

# S&R SOLAR DESIGN COMPANY PROFILE





S&R Solar Design is an innovative, award-winning company focusing on design, engineering and permitting services in solar PV industry in the North East region and beyond.

COMPANY OVERVIEW Since 2012, we have been serving the residential and commercial solar industry in all design, engineering and permitting needs, both in large and small scale.

Over 3,500 solar PV permits have been issued with the direct help of S&R Solar Design!

Solar isn't a division of what we do, it's the ONLY thing we do, which sets us apart from our competitors.



Our viewpoint is simple, S&R Solar Design was established to offer consultation, site assessment, design and permitting services to help solar PV installers and developers reduce soft costs and improve profitability.

S&R Solar Design's goal is to help you avoid the many diverse pitfalls that can result in installation delays and lost revenue.

With our experience, creativity, and novelty, we can help diminish your installation and permitting time, while designing efficient systems, thereby preventing delays, decreasing time in permitting agencies, streamlining installations, and increasing your cost savings.

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MISSION STATEMENT

> Dedicated to complete satisfaction, our team is the onestop source for all your solar design and expediting needs. When you hire our team, you can trust that you are hiring trustworthy, reputable, and recognized experts in the industry.



# OVERALL SERVICES

- Site Assessment and Evaluation including PV Shading
- Feasibility Studies
- Preliminary Roof Layouts
- Drawings for Proposals and Presentations
- Asbestos Investigation and Report (ACP-5)
- Preparing Roof Layout, Electrical Wire Diagrams, Plans and Elevations
- Solar Engineering, Roof Load Capacity and Structural Evaluation
- Preparation of Department of Building's applications and paperwork
- Filing the applications and plans with the Building Department
- Utility Interconnection application and submittal
- NYSERDA filing and approval
- File for Fire Department (FDNY) variance, ORE, and Landmark projects
- Obtaining Approval, work permit and sign-off
- Professional Certification (Sign & Seal) by Licensed Engineer
- Electrical Inspection
- Installation Review
- Project Management
- Solar Property Tax Abatement Services.
  - Commissioning



From small residential to large commercial and municipal buildings, S&R Solar Design has the engineering, design and permitting expertise to provide the ideal solar solution for your needs. We offer services in:



**KEY SERVICES** 





From the initial assessment of the proposed solar site to analyzing the shading, to creating site drawings, aesthetic sketches and electrical blueprints, the S&R Solar Design team gets to work and begins to thoroughly review every piece of data we have gathered.

Our site assessment includes shading analysis and various specific data such as building and roof structure, condition of the roof such as existing pitch and drainage system condition, roof access locations, other rooftop equipment including stacks, fire department access, potential inverter and other equipment locations, point of connection, and electrical distribution panels, and several other helpful pieces of information.



DESIGN & ENGINEERING

As a top consultant, we bring over 25 years of combined Design and Engineering experience to our clients. S&R Solar Design can provide up-to-date information on Building and Fire codes and regulations pertaining to permitting and interconnection.

Our expert engineer department has designed gigawatts of PV arrays. We go above and beyond to configure PV systems that maximize project value. Our staff is comprised of registered engineers and engineering graduates, that have both hands on experience with the entire permitting, install and design process of solar projects.

We know what's important, and we creatively craft a solution to meet the needs of our customers – a capability that truly differentiates us in the marketplace.



# Flat Roof Mount Tilt Up Design

An increasing number of PV systems are being installed in flat roof residential and commercial applications in New York City.

There are many flat roofs in NYC and the best way to optimize the capacity of the roof is to install the panels on a tilt towards the south. S&R Solar Design is the top designer for till up systems allowing solar arrays to be tilted to an optimum angle.

This type of design also allows the installer to install above many obstructions such as vents and pipes, resulting in a larger array system and more area for solar



ENGINEERING

**DESIGN &** 

#### 41.18" PHOTOVOLTAIC SOLAR PANELS (SEE PANEL SPEC. FOR MORE DETAILS) CLEAR ACCESS PATHWAY AS PER FDNY FC504.4 (N) PV SUPERVISOR (PVS5) MON PV LOAD CENTER (N) PV LOAD CENTER NOTE: ROOF PITCH: ENCROACHMENT ON **5 DEGREES** -NO ADDITIONAL STRUCTURAL THE CLEAR PATH IS WORK REQUIRED @ ROOF FOR NECESSARY TO INSTALLATION OF SOLAR PANELS. EXISTING HATCH -EXISTING SKYLIGHT 26 PANELS ACCOMMODATE THE -EXISTING LOCATION OF UTILITY 455 SF EXISTING MAIN SERVICE PANELS IS INSIDE DESIGN OF THE SOLAR 46'-2" CHIMNEY 6'-0" THE BASEMENT. INSTALLATION CLEAR ACCESS PATHWAY 0 4'-D" .0-.9 CLEAR ACCESS PATHWAY CLEAR ACCESS PATHWAY 9'-10" .0-,9 0-.9 6. 1. STREET 0 0 20'-0" 5 1 A-200 EXISTING VENTS (TYP) 20'-0" ROOF 1 101 14'-0" 14'-0" **INSTALLATION OF 26** SOLAR PANELS (TYP.) WITH MICRO-INVERTERS (SEE DETAIL 1/A-100.00) MM 9'-3" MON TI EXISTING PIPES (TYP) 42'-11" EXISTING LOCATION-**OF UTILITY METERS &** 52'-2" PROPOSED LOCATION OF PV LOAD CENTER & PV SUPERVISOR (PVS5)

A-201

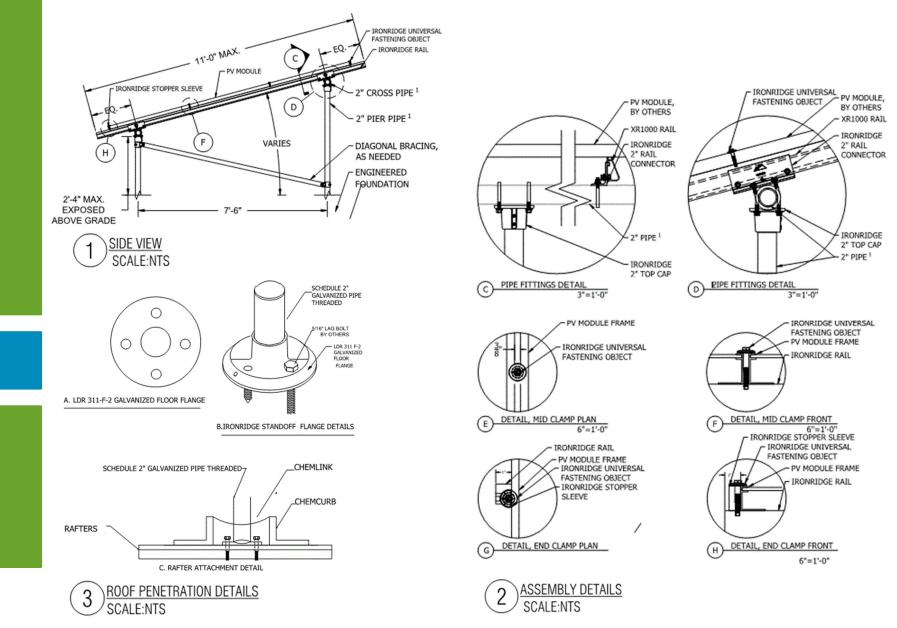
(26) SPR-345 C-AC 61.34" X

# Flat Roof Mount Tilt Up Layout



# Flat Roof Mount Tilt Up Engineering







DESIGN & ENGINEERING

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# Flat Roof Mount Tilt Up Design Photos









# Flat Roof Ballasted Design

Ballast mounts rely solely on the weight of the array, racking system, and additional material, like concrete pavers, to hold the array to the roof. Their biggest advantage is the lack of roof penetrations. This can significantly reduce the coordination required between the roofer and the PV installer.

S&R Solar Design can assist you with ballasted system design on flat roof by assessing existing structure and running calculations. We also note the areas that should be free of solar due to shading, drainage, fire access, etc.

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DESIGN & ENGINEERING

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# **Flat Roof Ballasted Design Photos**









Since its foundation, S&R Solar Design has filed and obtained a permit for over 3,000 solar projects.

New York city is one of the most challenging jurisdictions when it comes to paperwork and permitting.

Our permitting experts have both the administrative and technical expertise to expedite the permit approval process in order to get your solar project moving as quickly as possible. We provide regular updates so that you always know the status of your permit, at any time.

S&R Solar Design can also assist installers & developers obtain permits from the NYC Landmarks Commission, FDNY and other authorities!





# ASBESTOS INVESTIGATION

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In order to receive a construction permit for solar in NYC, the DOB requires a form approved by the Department of Environmental Protection (DEP) stating this took place unless an exemption is selected on the PW1 permit application for DOB.

S&R Solar Design, conducts and manages asbestos inspection in order to make sure the proposed property which will receive solar panels is free of asbestos containing materials (ACM). After the investigation, we will submit a survey report through DEP's online Asbestos Reporting and Tracking System (ARTS) and pay the fees.



# ELECTRICAL INSPECTION & CONSTRUCTION REVIEW

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S&R Solar Design offers services in required electrical testing and inspection of all type of solar systems.

Our electrical inspectors have a very deep understanding of electric wiring and electric codes. We examine the electrical systems from the connection of the main line to the wiring of individual outlets; Inspecting appliances that are hard wired into a structure; Making recommendations for electrical system changes; Evaluating site's electrical system to determine compliance with standards. We also examine electrical systems and equipment to confirm that they are safe, functional, and conform to code.



# S&R SOLAR DESIGN PORTFOLIO

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S&R Solar Design has an extensive portfolio of designed and permitted residential and commercial projects in NYC and beyond.

If you're running a fast pace installation company, our tailor made plans to your jurisdictional requirements will get you that vital permit you seek.

We guarantee our work and respect our clients project confidentiality.



#### PROJECT TYPE: RETAIL

#### BUSINESS TYPE: SUPERMARKET



2017

# **CITY FRESH MARKET**

- 27.700 Kw
- (91) ASTRONERGY 305W SOLAR PV
- BALLASTED INSTALLATION
- BRONX, NY



#### PROJECT TYPE: MEDICAL

#### BUSINESS TYPE: ANIMAL HOSPITAL



2015

# PLEASANT PLAINS ANIMAL HOSPITAL

- 35.316 Kw
- (108) SUNPOWER E20-327 W SOLAR PV
- FLUSH MOUNTED INSTALLATION
- STATEN ISLAND, NY



#### PROJECT TYPE: RESIDENTIAL

#### BUSINESS TYPE: HOMEOWNER



2016

# YOSHIKI RESIDENCE

- 8.250 Kw
- (30) MITSUBISHI 275 W MONO SOLAR PV
- TILT-UP INSTALLATION
- BROOKLYN, NY



#### PROJECT TYPE: COMMERCIAL

#### BUSINESS TYPE: WHOLESALE



2017

# TMT MARBLE & TILE INC.

- 42.120 Kw
- (117) SUNPOWER X22-360 W SOLAR PV
- SUNPOWER HELIX BALLASTED INSTALLATION
- ELIZABETH, NJ



#### PROJECT TYPE: RESIDENTIAL

BUSINESS TYPE: CONDO BUILDING





# THE ATELIER CONDO

- 29.815 Kw
- LG 335 W SOLAR PV
- FAÇADE MOUNTED INSTALLATION
- MANHATTAN, NY



#### PROJECT TYPE: COMMERCIAL

#### BUSINESS TYPE: WHOLESALE



2014

# PRECISION GEAR

- **340 Kw**
- LG 335 W SOLAR PV
- BALLASTED INSTALLATION
- QUEENS, NY



#### PROJECT TYPE: EDUCATIONAL

#### BUSINESS TYPE: SCHOOL



2017

# MOUNT SAINT MICHAEL ACADEMY

- 108.540 Kw
- (324) TRINA SOLAR 335 W SOLAR PV
- OMG FLAT ROOF MOUNTED INSTALLATION
- BRONX, NY



#### PROJECT TYPE: RELIGIOUS

#### BUSINESS TYPE: CHURCH/SCHOOL



2017

# CHURCH OF GOD CHRISTIAN ACADEMY

- 15.500 Kw
- (50) CSUN 310 W SOLAR PV
- BALLASTED INSTALLATION
- QUEENS, NY



#### PROJECT TYPE: CORPORATE

#### BUSINESS TYPE: PHARMACEUTICALS



2018

### REGENERON PHARMACEUTICALS

- 1.0098 MW (INSTALLATION IN PROGRESS)
- (624) VIKRAM SOLAR PANELS 340 W MODULES
- BALLASTED INSTALLATION
- MOUNT PLEASANT, NY



#### PROJECT TYPE: RELIGIOUS

#### BUSINESS TYPE: CHURCH



2016

# BIBLE PRESBYTERIAN CHURCH

- 39.894 Kw
- (122) SUNPOWERE20-327 W COMMERCIAL SOLAR PANELS
- BALLASTED INSTALLATION
- COLLINGSWOOD, NJ



#### PROJECT TYPE: COMMERCIAL

#### BUSINESS TYPE: COMMUNITY FACILITY



2017

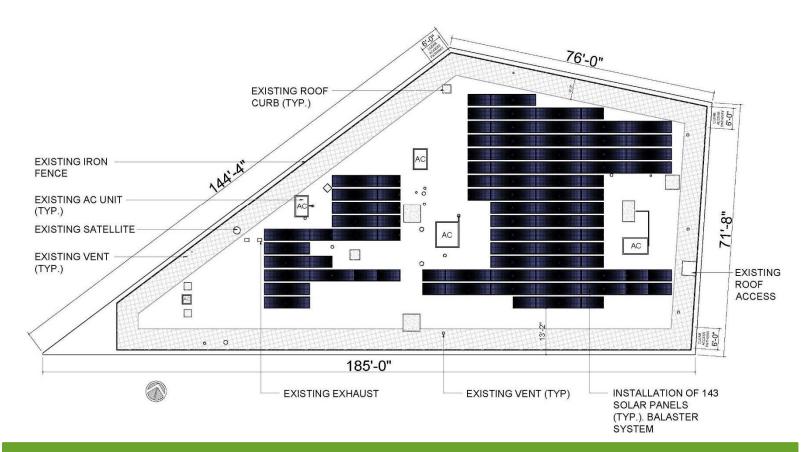
# FREEDOM VILLAGE COMMUNITY BUILDING

- 16.350 Kw
- (50) SUNPOWERE20-327 W COMMERCIAL SOLAR PANELS
- FLUSH MOUNTED INSTALLATION
- Westampton, NJ



#### PROJECT TYPE: COMMERCIAL

#### BUSINESS TYPE: WHOLESALE



2018

# QUALITY INSTALLTION OF NY

- 46.475 Kw (INSTALLATION IN PROGRESS)
- (143) HELIENE 72 CELL 325 W MODULES
- BALLASTED INSTALLATION
- QUEENS, NY



PROJECT TYPE: RESIDENTIAL

BUSINESS TYPE: CO-OP BUILDING



2018

# **GRAND CONCOURSE APARTMENTS**

- 38.350 Kw (INSTALLATION IN PROGRESS)
- (118) TRINA 325 W MODULES
- TILT-UP INSTALLATION
- BRONX, NY