



**JOINT TOWN COUNCIL PLANNING COMMISSION MEETING
6401 E. LINCOLN DRIVE
PARADISE VALLEY, ARIZONA 85253
MINUTES
Thursday, May 17, 2017**

1. CALL TO ORDER / ROLL CALL

Mayor Collins called to order the Joint Town Council Planning Commission Meeting for Wednesday, May 17, 2017 at 5:00 p.m. in the Town Hall Council Chambers.

COUNCIL MEMBERS PRESENT

Mayor Michael Collins
Vice Mayor Jerry Bien-Willner
Council Member Paul Dembow
Council Member Scott Moore
Council Member Julie Pace
Council Member David A. Sherf
Council Member Mark Stanton

PLANNING COMMISSIONERS PRESENT

Chairperson Daran Wastchak
Commissioner James Anton
Commissioner Thomas G. Campbell
Commissioner Charles Covington
Commissioner Richard K. Mahrle
Commissioner Dolf Strom
Commissioner Jonathan Wainwright

STAFF MEMBERS PRESENT

Town Manager Kevin Burke
Town Attorney Andrew Miller
Town Clerk Duncan Miller
Police Chief Peter Wingert
Town Engineer Paul Mood
Director of Administration and Government Affairs Dawn Marie Buckland
Public Works Director Brent Skoglund
Community Development Director Eva Cutro

2. COMMUNITY CONVERSATION

17-177

Discussion of problems, solutions and permit processes for cell phone coverage in Paradise Valley

Mayor Collins welcomed Members of the Planning Commission to the joint meeting to discuss a procedural process for reviewing necessary Zoning Code amendments related to wireless facilities and options to improve cellular service in the Town.

Town Manager Kevin Burke stated that the Mayor and Council identified poor cell phone service as a Quality of Life Initiative at the beginning of the 2015-2016 term. He provided background on the Town's Personal Wireless Service Facility (PWSF) Ordinance, current cellular service coverage maps, and

options to improve coverage. (See attachment).

Director of Administration and Government Affairs Dawn Marie Buckland briefed the Town Council on a law (HB 2365) adopted by the Arizona Legislature in January 2017 which regulated a municipality's ability to regulate small cell antennae in the public right-of-way. She explained the new law's impacts on the town's ability to regulate both small cell and macro sites, as well as, limitations on what the Town may charge cellular providers for use of the right-of-way.

The Town Council discussed the need to amend Article 12 of the Zoning Ordinance on PWSFs and what "objective design standards and reasonable stealth and concealment requirements" should be incorporated. Since the state statute would be effective in August, there was Council consensus to direct the Planning Commission to draft code amendments over the summer and have something ready for the Council to consider and adopt in August. The Council was open to the possibility of holding a special meeting during the summer break to adopt the new ordinance.

The Council encouraged staff and the Planning Commission to communicate with the industry about the Town's limited verticality and desire to avoid visual clutter while at the same time discussing options to meet their needs.

Resident Nadia Bashir and industry professional Declan Murphy addressed the Council.

The Town Council directed staff to prepare a Statement of Direction providing guidance on:

1. Objective design standards and reasonable stealth and concealment requirements for small cell facilities on public and private property. Develop design and location standards for macro sites on public and private property.
2. Develop a process for an applicant who chooses not to comply with the aforementioned reasonable design standards to apply for an alternative design that meets the core principals of the faux cactus solution
3. Develop standards for placement of a small cell PWSF on an existing traffic signal or light pole and an alternative process for the applicant if they chose not to comply
4. Develop a review process that complies with the state law

In general the Council stated they would prefer a limited number of macro cell facilities rather than many micro cell facilities, but recognized that both types of facilities might be necessary. There was also general agreement that both a market driven solution and a Town facilitated solution would be necessary to improve service in Town. If a market solution alone would work it would have happened by now.

3. EXECUTIVE SESSION

The Town Council may go into executive session at one or more times during the meeting as needed to confer with the Town Attorney for legal advice regarding any of the agenda items listed on the agenda as authorized by A.R.S. §38-431.03(A)(3).

There was no action taken on this item.

4. ADJOURN

A motion was made by Council Member Pace, seconded by Council Member Moore, to adjourn. The motion carried by the following vote:

- Aye:** 7 - Mayor Collins
- Vice Mayor Bien-Willner
- Council Member Dembow
- Council Member Moore
- Council Member Pace
- Council Member Sherf
- Council Member Stanton

Mayor Collins adjourned the meeting at 8:51 p.m.

TOWN OF PARADISE VALLEY

SUBMITTED BY:

Duncan Miller, Town Clerk

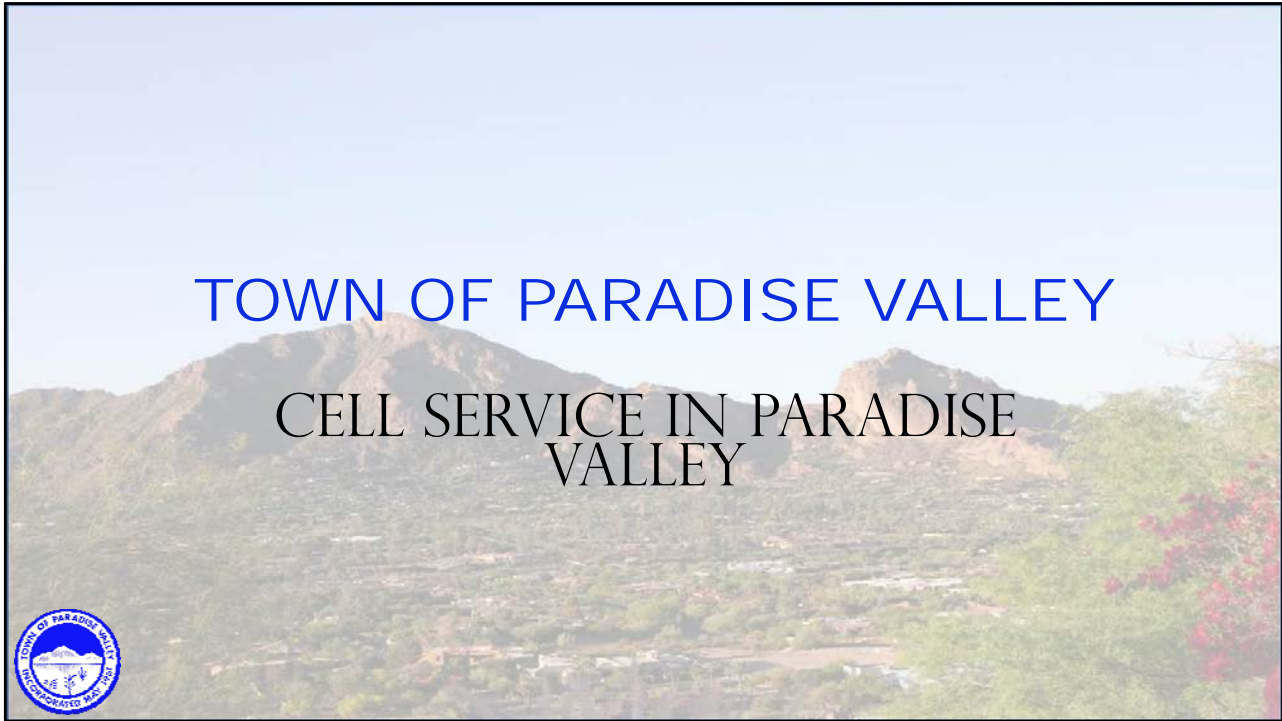
STATE OF ARIZONA)
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COUNTY OF MARICOPA)

CERTIFICATION

I, Duncan Miller, Town Clerk of the Town of Paradise Valley, Arizona hereby certify that the following is a full, true, and correct copy of the minutes of the regular meeting of the Paradise Valley Town Council held on Thursday, May 17, 2017.

I further certify that said Municipal Corporation is duly organized and existing. The meeting was properly called and held and that a quorum was present.

Duncan Miller, Town Clerk



TOWN OF PARADISE VALLEY

CELL SERVICE IN PARADISE VALLEY

Purpose for tonight's meeting	Framework
	Share information learned to date
	Provide update on State legislation
	Identify possible solutions
	Resolve process questions and degree of Planning Commission discretion
	Hear public feedback
	Hear Town Council and Planning Commission feedback

Framework

Problem

- Poor cell phone coverage in Paradise Valley

Reason

- Lack of cellular infrastructure

Solution

- Increase or improve cell phone infrastructure without sacrificing aesthetics



History

January 2016 Quality of Life Initiative

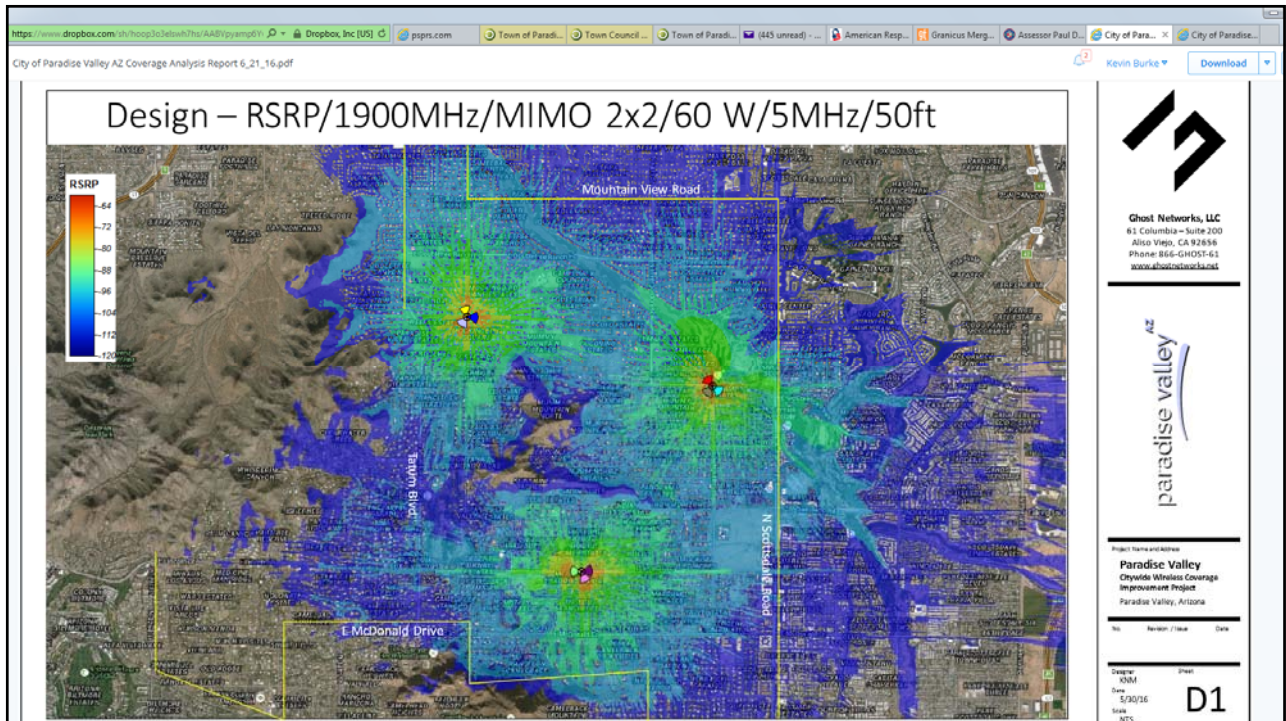
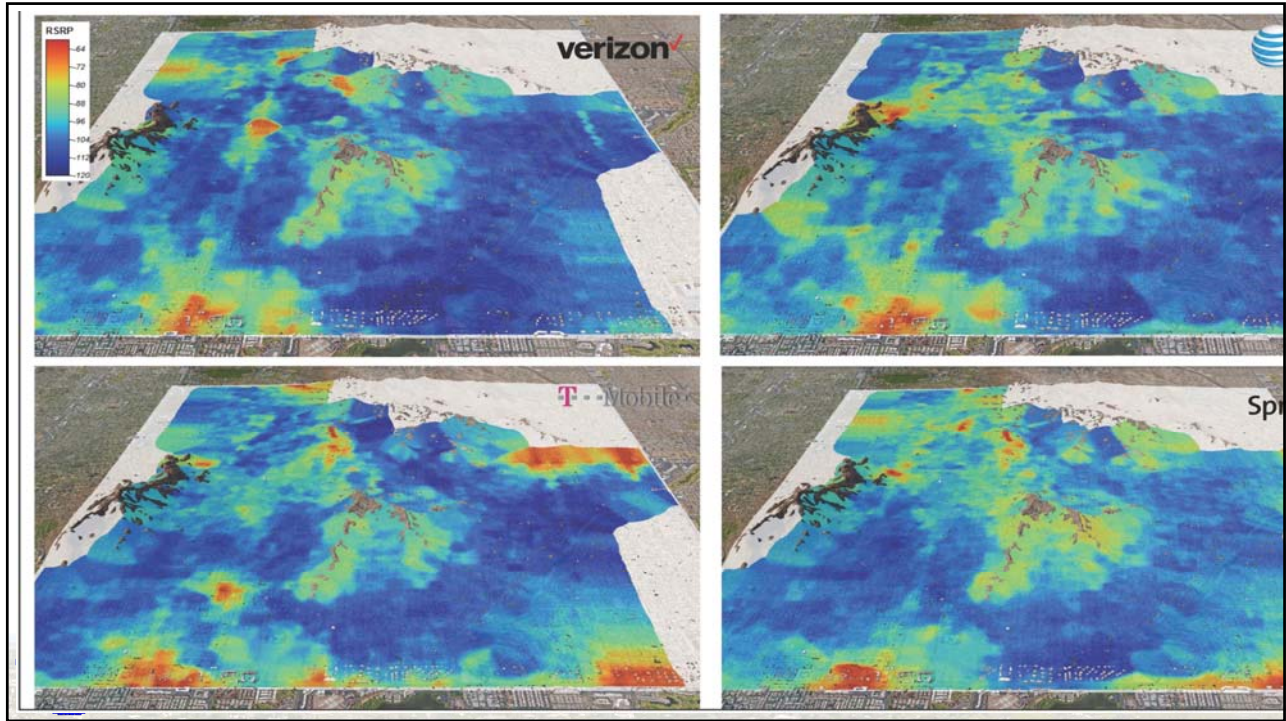
Mayor and Manager met with stakeholders

- Verizon, AT&T, Ghost Networks, Engineering Wireless Services, Ulti-Mobile, Coal Creek, 5thGenWireless

Ghost Networks provided greatest level of detail of frequencies and coverages

- Noted quickest and cheapest solution is three 60' macro towers that could accommodate all four carriers





History

November 2016 Manager presented to Planning Commission

- Plan to bring back comparison chart in February with help from Ken Clark (EWS)
- Never presented due to focus on State legislation



Option	Coverage Area	Pole Height	Aesthetic	RF/Distance	Co-location	Cost
Triangle Pole (Macro) Antennas (aka – Lattice tower)	1-2 miles, good coverage & building penetration. These are typically higher power and above clutter.	60'+	Poor	RF drops quickly. RF mitigated by height, distance and obstructions	All carriers welcome however each carrier gets a different height which affect coverage.	~\$300,000/Pole
Mono Palm, Eucalyptus, Pine, Flagpole/ Macro	1-2 miles	45'+	Attempted camouflage	RF drops quickly. RF mitigated by height, distance and obstructions	Multi-carrier solution, can be limited by camo. Carriers on diff heights	\$400,000-\$600,000;
Crown O-DAS in Faux Cactus	400', poor building penetration. Requires many nodes to cover PV	20-30'. Can be placed in higher nodes.	Excellent	Power mitigates RF distance. RF drops quickly. RF mitigated by height, distance and obstructions	All carriers welcome. EWS feel its unlikely more carriers will join.	~\$30,000-\$50,000/node
Roof Mount Macro Site	½ mile	~24' since max roof height in PV unless permitted in SUP	Excellent	RF drops quickly. RF mitigated by height, distance and obstructions	Limited. Depends on strength and size of roof.	Varies, ~\$100,000
Traffic Light, light pole or stand-alone pole (aka small cell when micro)	400'-600' Requires approximately 30-50 nodes to cover PV	30-50'	Decent if put antenna and radio in cylinder. Even better if cylinder matches diameter of pole.	RF drops quickly. RF mitigated by height, distance and obstructions	Generally a single carrier solution. One per pole	\$30,00-\$80,000 per pole
Strand Mount Micro	400'	Height of existing cable strand	Not camouflaged but small and discreet	RF drops quickly. RF mitigated by height, distance and obstructions	?	\$10,000 per box

History

January 2017 Representative Weningen introduced HB 2365

- Preempted cities and town's ability to regulate small cell antennae in the right of way
- Council developed policy priority sheet to guide negotiations



Small Cell Policy Priorities

Manage Right-of-Way Locations

- The ability to manage where and how much space the infrastructure will take

Manage New Poles

- The ability to limit the placement of new poles in order to facilitate small cell infrastructure

Manage Pole Configuration

- Height, size, and aesthetics

Administration and Permit Process

- Control who reviews and how much time is allowed. Master License Agreements, Indemnification

Fees



New State Law – Rights of Way

- Applies to “activities of a wireless provider in the right-of-way”
 - Current laws regarding private property unchanged
- Municipality **must approve** small wireless facilities on new poles or modification of existing utility poles, **including light poles and traffic signals**, unless:
 - Height exceeds greater of 10’ higher than an existing pole (max 50’) or 40’
 - Fails to comply with municipal requirements related to **objective design standards and reasonable stealth and concealment requirements**
 - Fails to comply with **undergrounding requirements** that prohibit installation or modification of poles without prior approval
 - Municipality MUST have a review process to address such requests
- Macro cell monopoles subject to zoning requirements



New State Law - Small Cells

- Small cell bill doesn’t limit ROW use to “utilities”
 - Cell carriers – direct access to ROW
 - Modify zoning ordinance
 - Account for new mandated uses
 - Allow applications by wireless providers
 - **Develop “objective design standards and reasonable stealth and concealment requirements” for new poles, pole attachments, and collocations**
 - Develop quick SUP or other process for new (concealed) poles in ROW
- Equipment Size
 - 6 cu.ft. on pole
 - 28 cu.ft. on ground
 - Unless stealth, concealment and undergrounding standards



New State Law - Macro Cells

- Height
 - State statute defines it as over 40' or exceed 10' in height above tallest existing pole
- Pole Diameter
 - State statute has a maximum diameter of 40 inches.
- Spacing
 - State statute prohibits Town from setting minimum spacing requirements
 - Current ordinance requires spacing of 200' between PWSF and any residential structure. May be waived
 - Finding PWSF macro sites on SUP sites difficult given 200' rule
 - Modify to reflect more typical municipal standards. E.g. "fall zone"



New State Law - Fees

- Annual license for ROW limited to \$50/pole/year
- Application fee limited to \$750
- Consolidated application limited to \$100 for first 25; \$50 for each thereafter
- Rezoning application fee limited to \$1,000 (macro cell in ROW)



New State Law – Mandatory Timelines

Small Cell

- Time to review application for completeness: 20 days
 - Deemed complete if no municipal response by date
- Time to approve or deny application: 75 days
 - Deemed approved if no municipal response by date
- Applicant has 180 days to construct after approval and permit

Macro Cell

- Time to review application for completeness: 30 days
 - Deemed complete if no municipal response by date
- Time to approve or deny application: 150 days
 - Deemed approved if no municipal response by date



Key Question

- The Town must rewrite the Zoning Code Chapter on Personal Wireless Service Facilities (PWSF) to comply with the new state law
- In crafting ***objective design standards and reasonable stealth and concealment requirements***, does the Planning Commission and Council have any specific standards they want incorporated?



Staff Suggested Objective Design Standards

- New Small Cell
 - Faux Cactus no taller than 24 feet.
 - Equipment must be underground; or
 - Process for approve concealment less than entirely underground
 - E.g. Apply to PC with concealment plan
 - Other designs must apply
- Existing Small Cell
 - Traffic signal or light pole mount
 - No taller than 40'
 - All equip on pole in an 18" cylinder
 - Match pole color
 - Ground equipment buried or process



Staff Suggested Objective Design Standards

- New Macros Cells
 - Stealth and concealment required
 - Height limited to max building height permitted by code or SUP
 - Height limit may be adjusted by Council through application
 - Equipment buried underground or apply for alternative concealment

Current code dispute

- 2007 interpretation: height may be balanced by aesthetics at discretion of Planning Commission
- Some have expressed disagreement with interpretation
- Town Attorney: *“Although the provisions of Section 1204(5) of the Zoning Ordinance might be read so as to support granting to the Planning Commission the authority to approve the installation of a stand-alone monopole that is taller than structures on a particular SUP property (typically a disguised or camouflaged monopole), the Town Attorney does not see such an interpretation as the best or recommended interpretation. However, such an interpretation was apparently made at one point in the past such that a stand-alone monopole application was submitted to the Planning Commission for review.”*



Solutions

- Review options
- Key questions
- Discussion



Key Questions

- If Town policy makers could choose, would they rather see a small cell system or a macro system?
- Would policy makers prefer a bright line on cell tower heights or Planning Commission discretion on heights versus aesthetics?
 - How should Section 1204(5) be interpreted?
- Would policy makers prefer a Market Driven solution or Town Facilitated?



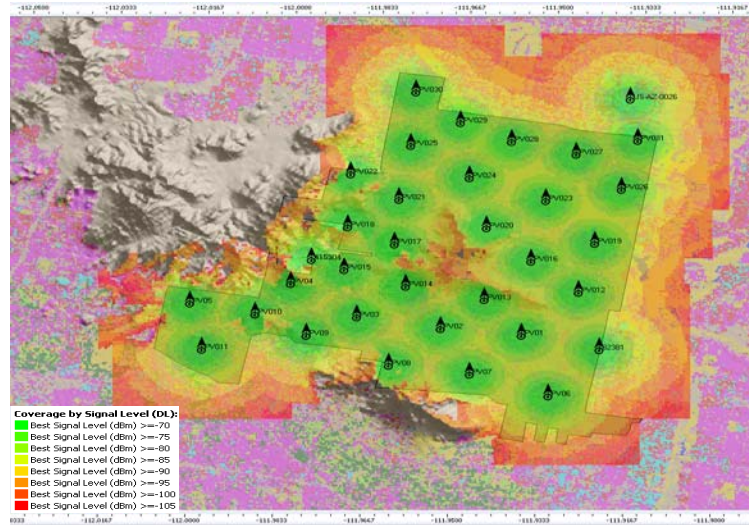
Small Cell Considerations

- Market desires poles 30'-40'; cactus more unrealistic at that height
- PV coverage would require between 30 and 50 poles
- Would require fiber between poles
- Carriers prefer to place on existing traffic lights and street lights
 - Not prevalent in PV neighborhood
- More structure likely in ROW



RF Layout of Paradise Valley

- Approximately 31-35
 - poles requires at 35' height.
- Zayo has existing Fiber running parallel and through part of Paradise Valley.



American Tower - Proprietary & Confidential

Small Cell Images

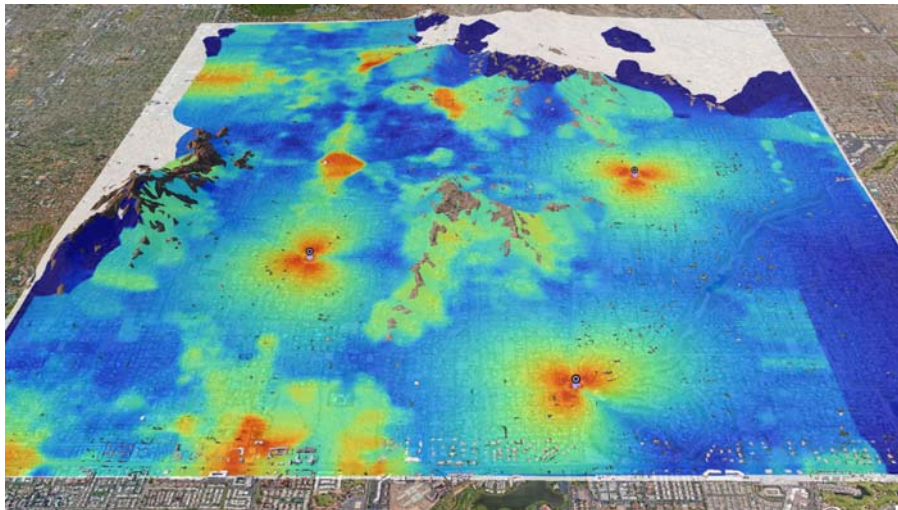


Macro Considerations

- Fewer sites
- Aesthetic issues
- Two options brought forward to address aesthetic
 - Mono eucalyptus
 - Mountain side rocks



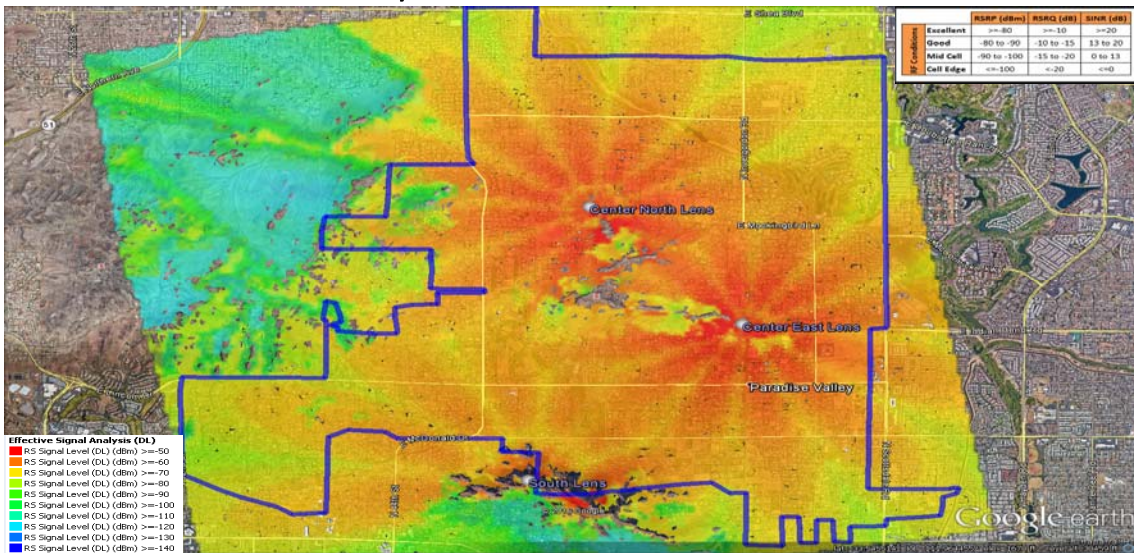
Macro Cell Tower Solution



Mono-Eucalyptus, Palm, Pine

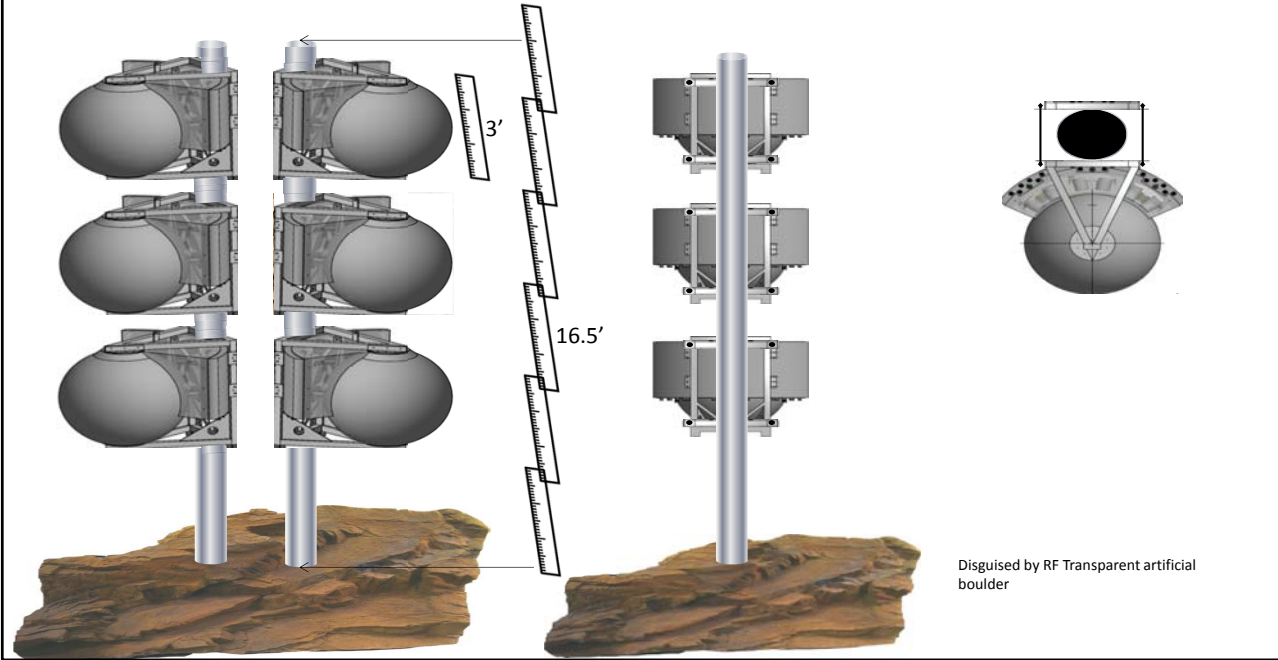


Paradise Valley Multi Beam Solution



American Tower - Proprietary & Confidential

3' Lens Multi-beam/Multi Tenant Antennas for Paradise Valley



3'x7' Panel Multi-beam/Multi Tenant Antennas for Paradise Valley

- Five low band beams optimized for maximum throughput over frequency bands (698-896 MHz); Ten high band beams optimized for maximum throughput over frequency bands (1710-2360 MHz)
- Three foot (1.0 m), single panel, fifteen beam design without mount changes
- Dual +/- 45° cross-polarization for each beam pair
- Separate beams support 5 low band and 10 high-band sub-sectors
- Simultaneous High Band PCS 1900 MHz, AWS 1710/2360, WCS 2300 MHz, and Low Band LTE 700 MHz, SMR 850 MHz and Cellular 850 Coverage.
- Enables efficient evolution of wireless networks.
- Increases site capacity through high order sectorization.
- Avoid carrier-adds and building of new capacity sites.
- Boosts data throughput by lowering interference.
- Patented beam shaping technology maximizes coverage
- Optimized beam crossover and spacing for maximum throughput
- 7-16 DIN Female or 4.3-10 connector options

Disguised by RF Transparent artificial boulder

Multi-Beam Solution



Market Driven or Town Facilitated?

Both

- Carriers have right to apply for permit
- Must have a code that manages permit requests consistent with law
- Market driven = code rewriting
- Must include objective design standards for ROW applications
- Antennas in ROW will also require a master lease agreement.



Market Driven or Town Facilitated?

- If Town facilitates solution, does it relieve market pressure to build more towers?
 - Use of ROW to locate sites
 - Use of Town owned property to locate sites
 - Working with specific SUP's in strategic locations to locate sites



What are other communities doing?

- Very few have the aesthetic issues of Paradise Valley
- State law was more an issue over control of the ROW.
- Most OK with placing on existing poles and have an extensive inventory of them
- Equipment in ROW is larger concern
- Recruitment of carriers varies



Recommendations

Planning Commission: focus on rewriting Zoning Code with an SOD from Council

- SOD – Right of Way vs. private land requirements (e.g. SUP)
- SOD – must comply with state and federal laws
- SOD – macro cell bright line on heights or discretion to PC/Council if aesthetics addressed?
- SOD – Any opinion on 200' radius. Seems irrelevant and perhaps no longer enforceable
- SOD –aesthetic set in code (Aesthetics consistent or better than AZ Municipalities Telecomm Group Design Standards)

Council: focus on Town Facilitated Solutions

- Pursue ATS Multi-Beam type solution
- Pursue macro cell site solution at strategic locations
- Other solutions or combo



Key Questions

- If Town policy makers could choose, would they rather see a small cell system or a macro system? **Macro 5 ; Leave open for both; Solution needs to last a while**
- Would policy makers prefer a bright line on cell tower heights or Planning Commission discretion on heights versus aesthetics?
 - How should Section 1204(5) be interpreted? **Should be a bright line 6; 1201 and 1204**
- Would policy makers prefer a Market Driven solution or Town Facilitated solution? **Both 6; Market Driven 1**



Public Input



Questions

