

GREATER
ALBUQUERQUE
TRANSPORTATION
AND
LOGISTICS
FEASIBILITY
STUDY

SUMMARY OVERVIEW

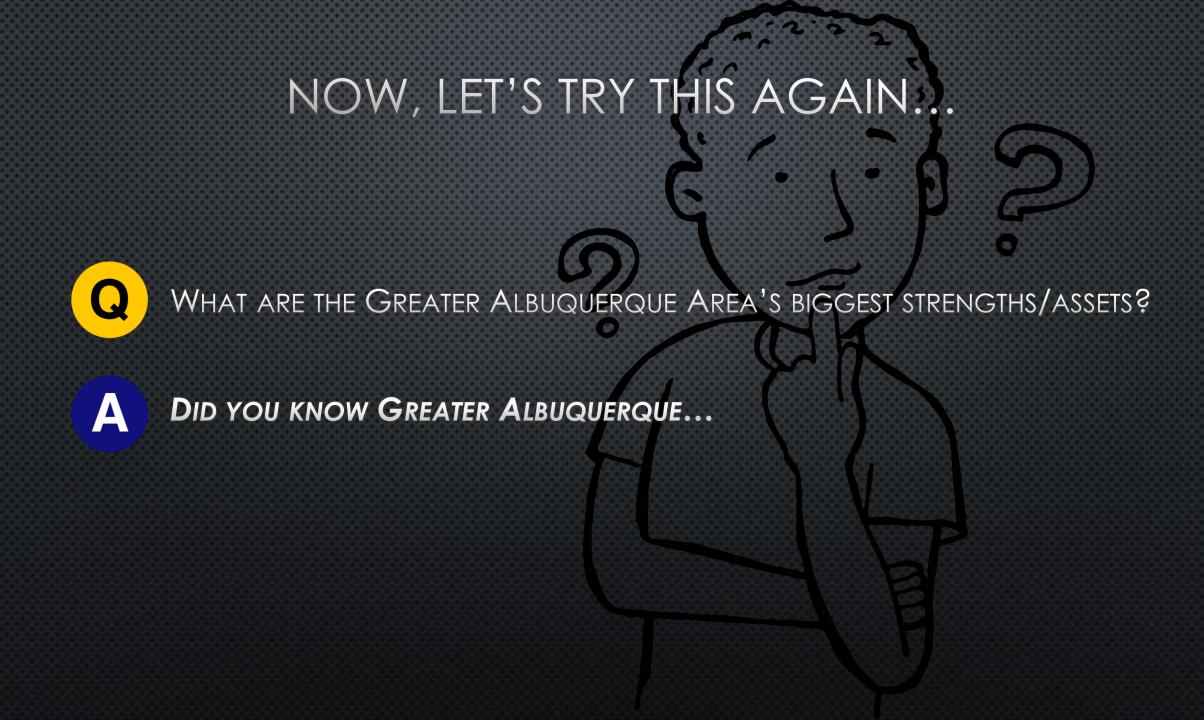
Q WHAT ARE OUR BIGGEST STRENGTHS AND ASSETS?



- Research and Development
- SANDIA, AFRL, LOS ALAMOS, UNM
- PhDs and highly educated workforce
- INTEL AND OTHER SEMICONDUCTOR RELATED MANUFACTURERS
- HIGH TECH INDUSTRIES LIKE OPTICS/PHOTONICS, AEROSPACE, AND RENEWABLE ENERGY

WE KNOW WE'VE GOT THE TECHNOLOGICAL ASSETS BUT...

ARE WE LOOKING AT THE WHOLE PICTURE?

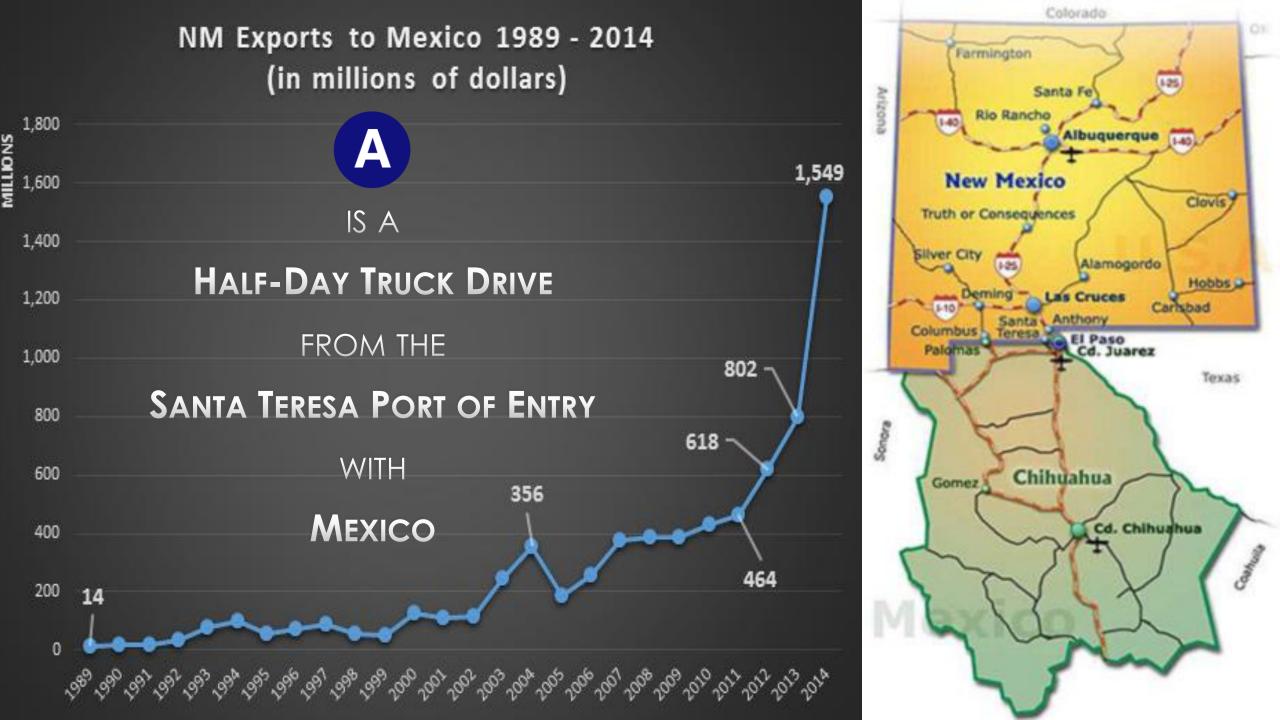




A

HAS AN
INTERNATIONAL PORT OF ENTRY
AND

FOREIGN TRADE ZONE
AT THE
SUNPORT



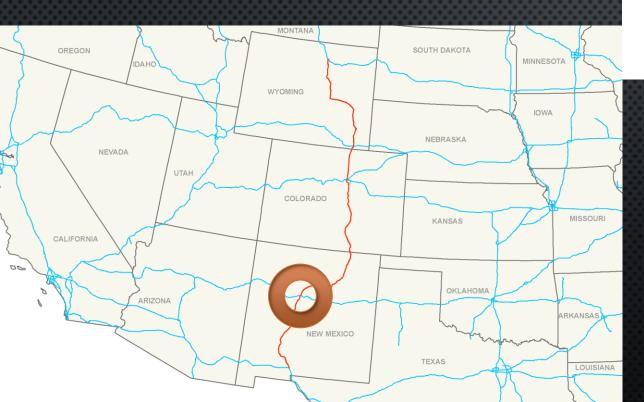


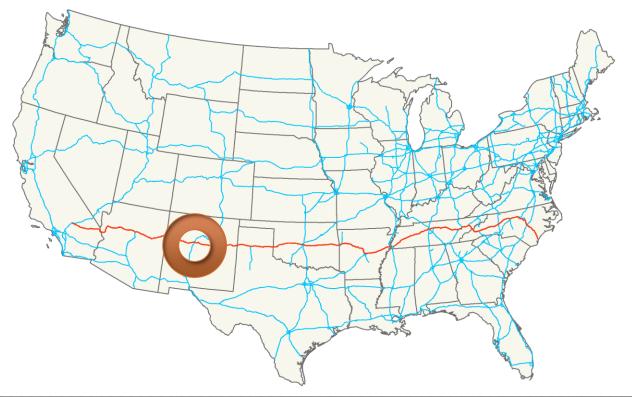
Sits at the **Intersection** of Two of the Longest Interstates Connecting

MEXICO

TO

CANADA





AND THE EAST COAST TO THE WEST COAST



Sits on the BNSF

TRANSCONTINENTAL RAILWAY

EQUIDISTANT

FROM BOTH

THE PORT OF LOS ANGELES

AND

THE PORT OF HOUSTON







SITS ON BNSF'S

ONLY RAILWAY

THAT

CROSSES THE BORDER

INTO

CENTRAL MEXICO



ALSO IN OUR FAVOR

- COMPETITIVE TAX CODE FOR MANUFACTURERS
- NO INVENTORY TAX
- METROPOLITAN AREA ASSETS (WORKFORCE, QUALITY OF LIFE, ETC.)
- H NEAR AND RE-SHORING MANUFACTURING TRENDS
- RISING LABOR COSTS, GROWING CONSUMER MARKET IN ASIA, AND GLOBAL CHANGES IN LOGISTICS
- OUR OWN RESEARCH AND TECHNOLOGY BASE HAS REMAINED ROBUST



SO HOW CAN WE LEVERAGE OUR TRANSPORTATION AND LOGISTICS ASSETS INTO ECONOMIC DEVELOPMENT?

- We set out to study the opportunities we have in the four county Albuquerque Region
- WE RECEIVED FUNDING AND SUPPORT FROM ALL FOUR COUNTIES, THE BNSF AND THE MCF
- We hired Cambridge Systematics to conduct a study and provide recommendations on opportunities in Air, Rail and Truck Freight
- THE STUDY COMMENCED IN APRIL 2016 AND FINISHED IN MARCH 2017

WHAT WE DISCOVERED

THE ALBUQUERQUE METRO'S INDUSTRIAL BASE/MANUFACTURING SECTOR IS OUR PRIMARY PROBLEM:

 MOST MAJOR AMERICAN CITIES EXPERIENCED A PERIOD OF BASIC MANUFACTURING AS A CENTER FOR THE PRODUCTION AND EXPORT OF INDUSTRIAL EQUIPMENT AND CONSUMER GOODS.

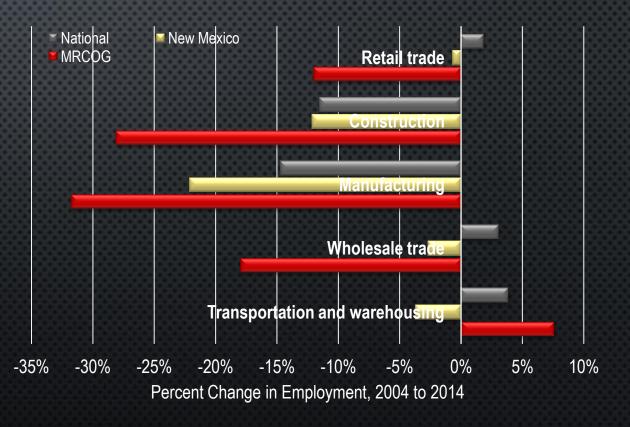
ALBUQUERQUE IS MISSING THIS PERIOD IN ITS HISTORY.

 MAJOR INFRASTRUCTURE JUST PASSES THROUGH THE STATE AND THE REST OF NEW MEXICO'S ROAD AND INTERSTATE INFRASTRUCTURE WAS BUILT IN RESPONSE TO MILITARY BASES AND TESTING SITES, MINING ACTIVITIES, AND AGRICULTURE.

WE ARE IN A TOUGH SPOT

- WEAK INDUSTRIAL ECONOMY
 - LIMITED RECOVERY FROM THE RECESSION
 - FLAT EMPLOYMENT
 - Manufacturing and goods-producing industries much less than national average
 - HOWEVER, RESEARCH AND TECHNOLOGY BASE IS ROBUST

Employment Trends in Freight-Dependent Industries, 2004 to 2014



OUR ALREADY SMALL MANUFACTURING BASE TOOK A BIG HIT DURING THE RECESSION

- New Mexico's Manufacturing Base makes up about 6.5% of the State's gross Product, about half of the Nation's 12.5%
- In 2014, only 4.5% of MRCOG area workers were engaged in manufacturing...compared to 8.8% in the national workforce
- BETWEEN 2005 AND 2015 THE NATION'S EMPLOYMENT IN PRODUCTION OCCUPATIONS DECLINED BY 11.5%. THE MRCOG REGION EXPERIENCED ALMOST 3 TIMES THAT, LOSING 27%
- The Recession <u>erased over 75%</u> of MSA's merchandise exports. As of 2015, Albuquerque was the only major urban area in the Southwest in which merchandise exports had not surpassed pre-Recession levels.

WHAT WE MAKE ISN'T DIVERSIFIED

- WE ARE **VERY** DEPENDENT ON ONE INDUSTRY:
 - 25% OF MRCOG REGION'S
 MANUFACTURING JOBS ARE IN COMPUTERS
 AND ELECTRONICS. THIS IS MORE THAN
 DOUBLE THE NEXT LARGEST SECTOR, FOOD
 MANUFACTURING.
 - 60% OF ITS MERCHANDISE EXPORTS ARE IN COMPUTER AND ELECTRONIC PRODUCTS AND OTHER FORMS OF HIGH TECH PRODUCTION.

Albuquerque and Comparable MSA's
Percentage of Change in International
Merchendise Export Volumes
2005-2015



WE ARE NOT USING OUR OWN INFRASTRUCTURE

Only 20% of MRCOG region's Europe and Asia exports go in intermodal shipping container. Another example that our existing manufacturing consists of small and high value goods

AIR: MRCOG REGION'S EXPORTS IN 2015 WERE \$1.76B. MORE THAN HALF WAS SHIPPED BY AIR CARGO (\$1B)

- However, over 95% of New Mexico's Air Cargo exports were first trucked to other states.
- The Sunport did \$12M worth of Air Cargo in 2014 and projects an average annual growth rate of less than 1% (.59%).
- As of 2014 ABQ handled 56K tons of air cargo, almost a third of pre-recession levels.
- Current Air Cargo volume is too small for carriers to Asia and Europe to consider providing service from the Sunport

RAIL: \$8.5B OF FREIGHT INTO NM, \$8.1B NEVER STOPS

• 88% of New Mexico's rail traffic does not originate nor end in New Mexico (by tonnage). 95% by total value.

RAIL IS A "CHICKEN OR EGG" SCENARIO

- THE ALBUQUERQUE METRO CURRENTLY DOES NOT HAVE OUTBOUND RAIL INTERMODAL SERVICE
 - Intermodal (sealed containers) service allows for direct point A to point B shipping without stops.
 - WE ARE CURRENTLY BEING SERVICED THROUGH AMARILLO AND EL PASO WITH PRODUCT BEING TRUCKED TO/FROM ALBUQUERQUE
- A FULL UNIT TRAIN WOULD BE REQUIRED FOR BNSF TO ENTERTAIN OPENING INTERMODAL SERVICE IN ABQ.
 - CURRENTLY WE ONLY HAVE ON INTERMODAL LANE FROM CHICAGO TO ABQ, BEING UTILIZED BY UPS.
 - CURRENT BNSF FACILITIES IN THE MRCOG REGION CANNOT HANDLE A MILE LONG UNIT TRAIN. THE
 TRAIN MUST BE BROKEN DOWN INTO SECTIONS AND THEN SENT UP TO THE INTERMODAL SERVICE AREA IN
 ALBUQUERQUE.
- WE MUST GREATLY INCREASE OUR PRODUCTION OUTPUT TO MAKE THE CASE FOR AN
 INVESTMENT IN INTERMODAL INFRASTRUCTURE/SERVICE. AT THE SAME TIME, WHILE WE HAVE
 ACCESS TO THE TRANSCON, WE CANNOT RECRUIT LARGE USERS THAT NEED INTERMODAL SERVICE.

WE ARE A TRUCKING STATE

- TRUCK TRANSPORTATION SAW A 30% INCREASE OVER THE LAST 10 YRS
- ALL MAJOR FREIGHT DEPENDENT INDUSTRY IN NEW MEXICO RELIES AT SOME POINT ON TRUCK SERVICE—WHICH WE DO WELL.
- GASOLINE, MINERALS AND FOODSTUFFS HAVE BEEN THE COMMODITIES MOST TRANSPORTED BY THIS MODE.
- NONETHELESS, FREIGHT IS STILL EXPENSIVE IN ALBUQUERQUE BECAUSE:
 - TRUCKS AND CONTAINERS COME FULL AND LEAVE EMPTY, FORCING THE SHIPPER TO PAY FOR THE EMPTY RETURN TRIP
 - Lack of Intermodal Service forces shippers to pay drayage to get to other markets with full intermodal Service.

WHERE WE COMPETE: CHANGES WE CAN MAKE

- We need to lower transportation costs and increasing regional exports
- WE NEED MORE TARGETED SUPPLY CHAIN FOCUSED BUSINESS DEVELOPMENT STRATEGIES.
 - CLEAR AND SPECIFIC BUSINESS PROPOSITIONS IN KEY SECTORS ARE NEEDED TO MAKE OUR CASE.
- EXISTING DEVELOPED PROPERTY IS OK FOR SMALL DEALS; HIGH SPECIFICATION PROPERTY FOR LARGER SCALE CAPITAL INVESTMENT IS MORE ATTRACTIVE.
- AIR AND RAIL REQUIRE MORE SPECIALIZED STRATEGIES.

INCREASING REGIONAL COMPETITIVENESS IS ACHIEVABLE

- TO BETTER COMPETE, THE REGION MUST ARTICULATE ITS' STRENGTHS RELATED TO THE SPECIFIC OPPORTUNITIES
 - LAND AVAILABILITY (PREFERABLY SHOVEL READY)
 - LABOR COSTS AND SKILLS
 - REGULATORY ENVIRONMENT
- FOCUS ON SPECIFIC INDUSTRIES AND SPECIFIC PARTS OF THEIR VALUE/SUPPLY CHAIN:





RECOMMENDED INDUSTRIES

- FOCUS ON SPECIFIC OPPORTUNITIES (HIGH-VALUE, TECHNOLOGY BASED MARKETS)
 - AUTOMOTIVE SECTOR VALUE-ADDED MANUFACTURING
 - AEROSPACE TECHNOLOGY
 - PHOTONICS-ENABLING TECHNOLOGY APPLICATIONS
 - FOOD MANUFACTURING
 - PLASTICS
 - OTHER INDUSTRIAL/MANUFACTURING OPPORTUNITIES UTILIZING RAIL FACILITY INVESTMENTS





• DISTRIBUTION/DISTRIBUTION CENTERS

- MOVEMENT AND HANDLING OF GOODS FROM POINTS OF PRODUCTION TO SALE AND CONSUMPTION—
 TRANSSHIPMENT, DCs AND WAREHOUSING. \$1.5 T INDUSTRY; 4.5 M PEOPLE EMPLOYED NATIONWIDE.

 DCs Can also Perform Light Manufacturing VS Just Storage.
- STRENGTHS: IN THE AREAS OF OPERATING COSTS, LABOR AVAILABILITY AND TAX BURDEN, ABQ PERFORMS VERY WELL.
- Strategic Niche: The region can perform well for specific supply chain lanes, such as serving markets in or receiving supply chain assets from Texas, Arizona and Mexico.

FOOD MANUFACTURING

- THE FOOD SECTOR COVERS PRODUCTION OF RAW MATERIALS AND PROCESSING INTO FOOD PRODUCTS.
 IT ALSO COVERS FOOD SERVICE AND RETAIL AND IS ONE OF THE LARGEST IN THE ECONOMY (3RD LARGEST MANUFACTURING SECTORS IN US)
- STRENGTHS: ALREADY SEEING GROWTH IN THIS SECTOR. ABQ SCORES WELL IN PROPERTY PRODUCT AVAILABILITY AND OPERATING COSTS. FEWER REGULATORY CHALLENGES THAN CA.
- STRATEGIC NICHE: ABQ COULD POSITION ITSELF AS A MAJOR-MARKET FOOD CENTER FOR THE LARGE
 CA MARKET AND SUPPORT A MARKET BASE IN CO AND NORTHERN TX. FOCUS ON HISPANIC FOODS
 MARKET.

AEROSPACE TECHNOLOGY MANUFACTURING

- R&D and manufacture of aerospace systems including manned and unmanned aircraft, missiles, spacecraft, propulsion, guidance systems, etc. A concentrated, capital-intensive industry accounting for the highest trade surplus of all US manufacturing industries.
- STRENGTHS: LOW TAX BURDEN. 3PLS AN EMERGING PART OF SUPPLY CHAIN LOGISTICS.
- Strategic Niche: While air cargo connectivity is a critical factor and most major markets
 are overseas, ABQ can compete for products with domestic market supply chains,
 especially in TX, AZ, and CA.

PHOTONICS ENABLING TECHNOLOGY MANUFACTURING

- Science of using and controlling photons (light) to convey information. One of the fastest growing high-tech industries globally—expected to reach \$979B annually by 2024. Products include fiber optics, flat screen displays, DVDs, supermarket scanners, medical optics, etc.
- STRENGTHS: AMPLE AIR CARGO CAPACITY AT SUNPORT, COMPETITIVE TAX BURDEN, LABOR AVAILABILITY, RELIABILITY WITH FEW WEATHER DELAYS, ETC.
- STRATEGIC NICHE: THE ALBUQUERQUE AREA HAS INVESTED HEAVILY IN THE EDUCATIONAL INFRASTRUCTURE FOR THIS SECTOR AND THE FEDERAL RESEARCH PRESENCE GIVES THE AREA A STRONG BASE. ABQ COULD LOOK AT MANUFACTURE OF OPTICS FOR DEFENSE, HOMELAND SECURITY, AND BIOMEDICAL APPLICATIONS.

AUTOMOTIVE SECTOR ENABLING TECHNOLOGY MANUFACTURING

- THE LARGEST, MOST COMPLEX SUPPLY CHAIN ON THE PLANET. THE OPPORTUNITY LIES IN THE RAPIDLY
 CHANGING GLOBAL MARKET AND NEW TECHNOLOGY APPLICATIONS IN THE OPERATING SYSTEMS. THE
 OPPORTUNITY IS NOT IN THE MANUFACTURING OF AUTOMOBILES. NO ONE HAS WON THIS RACE YET.
- STRENGTHS: WE ALREADY EXCEL IN RELATED TECHNOLOGIES SUCH AS SENSORS, OPTICS/PHOTONICS, AND
 CONTROL SYSTEMS. OUR REGULATORY ENVIRONMENT IS ALREADY MORE ATTRACTIVE THAN THOSE OF OTHER
 STATES USUALLY IN FRONT OF INDUSTRY DISRUPTION.
- STRATEGIC NICHE: Leverage Greater Albuquerque's technological strengths with New Pro-Autonomous vehicle public policy to encourage clustering around the testing and deployment of enabling technologies

PLASTICS MANUFACTURING

- THE PLASTICS INDUSTRY MANUFACTURES POLYMER MATERIALS FOR HOME FURNISHINGS, LAWN AND YARD ITEMS,
 PLASTIC CUPS, ETC. THROUGH INJECTION MOLDING. PLASTICS ARE ALSO IMPORTANT IN A VARIETY OF
 INDUSTRIES, INCLUDING PACKAGING, ELECTRONICS, AEROSPACE AND OTHER CORE METRO FOCUS AREAS.
- STRENGTHS: WE ARE LOCATED CLOSE TO MARKETS IN THE WESTERN US AND HAVE NEW CAPACITY TO
 OFFLOAD AND WAREHOUSE PLASTIC PELLETS WITH THE DEVELOPMENT OF THE CENTRAL NM RAIL PARK.
- STRATEGIC NICHE: Take advantage of our geographic niche—close to oil and natural gas fields and on the Trans-Con line, to be a place of plastics manufacturing, assembly and distribution.

STRATEGY #1: AIR CARGO INVESTMENT DISTRICT



- BUILD A CORE MARKET PROPOSITION ALIGNED WITH KEY TECHNOLOGY-RELATED SECTORS;
- DETERMINE AIR CARGO EXPORT LEAKAGE AND POTENTIAL OPPORTUNITIES FOR FUTURE CARGO DEMAND AND AIR SERVICE REQUIREMENTS;
- Develop an on- and off-airport development plan; and
- Convene a strategy session with key stakeholders and develop a Business Plan.
 - ALIGN WITH EXISTING PUBLIC AND PRIVATE INITIATIVES, E.G. INNOVATE ABQ, STC.UNM, etc.;

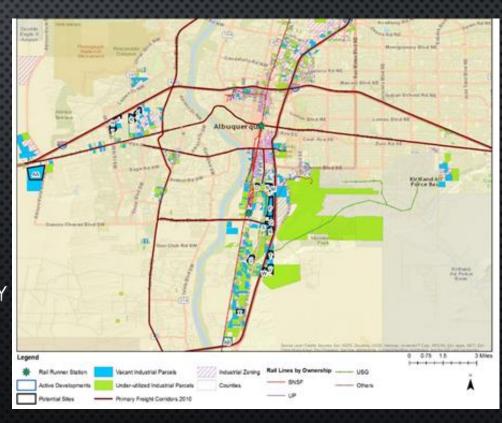
STRATEGY #2: ADVANCE RAIL CARGO

- ASSESS THE POTENTIAL OF EXISTING AND PROPOSED RAIL-FOCUSED DEVELOPMENT IN THE REGION
- Understand current plans and local/regional priorities;
- IDENTIFY INITIAL, HIGH LEVEL, INDUSTRY SECTOR TARGETS;
- DEFINE CLEAR PUBLIC-PRIVATE BUSINESS INVESTMENT STRATEGY; AND
- ASSESS ROLES AND RESPONSIBILITIES MOVING FORWARD.



STRATEGY #3: INDUSTRIAL INVESTMENT

- DEVELOP A STRATEGY TO ENCOURAGE CROSS-JURISDICTIONAL INVESTMENT IN THE METRO
 - Long-term formulate a plan to create an official vehicle for regionally focused investments..e.g. a Joint Powers Authority (JPA) focused on freight and industrial projects, an Industrial Redevelopment Agency, etc.
- DEVELOP A STRATEGY TO IDENTIFY AND PRIORITIZE CARGO ORIENTED
 DEVELOPMENT OPPORTUNITIES
- WE NEED SHOVEL READY INDUSTRIAL REAL ESTATE
- IDENTIFY RELATED POLICY CHANGE RECOMMENDATIONS (E.G. PPP, CERTIFIED SITES, ETC.)
- Use this initiative to provide the supporting evidence for policy change



STRATEGY #4: INTEGRATE FREIGHT INTO REGIONAL PLANNING

- Create a Freight and Industry Committee as part of the Transportation Coordinating Committee
 - Serve as a focal point and leadership for strategies 1,2, and 3
 - Ensure alignment of New Initiatives with existing programs
 - SERVE AS A LIAISON BETWEEN PUBLIC AND PRIVATE SECTOR PARTNERS
 - PROVIDE FREIGHT AND INDUSTRY RELATED INPUT AND RECOMMENDATIONS TO THE TCC PLANNING PROCESS

FREIGHT AND INDUSTRY EXECUTIVE COMMITTEE

- Two Members of the Transportation Coordinating Committee (TCC)
- Chair and Co-chair of the Freight and Industry Steering Committee
- A Board Liaison to the MTB and/or MRCOG Board

Transportation Coordinating Committee

MRCOG Board

Freight and Industry Executive
Committee



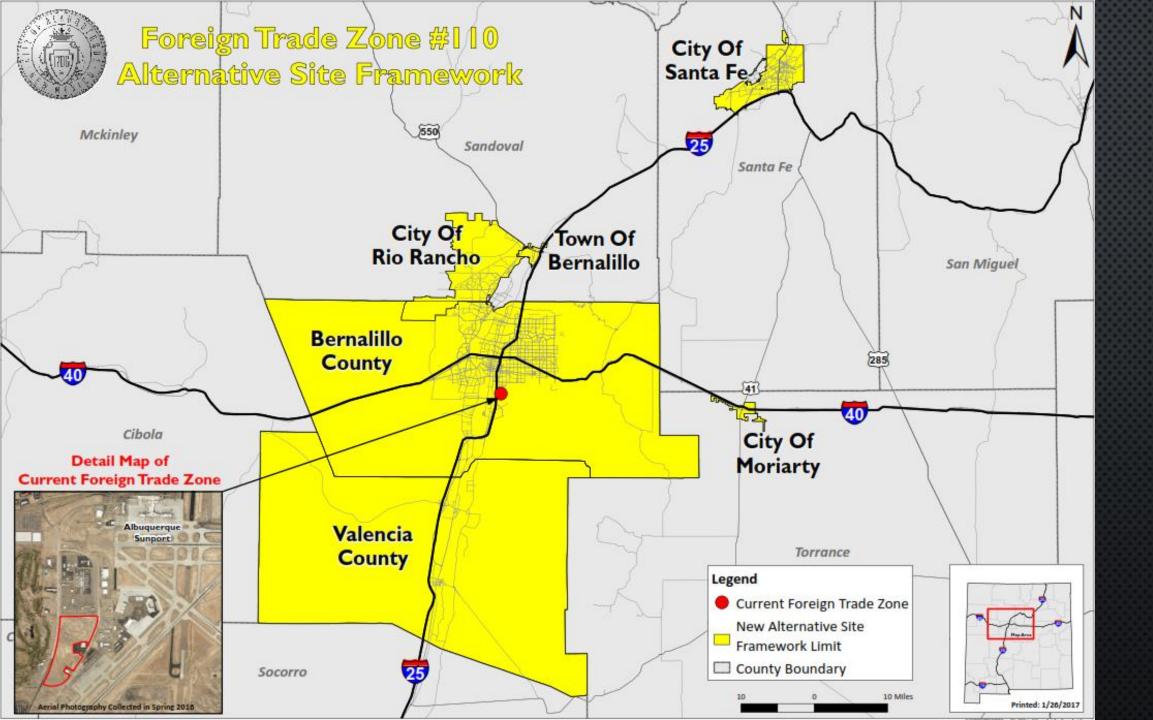
Freight and Industry Committee



Freight and Industry Committee

Sunport Investment District

Rail Cargo Advancement Industrial Investment



EARLY WIN

 Bernalillo County Invested Up To \$400,000

Cross Jurisdictional Investment

 MULTIPLIER EFFECT WILL BENEFIT PEOPLE OF BERNALILLO COUNTY

10 Years of Construction

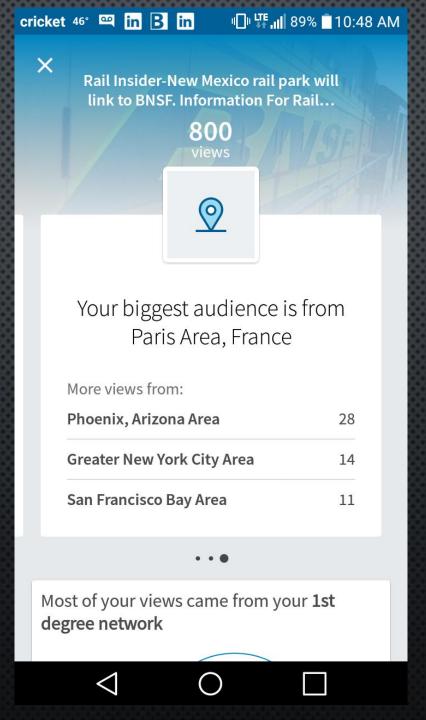
• 8,000 + POTENTIAL JOBS

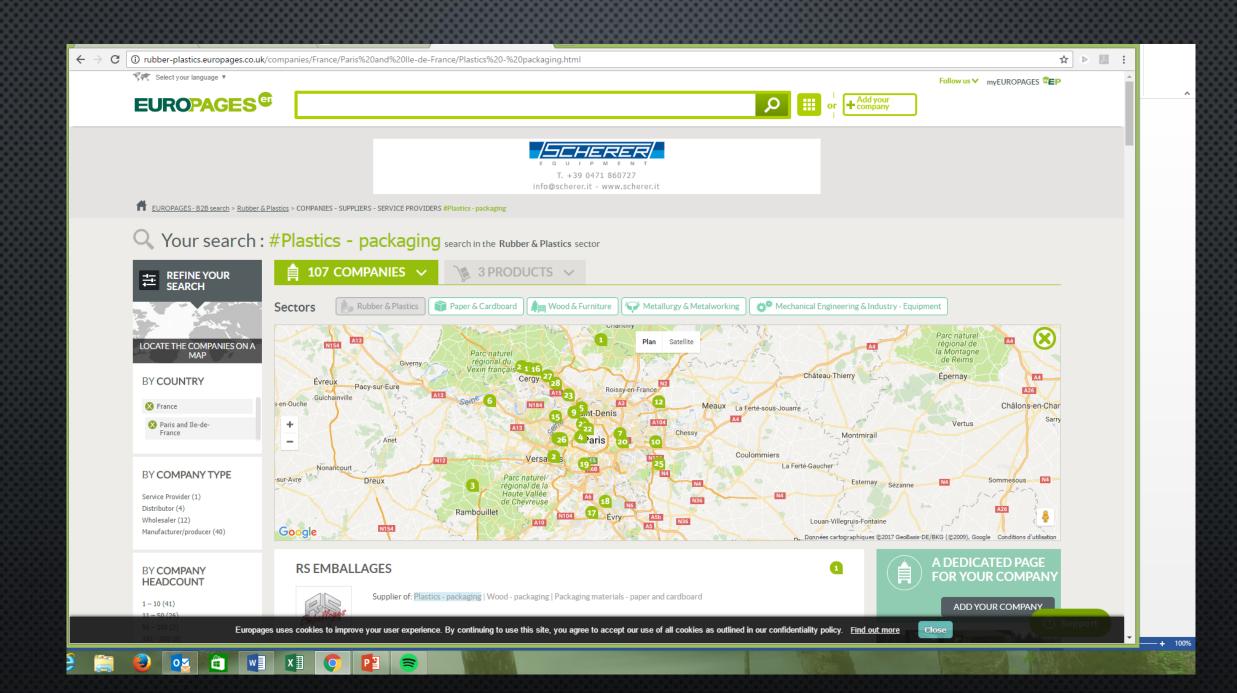
PROPOSED 1,400-ACRE CENTRAL **NEW MEXICO RAIL PARK**

Four miles west of Los Lunas



Quintana





LET'S GET MORE WINS!

• READ THE WHOLE STUDY AT www.mrcog-nm.gov