

Is it a Small Cells World after all?

SB 1004

Public Utility Law Section – State Bar of Texas

Joe Cosgrove Jr.

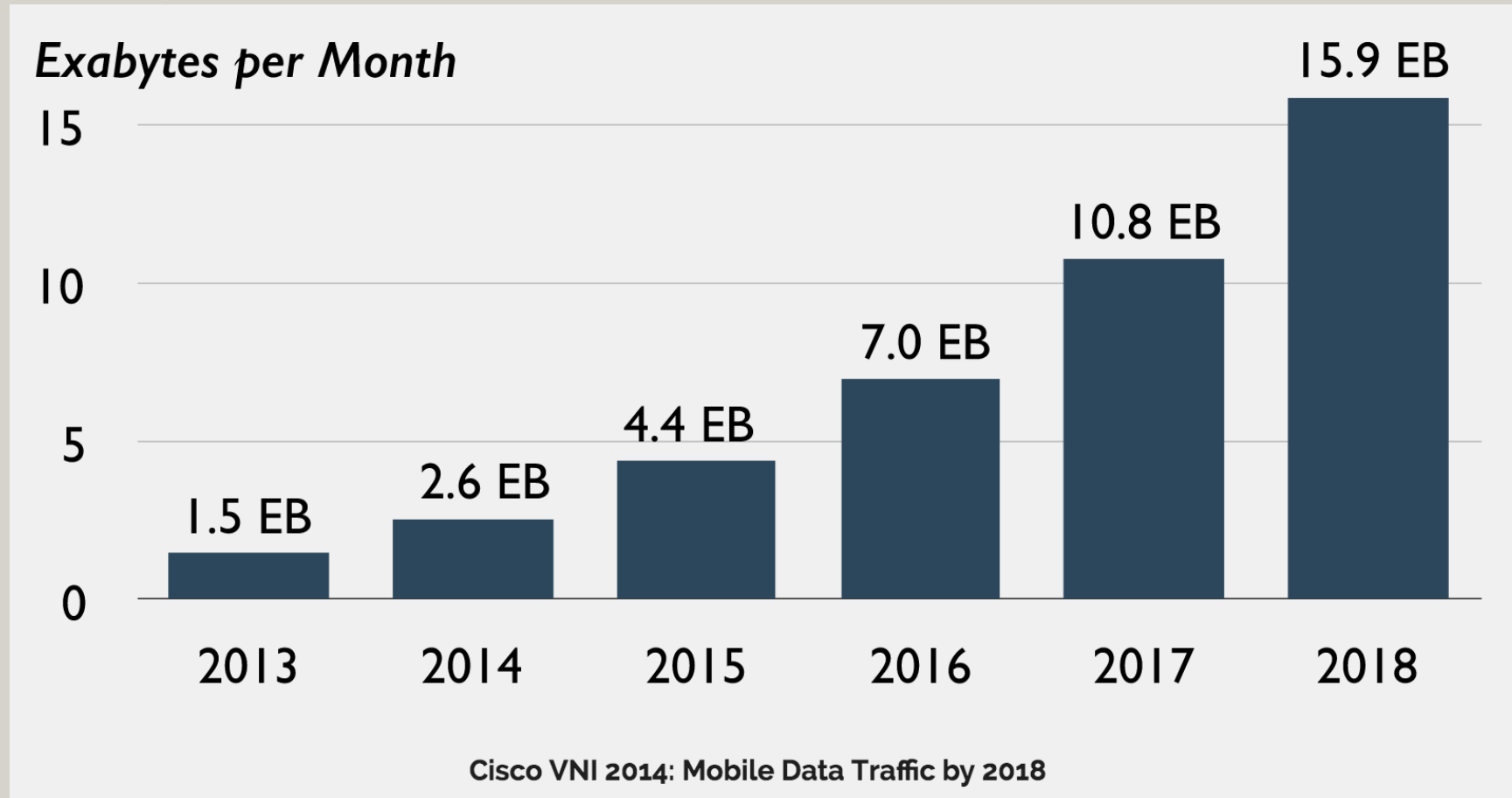
JEC Legislative & Regulatory Consulting LLC

August 18, 2017

Austin, Texas



Mobile Data Tsunami



Exabyte: a unit of information equal to one quintillion (10^{18}) bytes, or one billion gigabytes

Big Appetite for Gigabytes



In North America, data traffic per smartphone will grow nearly 5 times from 5.1 gigabytes per month in 2016 to 25 gigabytes per month in 2022.

Internet of Things (IoT)



By 2022, there will be 1.5 billion Internet of Things devices with cellular connections, up from 400 million in 2016 worldwide.

Different Types of Delivery Sites

Macro Cells

The more “traditional” cells that you see atop free standing towers, buildings, water tanks

Coverage radius measured in miles – cover the most people over a large area

Small Cells

Flexible network solutions – like mini-macro cell site – that can be readily deployed to specific locations

Provide enhanced voice and data services by helping bolster network capacity in more specific places

Distributed Antenna Systems

Alternative solution that provides coverage over specific, high-use target areas

Typically used for high-use areas like arenas, stadiums, convention centers

Wi-Fi Zones

Deliver high speed internet access, mainly for outdoor coverage, coffee shops, libraries, etc.

So What Are Small Cells?

- Small cells are flexible network solutions—like mini-macro cell sites—that can be readily deployed to specific locations, including those where customers are prone to experience connectivity issues, heavily populated areas that need more network capacity or in areas that cannot effectively be served by a traditional macro cell.
- Small cells are precisely targeted solutions and can cover a radius up to 1500 feet. They provide enhanced voice and data services by helping to bolster network capacity to allow faster downloads and improved call quality within its coverage area.
- Small cells help to bring the network “closer” to its users to deliver increased data capacity, faster connectivity speeds and an overall better wireless experience.
- **Small cells help lay foundation for 5G.**

Example of Small Cells — antenna and radio



Contrasting Installations



City of Austin, MLA



Ft. Worth Design Manual Draft 8/1/17



Background on Senate Bill 1004

[SB 1004](#) was passed by the Texas Legislature in late May, 2017 and signed into law by Governor Abbott on June 9, 2017. SB 1004 scheduled to take effect on September 1.

SB 1004 primary focus:

- access to the public ROW in Texas municipalities for small cells (**“network nodes”**) -- and the compensation due to cities for use of the ROW for this equipment
- ability of small cell **“network providers”** to attach to poles and other structures owned by municipalities, such as streetlights and traffic signals

SB 1004's Findings

Network Nodes

Network Providers

Municipalities

Process / Rates

| | | | |
|---|--|--|---|
| <p>increase access to advanced technology and information</p> <p>further policy of having reliable wireless networks and services</p> <p>often deployed most effectively in the public right-of-way</p> <p>help ensure Texas competes in global economy</p> | <p>access to the public right-of-way and the ability to attach network nodes to poles/structures in the public right-of-way</p> <p>allow network providers to densify their networks/ provide next-generation services</p> | <p>have fiduciary duty, as a trustee, to manage the public right-of-way</p> <p>state as landowner is balancing needs of public and needs of providers to place network nodes in the ROW</p> <p>as to each municipality it is necessary to allow placement of network nodes for the public health, safety and welfare</p> | <p>expeditious processes and reasonable and nondiscriminatory terms and rates are essential for state-of-the-art wireless services</p> <p>timely permitting is a matter of statewide interest</p> <p>fees meet federal requirements of 47 USC 253</p> |
|---|--|--|---|

SB 1004 - Policy

Promote the adoption of and encourage competition in the provision of wireless services by reducing the barriers to entry

Municipalities retain the authority to manage the public right-of-way to ensure the health, safety, and welfare of the public

Receive from network providers fair and reasonable compensation for use of the public right-of-way and for collocation on poles

Balancing Network Provider and Municipal Interests

Rights

- construct, modify, maintain, operate, relocate, and remove a network node or node support pole;
- modify or replace a utility pole or node support pole; and
- collocate on a pole, subject to an agreement with the municipality
- must be treated by municipality in a competitively neutral manner with other users of the public right-of-way

Limitations

- subject to applicable codes, including applicable public right-of-way management ordinances (including relocation, undergrounding requirements)
- must construct in manner that does not:
 - obstruct, impede, or hinder the usual travel or public safety on a public right-of-way;
 - obstruct the legal use of a public right-of-way by other utility providers;
 - violate nondiscriminatory applicable codes; violate or conflict with the municipality's publicly disclosed public right-of-way design specifications;
 - violate the federal Americans with Disabilities Act;
 - violate "interference" requirements

Key Definitions in SB 1004

- **"Network node"** means equipment at a fixed location that enables wireless communications between user equipment and a communications network, includes equipment associated with wireless communications:
 - radio transceiver, an antenna, a battery-only backup power supply,
 - comparable equipment,
 - coaxial or fiber-optic cable that is immediately adjacent/directly associated with a particular collocation;
 - does not include an electric generator; a pole; or a macro tower.
- **"Network provider"** means a wireless service provider; or a person that does not provide wireless services and that is not an electric utility but builds or installs on behalf of a wireless service provider (i.e., neutral host provider): network nodes; or node support poles or any other structure that supports or is capable of supporting a network node.

Types of poles under SB 1004

Decorative pole

Streetlight pole for aesthetic purposes and have no attachments, other than informational or directional signage or temporary holiday or special event attachments

Node support pole

Pole installed by a network provider for the primary purpose of supporting a network node

Service pole

A pole, other than a Municipally owned utility pole, owned or operated by a municipality and located in a public right-of-way, including:

- A pole that supports traffic control
- A structure for signage;
- Pole that supports lighting, other than a decorative pole; and
- Pole or similar structure owned or operated by a municipality and supporting only network nodes

Utility pole

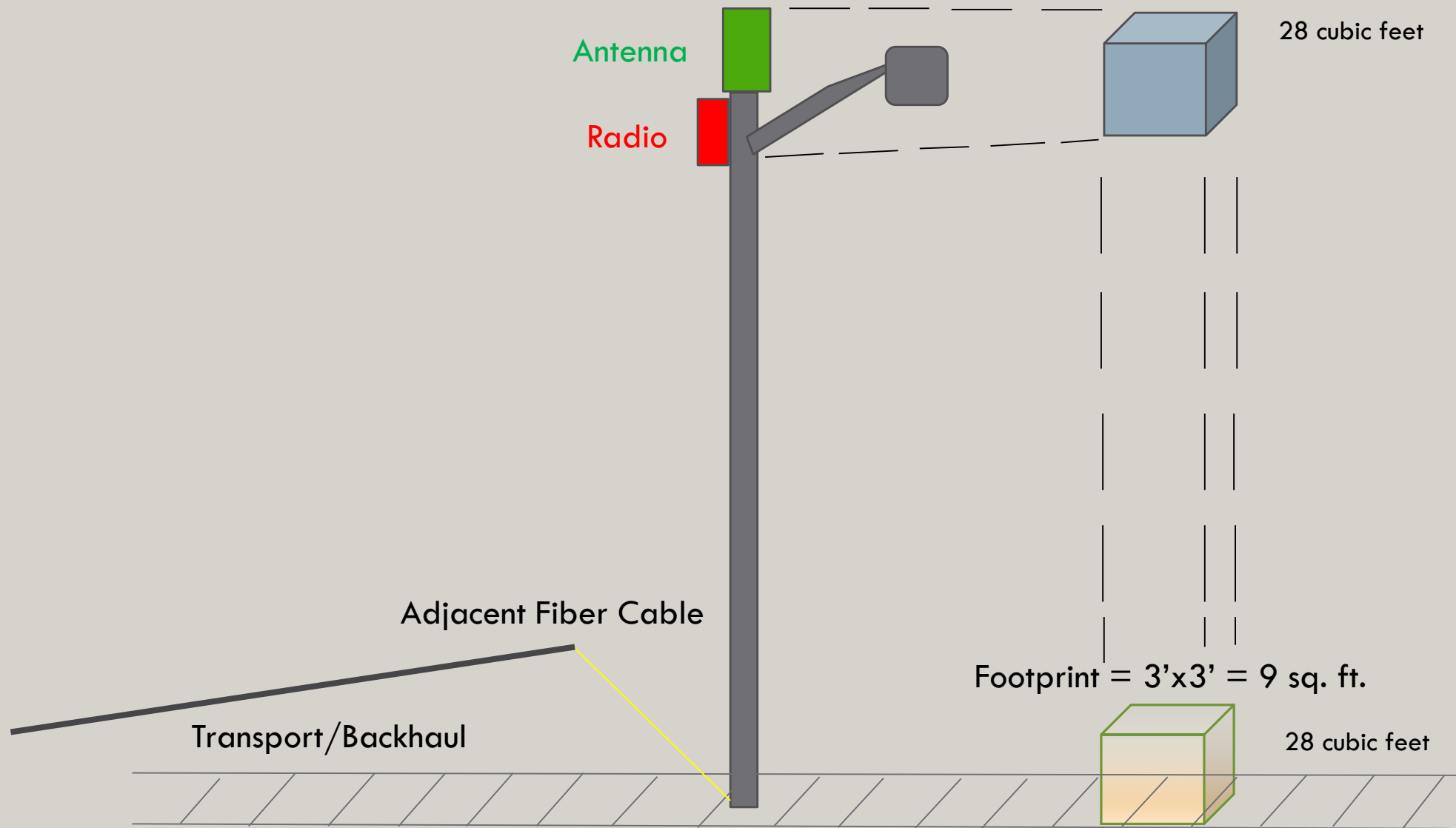
Electric distribution with a voltage rating of not more than 34.5 kilovolts; or

services of a telecommunications provider

Size Limitations

- **Antenna has no exposed elements:**
 - Must be located inside an enclosure of not more than six cubic feet in volume
 - May not exceed a height of three feet above the existing structure or pole
 - May not protrude from the outer circumference of the existing structure or pole by more than two feet
- **Antenna has exposed elements:**
 - Must fit within an imaginary enclosure of not more than six cubic feet;
 - May not exceed a height of three feet above the existing structure or pole
 - May not protrude from the outer circumference of the existing structure or pole by more than two feet
- **Cumulative size of other wireless equipment attached to an existing structure or pole may not be more than 28 cubic feet in volume**
 - Or protrude from the outer circumference of the existing structure or pole by more than two feet
- **Ground-based enclosures**, may not be higher than three feet six inches from grade, wider than three feet six inches
 - Pole-mounted enclosures may not be taller than five feet
- **May exceed the limitations prescribed by the bill only if the municipality approves**

Network Node – 28 cubic feet “imaginary box”



Ancillary equipment that does NOT count in size volume limitations

Electric

- **electric meters**
- **grounding equipment**
- **power transfer switches**
- **cut-off switches**
- **vertical cable runs for the connection of power and other services**

Telecom

- **concealment elements**
- **telecommunications demarcation boxes**

General Conditions of Access – “Police Power”

Subject to this chapter and applicable federal and state law, **a municipality may:**

- **continue to exercise zoning, land use, planning, and permitting authority** in the municipality’s boundaries, including with respect to utility poles
- **exercise that authority to impose police-power-based regulations for the management of the public right-of-way** that apply to all persons subject to the municipality
- **impose police-power-based regulations in the management of the activities of network providers** in the public right-of-way only to the extent that the regulations are reasonably necessary to protect the health, safety, and welfare of the public

Rates and Charges in SB 1004

| City Permit Application | Backhaul Using City ROW | ROW Access paid to City for "rental" | Type of POLE | Attachment Rate |
|--|--|---|---|---|
| <p>Direct & Actual Cost, capped at \$500 for an application of up to five nodes and \$250 for each additional node.</p> <p>\$1000 for each application for a new node support pole.</p> <p>No fee for routine maintenance</p> <p>•Does not require excavation or closing of sidewalks or vehicular lanes</p> <p>•Replacing network node or pole that is "substantially similar" (i.e., not 10% larger/higher)</p> | <p>For a Transport Service obtained from a Chapter 283/66 entity already paying municipal fees to a city: NO additional fee.</p> <p>For a Network Provider-constructed Transport Facility (including contracting with a backhaul provider that is not paying muni fees): \$28 per month per node to city</p> | <p>\$250 per year per node... plus annual increase of ½ of CPI</p> | MOU Pole – The MOU shall allow collocation of nodes on nondiscriminatory terms under a negotiated pole attachment agreement | Already covered in state law; SB 1004 does not affect this. Rate uses FCC formula and is typically less than \$20/year. |
| | | | "Service Pole" (a city-owned streetlight or traffic signal pole) | \$20 per year per SB 1004 |
| | | | IOU Pole | Already covered by FCC Rules; SB 1004 does not affect this. Rate is typically less than \$20/year. |
| | | | Electric and Telecom Co-op Pole | SB 1004 does not affect these B2B agreements. |
| | | | Telecommunications Pole | Already covered in state law; SB 1004 does not affect this. Rate uses FCC formula and is typically less than \$20/year. |

Deployment and “Special Areas” – Parks, Residential, Historic and Design Districts

Provider must obtain advance approval from municipality for these special areas

Municipal Parks

- may not install a new node support pole in a public right-of-way without the municipality’s discretionary, nondiscriminatory, and written consent if the public right-of-way is in a municipal park

Residential Areas

- adjacent to a street or thoroughfare that is: not more than 50 feet wide; and adjacent to single-family residential lots or other multifamily residences or undeveloped land that is designated for residential use by zoning or deed restrictions
- shall comply with private deed restrictions and other private restrictions in the area that apply to those facilities

Historic or Design Districts

- may require reasonable design or concealment measures, may request that a network provider comply with the design/aesthetic standards of the historic or design district and explore feasibility of using camouflage measures
- not be construed to limit a municipality’s authority to enforce historic preservation zoning regulations

Applications and Permits – Municipality “may” and “may not(s)”

Municipality “may” require

- a permit if the permit is generally applicable to users of right-of-way and does not apply exclusively to network nodes and has nondiscriminatory terms and conditions
- applicant to include applicable construction/engineering drawings and information related to the provider’s use of the public right-of-way
- a certificate that the network node complies with applicable FCC regulations
- certification that the proposed network node will be placed into active commercial service by not later than the 60th day after the date the construction and final testing

Municipality “may not”

- prohibit, regulate, or charge for the installation or collocation of network nodes in a public right-of-way
- directly or indirectly require, as a condition for issuing a permit, that the applicant perform services unrelated to the installation or collocation for which the permit is sought, including in-kind contributions
- institute a moratorium, in whole or in part, express or de facto, on: filing, receiving, or processing applications; or issuing permits or other approvals
- require an applicant to provide more information to obtain the permit than a telecommunications utility that is not a network provider is required to provide

Permit Process – “shot clocks”

Application/Approval Timelines

“Cure” Process

Installation

| | | |
|---|---|--|
| <ul style="list-style-type: none">• Application:<ul style="list-style-type: none">• municipality notifies applicant if application is complete within 30 days for network node or node support pole permit• within 10 days of application for transport facility permit• Municipality must approve or deny:<ul style="list-style-type: none">• transport facility within 21 days• network node within 60 days• node support pole within 150 days• Deemed approved if deadlines not met | <ul style="list-style-type: none">• “Cure”:<ul style="list-style-type: none">• within 30 days, applicant may cure deficiencies without additional application fee• Municipality must approve or deny:<ul style="list-style-type: none">• within 90 days of completed revised application | <ul style="list-style-type: none">• network provider shall begin not later than 6 months after approval• shall “diligently pursue” to completion• municipality may grant reasonable extensions |
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Design Manual

Any municipality may adopt a *design manual* for the installation and construction of network nodes or new node-support poles that includes additional installation and construction details that do not conflict with the SB 1004. Design Manual may include requirements that:

- an industry standard pole load analysis be completed
- network node equipment placed on new and existing poles be placed more than eight feet above ground level.

Network provider shall comply with a design manual, if any, **in place on the date a permit application is filed** in relation to work for which the municipality approved the permit application.

Time to develop Design Manual does **not** toll or extend “shot clock” requirements.

Bill's Effect on Existing and Future Contracts – General Rules

Contracts entered into before 9/1/17

- contract applies to all network nodes installed and operational before 9/1/17
- nodes installed and operational after 9/1/17 rates and terms of SB 1004 apply
- for all nodes installed after 9/1/17 under such contract municipality shall amend contract to comply and amended rates and terms shall take effect within 6 months of 9/1/17

Contracts entered into on or after 9/1/17

- rates and terms for each contract executed on or after 9/1/17 must comply with SB 1004

Matters to Note...

Chapter 283

- CROWN CASTLE v. DALLAS, AUSTIN
- EXTENET v. HOUSTON (Travis County District Court) , BEAUMONT
- EXTENET PETITION FOR RULEMAKING

Chapter 284 (SB 1004)

- MCALLEN/LAREDO POSSIBLE LAWSUIT V. SB 1004

TxDOT Small Cells Initiative

QUESTIONS

*It's a world of laughter, a world of tears
It's a world of hopes and a world of fears
There's so much that we share
That it's time we're aware
It's a small world after all*