



## City of Miami Gardens

### SOLAR PERMIT APPLICATION REQUIREMENTS

Required information on Photovoltaic electrical system designs, City of Miami Gardens

- Two Application forms one for Building one for Electrical
- Additional Application for Electrical **EC (if service is being upgraded)**
- Miami Gardens Roof Warranty Affidavit
- Miami Gardens Special Inspector Form
- Owner's name and address
- Installer information
- Engineer's name and engineer's certification statement, structural and electrical.
- Sheet Index (enumerated pages, sheet number and sheet description)
- House Aerial Photo
- Vicinity Map
- Project Description
- Codes and standards, (minimum) Florida Residential Code (Latest)
- Florida Plumbing Code (latest)
- Florida Building Code (latest)
- Florida Mechanical Code (latest)
- NFPA 70 (latest)
- ASCE 7-16
- Florida Fire Prevention Code (latest)
- Symbols (legend)
- Abbreviations (legend)
- System Description
- Fall protection (statement) (OSHA STANDARD) Fall protection systems criteria and practices 1926.502(D)(15)
- Allowable /design pressure in PSF. Down pressure and uplift pressure. (Modules and rails position, length and width sketch.
- Roof plan with fire setbacks, including ground approach to roof clear pathway.
- Property line
- Module Layout, (include module type, dimensions and weight)
- Array area & roof area calculations, if more than one roof include roof # 1 and # 2
- Flat roof or gable.
- Array area in square FT.
- Roof area
- Tilt/Slope

- Azimuth
- Truss size
- Truss spacing
- Wind Zones (non-exposed modules) (edge exposed modules) Span and Cantilever
- Wind zone legend (symbols)
- Partial pressure and modules exposure
- Rails attachment detail to trusses
- Rails attachment to trusses detail expanded view
- Truss spanner detail
- Module attachment detail.
- Wind load calculations for module installed on roofs with a height less than 60' (for 1 story)
- Design Calculations for 1 and 2 stories (width of pressure, external and internal coefficient) including Design pressures, array factors, adjusted design pressures, attachments used, maximum design loads allowable
- Rails Span tables for Non-exposed and Exposed
- Electrical riser diagram (line diagram) including PV and Existing and or new electrical service. Include PV array, microinverters, conductors from array to junction box or boxes, conductors from junction box to combiner box, combiner box with envoy, if consumption CT is used provide wiring, if the wiring is enclosed in the same conduit provide wire insulation. Provide PV associated equipment, Provide interconnection to existing power source tap or back-fed breaker injection. Identify Existing service Main Breaker with ampacity rating and Fault Current (KAIC). Service upgrades plans must include complete riser diagram, panel schedule, load calculation, FPL letter of available fault current (KAIC) and calculations to substantiate Main Breaker KAIC
- Provide electrical conductor ampacity calculations including design temperature, conduit fill, and voltage drop derating factors. Include in this page Modules and Inverter properties
- Provide Labels according to NEC 705.10, 690.58(1)(a), 690.13(B), NEC 705.12(B)(2)(3)(b), NEC 690.54, 705.12(B)(2)(3)(b), 690.52, 690.54, 705.12(A), 690.56(C)(3), NFPA-1, 11.12.2.1.5
- Provide Elevation View (Include flood zone ?) Electrical equipment shall be installed above base flood elevation (according to zone).
- Provide Panel and modules catalog specifications
- Provide (by the manufacturer) rail mechanical load testing structural performance under uniform static pressure
- Provide Microinverters catalog specifications
- Provide Combiner Box catalog specifications
- Provide Solar Racking catalog specifications
- Provide Bonding connections and ground path installation detail
- Provide Rail Base attachment detail
- Provide Rail Base penetration sealant and application instructions
- Provide Products approval
- Provide Notice of Acceptance, NOA, by Miami Dade County

- **CVC licensed contractor can install all PV and associated equipment except the interconnection to the existing FPL power source, either line side, load side or back-fed breaker injection, permit required. For line side, load side or back-fed breaker injection an EC or ER licensed electrical contractor is required, separate permit required.**
- **For service upgrades, downsizing Main to comply with the 20% rule EC or ER electrical contractor required, separate permit required.**

**Note this list is provided as a minimal guideline when applying for permit and further information may be required depending on specific project conditions.**