  | Wayfinding System        | 2                    |                  |               |               |
|                                  | Reservation System       | 1                    |                  |               |               |
| B4 - Wayfinding Systems - Internal | Parking Guidance via Single Space Detection | 4                       |                  |               |               |
|                                  | Parking Guidance via Electronic Level Occupancy Detection | 3                       |                  |               |               |
|                                  | Parking Guidance via Automatic Variable Signage                         | 2                    |                  |               |               |
|                                  | Parking Guidance via Manual Count and Static Signage                    | 1                    |                  |               |               |
| B5 - Traffic Flow Plan          | At least four traffic flow strategies                                   | 4                    |                  |               |               |
|                                  | Average idle time of 5 seconds or less                                   | 4                    |                  |               |               |
|                                  | At least three traffic flow strategies                                   | 3                    |                  |               |               |
|                                  | At least two traffic flow strategies                                     | 2                    |                  |               |               |
| B6 - Carshare Program           | Carshare Hub              | 5                    |                  |               |               |
|                                  | Alternative Fuel Vehicles In Carshare Hub                               | 1                    |                  |               |               |
| B7 - Rideshare Program          | Rideshare: Reserved Parking Spaces                                      | 4                    |                  |               |               |
|                                  | Rideshare: Incentives                                                  | 2                    |                  |               |               |
| B8 - Low-emitting and Fuel Efficient Vehicles | Low-emitting and Fuel-efficient Vehicles: Preferred Parking Spaces | 2                       |                  |               |               |
|                                  | Low-emitting and Fuel-efficient Vehicles: Rate Discount                  | 2                    |                  |               |               |
| B9 - Alternative Fuel Vehicles  | AFV: Reserved Parking Spaces                                           | 3                    |                  |               |               |
|                                  | AFV: Rate Discount                                                     | 3                    |                  |               |               |</p>
<table>
<thead>
<tr>
<th>Parksmart Certification Measure</th>
<th>Options</th>
<th>Max Points Available</th>
<th>Points Attempted</th>
<th>Points Awarded</th>
<th>Points Pending</th>
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<tbody>
<tr>
<td>B10 - Alternative Fuel Fleet Vehicles</td>
<td>At least 50% of fleet vehicles are powered by alternative fuels</td>
<td>4</td>
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<td></td>
<td>At least 25% but less than 50% of fleet vehicles are powered by alternative fuels</td>
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<tr>
<td>B11 - Bicycle Parking</td>
<td>Meets Tier One and Tier Two criteria</td>
<td>6</td>
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<tr>
<td></td>
<td>Meets Tier One criteria</td>
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<tr>
<td>B12 - Bicycle Sharing/Rental</td>
<td>Contains bicycle sharing or bicycle rental hub</td>
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<tr>
<td></td>
<td>Promotes bicycle sharing or bicycle rental hub</td>
<td>4</td>
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<td>B13 - Marketing/Educational Program</td>
<td>Marketing/Educational Program</td>
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<td><strong>Subtotal</strong></td>
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<td>C1 - Idle Reduction Payment Systems</td>
<td>Idle Reduction Payment Systems</td>
<td>4</td>
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<tr>
<td>C2 - Fire Suppression Systems</td>
<td>Halon Free Fire Suppression Systems</td>
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<tr>
<td>C3 - No/Low VOC Coatings, Paints, Sealants</td>
<td>No/Low VOC Coatings, Paints, Sealants</td>
<td>2</td>
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<tr>
<td>C4 - Tire Inflation Stations</td>
<td>Tire Inflation Stations</td>
<td>2</td>
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<tr>
<td>C5 - EV Charging Stations</td>
<td>Two or more DC Fast Chargers</td>
<td>5</td>
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<td></td>
<td>One DC Fast Charger</td>
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<td></td>
<td>Two or more AC Level II EV Chargers, equaling at least 1% of all parking spaces</td>
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<tr>
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<td>Two or more AC Level II EV Chargers, equaling at least 0.5% but less than 1% of all parking spaces</td>
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<td>At least one AC Level II EV Charger, equaling less than 0.5% of all parking spaces</td>
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<td></td>
<td>Level I equipped spaces equaling at least 0.5% of all parking spaces</td>
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<tr>
<td></td>
<td>No additional payment is required to charge vehicles</td>
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<td>C6 - HVAC Systems - Occupied Spaces</td>
<td>Energy Efficient System</td>
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<td>CO Sensors</td>
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<td></td>
<td>Programmable Thermostats</td>
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<td>Environmentally Safer Coolants</td>
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<td>C7 - Ventilation Systems - Parking Decks</td>
<td>Demand Controlled Ventilation</td>
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<td></td>
<td>Variable Air Flow System</td>
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<td>Schedule or Occupancy Controls</td>
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<td></td>
<td>Calibration and Maintenance</td>
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<td>Design for Natural Ventilation</td>
<td>6</td>
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<td>C8 - Lighting Controls</td>
<td>At least 75% of lighting fixtures controlled by occupancy sensors</td>
<td>6</td>
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<td>At least 50% of lighting fixtures controlled by occupancy sensors</td>
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<td>At least 50% of lighting fixtures controlled by advanced programmable system</td>
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<td>At least 50% of lighting fixtures controlled by simple timer</td>
<td>2</td>
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<td>At least 25% of lighting fixtures on lighting controls</td>
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<tr>
<td></td>
<td>At least 60% of (exterior) lighting fixtures controlled by photocells or occupancy sensors</td>
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<tr>
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<td>At least 60% of (exterior) lighting fixtures controlled by programmable timer</td>
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<tr>
<td>C9 - Energy Efficient Lighting System</td>
<td>Lighting Power Density (LPD)</td>
<td>7</td>
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<td>Average Rated Lamp Life</td>
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<td>C10 - Stormwater Management</td>
<td>Implement an Erosion and Sedimentation Control Plan</td>
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<td>Manage on-site runoff from the 80% precipitation event</td>
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<tr>
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<td>Manage on-site runoff from the 90% precipitation event</td>
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<td>C11 - Rainwater Harvesting</td>
<td>Rainwater Harvesting</td>
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<td>C12 - Greywater Reuse</td>
<td>Greywater Reuse</td>
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<td>C13 - Indoor Water Efficiency</td>
<td>Efficient Fixtures</td>
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<td>C14 - Water Efficient Landscaping</td>
<td>Water Efficient Landscaping</td>
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<td>C15 - Roofing Systems</td>
<td>Green Roof</td>
<td>6</td>
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<tr>
<td></td>
<td>Blue Roof</td>
<td>4</td>
<td></td>
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<tr>
<td></td>
<td>Carport or Canopy</td>
<td>3</td>
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<td></td>
<td>High SRI Roof</td>
<td>2</td>
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<tr>
<td></td>
<td>Solar Panels</td>
<td>2</td>
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<tr>
<td>C16 - Renewable Energy Generation</td>
<td>At least 75% of energy is on-site renewable energy</td>
<td>12</td>
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<td>At least 50% and less than 75% of energy is on-site renewable energy</td>
<td>10</td>
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<td>At least 25% and less than 50% of energy is on-site renewable energy</td>
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<td>At least 5% and less than 25% of energy is on-site renewable energy</td>
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<td>At least 75% of energy is offset by REC's</td>
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<td>At least 50% and less than 75% of energy is offset by REC's</td>
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<td>At least 25% and less than 50% of energy is offset by REC's</td>
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<td>At least 5% and less than 25% of energy is offset by REC's</td>
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<td>C17 - Design for Durability</td>
<td>Design for Durability</td>
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<td>C18 - Energy Resiliency - Storage</td>
<td>Grid Interactive Energy Storage</td>
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<td>Grid and On-site Renewable Interactive Energy Storage</td>
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<tr>
<td>INNOVATION</td>
<td>D1 - Innovative Approach</td>
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**TOTALS**

<table>
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<tr>
<th>Management Subtotal</th>
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<tr>
<td>90</td>
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<tr>
<td>Programs Subtotal</td>
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<td>64</td>
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<tr>
<td>Technology and Structure Design Subtotal</td>
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<td>88</td>
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<td>Innovation</td>
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<td>Total</td>
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**Certification Achievement Levels**

Commissioned more than two years prior to project registration

<table>
<thead>
<tr>
<th>Certification Level</th>
<th>Points</th>
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<tbody>
<tr>
<td>Parksmart Pioneer</td>
<td>90+ points earned</td>
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Commissioned within two years of project registration or not yet commissioned

<table>
<thead>
<tr>
<th>Certification Level</th>
<th>Points</th>
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<tbody>
<tr>
<td>Parksmart Bronze</td>
<td>110-134 points earned</td>
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<tr>
<td>Parksmart Silver</td>
<td>135-159 points earned</td>
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<tr>
<td>Parksmart Gold</td>
<td>160+ points earned</td>
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Projects achieving Parksmart Pioneer must earn a minimum of 15 points in each of the three main certification categories (management, programs, and technology and structure design).

Projects achieving Parksmart Bronze, Silver or Gold must earn a minimum of 20 points in each of the three main certification categories (management, programs, and technology and structure design).
Garage Solution | CP-G

When EPCs and project developers across the USA need dependable, low-maintenance solar carports or canopies, they turn to RBI Solar. Our variety of structure models, layouts, foundations, and add-ons offer many possibilities to design and engineer the solar canopy that fits the needs of your budget and aesthetic preferences. With over 100 carports constructed in the last 5 years, our team has the experience to deliver a robust carport solution for your business, institution, or community.

Cost-Effective Benefits

- Maximize parking lot functionality
- Single-source solution for canopy structure design and construction
- No on-site welds for faster install
- Multiple manufacturing facilities
- In-house engineering team licensed in all 50 states
- Pre-construction design and support resources available
- Water management available
- Multiple foundation options

www.rbisolar.com
Eagle HC 72-V
365-385 Watt
MONO CRYSTALLINE MODULE
Positive power tolerance of 0±3%

KEY FEATURES

- **Innovative Solar Cells**
  Five busbar mono PERC half cell technology

- **High Efficiency**
  Higher module conversion efficiency (up to 19.53%) due to lower resistance characteristics

- **High Voltage**
  UL and IEC 1500V certified; lowers BOS costs and yields better LCOE

- **PID-Free**
  World's 1st PID-Free module

- **Low-Light Performance**
  Advanced glass technology improves light absorption and retention

- **Strength and Durability**
  Certified for high snow (5400 Pa) and wind (2400 Pa) loads

LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty • 25 Year Linear Power Warranty

Nomenclature:
JKM385M-72H-V

- ISO9001:2008 Quality Standards
- ISO14001:2004 Environmental Standards
- OHSAS18001 Occupational Health & Safety Standards
- IEC61215, IEC61701 certified products

UL LISTED
IEC
TÜV
CE
### Engineeering Drawings

![Diagram of solar panel components]

### Electrical Performance & Temperature Dependence

![Current-Voltage & Power-Voltage Curves (365W)]

### Mechanical Characteristics

<table>
<thead>
<tr>
<th>Cell Type</th>
<th>Mono-crystalline PERC 156x156mm (6 inch)</th>
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<tbody>
<tr>
<td>No. of Half-cells</td>
<td>144 (12x12)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>1987x992x40mm (78.23x39.05x1.57 inch)</td>
</tr>
<tr>
<td>Weight</td>
<td>22.5 kg (49.6 lbs)</td>
</tr>
<tr>
<td>Front Glass</td>
<td>3.2mm, Anti-Reflection Coating</td>
</tr>
<tr>
<td>Frame</td>
<td>High Transmission, Low Iron, Tempered Glass</td>
</tr>
<tr>
<td>Junction Box</td>
<td>Anodized Aluminium Alloy</td>
</tr>
<tr>
<td>Output Cables</td>
<td>anode 1400mm, cathode 1400mm or Customized Length</td>
</tr>
</tbody>
</table>

### Packaging Configuration

(Two pallets = One stack)

26pcs/pallet, 52pcs/stack, 572 pcs/40’HQ Container

### SPECIFICATIONS

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<td>STC NOCT</td>
<td>STC NOCT</td>
<td>STC NOCT</td>
<td>STC NOCT</td>
<td>STC NOCT</td>
<td>STC NOCT</td>
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<tr>
<td>Maximum Power Voltage (Vmp)</td>
<td>36.7V 37.9V 39.0V 38.1V</td>
<td>40.2V 38.3V 40.5V 38.6V</td>
<td>40.8V 38.8V</td>
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<tr>
<td>Open-circuit Voltage (Voc)</td>
<td>49.2V 46.8V 48.5V 47.0V</td>
<td>48.7V 47.2V 48.9V 47.5V</td>
<td>49.1V 47.7V</td>
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<tr>
<td>Short-circuit Current (Isc)</td>
<td>9.57A 7.68A 9.61A 7.75A</td>
<td>9.66A 7.82A 9.75A 7.88A</td>
<td>9.92A 7.96A</td>
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<tr>
<td>Module Efficiency STC (%)</td>
<td>18.52% 18.77%</td>
<td>19.02% 19.28%</td>
<td>19.53%</td>
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<td>Operating Temperature(°C)</td>
<td>-40°C→85°C</td>
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<tr>
<td>Maximum system voltage</td>
<td>1500VDC(UL)/1500VDC(IEC)</td>
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<tr>
<td>Power tolerance</td>
<td>0→3%</td>
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<tr>
<td>Temperature coefficients of Pmax</td>
<td>-0.37%/°C</td>
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<tr>
<td>Temperature coefficients of Voc</td>
<td>-0.29%/°C</td>
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<tr>
<td>Temperature coefficients of Isc</td>
<td>0.04%/°C</td>
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<tr>
<td>Nominal operating cell temperature (NOCT)</td>
<td>45±2°C</td>
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### STC: 🌞 Irradiance 1000W/m² 🌞 Cell Temperature 25°C 💧 AM=1.5

### NOCT: 🌞 Irradiance 800W/m² 🌞 Ambient Temperature 20°C 💧 AM=1.5 🌬️ Wind Speed 1m/s

*Power measurement tolerance: ± 3%*

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.
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US-MKT-PERC-385M-72H-V_1.0_rev2018
50/60kW, 1000Vdc String Inverters for North America

The 50 & 60kW (55 & 66kVA) medium power CPS three phase string inverters are designed for ground mount, large rooftop and carport applications. The units are high performance, advanced and reliable inverters designed specifically for the North American environment and grid. High efficiency at 98.8% peak and 98.5% CEC, wide operating voltages, broad temperature ranges and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 50/60kW products ship with either the Standard wire-box or the Rapid Shutdown wire-box, each fully integrated and separable with touch safe fusing, monitoring, and AC and DC disconnect switches. The integrated PLC transmitter in the Rapid Shutdown version enables PVRSS certified module-level rapid shutdown when used with the Tigo TS4-F/TS4-R-F products. Both models are also PVRSS certified with the -O and -L models. The CPS Flex Gateway enables monitoring, controls and remote product upgrades.

Key Features

- NEC 2017 PVRSS Certified Rapid Shutdown
- 55 & 66kVA rating allows max rated Active Power @±0.91PF
- Selectable Max AC Apparent Power of 50/55kVA and 60/66kVA
- NEC 2014/17 compliant & UL listed Arc-Fault circuit protection
- 0-90° Mounting orientation for lay flat roof installs
- Optional Flex Gateway enables remote FW upgrades
- Integrated AC & DC disconnect switches
- 3 MPPT's with 5 inputs each for maximum flexibility
- Copper and Aluminum compatible AC connections
- NEMA Type 4X outdoor rated, tough tested enclosure
- UL1741 SA Certified to CA Rule 21, including SA14 FW and SA15 VW
- Separable wire-box design for fast service
- Standard 10 year warranty with extensions to 20 years
- Generous 1.5 DC/AC Inverter Load Ratio
Model Name: CPS SCA60KTL-DO/US-480

**DC Input**
- Max. PV Power: 75kW (30kW per MPPT) & 90kW (33kW per MPPT)
- Max. DC Input Voltage: 1000V dc
- Operating DC Input Voltage Range: 200-950Vdc
- Start-up DC Input Voltage / Power: 330V / 80W
- Number of MPP Trackers: 3

**MPPT Voltage Range @ PF=0.99**
- CPS SCA60KTL-DO/US-480: 460-850Vdc
- CPS SCA60KTL-DO/US-480: 540-850Vdc

**Max. PV Short-Circuit Current (Isc x 1.25)**
- CPS SCA60KTL-DO/US-480: 204A (68A per MPPT)

**Number of DC Inputs**
- CPS SCA60KTL-DO/US-480: 15 inputs, 5 per MPPT

**DC Disconnection Type**
- Load rated DC switch

**DC Surge Protection**
- Type II MOV, 2600Vdc, 20KA 1ms (8/20μS)

**AC Output**
- Rated AC Output Power @ PF=0.99 to ±0.91:
  - CPS SCA60KTL-DO/US-480: 50kW
  - CPS SCA60KTL-DO/US-480: 60kW
- Max. AC Apparent Power (Selectable):
  - CPS SCA60KTL-DO/US-480: 50/55kVA
  - CPS SCA60KTL-DO/US-480: 60/66kVA

**Rated Output Voltage**
- 480Vac

**Output Voltage Range**
- 360 / 422 - 528Vac

**Grid Connection Type**
- Neutral optional

**Max. AC Output Current @480Vac**
- CPS SCA60KTL-DO/US-480: 60.2/68.2A
  - CPS SCA60KTL-DO/US-480: 72.2/78.4A

**Rated Output Frequency**
- 60Hz

**Output Frequency Range**
- 57 - 63Hz

**Power Factor**
- >0.99 (±0.8 adjustable)

**Current THD @ Rated Load**
- <3%

**Max. Fault Current Contribution (1 Cycle RMS)**
- CPS SCA60KTL-DO/US-480: 64.1A

**Max. OCPD Rating**
- CPS SCA60KTL-DO/US-480: 110A
  - CPS SCA60KTL-DO/US-480: 125A

**AC Disconnection Type**
- Load rated AC switch

**AC Surge Protection**
- Type II MOV, 1240Vdc, 15KA 1ms (8/20μS)

**System and Performance**

**Topology**
- Transformerless

**Max. Efficiency**
- 98.6%

**CEC Efficiency**
- 98.5%

**Stand-by / Night Consumption**
- <1W

**Environment**

**Enclosure Protection Degree**
- NEMA Type 4X

**Cooling Method**
- Variable speed cooling fans

**Operating Temperature Range**
- -22°F to +140°F / -30°C to +60°C

**Non-Operating Temperature Range**
- No low temp minimum to +158°F / +70°C maximum

**Operating Humidity**
- 0 to 100%

**Operating Altitude**
- 13,123ft / 4000m (derating from 9842.5ft / 3000m)

**Audible Noise**
- <60dB @ 1m and 25°C

**Display and Communication**
- LCD+LED
- SunSpec, Modbus RS485
- CPS Flex Gateway (1 per 70 inverters)
- CPS

**User Interface and Display**

**Inverter Monitoring**
- CPS Data Mapping

**Site Level Monitoring**
- Remote Diagnostics / FW Upgrade Functions
- Standard / (with Flex Gateway)

**Mechanical**

**Dimensions (HxWxD)**
- 39.4 x 23.6 x 10.24in. (1000 x 600 x 260mm)

**Weight**
- Inverter: 123.5lbs/55kg; Wire-box: 33lbs/15kg

**Mounting / Installation Angle**
- 0 to 90 degrees from horizontal (vertical, angled, or lay flat)

**AC Termination**
- M6 Stud Type Terminal Block (Wire range: #6 - 3/0AWG CU/AL, Lugs not supplied)

**DC Termination**
- Screw Clamp, Neg. Busbar (RSD version)

**Fused String Inputs (5 per MPPT)**
- 15A fuses provided (Fuse values up to 30A acceptable)

**Safety**

**Certifications and Standards**
- IEEE1547a-2014, CA Rule 21

**Selectible Grid Standard and SRD**
- Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-Var, Freq-Watt, Volt-Watt

**Warranty**
- Standard: 10 years
- Extended Terms: 15 and 20 years

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1) See user manual for further information regarding MPPT Voltage Range when operating at non-unity PF.
2) See user manual for further information regarding the operation of the AC disconnect.
3) The "Output Voltage Range" and "Output Frequency Range" may differ according to the specific grid standard.
4) See user manual for further information regarding the operation of the AC disconnect.
5) See user manual for further information regarding the operation of the AC disconnect.
6) Shade Cover accessory required for installation angles of 75 degrees or less.
7) RSD wire-box only includes fuse/fuseholders on the positive polarity, compliant with NEC 2017, 680.9 (C).
8) Fuse values above 20A have additional spacing requirements or may require the use of the Y-Cable Terminal Block. See user manual for details.
EXHIBIT F

COST SUMMARY

ARCHITECTURAL/ENGINEERING DESIGN SERVICES FOR A NEW PARKING STRUCTURE

<table>
<thead>
<tr>
<th>TASK</th>
<th>HOURS</th>
<th>COST</th>
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<tbody>
<tr>
<td>1. FINANCIAL FEASIBILITY ANALYSIS</td>
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<td>2. SCHEMATIC DESIGN</td>
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<td>3. DESIGN DEVELOPMENT</td>
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<td>4. CONSTRUCTION DOCUMENTS</td>
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<td>5. CONSTRUCTION ADMINISTRATION</td>
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<tr>
<td><strong>TOTAL</strong></td>
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Note: Proposal shall include backup cost and staff hour tables summarized above.