Development Narrative



Greenway Plaza

3644 E. Greenway road Phoenix, AZ 85032

Case No. **Z-83-08**

Submittal Date: 11-21-08

Revision no.1: 01-27-09

Revision no.2: 03-19-09

Final City Council Approval: 09/16/09

Minor Amendment Approval: 11/13/09

A Planned Unit Development (PUD) is intended to be a stand-alone document of zoning regulations for a particular project. Provisions not specifically regulated by the PUD are governed by the zoning ordinance. A PUD may include substantial background information to help illustrate the intent of the development. The purpose and intent statements are not requirements that will be enforced by the City. The PUD only modifies zoning ordinance regulations and does not modify other City Codes or requirements. Additional public hearings may be necessary such as but not limited to right-of-way abandonments.

PRINCIPALS AND DEVELOPMENT TEAM

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A PURPOSE AND INTENT

1. Project overview

Greenway Plaza is located at the northwest corner of Greenway Road and 37th Street. The developer's goal is to create a mixed use project. The first floor will be occupied with medical office and administrative office use, while the second floor will be comprised of residential use.



2. Project Goals

- Provide a buffer between the high traffic volume on Greenway Road and the quiet residential neighborhood on the north side of Greenway Road introducing a small scale mixed use development.
- Add service and employment opportunities to the neighborhood.
- To meet the goals and objectives of the City's General Plan, the development team requests a zoning change from R1-14 to Planned Unit Development (PUD) zoning.

3. Overall design concept

Use Categories

Greenway Plaza proposes an Urban Mixed Use designation.

The *Urban-Mixed Use* area provides a "live/work" atmosphere with residential-over-office occupancy.

Themes

Residential architecture shall be used on the building to blend with the adjacent residential neighborhood to the north. This development will be in Mediterranean Style, using earthy tones on stucco finish, southwestern blend for roofing tile and exposed heavy timber canopy over parking on south side of the building facing Greenway Road and over parking on northeast side.

B LAND USE PLAN

This 0.78 gross acre site is a small infill parcel. A mixture of medical office, administrative office and residential is proposed on-site. One set of standards and uses will apply to this site.

C SITE CONDITIONS AND LOCATION

1. Acreage

Lot net area is $20,754 \text{ sf} \sim 0.48 \text{ ac}$ Lot gross area is $33,794 \text{ sf} \sim 0.78 \text{ ac}$

2. Location

Greenway Plaza is located at the northwest corner of Greenway Road and 37th Street. Access to State Route 51 is only a half mile to the west. Roadrunner Park is two miles to the south and Paradise Valley Hospital is just one and a half miles to the north.

3. Topography and Natural Features

The area is relatively flat without major washes and drainage concerns.

D GENERAL PLAN CONFORMANCE

1. General Plan Conformity

Land Use Element - Goal 1 - Urban Form - Neighborhood Policies

Policy #1 Include a mix of housing types and densities that support a broad range of lifestyles.

Greenway Plaza has a multi-family element, three dwelling units on the second floor which diversifies housing types and lifestyles in the neighborhood.

Policy #2 Protect and enhance the character of each neighborhood and its various housing lifestyles through new development that is compatible in scale, design and appearance.

Greenway Plaza maintains and enhances the residential character of the neighborhood to the north using Mediterranean architectural elements such as but not limited to arches, building articulation and use of tile roofs.

Policy #5 Provide support services such as schools, parks, small scale offices and stores compatible with the neighborhood residential character.

Policy #6 Ensure that neighborhoods have reasonable access to basic neighborhood support services.

Greenway Plaza's commercial component is intended for pediatrics office and administrative office. The owner, developer and end user, Dr. Lopez, will be great resource and convenience for the surrounding area.

Land Use Element - Goal 4 - Mixed Land Use Development

Policy #1 Support healthy urban villages, with a balanced mix of housing, employment opportunities and services as a principal means to reduce vehicle trip length and associated emissions.

Greenway Plaza pediatrics office will offer its employees entry level housing, contributing to reduction in travel to work and to reduction in CO2 emissions.

E ZONING AND LAND USE COMPATIBILITY

The site is currently zoned R1-14, with an existing single family residence on it. The property to the west is also zoned R1-14 with an existing church. The property located on the northeast corner of 36th Street and Greenway Road is a larger two acre parcel zoned R-O with an existing office building. To the north, there are existing large lot single family homes zoned R1-14. On the south side of Greenway Road, there are single family residential subdivisions zoned R1-6.

The proposed development will preserve the residential character of neighborhood and be designed in a Mediterranean style consistent with some of the newly constructed single family homes in the Robinhood Acres subdivision to the north.

F LIST OF USES

1. Permitted Uses

- a. Professional, medical, dental and administrative office use including clerical or sales representative offices.
- b. Residential

2. Temporary Uses

a. As outlined in Temporary Uses section of the Zoning Ordinance.

3. Accessory Uses

a. Home occupations, as outlined in the Residential Districts section of the Zoning Ordinance.

G DEVELOPMENT STANDARDS

1. Development Table

Development Standards	PUD		
Density	3.85 du / ac		
Minimum Gross Lot Area	34,000 square fee	t	
Building setbacks	Front yard:	20 feet	
	Interior Side yard: Street side yard:	10 feet 20 feet	
	Rear yard:	15 feet	
Landscape setback	Street side:	20 feet	
	Interior side:	10 feet	
Building separation	Per Building Code		
Building height	Maximum 25 feet		
Lot Coverage	Maximum 25%		
Division of Uses	First floor: Medical and administrative office		
	Second floor: Res	idential	

2. Landscaping Standards.

Streetscape	Streetscape				
Plant Type	Minimum Planting Size				
Trees (*)		caliper or multi-trunk tree (50% of required trees) caliper or multi-trunk tree (50% of required trees)			
Shrubs	Min. five (5)	5-gallon shrubs per tree			
Perimeter Property	Lines (not adj	acent to a street)			
Property lines not adjacent to a street	Min. 10-foot	landscaped setback			
Plant Type	Minimum Pl	anting Size			
Trees (*)		caliper (70% of required trees) caliper (30% of required trees)			
Shrubs	Min. five (5) 5-gallon shrubs per tree				
Adjacent to a Building					
Building facades within public right-of-way or ac public entries to the buil	djacent to	Min. 25% of the exterior wall length shall be treated with either a landscaped planter a min. 5' in width or an arcade or equivalent feature			
Plant Type	Minimum Pl	anting Size			
Trees	One (1) 4-in	ch caliper or multi-trunk tree			
Shrubs	Min. five (5)	5-gallon shrubs per tree			
Parking Areas					
Interior surface area (ex perimeter landscaping a required setbacks)		Min. 10%			
Landscaped planters	At ends of e	ach row of parking.			
Landscaped planters, single row of parking	Minimum interior dimension 5 feet (length and width).				
Plant Type	Minimum Planting Size				
Trees	One (1) 3-ir	nch caliper or multi-trunk tree			
Shrubs	Min. five (5)	5-gallon shrubs per tree			
Common and Reten	tion Areas				
Trees	One (1) 4-in	ch caliper or multi-trunk tree			

(*) Twenty (20) feet on center or equivalent groupings.

3. Parking Standards

Dwelling unit, Multi-family	1.5 spaces per 1 or 2 bedroom unit
Medical Office	1 space per 200sf of gross floor area
Administrative Office	1 space per 300sf of gross floor area

4. Open space area.

- a. Active and passive leisure and outdoor recreation areas are to be provided and maintained in central locations for use by residents of the multifamily development.
 - (1) The total of such areas shall be a minimum of 720 square feet.
 - (2) No portion of any area is to be less than two hundred square feet or less than ten feet in width.
- b. These two elements are to be provided in this area:
 - (1) Barbecue area
 - (2) Covered Patio

Areas devoted to parking lots or driveways, principal building and required setbacks are not to be considered part of the open space area.

5. Shade

A minimum 50% shade of all public sidewalks and private walkways by means of vegetation or shade structure shall be provided. The percentage of shade is measured at summer solstice at noon. Building overhangs and canopies shall be implemented to shade pedestrians and promote a walkable environment.

6. Lighting Plan

Accent lighting to promote the residential character of the area is strongly encouraged. Exterior lighting will be oriented downward and fully shielded adjacent to residential uses. Flat or recessed lenses are required. Photometric Plans shall be submitted with preliminary site plan review.

Pedestrian scale lighting shall be provided in the courtyard area and shall be decorative and complement the architectural style of the area. The value of light foot candles at property lines can not exceed 1.0 fc.

Lighting levels			
	Minimum	Maximum	Avg. to minimum ratio
Surface Parking	.2 FC	4 FC	20:1
Courtyards and other publicly accessible space areas	1 FC	3 FC	10:1

H DESIGN GUIDELINES

Design Guidelines are to be in general compliance with Section 507 Tab A, Guidelines for Design Review, of the Phoenix Zoning Ordinance. In addition to design Guidelines, proposed development shall comply with following guidelines:

- a) Roof lines shall be pitched to enhance neighborhood compatibility
- b) Building façade shall contain architectural embellishments and detailing such as arches, textural changes, material changes and canopies
- c) Minimum 125 square feet of south facing roof surface shall be dedicated to solar water heating panels with volumetric capacity of 295 gal.
- d) Minimum 700 square feet of south facing roof surface shall be dedicated to photovoltaic solar panels with overall output of 9.45 KW.
- e) Irrigation system shall be installed with use of rain sensor system, to minimize water consumption during rainy days.
- f) Salvage healthy plants on north side of development.
- g) All stairwells shall be internalized.

SIGNS

1. Character.

- a. Signs shall be designed to be consistent with the architectural treatment and overall character of the site.
- b. Signs shall use materials or textures which are complementary to those used in the building or project being signed.
- c. Signs shall use colors which match or complement the colors used on the building or in the project being signed.
- d. Ground signs placed closer to the building than the width of the sign shall not exceed the height of the building, or shall be designed to appear to be an integral part of the architecture of the building.

2. Location.

- a. Sign locations shall be integrated within the design of the site and the adjacent streetscape.
- b. Signs and landscaping shall be placed so that they are not in conflict when landscaping reaches full maturity.

3. Function.

- a. Sign placement and materials for multiple tenant occupancies shall be delineated in a uniform and consistent manner.
- b. Traffic directionals shall be placed to promote safe and efficient traffic flow.
- c. Signs shall be oriented to promote readability and serve their intended function.

4. Sign Standard Table

Wall Signs		Ground Signs			
Height (feet)	Area (square feet)	Number of signs	Height (feet)	Area (square feet)	
15	1 sq. ft./each 4 lin. Ft. (min. 24; max 120)	1 at intersection	5	16	

J SUSTAINABILITY

1. Standards

a. Shading

A minimum 50% shade of all public sidewalks and private walkways by means of vegetation or shade structure shall be provided. The percentage of shade is measured at summer solstice at noon. Building overhangs and canopies shall be implemented to shade pedestrians and promote a walkable environment.

b. Irrigation

A rain sensor system shall be utilized to minimize water consumption during rainy days.

c. Photovoltaic Panel System

Photovoltaic panels shall be installed on south facing roof surface. Minimum installed area shall be 700 square feet with overall output of 9,45KW.

d. Solar Water Heating Panel System

Solar Water Heating System shall supply hot water to three dwelling units on second floor and offices on ground level. Collector panels shall be installed on south facing roof surface with minimum area of 125 square feet and volumetric capacity of 295 gal.

2. Practices / Techniques (Not enforceable by the City)

a. Low VOC Paint

All interior paint should be 50 g/l VOC or less for flats and 150 g/l VOC for non flats. All exterior paint should be 100 g/l VOC or less for flats and 200 g/l VOC for non flats.

b. Recycling facilities

All carpet should be with Green Label from CRI (The Carpet and Rug Institute).

K INFRASTRUCTURE

1. Grading and Drainage

On site retention shall be designed for the 100-year 2-hour rainfall runoff. A maximum 50% of the required landscape setback can be devoted to retention adjacent to perimeter streets. Maximum depth of retention within 10 feet of right of way can be maximum 18 inches and within 20 feet of right of way can be maximum 24 inches. The retention adjacent to the perimeter street side shall be designed with swales and berms to avoid long linear areas.

2. Water and Sewer

All new sanitary sewer lines within the site shall be private plumbing lines subject to the Phoenix Plumbing Code or the Arizona Department of Environmental Quality (ADEQ) Aquifer Protection Program (APP) General Permit 4.01 in accordance with Arizona Administrative Code Title 18, Chapter 9, Section E301 (AAC R18-9-E301) whichever is applicable.

The sanitary sewer collection system within this project will be a private system, owned and maintained by the property owner(s) or association. The system will be reviewed and inspected by the Building Safety Section of the Development Services Department.

All on-site water lines, including those required for fire protection shall be private plumbing lines subject to the Phoenix Plumbing Code.

The water distribution system, including fire protection, within this project will be a private system, owned and maintained by the property owner(s) or association. The system will be reviewed and inspected by the Building Safety Section of the Development Services Department.

L PHASING PLAN

No phasing is proposed.

**All standards not expressed herein shall conform to the regulations outlined within the Phoenix Zoning Ordinance.

M EXHIBITS

COMPARATIVE DEVELOPMENT STANDARDS

EXHIBIT 1

Development Standards	R1-14		PUD		
Density	2.2 du / ac		3.85 du / ac		
Minimum Gross Lot Area	14,000 square fee	t	34,000 square fee	et	
Building setbacks	Front yard:	30 feet	Front yard:	20 feet	
	Interior Side yard:	10 feet	Interior Side yard:	10 feet	
	Street side yard:	15 feet	Street side yard:	20 feet	
	Rear yard:	30 feet	Rear yard:	15 feet	
Landscape setback	n/a		Street side:	20 feet	
			Interior side:	10 feet	
Building separation	Per Building Code	!	Per Building Code		
Building height	Maximum 30 feet		Maximum 25 feet		
Lot Coverage	Maximum 25%		Maximum 25%		
Parking					
Dwelling Unit, Multi-family			1.5 spaces per 1 or 2 bedroom unit		
Medical Offices			1 space per 200 square feet of gross floor area		
Administrative Office			1 space per 300 square feet of gross floor area		
Single Family Residence	2 spaces per lot				

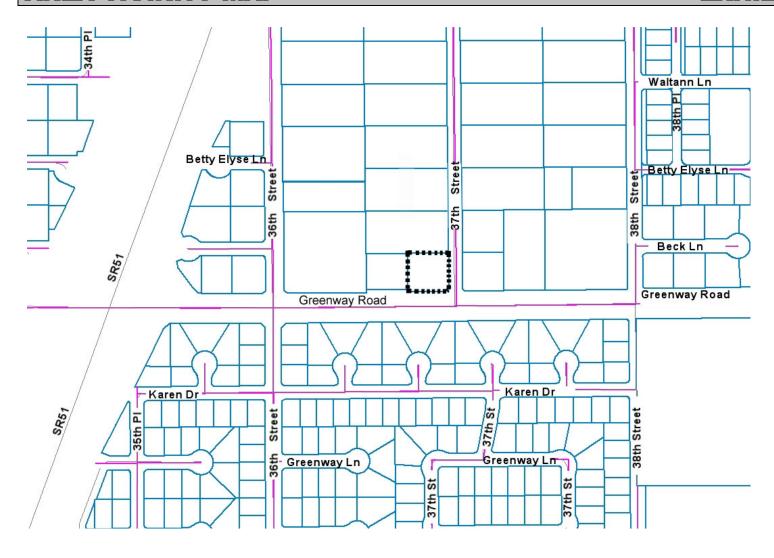
(PER OLD REPUBLIC TITLE AGENCY)

THE EAST HALF OF THE SOUTH HALF OF LOT 63, ROBIN HOOD ACRES, ACCORDING TO BOOK 56 OF MAPS, PAGE 30, RECORDS OF MARICOPA COUNTY, ARIZONA; EXCEPT THE SOUTH 15 FEET THEREOF; AND EXCEPT THAT PORTION OF LOT 63 BOUNDED ON THE SOUTH BY THE NORTH LINE OF THE SOUTH 15 FEET OF SAID LOT 63, ON THE EAST BY THE EAST LINE OF SAID LOT AND ON THE NORTHWEST BY THE ARC OF A CIRCULAR CURVE HAVING A RADIUS OF 12 FEET, SAID CURVE BEING CONCAVE TO THE NORTHWEST AND TANGENT TO SAID NORTH LINE AND TO SAID EAST LINE.

CONTAINING 20,655 S.F (0.474 ACRES) MORE OR LESS.

AREA VICINITY MAP

EXHIBIT 3







AERIAL MAP EXHIBIT 4

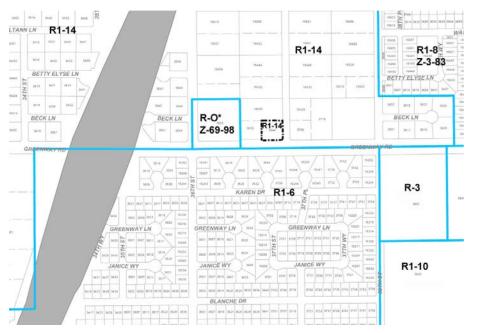


Subject Property



ZONING MAP EXHIBIT 5

Existing

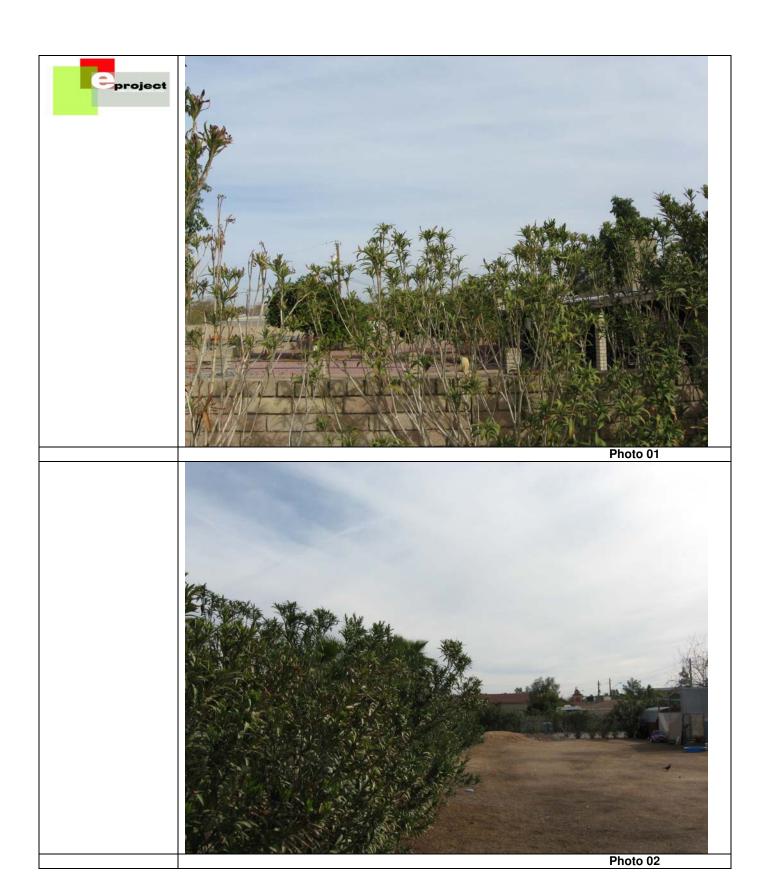


Proposed









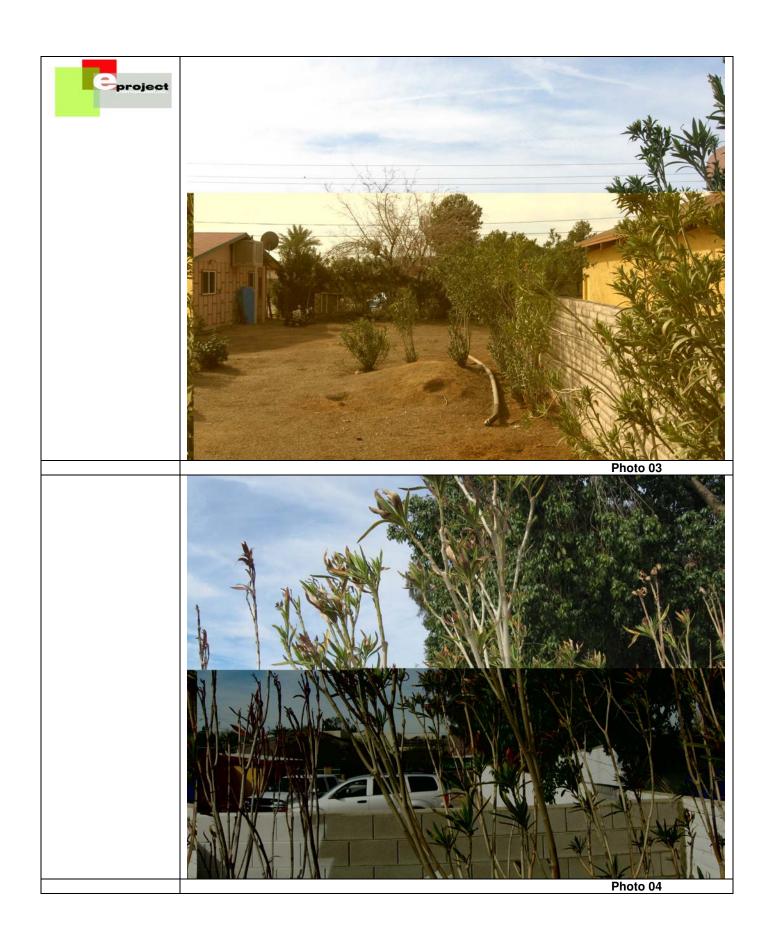






Photo 05



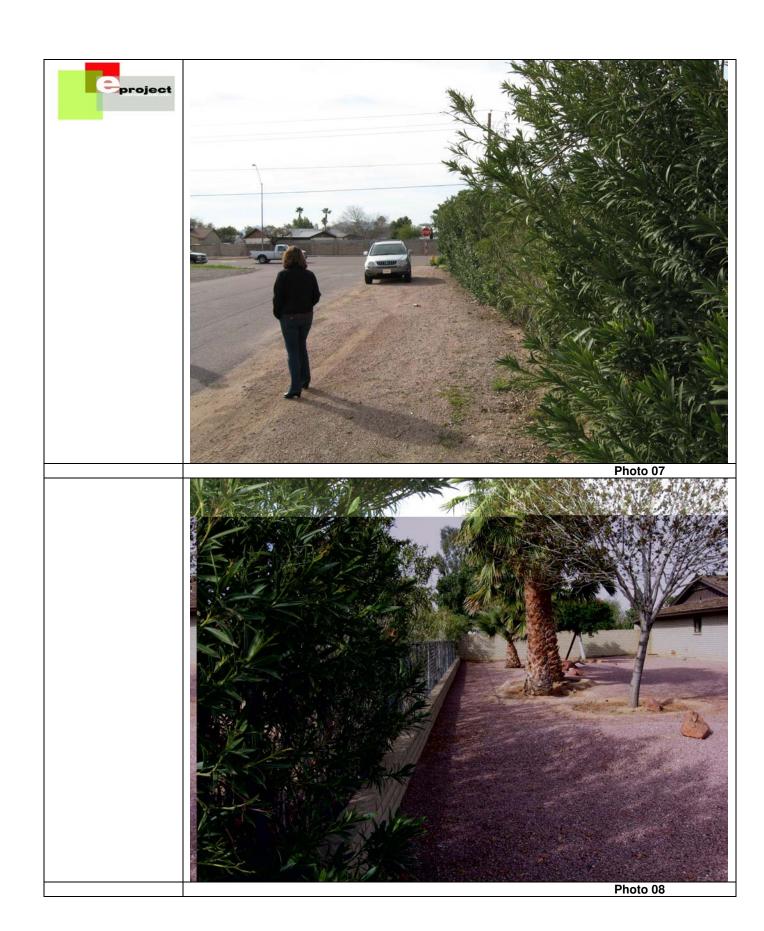


















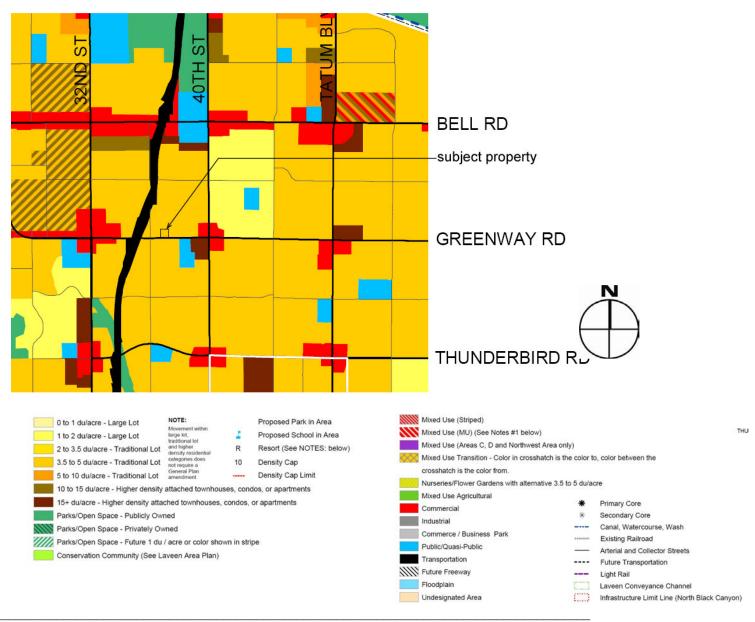
Photo 14

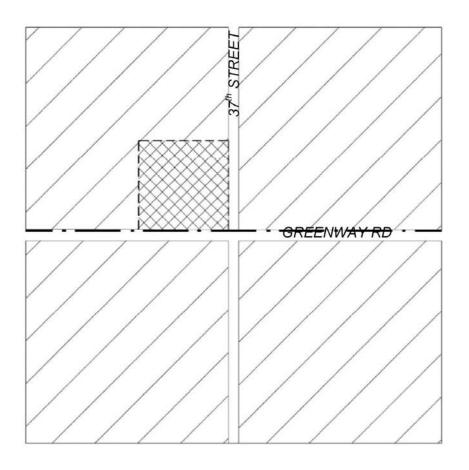


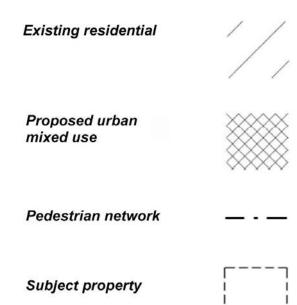
Photo 16

GENERAL PLAN MAP

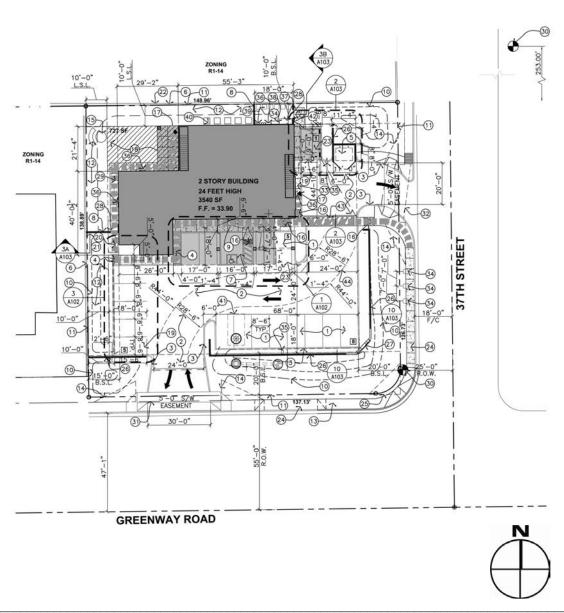
EXHIBIT 7











PROJECT INFORMATION

JARIAL LLC 7152 E CARON DR

PARADISE VALLEY, AZ 85253

ARCHITECT

E PROJECT INTERNATIONAL, INC. 917 W. KATHLEEN ROAD PHOENIX, AZ 85023

PHONE: 602-569-1067 FAX: 602-595-7029 CONTACT: EDMIR DZUDZA

PROJECT DESCRIPTION:

NEW MIXED USE DEVELOPMENT CONSISTING OF 3540 SF OF MEDICAL OFFICE, ADMINISTRATIVE OFFICE ON 1ST FLOOR AND 3
APARTMENT UNITS ON 2ND FLOOR

ZONING

PUD Z-83-08

SITE INFORMATION

PARCEL#

PROPERTY ADDRESS: 3644 E GREENWAY RD PHOENIX, AZ 85032

ROBINHOOD ACRES

SUBDIVISION: LOT # 63

LEGAL DESCRIPTION: SE 1/4, SEC. 1

KEYNOTES

- ASPHALTIC CONCRETE PAVING
- 6° C.I.P. VERTICAL CONCRETE CURB
- CONCRETE SIDEWALK WITH BROOM FINISH. TRASH BIN ENCLOSURE
- EXISTING 6'-0" HIGH CMU FENCE WALL TO REMAIN
- ACCESSIBLE PARKING SPACE NEW 6'-0" HIGH CMU WALL
- ACCESSIBLE PARKING SIGN RETENTION BASIN, REF. CIVIL
- 11. PROPERTY LINE 12. LANDSCAPE AREA
- 13. EXISTING SIDEWALK AND CURB TO REMAIN 14. 20' X 10' VISIBILITY TRIANGLE.
- 15. BBQ AREA
- ADA ACCESIBLE RAMP 1:12 SLOPE MAX.
 THE STRANGE TO DWELLING UNITS ON 2ND FLOOR.
- 18. COMMON AREA
- 19. RESERVED COVERED PARKING 20. FIRE ALARM PANEL
- 21. ELECTRICAL METERS
 22. REMOVE EXISTING CHAIN LINK FENCE
- 23. COVERED PARKING IS CONNECTED TO MAIN BUILDING STRUCTURE AND IT IS CONSIDERED PART OF THE BUILDING AND NOT A PART OF OPEN PARKING AREA 24. ABANDON EXISTING DRIVEWAY ENTRY AND PROVIDE 18
 FEET HALF STREET PAVING, WITH CURB, GUTTER AND
- SIDEWALK 25. 15' X 15' ROW
- 26. 36" HIGH SCREEN WALL 27. BUILDING SIGN
- 28. GATE, 48" WIDE 29. 48" WIDE WALKWAY
- 30. EXISTING FIRE HYDRANT TO REMAIN
- 31. REMOVE EXISTING SIDEWALK AND INSTALL NEW DRIVEWAY PER MAG STANDARD P-1255-1
- 32. NEW DRIVEWAY ONE WAY TRAFFIC EXIT ONLY MODIFIED
- DETAIL P1243-1 33. 36* WIDE WALKWAY

- 33. 30 WILE WALKWAY
 34. TRASH BINS PICK UP LOCATION
 35. LIGHT POLE, REFER TO ELECTRICAL
 36. WALL MOUNTED LIGHT FIXTURE, AT 9"-0" AFG
 37. SES UNIT, REFER TO ELECTRICAL
- 38. TELEPHONE BOX
 39. SECONDARY WATER METERS
 40. HEAT PUMPS
 41. 6 FEET HIGH CMU WALL

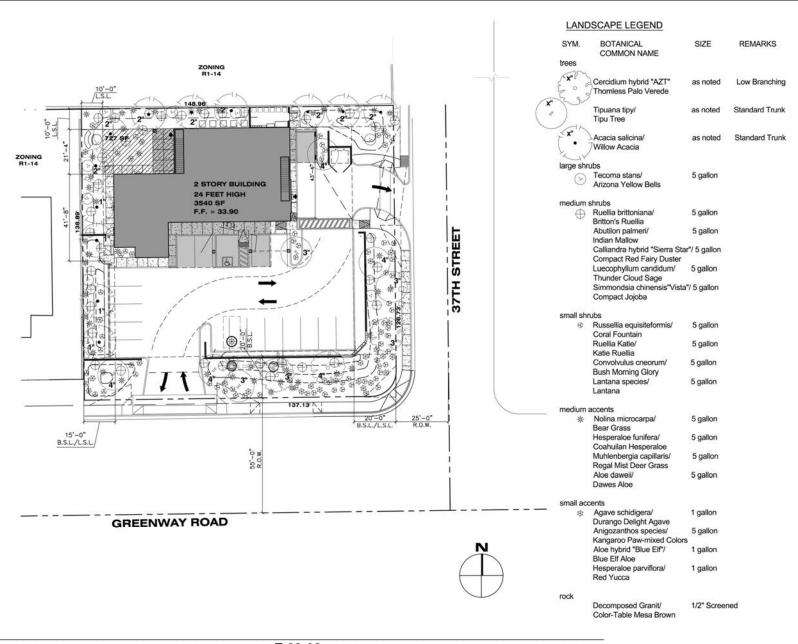
CONCEPTUAL ELEVATIONS

EXHIBIT 10

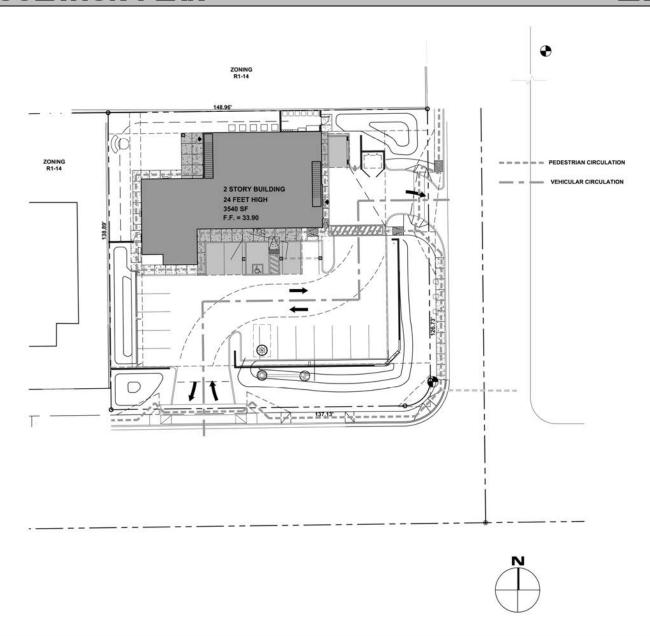


CONCEPTUAL LANDSCAPE PLAN

EXHIBIT 11

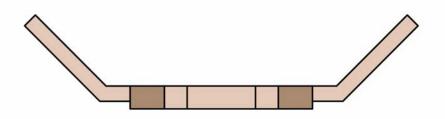


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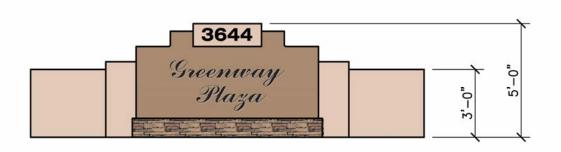


date: 11/19/09

SIGN PLAN EXHIBIT 13



PLAN VIEW



ELEVATION

MATERIALS FINISH SHEDULE

PT-1 Body Color Dunn Edwards PRACTICAL TAN DE 6115

PT-2 Accent Color Dunn Edwards MESA TAN DEC 718



ST-1 Chardonnay 80% Country Ledgestone /20% Dressed FIELDSTONE CSV-20006/CSV-2042

Greenway Plaza

3644 E Greenway Rd. Phoenix 85032

MATERIALS FINISH SHEDULE



PT-1
Body Color
Dunn Edwards

PRACTICAL TAN DE 6115



PT-2 Accent Color Dunn Edwards

MESA TAN DEC 718



PT-3
Accent Color
- Trims, Doors, Windows
Dunn Edwards

BRIAR DEC 712



R-1
Roof Tile
Eagle Roofing Products

CAPISTRANO 3687 Gray Brown Range



ST-1
Chardonnay 80% Country
Ledgestone /20% Dressed
FIELDSTONE

CSV-20006/CSV-2042

Solar Electric Modules

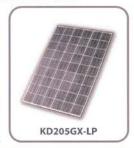
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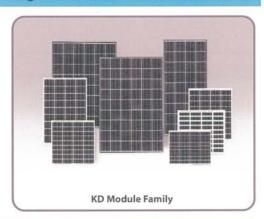


Kyocera Solar Modules (KC/KD)

Kyocera's advanced cell processing technology and automated production facilities have produced a multi-crystal solar cell with an efficiency of over 16%. All modules are constructed using a tempered glass front, EVA pottant and a PVF backing to provide maximum protection from the most severe

environmental conditions. The entire laminate is framed in a heavy duty anodized aluminum frame to provide structural strength and ease of installation. Because Kyocera modules are so efficient less space is required than other solar modules of equal output. This translates to both more wattage per square foot and lower mounting structure cost.





Features

- KC65T KC130TM modules have a +10/-5% power tolerance, KC40T-50T: +15/-5%
- KD135GX-LP KD210GX-LP modules have a +5%/-5% tolerance
- · UL listed
- Low iron, tempered glass, EVA encapsulant and anodized aluminum frame construction
- · 20 year output warranty on Kyocera modules
- Weather resistant junction box (KC40T-KC130TM) or multi-contact connectors (KD130GX-LP, 180GX-LP, 205GX-LP & 210GX)

Quality Assurance

Kyocera multi-crystal photovoltaic modules exceed government specifications for the following tests:

- · Thermal cycling test
- · Thermal shock test
- · Thermal/Freezing and high humidity cycling test
- · Electrical insolation test
- · Hail impact test
- · Mechanical, wind and twist loading test
- · Salt mist test
- Light and water exposure test
- Field exposure test

Product Name and Description	KD 210GX-LP	KD 205GX-LP	KD 180GX-LP	KD 135GX-LP	KC 130TM	KC85T	KC65T	KC50T	KC40T
Part Number	503091	501015	501014	501013	501004	703004	703005	703007	703008
Rated Power (Watts)	210	205	180	135	130	87	65	54	43
Series Fusing (Amps)	15.0	15.0	15.0	15.0	15.0	7.0	6.0	6.0	6.0
Current at Max. Power (Amps)	7.90	7.71	7.63	7.63	7.39	5.02	3.75	3.11	2.48
Voltage at Max. Power (Volts)	26.6	26.6	23.6	17.7	17.6	17.4	17.4	17.4	17.4
Short Circuit Current (Amps)	8.58	8.36	8.35	8.37	8.02	5.34	3.99	3.31	2.65
Open Circuit Voltage (Volts)	33.2	33.2	29.5	22.1	21.9	21.7	21.7	21.7	21.7
Length (Inches)	59.1	59.1	52.8	59.1	56.0	39.6	29.6	25.2	20.7
Width (Inches)	39.0	39.0	39.0	26.3	25.7	25.7	25.7	25.7	25.7
Depth of frame (Inches)	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Depth including j-box	1.4	1.4	1.4	1.4	2.2	2.2	2.1	2.1	2.1
Shipping Weight (lbs.)	45.8	45.8	41.4	33.0	33.0	24.0	18.0	16.0	13.0

All specification at 25°C. cell temperature, 1.5 AM and 1000W/m².

KC "T" and "TM" modules have a conduit ready junction box. "GX" modules have locking multi-contact connectors.

See Appendix A for module dimensions and shipping information.

Replacement bypass diodes for Kyocera J-Box equipped modules are sold in packs of 25; part number 705070

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PROGRESSIVTUBE SPECIFICATIONS

GLAZING GASKETS: A continuous gasket made of special long life EPDM synthetic rubber is compressed by the glazing caps to seal out the weather. The inner glazing spline is made of high-temperature tolerant EPDM.

GLAZING: Outer glazing is tempered low-iron solar glass with 91% transmittance. Inner glazing is Teflon' film, known for its high temperature tolerance (525 F) and its long term durability and stability, transmittance 96%. The 3/4" air space between glazings reduces heat loss.

FLUID CONNECTIONS:

Inlet and outlet connections are made of nominal 3/4" diameter Type "L" hard copper pipes. This allows for fast, leak free sweat fitting plumbing connections.



INSULATION: Rigid closed cell polyisocyanurate foam board, the most efficient insulation available, is used to maximize heat retention. Sides and ends of the unit have 1.5" board, R-valve 10; bottom has 2" board, R-valve 14; between tank tubes has 1.5" board, R-valve 10.

ABSORBER/STORAGE TANK:

Constructed entirely of copper, the 4' diameter tubes are welded to the interconnecting pipes to form a series flow pattern. The tank is pressured rated to 300psi and is coated with a high-temperature selective solar radiation absorption surface that maximizes heat gain and reduces heat loss.

PROGRESSIVTUBE® System Performance Ratings

The ProgressivTues and its mounting systems have successfully passed static wind load testing to 180 m.p.h. All ProgressivTues models and/or systems meet the following standards:



Florida Solar Energy Cente (FSEC - GP - 5 - 80) (FSEC - GP - 6 - 80) (FSEC - GP - 7 - 80)

Florida Solar Energy Center ASH



ASHRAE 95-87 Solar Ratings & Certification
Thermal Performance
Standard for Solar
Water Heaters
SRCC 0G - 300

SRCC



Uniform Solar Energy Code International Association of Plumbing & Mechanical Officials

CONTRACTOR OF THE PARTY OF THE	FSEC Quet S		FSEC Qnet		SRCC Solar Energy Factor
MODEL	(BTU/day)	(KWH)			
PT-20-CN	11,600	3.40			
PT-30-CN	22,100	6.48	1.4		
PT-40-CN	28,400	8.33	1.6		
PT-50-CN	28,700	8.42	1.6		

PROGRESSIVTUBE SPECIFICATIONS

	PT-20-CN	PT-30-CN	PT-40-CN	PT-50-CN
	2001/00/2007 - 100/00/2007 - 100/00/2007	F 1-30-CN	100-000-000-000-000-00-00-00-00-00-00-00	1. FOR A 10 TO THE NA
Volumetric Capacity	67.2 L / 17.9 gal	116.7 / 30.84 gal	156.7 L / 41.4 gal	186.2 L / 49.2 gal
Gross Area	1.17 m² / 12.56 ft²	2.23 m² / 23.98 ft²	2.98 m ² / 32.10 ft ²	2.98 m ² / 32.10 ft ²
Frontal Area	1.0 m ² / 10.77 ft ²	2.04 m ² / 21.91 ft ²	2.77 m ² / 29.84ft ²	2.77 m ² / 29.84 ft ²
Dry Weight	41.7 kg / 92.0 lbs	76.2 kg / 174 lbs	99.7 kg / 220 lbs	120.0 kg / 265 lbs
Wet Weight	106.7 kg / 235.2 lbs	192.7 kg / 425 lbs	255.4 kg / 563 lbs	301.0 kg / 664 lbs
Flow Pattern	Series	Series	Series	Series
Test Pressure	1103 KPa / 160 psi	2068 KPa / 300 psi	2068 KPa / 300 psi	2068 KPa / 300 psi
Design Pressure	1034 KPa / 150 psi	1034 KPa / 150 psi	1034 KPa / 150 psi	1034 KPa / 150 psi
Max Design Temp	176°C / 350°F	176°C / 350°F	176°C / 350°F	176 C / 350 F
Operating Temp	4-93°C / 40-200°F	4-93°C / 40-200°F	4-93°C / 40-200°F	4-93 C / 40-200 F

DIMENSIONS - Metric / Inches

Α	211.9 cm / 83.44"	247.5 cm / 97.44"	247.5 cm / 97.44"	247.5 cm / 97.44"
В	55.8 cm / 22"	90.0 cm / 35.44"	120.5 cm / 47.44"	120.5 cm / 47.44"
c	210.5 cm / 82.88"	241.9 cm / 95.25"	241.9 cm / 95.25"	241.9 cm / 95.25"
D	54.3 cm / 21.38"	84.1 cm / 33.125	114.6 cm / 45.13"	114.6 cm / 45.13"
E	215.6 cm / 84.88"	250.0 cm / 98.44"	250.0 cm / 98.44"	250.0 cm / 98.44"
F	19.7 cm / 7.75"			
G	212.1 cm / 83.50"	247.2 cm / 97.31"	247.2 cm / 97.31"	247.2 cm / 97.31"
н	6.0 cm / 2.38"	6.9 cm / 2.75"	6.9 cm / 2.75"	6.9 cm / 2.75"
1	4.1 cm / 1.63"	2.5 cm / 1.0"	2.5 cm / 1.0"	2.5 cm / 1.0"
J	7.6 cm / 3"	8.9 cm / 3.5"	8.9 cm / 3.5"	8.9 cm / 3.5"
K	7.0 cm / 2.75"	7.6 cm / 3.0"	7.6 cm / 3.0"	7.6 cm / 3.0"
L	12.7 cm / 5"	13.9 cm / 5.5"	13.9 cm / 5.5"	13.9 cm / 5.5"
M	37.1 cm / 14.63"	70.5 cm / 27.75"	100.9 cm / 39.75"	100.9 cm / 39.75'
N	56.2 cm / 22.13"	89.7 cm / 35.3"	120.2 cm / 47.31"	120.2 cm / 47.31
P	8.3 cm / 3.25"	9.2 cm / 3.63"	9.2 cm / 3.63"	9.2 cm / 3.63"
Q	13.0 cm / 5.13"	15.6 cm / 6.13"	15.6 cm / 6.13"	15.6 cm / 6.13"
R	6.0 cm / 2.38"	6.2 cm / 2.44"	6.2 cm / 2.44"	6.2 cm / 2.44"

