

**AN OPEN LETTER TO THE MAYOR OF ALBUQUERQUE, THE CITY COUNCIL
& THE CITIZENS OF ALBUQUERQUE**

January 30, 2016

RE: Albuquerque Rapid Transit (ART)

Dear Friends,

We are a small group of volunteer "Concerned Citizens" that includes professional urban designers, planners, small business owners and architects who support the idea of improved Transit on Central Ave. However, we have come to believe that the Albuquerque Rapid Transit (ART), as developed by the Albuquerque Transit Department and its consultants, and subsequently submitted to the Federal Transit Administration (FTA) -- both as reviewed on 12/2/15 with the Transit Department, and in the revision publically notified by KRQE on 1/22/16 -- falls substantially short of achieving the stated goals and intent stated in Federal Grant application.

Our concerns have been confirmed by the Albuquerque Transit Department's own contracted consultant's analysis in March, 2015 which states:

"Overall, our analysis concludes that in the Build Condition (of A.R.T.), the operational performance at several intersections would be deteriorated [compared with No Build]. Several segments would have diminished operational performance, thereby increasing queuing and congestion along the Central Avenue corridor. This can clearly be attributed to the reduction in capacity of the general purpose lanes along the majority of the corridor."

Albuquerque Rapid Transit VISSIM Analysis

Technical Supplement#2; pg. 110

Prepared for: ABQRIDE

Prepared by: Parsons Brinckerhoff

March 02, 2015

Hence, some important basic questions must be asked regarding the overall feasibility of ART and its potential impact on our community. For example, will ART really contribute to the overall improvement in the quality of life in our community and if so how? What are the potential costs vs the benefits of this ambitious undertaking? What are the prospects that this Project might actually diminish Albuquerque's prospects for moving toward greater economic prosperity?

OUR FINDINGS

It is our view that, whether the grant application is approved or not by the FTA, the configuration and components of ART are not sufficient, in both concept and in technical support material, to meet the long-term interests of the adjacent properties, including cultural centers, neighborhoods and businesses, as well as the best interests of the citizens of Albuquerque. We believe that the January 22nd revisions still do not meet these objectives, and should be modified in order to result in an arrangement that would:

1. Cost less,
2. Connect properly to the grid network of N/S arterials, following the example of what Houston is currently doing¹,
3. Avoid tearing up much of Central Ave. for indeterminate periods of time, and
4. Significantly contribute to the overall elevation of each of the basic "capitals" of our community which include financial, environmental, cultural, infrastructural and human.

A number of community leaders, elected officials and citizens voiced their support for this Project early on based on the CONCEPT of a rapid bus transit system prior to release of both the original ART Plan submitted to the FTA and the January 22, 2016 modifications. It is vital that everyone who expresses their support or their opposition to ART, do so on a fully informed basis with objectively vetted analyses that represent the best interests of Albuquerque citizens, neighborhoods and affected businesses.

A detailed review of the ART Project Plans by technically qualified members of our Concerned Citizens group, as presented on the ABQRide website in early December, and again as revised in January, 2016, has revealed that the proposed ART design:

- ☒ Compromises many necessary functions of the Central Avenue Right of Way in order to create and "fit in" the Dedicated Center Lane and Island Station concept. Central Avenue simply is not wide enough to successfully accommodate the dedicated center lane concept of ART, as initially designed, and as revised in January, 2016,
- ☒ Remedies many of the sidewalk width reductions of the initial ART Plan. However, the 1/22/16 revisions still fail to comply with the performance criteria, as well as the provision for the multiple functions called for in the "Complete Streets" criteria. ART therefore, would be illegal and unbuildable, according to the "Complete Streets Ordinance" as adopted on 1/21/15 by the Albuquerque City Council (Council Bill No. F/s 0-14-27),
- ☒ Complicates pedestrian street crossings and bus transfers,
- ☒ Increases congestion by inhibiting left-turns,
- ☒ Reduces access to businesses along Central Avenue,
- ☒ Increases side street(s) vehicle volume and congestion,
- ☒ Appears to ignore the potential to realign the multiple, existing bus routes (many of which also use Central Ave.) into a "grid network" that would greatly increase connections, serve more people, and enhance ridership without increasing fleet size, and
- ☒ Overall, does not view the entire metro transit system comprehensively.

A more detailed "ANALYSIS OF A.R.T. PROJECT PLAN as REVISED 1/22/16" is attached.

RECOMMENDATIONS MADE TO THE ALBUQUERQUE TRANSIT DEPARTMENT

On December 2, 2015, our group met with, and submitted to the City of Albuquerque Transit Department, detailed comments and recommendations regarding the ART Project Plan drawings as posted on the ABQRide website. During that meeting the above issues were discussed. In addition, detailed written materials and references were given to the Transit Department Director and Staff to encourage and facilitate the capacity of the ART Project to include:

- Connectivity to the Greater Albuquerque area through a (modified) grid network
- Reconfiguration of the elements of the Transit system to directly access an expanded sidewalk area and adjacent properties, rather than the use of center, dedicated lanes and island Transit stations
- Use of electric-powered busses -- articulated units on Central Ave. and on future E/W 'spine' arterials, and, sequentially, single-unit electric busses on the N/S routes

It was also noted and discussed during the Dec. 2nd meeting that continuous dedicated median lanes called for in the ART Plan would create dangerous and difficult pedestrian street access and crossings. In addition, the limited number of cross-street intersections would reduce the convenience of access to businesses, thereby encouraging motorists to avoid the business districts along Central Ave.

At the conclusion of the December 2nd meeting we respectfully asked the Transit Department representatives to:

1. Review our analyses & recommendations re the existing ART Project Plans,
2. Consider the suggested alternative draft drawings, plans and sections we gave them, and
3. Respond to our input at their earliest convenience.

We have followed up on our request several times but as of the date of this letter, we have received no direct response. We learned of the recently posted revisions through a news-item on KRQE on Friday, January 22nd. The January revisions addressed many of the technical errors of fact, as well as issues regarding sidewalk widths that our group pointed out on December 2nd. But some of the most critical flaws to the Plan remain, as described in this letter and the examples attached in the "Analysis of the ART Project Plan".

ART would be a massive project that would cost tens of millions of Albuquerque taxpayer dollars, substantially above and beyond the Federal grant funds provided. As presently planned, including the January revisions, ART would also cause substantial disruption to small, local businesses, many of whose survivability is already severely challenged as a result of the extended recession.

THE NEED FOR GREATER TRANSPARENCY & COST/BENEFITS ANALYSES

We also are concerned about the apparent lack of transparency and publicly available Plans, economic impacts and cost/benefits analyses that demonstrate the feasibility of this Project. Where is the objective analysis that carefully examines the project's potential

One other factor is important to note. It is possible to design a high-efficiency Bus Rapid Transit system in a "Great Street" such as Central Avenue without all the unintended negative consequences of the proposed ART design. The technical support document developed by the Institute of Transportation Engineers (ITE) and sponsored by the Office of Infrastructure, Federal Highway Administration, as referenced in the "Complete Streets Ordinance", provides detailed guidelines and multiple examples of how this can be accomplished.²

There are numerous variations on the above designs that could also be considered. The alternatives presented in this letter and references to successful examples in cities throughout the world were all shared with Albuquerque Transit Department representatives on December 2nd.

We believe it is timely for Albuquerque to think and act like the truly innovative city that it could be. One of the most creative steps our City could take right now, and at far less cost than the proposed, fixed-in-place, center-dedicated-lane ART design, would be to create a highly innovative, inter-connected-network, electric-powered Rapid Transit bus system that would be a cornerstone of Albuquerque's identity, thereby helping to attract the kind of innovative people our City needs in order to thrive in the 21st Century.

YOUR OPINION IS IMPORTANT

By means of this letter, we are asking you to consider the consequences of pursuing the current ART design, and to compare it to the alternatives presented here. We ask that you support the "Concerned Citizens" group's requests that the Mayor and the City Council collaborate to:

1. Address the concerns expressed in this letter,
2. Meaningfully engage the community about Albuquerque's future transit system, &
3. Redesign ART to meet contemporary urban planning standards, including Albuquerque's "Complete Streets Ordinance".

The Federal Transit Administration will announce its selected list of successful grant applicants on February 9th. Whether Albuquerque is selected this year or not, we believe it is important for you to voice your support of a more efficient and less costly 21st Century Transit system by **contacting the Mayor and the Albuquerque City Council as soon as possible, prior to February 9th.**

Thank you for your consideration of what we believe would be a major improvement to the current proposed Albuquerque Rapid Transit Plan.

Sincerely,

Anthony Anella, Registered Architect & Central Ave. Commercial Property Owner
Jean Bernstein, CEO, Flying Star Cafes & Satellite Coffee
Paul Lusk, Emeritus Professor of Architecture and Planning
Steve Schroeder, Owner, Nob Hill Music; Founder, SAVERT66
Julie Stephens, Community Planning Consultant
David Vogel, Planning & Economic Development Consultant

REFERENCES:

1**"Houston: Transit, Reimagined"** – An example of a city developing its transit system "grid": <<http://humantransit.org/2014/05/houston-a-transit-network-reimagined.html>>

2**"Complete Streets Ordinance":**

<<https://www.cabq.gov/council/projects/completed-projects/2015/complete-streets>>

3**"12 Ultra-Fast Charging Electric Buses For Geneva in 2017":** In-place single-unit, long-range-battery busses (perhaps most appropriate for nearly-level-elevation N/S routes) and over-head, quick-charge, articulated busses (more suitable for the elevation-changing E/W routes), presently operating in Europe, China and the USA.

< http://insideevs.com/12-ultra-fast-charging-electric-buses-geneva-2017/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+InsideEvs+%28Inside+EVs%29 >

"Meet the Electric Bus That Could Push Every Other Polluting Bus Off the Road"

<<http://www.fastcoexist.com/3051475/meet-the-electric-bus-that-could-pushevery-other-polluting-bus-off-the-road>>

Additional References:

http://insideevs.com/irizar-i2e-electric-bus-london/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+InsideEvs+%28Inside+EVs%29

Developed by the Institute of Transportation Engineers (ITE), this provides detailed guidelines and multiple examples. Access to this source is in the URL below:

< <http://library.ite.org/pub/e1cff43c-2354-d714-51d9-d82b39d4dbad> >

An example of 'systems thinking' is evident in the transit system as shown in:

<http://www.ci.omaha.ne.us/planning/urbanplanning/images/stories/Master%20Plan%20Elements/Transportation Element Final 2012 web.pdf>

The Gallup City Council, on Dec. 7th, reviewed contracts for a 10MW PV Solar array serving municipal electric load needs.

<http://www.gallupnm.gov/DocumentCenter/View/1023>

For example, through initiative and creativity a New Mexico Woman Invents Solar Powered Bus:

< http://krqe.com/2016/01/28/new-mexico-woman-invents-states-first-solar-powered-bus/?utm_source=The+Santa+Fe+Reporter+List&utm_campaign=2ffa5eda35-Morning+Word+Jan+29%2C+2016&utm_medium=email&utm_term=0_b77a98714b-2ffa5eda35-60515141&mc_cid=2ffa5eda35&mc_eid=1aa1c49001 >

ATTACHMENT:

ANALYSIS OF A.R.T. PROJECT PLAN as REVISED 1/22/16

Prepared by: Paul Lusk- January 24, 2016

problems and issues? Do these analyses exist? If not, shouldn't they be a prerequisite for such an undertaking? As currently designed, the ART Project has the potential to spend enormous amounts of money to do more harm than the good-proposed in the Project Plans.

Albuquerque has a once-in-a-generation opportunity to develop a potential major community asset via a well-designed transit system. It could significantly contribute to Albuquerque as a culturally vibrant, ecologically resilient, innovative and economically vital community where our children and grandchildren will want to live. If it is truly needed, it will indeed simultaneously elevate all of the 5 "capitals" that are essential for a community to thrive, described earlier and presented at the December 2nd Transit Department meeting.

INNOVATION POTENTIAL

The City has already launched a potentially productive innovation and collaboration between the University of New Mexico and the City via "Innovate ABQ". What if, in collaboration with Innovate ABQ, the City chose to significantly innovate in the design of its transit system? For example:

- What if Albuquerque developed a transit system that became a primary attraction for citizens and tourists alike due to its innovation and attractiveness, in addition to being highly functional, safe, economically feasible, and just plain fun to ride?
- What if Albuquerque developed a high-efficiency, photovoltaic-generated, electric-powered Rapid Transit with articulated buses on Central Ave. that connect to a N/S grid network of single-unit electric busses?¹
- Might a truly innovative approach to our transit system along these lines significantly contribute to, and perhaps even become a trademark of Albuquerque as an innovative city?
- Could an exiting and interesting transit system such as this help overcome the cultural reluctance of many Albuquerque citizens to ride the bus?
- How many millions of dollars could a truly creative inter-connected transit system, as described above, save as a result of avoiding major utility relocations needed for a dividing-median in the center of Central Avenue, as proposed to the FTA?

A primary feature of the innovative transit system described-above is that the buses run in the outside lanes, adjacent to and serving an enhanced sidewalk, with bus bays and pay-to-enter shelters, discharging directly onto the sidewalk, thereby **INCREASING** accessibility to businesses, rather than busses travelling in dedicated center lanes with "island stations", often **NOT** connecting to the revised N/S arterial bus routes.

This approach would allow buses to move nearly as quickly as with the dedicated-lane system with buses having electronic red-light control for pulling out from the bus bays, as well as green-light control over approaching intersections.

ANALYSIS OF A.R.T. PROJECT PLAN as REVISED 1/22/16

Prepared by: Paul Lusk- January 24, 2016

Introduction

From our cursory review of the January 2016, revised ART Rapid Transit Project Plan drawings, it appears that many of the drawing errors and errors of fact identified in our December 2nd, 2015 comments were addressed. However, other errors, both of concept and drawings, have not. The following examples provide a sampling of issues and problems identified since the posting of the ART revisions 22JAN2016.

Example 1

On the 10th St. -- 1st St. (was previously page 3A), in the "Proposed ART Alignment and Cross Sections" drawings that are super-imposed on the aerial-photo base (January, '16 revisions), the area on the east side of the 1st St. intersection shows 4 vehicle lanes. There are 2 westbound vehicle lanes (one thru or right turn, and one left turn), and 1 two-way dedicated Bus lane and 1 eastbound vehicle lane on the south side. The single, two-lane ART bus-lane results from the merging of the 2 dedicated westbound ART bus lanes (one coming from under and one heading down under) just west of the RR overpass. These two ART lanes merge into one just west of the underpass. This merged, two-way bus lane, apparently, allows sequential/two-way use of this single dedicated lane.

If there is an Art bus (westbound but waiting to turn right), though, in this two-way single lane, it is not clear, how a 60'-long, articulated ART bus coming from the ART station on 1st St., (on the south) and turning east on Central Ave can get into the two-way dedicated lane before reaching the underpass -- if there is a ART bus waiting at the 1st street signal light. Further, it is not clear how west-bound ART busses, in this single dedicated lane, can turn right onto 1st St. (then to Copper Ave.) across the two adjacent lanes with vehicles also waiting at the 1st St. light. It may be that there is a special multi-phase, right-turn light -- one for the busses and one for other vehicles wanting to turn right (or to turn left or continue west on Central). The resolution of this physical arrangement, signal-sequencing issue, is not clear.

Similarly, on the 1st St. -- Oak St. (was 3B) Alignment and Cross Sections drawing, on the east side of the RR underpass, the 60' Right-of-Way (R.O.W.), from 1st St. thru the underpass, transitions to an 80' R.O.W. at the Broadway Blvd. intersection. The single eastbound vehicle lane from just-past the RR underpass, transitions to one thru (or left-turn) lane, and one right-turn lane adjacent to a "widened" (but un-dimensioned) sidewalk. The two dedicated ART bus lanes located in the center are, themselves, shown to cross, alternately, (thru the intersection) into one single, dedicated, two-way, ART bus lane on the east side of Broadway Blvd. This R.O.W. also includes a single vehicle lane on the north side, heading west-bound, and thru the underpass to 1st St.

The issues of merging distance, sequencing of left-turns for vehicles crossing adjacent dedicated bus lanes (or vehicle lanes), and the timing of ART busses from the two-way ART lane on the

east to the double-lanes on the west, present both physical challenges and signal sequencing issues that are not easily resolved nor evident from the information presented. This lack of lane-continuity and the physical and signal sequencing issues also occur in a number of other intersections in the (revised) Project Plans.

Because these issues (perhaps errors or, at least, lack of clarity) often occur at the edge of drawing pages, they are often called "edge-of drawing = end of thinking" problems. Unfortunately, when contract drawings are being made, or when contract bids are solicited, they often can result in extended delays and escalating costs.

Section A, east of Broadway Blvd, also on the 1st St. – Oak St. drawing, is shown cutting thru the 400 & 401 Central Ave. buildings, just east of Arno St. On the south side of the EDO buildings and the Special Collections (old Main) Library, the parking space area as well as the existing widened portion of the north-side sidewalk is eliminated. Parking is shown on the south side only, adjacent to a "widened" (un-dimensioned) sidewalk. This widening, because it is an asymmetrical section, would result in the removal of the existing trees in the median in front of the Special Collections Library, to be replaced with an off-center, paved, "striped median". Further (and mysteriously), a 5', one-way bike lane also appears in this section -- on the south side only. This bike lane appears here, in Cross Section A and, again, two blocks east, in the Cross Section for "Walter Station", with "widened sidewalks" (dimensions not shown). Then the bikeway disappears.

Example 2

On the Oak St.--Buena Vista Dr. (was 4A) Alignment and Section aerial photo/drawing, the cross-section for Cedar Station shows mature trees in the 'widened' sidewalk area on the south, and in what is called, inaccurately, the 'existing' sidewalk on the north. This drawing, though, shows the elimination of the large Sycamores that are on the south side, with no evidence of space available within the new 110-115' R.O.W. for plantings.

Cross-Section B (between Sycamore and Maple streets) shows a 56.5' cartway (the space between the vertical curbs), with a single drive lane each way (east & west) and with one parking-bay area, north side only. The two 12' dedicated lanes for 'high-speed', 8'-wide ART buses, divided by a 1' vertical curb, would seem challenging at best or, perhaps, terrifying.

On the far right on this page, the University Blvd. intersection and the ART Station are shown in plan, but no cross section is shown. The issues identified in our Dec 2nd comments, have not been addressed. The substantial property-taking on the north side appears to accommodate, apparently, three west-bound lanes (through, right and left turn lanes), two dedicated bus lanes, the ART Station and, strangely, only one east-bound drive lane on the south. The substantial property taking to the north would be from 'Tight Grove', the iconic conifer tree-stand planted in 1905 and named for the third UNM President, W.G. Tight. It also is on the Historic Designation Registry. We do not believe that would be an easy or appropriate "taking".

Example 3

On the Buena Vista-Bryn Mawr Dr. (was 4B) Alignment and Section page, the Cornell Station cross-section shows a Right of Way of about 110'. The width is estimated because the sidewalk on the south side is 'widened', but no dimensions are given. Also, because the parking spaces on the south side would be eliminated, we expect that this would not be favored by adjacent businesses.

The extra 10' dimension on the north-side looks to be a property-taking from the landscaped areas in front of the UNM Bookstore and the Architecture and Planning buildings. The cross-section also names the (new) north-side sidewalk as 'existing', which is not accurate.

Example 4

On the Bryn Mawr Dr. – Adam St. (was 4C) page, the cross-section (Section A) drawing shows 'widened' (but unspecified) sidewalks, parking on both sides, two one-way driving lanes (east & west), two dedicated 13' ART bus lanes (without a vertical-curb divider). The problem is that this condition is not typical throughout. It appears to be applicable to the two-block area between Wellesley and Amherst Streets. The blocks impacted by Bryn Mawr and Solano Stations (the majority of the area), however, lose the parking spaces to the expanded space used by the lanes dedicated to serving the ART Stations.

Furthermore, for the entire length from Girard Blvd. to Washington St. Station, the existing mature trees in the median, apparently, are eliminated. There are small 'landscape' areas depicted near the ART Stations, but the actual spaces resulting are much smaller. Also, there is an issue regarding all of the single-drive-lanes, where they occur, such as in this entire Nob Hill segment. ABQ Ride has a number of bus routes that use Central Avenue for at least a portion of their route. When these buses stop to load passengers, and/or bicycles, all vehicles waiting behind would have to wait for the bus to load, or illegally attempt to drive into the dedicated lane and around the bus.

Example 5

On the Adam St.--Valencia St. (was 4D) and the Valencia--Louisiana Blvd. (was 5A) aerial photo drawings, from San Mateo Blvd. continuing east, in the areas where the ART Stations are located, parking spaces adjacent to the sidewalks are eliminated. Also, the 8'-landscape areas, which are shown as narrow strips in the center of the median, would probably only support forbes and low plants. Most mature trees, including existing ones, would not be viable and would not be safe in such locations for speeding ART buses.

SUMMARY

In summary, the brief assessment above is but a short list of the many errors, both of concept and of plan/section detail, that are incomplete or unresolved, even in the January 22, 2016, revision. Other issues not addressed here, such as the many long, single-lane, two-way dedicated ART lanes (for example from Cornell to Girard Blvd., about 1700') would present

scheduling/communicating/waiting challenges. This only adds to the number and level of complexities in this highly convoluted effort to shoehorn the concept of a center dedicated lane system onto Central Avenue. At the least, in the most critical areas, Central Avenue is simply not wide enough to accommodate it, without substantial collateral damage to many other functions of the Avenue. Although the modest sidewalk dimension requirements in Albuquerque's 'Complete Streets' Ordinance, may be addressed, other issues such as north-side property-takings, elimination of a large percentage of existing mature trees in the medians, the unbudgeted cost of underground utility replacement, and the lack of connectivity to either the existing bus routes, or a transition to a grid bus network, would indicate that the ART Project-design, even as revised on January 22, 2016, would be a very expensive and dysfunctional imposition on Central Avenue businesses, residents and foreseeable civic budgets and, potentially, result in a net reduction in area-wide bus ridership.

We believe that the alternative street designs and section-drawings provided to the Transit Dept. on December 2nd, and the detailed access information regarding Houston, Los Angeles and other cities' transition to grid-network bus systems, including the use of electric powered, articulated and single-unit buses, would be far less costly, less socially disruptive, and a more economically and ecologically sound basis on which to build Albuquerque's 21st Century Transit System.