

arrangement of the structure on the site, but does not represent the final or only arangement of structures allowed. The arrangement and placement of structures on the site may be modified as allowed by the development standards and within the building envelope indicated on the technical data sheet.

1-2 SCHEMATIC SITE PLAN

57' 10 15/16"

SolarPark.us represents a 21st Century Solar Design with environmental and technological approaches to saving green space via strengthening our energy grid through reliable renewable energy diversity while conserving our natural resources. This project encourages a healthier built environment by setting building standards and the regulatory bar higher with experienced visionary knowledge of American know how with a Real Estate example in the community of how to do things right, via responsible Solar Design.

This project and the benefits to this community, region, state, country and planet justify the positive modification of traditional building regulations to include requiring Solar energy above 40 feet in height. Creative Land Use policy is required to meet the demands for conservation, due to growth, and the ever changing needs of the real estate marketplace within our community.

Primary Solar Technology and Conservation Measures

Passive Solar Design

Solar Thermal Technology
Solar Photovoltaics (included battery backup for outages/ Solar Electric vehicles & cycles)

PV Grid Tied Net Metering/Off Grid PV Rain Collection/Grey Water Recycling

Geo Thermal Natural Day Lighting

Solar Greenhouse

Save Green Space USGBC

Sound Deaf R 50 +plus

Green Technology LED/ Optics Lighting

Conservation Motion Sensor Fixtures Energy Star Program Emerging Technologies and much more.....

III. Ideal Solar Site Location

Critical environmental site challenges such as the high tree canopy were also critical project feature design elements.

-To minimize the footprint the design element was balanced to the existing site features including existing impervious surface area, high tree canopy, natural areas and elevations -To Maximize the Solar Energy Radiation Collection, Save Green Space, Balance Density,

Height is a featured design element in a project with these typical existing site conditions (note, these typical site conditions exist throughout the city).

-To maximize the preservation of green space Earth Sheltered Parking and under building space were featured design elements. -To balance density with land use modifications and height above 40 feet requiring solar energy allows relief on our natural resources and the energy grid while maintaining managed growth,

-Due to the fact that most of the trees are on the east side of the project and the rise of the adjacent land is 21 feet higher in elevation, the trees and land elevations soften and provide a natural tree canopy of visually buffering the project from the east and Sharon Rd to an elevation 40

Located along Park Rd, which s now an Interstate Highway Wedge with high traffic counts with increased noise, 50% of any shading of the Sun resulting from this project will occur in the middle of the road reducing Sun Heat reflection from the asphalt road. With the continued growth of our community and new demands on all our resources new vision is demanded to meet the public interests and needs for our economic survival.

The present 40 height restriction for R-3 Zoning prevents the saving of green space. To not exceed the height regulation developers are using larger footprints to gain greater square footage density which destroys irreplaceable valuable green space. This site is located 1.7 miles from the Lynx Light Rail Corridor on South Blvd. Sharon Rd West

-The Real Estate marketplace directly along the Park Rd Corridor is in decline due to the heavy traffic road noise environment attributed by the I-485 bridge connection to South Carolina Hwy 521 with increased volumes of commuters along with 18 wheelers at all hours of the night. The typical Real Estate condition, an inherent feature of real estate for front parcels, also represents a problem for all the Corridors, Wedges and Thoroughfares throughout Charlotte. The reason why you see the For Sale signs all up and down Park Rd is because of the declined real estate market due to traffic and noise..

This present real estate market condition along Park Rd and many other major thoroughfares can be remedied with zoning district changes using UR districts which will allow the transformation of front parcels in a declining real estate market. The petitioned property represents a location for adapting to a changing real estate market condition which has already existed for quite some time..

The present Residential District (R - ) zoning at this location does not fit the present existing real estate market. The present straight Residential District zoning by itself allows no flexibility for the Real Estate market to adapt to the already changed and ever changing marketplace.... and the 40 ft height building restriction inhibits the collection of Solar Radiation because of the high tree canopy. It will be advantageous to the community and the environment to allow greater height with managed density and power the entire building

-Of these present neighborhood properties, presently 7921 Park Rd is the only existing neighborhood structure with a state of the art Mecklenburg County approved Solar System inspection. The other structures in the neighborhood are effictively outdated for the future of the Park Rd corridor.

Benefactors include; the local wildlife which reside at 7921 Park Rd, the Real Estate marketplace, Duke Energy power grid and the entire community as well as our future residents.

-This Solar Energy Project, SolarPark.us, is a "Be Prepared" American energy example Internationally in this hemisphere. This project demonstrates green space conservation while reaching American Energy Independence goals with renewable energy diversity. Preliminary energy use models estimate a 75% to 85% savings on the approaching verge of Zero Energy.

- Improving quality of life and lifestyles, controlling energy costs, educating the public, now that times have changed. Additionally, encourgaging water conservation , the use of renewable energy includes modification of outdated building regulations and codes. -SolarPark.us is a designed solution to all these pressing critical issues and meets the challenges head on with viable reliable dependable approaches to reach American Energy Independence.

SolarPark.us is a plan for action,
1. Appropriately address in fill density by including more height, with more Solar.

2. Protect our remaining beautiful trees.3. Ensure the conservation of our community resources.

 Strengthen our energy grid with renewable energy diversity by Solar from the Sun.
 Conservation of Water - Recycling 6. Improve the community, by example, via responsible Solar Design.

7. Adapt outdated land use regulations, amend policy now, and for the future to include Solar.

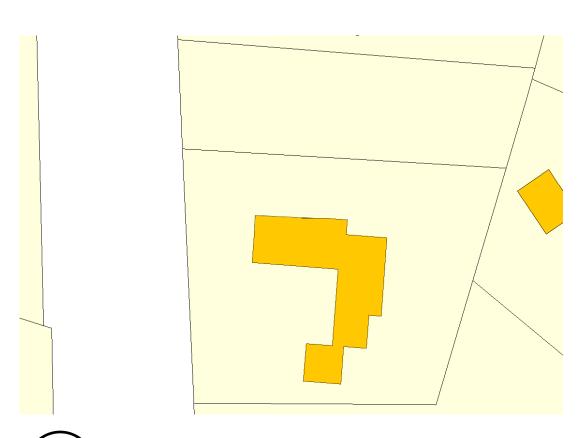
8. Protect the neighborhood from negative market changing influences and conditions by up zoning. 9.Demonstrate visionary leadership!

10.Reduce CO2 emissions resulting in fewer high ozone days.

11. Allow Government planning the flexibility to strengthen the community while protecting it.

12. Ease demand on the utility grid through a diversity of renewable energy supply.13. Permit healthier quality of life w/ approval of Charlotte's 1st Urban Residential Solar development.

As our population and community ages so does the needs of the the community. Being able to adapt to the ever changing conditions that are in the environment and survive them is the key element to human life on the planet Earth.



**EXISTING CONDITIONS** 

Fitzpatrick ENGINEERING

rankenstein.com Solar:
SolarF

ns

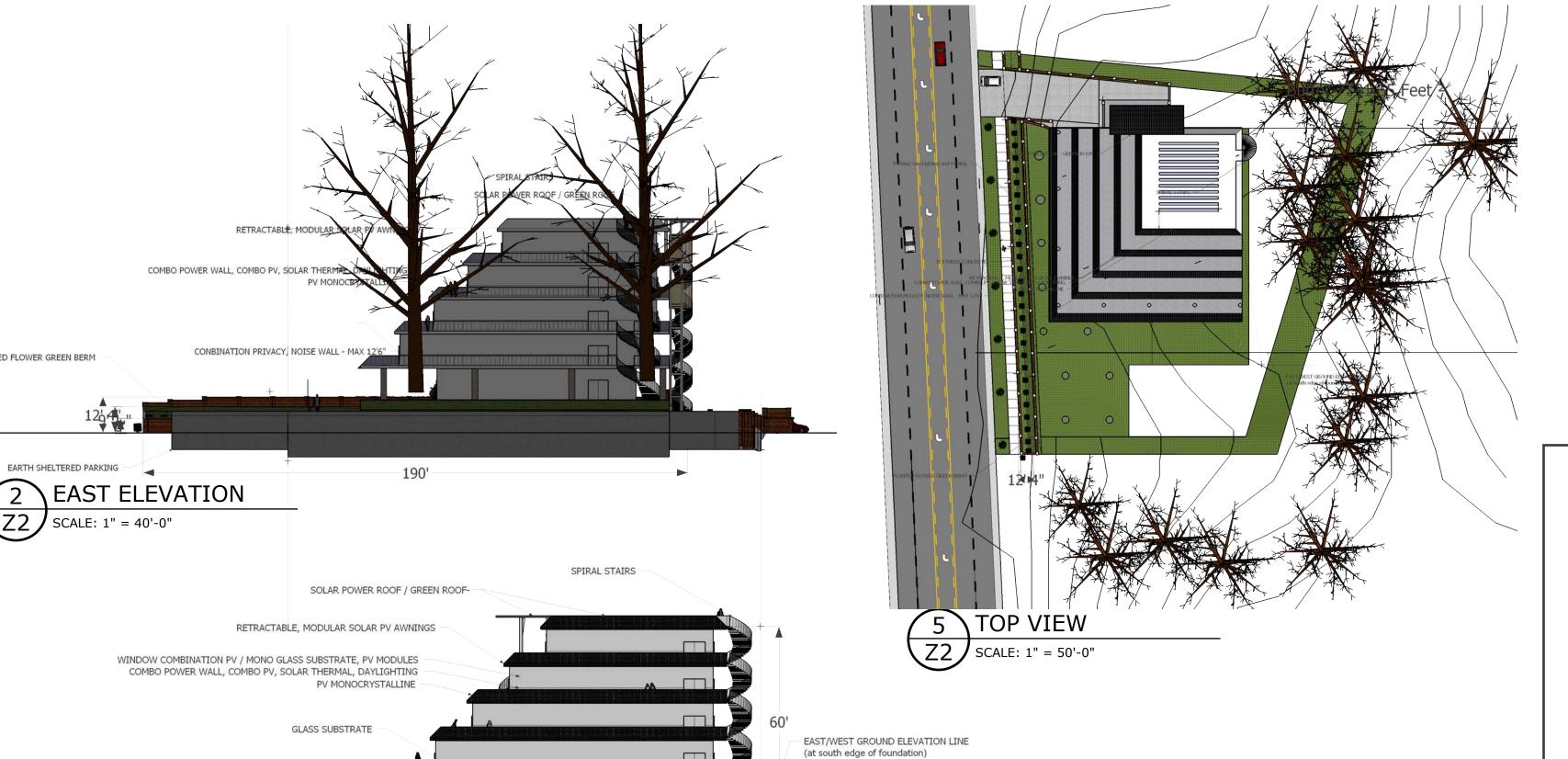
7921 Park Rd. Charlotte, Mecklenburg SolarPark.

petition #2008-140

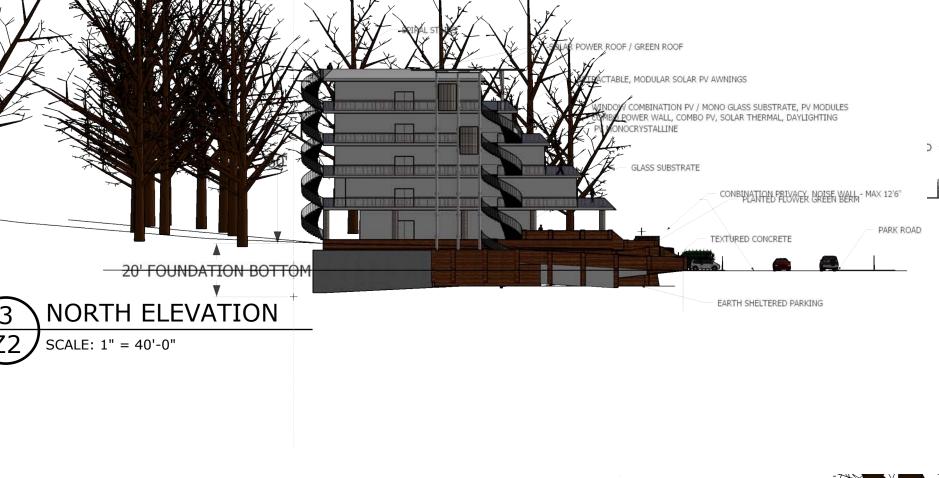
10/17/2008

petition #2008-140

10/17/2008



20' FOUNDATION BOTTOM



FRONT ELEVATION (WEST)

EARTH SHELTERED PARKING

PLANTED FLOWER GREEN BERM

PLANTED FLOWER GREEN BERM

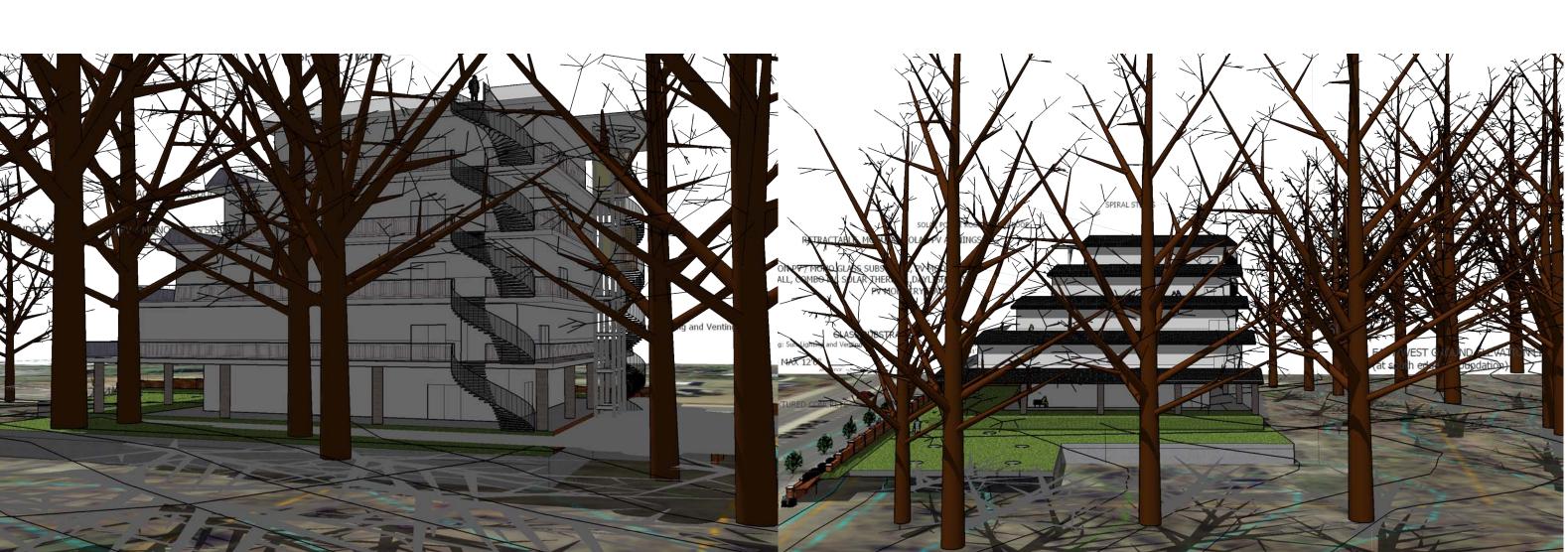
TEXTURED CONCRET

4 SOUTH ELEVATION
Z2 SCALE: 1" = 40'-0"

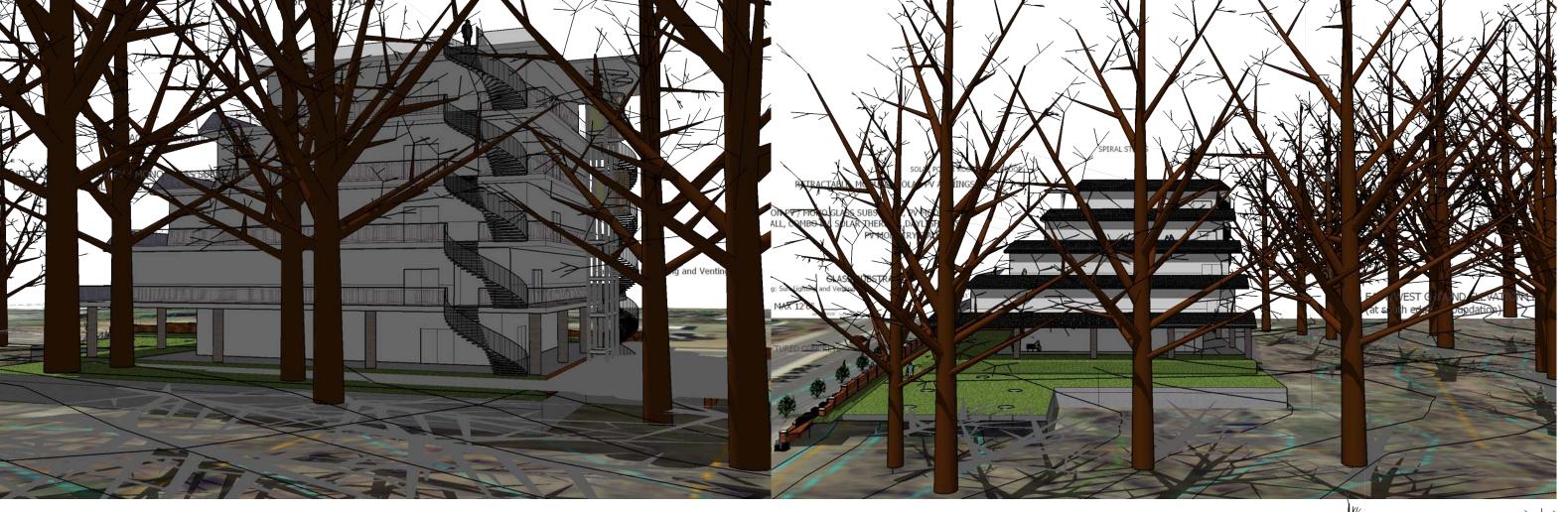
MATERIALS NOTE: Specific Types of PV Crystalline

and other exposed surfaces to be determined.

EARTH SHELTERED PARKING









UR-3 Development Standards

Development of the site will be governed by the Schematic Data Sheet (Z - 1.), the Technical Site Plan (Z - 2.), these Development Standards, and the applicable provisions of The City of Charlotte Zoning Ordinance (the "Ordinance") Unless the Technical Data Sheet, The Schematic Site Plan or these Development Standards establish more stringent standards, the regulations established under the Ordinance of the UR-3 Development District Zoning Classification, or subject to the Provisions provided below, shall govern all development taking place on this site.

I. Statements with respect to the Graphics which are set forth on Exhibits accompanying The Technical Data Sheet. The permanent layouts of the development proposed for the Site and the Parcels or Lots forming the parts thereof, the exact alignments, points of access, configurations and placements of parking areas, pool, solar arrays, underground storm water vaults and other individual site elements to be constructed have not been finalized. With this consequence, the graphics which accompany the Technical Data Sheet are schematic in nature and are not considered to be the final development plans but are presented as preliminary graphic representations of the types and quality of development proposed. Schematic Site Plan may, therefore be altered or modified during the design development and construction document phases within

the maximum building/parking envelope lines established on the Technical Data Sheet, subject to the accompanying UR-3 Development Standards of The Ordinance. II. Permitted Uses and Maximum Development.

The Site may be devoted to all uses under the Ordinance District UR-3 and will be developed to the following UR-3 development restrictions and provisions. Uses permitted by right within the UR-3 District are detached, duplex, triplex, quadruplet, multi-family dwellings and group homes for up to ten residents. Business or Office uses limited to those permitted in B-1 neighborhood business districts are also allowed, except that no drive-in windows or automotive sales, service or repair is permitted. Any such Commercial uses will be limited in floor area to two times the size of the building footprint, but there are no requirements as to where within the structure the uses may be located. Business or offices are not permitted as free-standing uses but may be combined with residential uses in the same structure. Urban Residential-3 District (UR-3). The intent of this district is to provide for high-density residential development. The district

is located nearer the employment corridor and in areas identified for their special adaptability and appropriateness for this type of A. Within the Building and Parking Area the total Gross Square Footage of the Building will be limited to the maximum square footage floor ratio of 2.0 allowed by UR-3 District Ordinance. B. Surface level parking and Earth Sheltered parking are permitted in UR-3 District Ordinance...

C. The maximum residential density will be no more than R-12 overlay allows, or a maximum 12 units per acre.

D. For the purposes of the development limitations set forth in these Development Standards the term " gross floor area " shall mean and refer to the sum of the gross horizontal areas of each floor of the principal building, measured from the outside walls or from the center line of party walls, provided such term shall be exclusive of surface, earth sheltered and structured parking facilities and related access area, areas used for the building access ( such as stairs, elevator shafts and maintenance crawl space ) and areas devoted to uses and structures accessory to the uses on the site. Areas devoted to pool, patio area, solar arrays are not intended to be included in the calculation of square footage limitations set forth in these Development Standards.

III. Planned Development: Setbacks, Yards, Parking and Open Space Requirements. A. Except as set forth below, setbacks and yards shall be provided in accordance with the UR-3 District Ordinance or as indicated on the technical data sheet and schematic site plan B. The site shall be viewed as Urban Residential 3 as defined in the District Ordinance as to the components of the site generally depicted on the technical data sheet. Therefore, all setbacks, rear and side yards, buffers will be strictly adhered to located on the

C. Parking may be provided by way of structured Earth Sheltered Parking located below grade

and some surface parking may be provided for in this development subject to compliance with the parking ratio requirements for UR-3 District Ordinance by CDOT.

A. The Petitioner seeks the provision to allow a deviation from the building height limit of the Urban Residential-3 District Ordinance Classification for the building located on this site as generally depicted in the Schematic Site Plan. The building may extend up to 60 feet in height. Building Height shall be measured as prescribed in the Ordinance, provided that for each 10 feet of additional height above the 60 foot measure, there is a corresponding increment of 1 foot distance further setback from the required This height limit shall not apply to skylights, roof structures for elevators, lifts, stairways, tanks, heating and cooling equipment, solar arrays, building ventilation, or similar equipment for operation and maintenance of the building, and any device used to

screen such structures and equipment. VI. Storm Water Management: A. Petitioner shall comply with the City of Charlotte approved and adopted Post Construction Controls Ordinance as adopted by the Charlotte City Council.

B. The Petitioner shall tie in to the existing storm water system(s). During the permitting stage of the site developments, the Petitioner shall have the immediate next receiving drainage system(s) adjacent to the Site, analyzed to ensure that it will not be taken out of standard due to the development contemplated hereby ( such a system is not already out of standard or the contemplated development will not take such existing system of out of standard ) If it is found that the contemplated development will cause the storm drain to be taken out of standard as described above, the Petitioner shall provide on site water detention or other alternative methods to prevent this from occurring. C. Any surface level water detention shall not be located in the required building setbacks or landscape buffer.

A. The number of vehicular access points shall be limited to the number depicted on the Technical Data Sheet.

B. The placement and configuration of each access point are subject to any minor modifications required to accommodate final site and architectural construction pla and designs and to any adjustments required for approval by the City of Charlotte and / or the North Carolina Department of Transportation. C. The Petitioner will coordinate its roadway improvements with CDOT.

VIII. Architectural Controls: A. The principle buildings materials exclusive of the solar arrays, windows and doors will use one or more of the following materials; Natural Rock, Cast Stone Veneer, Architectural Precast concrete, Architectural Metal including Decorative Metals and Railing and Stairways. The solar power railing will consist of monocrysalline modules. The vertical exterior walls will consist of combinations of mono, poly, and multi-crystalline photovoltaic modules. Some photovoltaic cells will be in a glass substrate. Solar collector walls will consist of combinations of photovoltaic glass substrate, solar thermal technology and natural daylighting. All these exposed surfaces are for solar radiation collection. The upper privacy wall may contain crystalline modules (PV) and specific types to be

There will be no Vinyl, no Lap Siding, no Stucco, nor Shake Shingle siding. B. The attached elevations are intended to reflect the general style and quality of the building that will be constructed on the site. (the actual building constructed on this site may vary from these illustrations as long as the general consents and general intent illustrated is maintained).
V. Design and Performance Standards:

A. The proposed Solar Energy Mid Rise structure, parking areas, solar arrays will comply will all applicable Urban Residential - 3 District Ordinance requirements except as noted above in IV Development Provisions provided on the technical data sheet. B. A required by UR-3 District Ordinances, a minimum side setback of 5 feet, and a minimum rear 20 foot, and a minimum front setback measured from the back of the curb to 14 feet is required. In addition, one foot additional setback, side and rear, for every ten feet above the standard of 60 feet building height, for a total of two feet additional side setback due to 20 feet additional requested height, will be required. The Petitioner graciously shall increase this side setback by 2 additional feet, for a new total measurement of 10 foot buffer side setback (includes the 5 foot side setback, plus 2 feet for additional height, and 2 extra feet ) for a total of a 10 foot wide side setback as indicated on the Technical Data Sheet and the Schematic Site Plan these documents

C. The landscape buffer shall include the tree and green space save in the rear of the site on both lots as generally depicted on the Schematic Site Plan. The landscaping within the side setback buffer shall include a combination of newly planted Mecklenburg County and City of Charlotte approved, drought tolerant plants and additional listed species including Martha Berry Hollys. Due to the soil content, drought related issues, it is unclear as to which plants and trees will exactly be located within the side green buffer setbacks. The rear of the site will remain undisturbed as it exists today, including the nature trail path, Tall White Oaks, Wisteria Garden, and other natural plants. There may be a slight change to the nature trail in the design and construction phase of this development. The privacy wall on Park Road shall include a planted green flower berm (combinations of flowers, grass, exotic

plants and shrubs). D. Exterior Lighting will be restricted to motion sensor lighting on the entire exterior of the structure for the residents usefulness for pedestrian use of the structure via the patios, the spiral staircases and elevators.. All Exterior Lighting fixtures shall have a light collar on around each bulb, or the fixture and bulb are situated in such a way that exterior lights on the structure do not beam the light directly on to another property. There will be no flood lights, or spot lights shined on to the building from any direction, or called "spot lighting the building", from the interior of the site or the exterior of the site, period. Light Pollution is an unnecessary use of light, spots or floods, that has no positive effect on the surrounding natural environment, and surely has a negative effect on the neighboring parcels, adjacent property owners, natural wildlife such as bird and owl nests, or other areas, and as such wastes electricity and our natural resources while damaging the quality of life to our surroundings. Nature provides a nighttime darkness via the Earths orbit and tilt in degrees for a reason, to allow rest and peacefulness. This

common sense restrictive approach to exterior lighting means that this structure will not be a bright spot in the neighborhood and community during darkness at night, nor disturb such including the natural creatures that need their rest as much as human beings

may be involved in any future development thereof.

E. Trash Cans and Recycle Bins will be located near the access to the Earth Sheltered Parking area. IX. Solid Waste Management: A. The Petitioner will submit the Mecklenburg County Solid Waste a Solid Waste Management Plan prior to initiating demolition and removal / or construction activities to include, at a minimum, the procedures that will be used to recycle all clean wood, metals, and concrete generated during removal when applicable. The plan will specify that all land clearing or inert debris shall be taken a properly permitted facility. The plan will also state that monthly reporting of tonnages disposed and recycled will be made to Mecklenburg County Solid Waste program. The report will also include the identification and location of all facilities receiving disposed or recycled materials.

A. Future amendments of the Rezoning Plan and these Development Standards may be applied for by the then owner, or owners of the Parcels/lots within the Site involved in accordance with the provisions provided for within these Ordinances.

personal representatives, successors in interest and assigns the Petitioner or owner and owners of the Site from time to time who

XI: Binding Effect of the Rezoning Documents and Definitions: A. If this Rezoning Petition is approved, all conditions applicable to development of this Site imposed under this Rezoning Plan with these graphic representation documents and Development Standards will, unless amended in the manner provided under the Ordinance, be binding upon and inure to the benefits of the Petitioner and the current and subsequent owners of the Site and their respective successors in interest and assigns. B. Throughout these Development Standards, the terms, "Petitioner", "Owner", shall be deemed to include heirs, devisees,