RISE
SHINE
A Framework to Advance and Preserve the Corridor
Dear Esteemed Partners,

Every morning as the day dawns over Denver South, the promise of possibility emerges anew. We are the early risers who see first light as invigorating, rather than exhausting. We are leaders in government and industry, leaders in education, public and private.

Denver South is thriving due to a long history of collaboration and forward-thinking approaches to land use, policy, and emerging technology. The charge of this partnership is to keep it that way. Colorado has become one of the most attractive places in the country for businesses investing in a place to call home. At the intersection of today and tomorrow, there is no region—suburban, urban, or in between—that is better suited to secure the very best of these new investments than Denver South. We anticipate roughly 74,000 more jobs by 2035. However, with jobs come people and with people, traffic.

The question before us is how to manage the inevitable growth of the next 15 – 20 years while protecting the high quality of life residents presently enjoy and rightfully expect. The answer begins with this Framework to Advance and Preserve the Corridor.

This document encapsulates a candid reconciliation of current conditions and what we risk if we take no action. Meant to be both informative and predictive, this assessment provides Denver South and its partners with a solid framework for guiding future development toward smart growth objectives. This document will become the foundation for a public campaign profiling our district, our successes, and the strategic collaboration that benefits us all. This will afford residents, businesses, organizations, and investors valuable insight into who we are and how we will manage change in the coming decades.

CHANGE IS ON THE HORIZON. RISE AND SHINE, DENVER SOUTH.

Sincerely,

Tom Brook, CEO
Denver South
This document was undertaken in anticipation of continuing population growth throughout metro Denver. It intends to succinctly assess existing conditions, thoughtfully identify challenges, and present both visionary and practical approaches to addressing circumstances that could erode the quality of life in Denver South.

The beneficiaries of this information are many – government, property owners, developers, civil servants, investors, residents, and workforce. Truly realizing the full breadth and depth of possibility projected in this framework will also involve many. To be effective for everyone, there are options for everyone. New ideas and solutions will always be welcome.

While transit oriented development has been identified as an objective of smart growth strategies in general, this framework is obligated to think quite a bit more broadly. Almost all of Denver South is already substantially built, yet many open areas lack a continual human presence throughout the day. Thoughtfully inserting new uses – multifamily, entertainment, retail, recreation, civic, and greenspace – around existing office-dense developments will activate them and encourage new resident growth where we want it.

Not a direction, but a map; not a prescription, but a remedy – common values guiding good choices. This is not only a call to action, but, indeed, a toolkit. Let’s get to it.

In my 38 years of involvement with and observation of Denver South’s coordinated efforts with local governments, it’s clear to me that we have created an enviable quality of life that balances economic, civic, cultural, and recreational excellence. From the beginning, Denver South’s long-term vision has been nurtured by collaboration, which has created countless public/private partnerships and consistently removed private and jurisdictional boundaries to achieve the common good.”

Walter A. “Buz” Koelbel, President and CEO, Koelbel and Co.
OUR SHARED VALUES

Denver South is a collaboration of interests united around common values. Our shared values are the foundation of everything we do.

**Quality** – Aesthetically, we envision rich user experiences in safe, vibrant, communities filled with activities and mobility of all sorts. In materials, in design, in execution, we agree that choosing quality products, engaging leading professionals, and delivering quality are non-negotiable. Assuring lasting quality in every decision made is imperative in Denver South.

**Resilience** – Change is a constant we can’t escape. Thanks to generations of commitment to collaboration, in Denver South change is an asset. While we can’t dictate the future, we can leverage our strengths to monitor what is happening around us, analyze challenges and opportunities, and jointly make decisions for the greatest good.

**Mobility and Accessibility** – Change brings challenges, including traffic and congestion. We need to explore new mobility options while prioritizing freedom of movement, mode choice, accessibility, and practicality for the public, government, businesses, and visitors. Effective transportation solutions must encompass both micro and macro thinking—reaching beyond the obvious challenges surrounding I-25 and C-470, into deeper arterials and feeder streets, right to the doorsteps of residents.

**Collaboration** – Problem-solving begins with listening. Finding new ways of living and learning is what excites us. Our combined expertise is ideally suited to shape the future of Denver South, and our responsibilities begin and end with a commitment to collaboration. Together, there are no obstacles, only options.

**Data-Driven Determinations** – Denver South is distinguished as a leader in adopting emerging technology. Continuously monitoring transportation, utilities, facilities, and resident reactions provides opportunities for advanced analytics, informed decision-making, and better resource allocation. Sharing these insights with the public fosters engagement and trust.

Effective transportation solutions must encompass both micro and macro thinking—and reaching beyond the obvious challenges surrounding I-25 and C-470, into deeper arterials and feeder streets, right to the doorsteps of residents.
Stretching from Belleview Avenue to RidgeGate Parkway along I-25, Denver South is a live, work, play community and economic engine. The corridor boasts more than 130,000 jobs and the broader region some 250,000+ jobs in an impressive assemblage of globally recognized and industry-leading businesses, mid-size companies, and startups. Spread across eight zip codes, Denver South’s residential communities span single-family homes, multi-family condos and apartments, senior living centers, and acreage properties all enlivened by parks, recreation, worship, entertainment, retail, and cultural amenities.

The Denver South corridor is a segment of six larger government jurisdictions - City and County of Denver - City of Centennial - City of Greenwood Village - City of Lone Tree - Arapahoe County - Douglas County. This framework makes recommendations for the Denver South corridor, not the broader jurisdictions in their entirety.

Denver South Economic Development Partnership represents a State of Colorado-approved overlay district—Southeast Public Improvement Metro District (SPIMD)—that collects a small tax on commercial properties to support solutions to shared challenges like mobility, infrastructure, and economic development.

These financial resources are managed by a combination of the Transportation Management Association (TMA) and the Economic Development Partnership (EDP), which have collectively directed the development of this framework, hereafter referred to as the TMA/EDP.
WHAT’S IN OUR TOOLBOX:

Cross-Jurisdictional Work Groups
Building on the valuable experience of the TMA’s Technical Committee, cross-jurisdictional work groups on transportation and mobility, housing and affordability, environmental sustainability, and economic interests would be beneficial. Work groups may host expert speakers, visit sites, convene webinars, and moderate topic discussions.

Funding Coordination
Our expertise in identifying and securing state and national funding is enhanced by relationships with private investment, academic networks, and Colorado’s infrastructure partners. Integrating stakeholders galvanizes funding and relationships into tangible results. Let’s build on regional ITS and First/Last Mile initiatives like the Lone Tree Link.

TMA/EDP Investment Direction
TMA/EDP investments create critical competitive advantages for our region. A clear picture of the investment process benefits everyone. 21st Century challenges require data-driven determinations; understanding the analytics of a sound investment are essential to a shared vision of the future.

Cross-Sector Networks
Collaboration is classically Colorado. Through partnerships with jurisdictions, private investors and business leaders, academic, social, and research networks the TMA/EDP offers a unique conduit for cross-sector continuity. This partnership’s ability to tap into the full spectrum of regional resources, expertise, and investment potential is where we should shine brightest.

Regional Vision
Cohesive development requires common values organized thematically. Managing change and shaping public discourse around issues like density, induced demand, mobility silver bullets, and the cost of public space activation is no small order. This framework makes the foundation of a unified communications strategy. Beginning with our shared values, our intention is to dispel myths and misconceptions surrounding development, particularly where there is fear of losing cherished community identities and values. Think of this framework as a kit-of-parts whose contents are easily dissected, situationally implemented, and communicated via the TMA/EDP’s website, social media platforms and outreach to inspire participants, encourage investment, engage the public, and openly share truth.

Cohesive Promotional Platform
Rise and Shine, says it all. Denver South is for the go-getter who sees the morning light and is energized by possibility. Growth and related challenges are coming, but they won’t slow us down. Promoting the region’s many industries, high-profile global leaders, diversity, and prosperity to attract new investments begins here and becomes infectious. Activating public spaces, promoting local businesses and amenities, and fostering an eyes-on-us regional pride are all long-term positives of a strong brand plan.

A FRAMEWORK FOR SMART GROWTH

We proudly share this long-range study of Denver South and the challenges that will grow if change goes unmanaged. This framework proposes meaningful solutions based on thoughtful consideration of smart growth principles. This report means to inspire participants and their staffs, inform the public, and attract Denver South’s next generation of industry, leadership, and prosperity.

THE TMA/EDP HAS ENDEavored to be thorough, open-minded, and objective in reviewing current conditions incorporating insight from:

- South I-25 Urban Corridor Study
- Last Half Mile Study
- Regional Trail Connections Study
- North-South Regional Bicycle Corridors Study
- Stakeholder interviews and workshops
- Analysis of local government plans
- Denver South resident, business, and workforce surveys
- Executive outreach to more than 70 Denver South corporations

We must unite in guiding what happens in our communities with forethought and mutually beneficial solutions. This research compiles more than three decades of proactive civic leadership in Denver South. Elected officials, career civil servants, business leaders, non-profits, developers, investors, and residents have all uniquely collaborated to advance area interests, further and faster than anywhere else in metro Denver.

Elected officials, career civil servants, business leaders, developers, investors, and residents have all contributed to continuously advancing Denver South’s interests, further and faster than anywhere else in metro Denver.
Sustained success shouldn’t be taken for granted. The South I-25 Urban Corridor Study projects 74,000 new jobs in the Denver South corridor in the next 15 years. Remaining globally competitive, attracting the best and brightest, and addressing growth head-on requires bold thinking. Reinforcing the values that bind us together and anticipating change as it approaches is fundamental to maintaining the quality of life our residents and business partners expect.

**CHANGE IS COMING. THIS FRAMEWORK ANTICIPATES:**

- People from rural areas will continue to migrate to urbanized areas, creating economic concentrations that impact suburban corridors like Denver South.
- New approaches to land use and transportation require greater densities in select areas.
- Preserving the suburban and rural qualities that make Colorado special can be accomplished if we prioritize them while accommodating growth.
- Through planning and policy, growth can be guided to achieve the broadest benefit including focusing on areas near transit, along commercial arterials, and in business parks.
- Limiting impacts on suburban and rural lifestyles by creating walkable, transit-oriented districts to decrease additional traffic congestion.

We must also acknowledge that growth doesn’t recognize jurisdictional boundaries. The pressures of growth on our transportation systems and general mobility, housing availability and affordability, education, public safety, and healthcare infrastructures affect each of our communities regardless of how any individual place responds. Collaboration among cross-jurisdictional solutions through cross-sector partnerships will remain the backbone of our activities and the reason the TMA and EDP were formed.

“Great people never assume they have reached the top. We can always do better and don’t want to become stagnant in our own success.”

“Quality of life in Douglas County represents a balance of business and resident interests. We want a mix of high-quality employment opportunities and multi-family, single-family, and acreage properties supported by recreation, open space, retail and restaurants.”

Roger Partridge, Commissioner, Douglas County
The complexities of metropolitan growth and impact along suburban transit corridors are not unique to Denver South. What is unique is our ability to respond to these challenges with foresight and intent. This framework is predicated on respecting the principles of private property rights and local control.

Our recommendations to the Board of Directors begin with the following core components.

**PLACE-MAKING**
- Capitalize on investments in transit, commercial arterials
- Close the pedestrian gap; ensure safe crossings at major arterials
- Prioritize first/last mile solutions
- Complete bike/ped links; create new links where beneficial
- Target desired station areas and arterials in multi-modal efforts
- Create walkable districts within some key commercial corridors
- Improve office park integration into communities

**POLICY CONSIDERATIONS**
- Incentivize strategic redevelopment
- Activate public spaces
- Prioritize choice in mobility
- Connect first/last miles

**APPLIED TECHNOLOGY**
- Planning and design
- Connectivity
- Mobility
- Public empowerment
- Government efficiency and resilience
- Buildings and infrastructure

"When the first hospital in Douglas County, Sky Ridge Medical Center, opened in Lone Tree, it became a catalyst for subsequent healthcare-related development. We now have a concentration of healthcare and access to better doctors, more specialists, more choice, and less travel time."

Pamela Kelly, CSM, CMD
Sr. General Manager, Park Meadows
DENVER SOUTH TODAY

Across America metropolitan areas are the economic engines driving national prosperity. Among early 21st Century success stories, Denver is an exemplar. Combine metro Denver’s diverse and growing economy with choice in housing, abundant year-long recreation, exceptional weather, majestic mountains and a healthy family-friendly lifestyle and it’s no surprise that the Front Range is one of the most desirable places in the country for businesses. As such, significant growth throughout metro Denver is expected by 2035 including in Denver South.

Presently, Denver South is thriving. As 2020 approaches regional unemployment remains as low as ever and slightly lower than Colorado in general. Our economy is among the most diverse and fastest growing in the U.S. Residents are affluent, averaging 30 percent higher annual household incomes than metro Denver. Educated too; 72 percent of residents over the age of 25 have at least an associate degree and 24 percent hold a graduate degree.

Denver South residents are also quite positive about their current quality of life and economic outlook.

The SED 2017 Economic Development Analysis Report commissioned by the TMA/EDP finds that residents have:

- **HEALTHY LIFESTYLES, 95.6%**
- **NIETY-TWO PERCENT STRONG SOCIAL LIVES**
- **80.8% Cultural Enrichment**
- **94.1% ENJOY A WIDE RANGE OF ACTIVITIES**

These positive impressions are confirmed by partner jurisdictions. In Centennial, for example, 9 of 10 residents rated the city’s quality of life as excellent or good, and 4 of 5 were likely to remain and would recommend it. Similarly, a third-party assessment through the Robert Wood Johnson Foundation’s 2018 County Health Rankings found that Douglas County was No. 1 for overall health outcomes for the third consecutive year. Our schools, both public and private, are renowned and highly competitive academically, athletically, and in future-preparedness.

THE CHALLENGES AHEAD

Growth is on the horizon. Forecasts indicate 74,000 new jobs in the Denver South Corridor by 2035. Likewise, resident populations in all six jurisdictions will increase significantly.

Despite the lineage of success in Denver South, continuing to balance regional prosperity with cherished lifestyle qualities is fundamentally the core purpose of this partnership and this framework. As growth approaches, we must not become complacent.

BOARD VOICES

“Quality is a common value. High-quality construction that stands the test of time and safe, vibrant streets will allow Denver South to continue to be the place where businesses locate and people want to live and raise a family. There are no short cuts. If we maintain a corridor where investors want to be, Denver South will thrive.”

Nancy Sharpe, Commissioner, Arapahoe County
Presently, 87.9 percent of Denver South’s workforce commutes in a single-occupancy vehicle, while only 5.9 percent take light rail. Commuting on foot (0.4 percent) or by bicycle (0.2 percent) are nearly non-existent.

**CONSEQUENCES UNCHECKED**

We face a combination of forces related to rapid job and population growth that, if left unaddressed, will logically exacerbate:

- Affordable housing deficiencies
- Multi-modal transit deficiencies
- Traffic conditions infringing on resident quality of life
- Sprawl

**SMART GROWTH**

To this point, addressing growth has relied on increasing capacity of physical infrastructure, like roads and bridges, and fixed transit investment like light rail.

We can't build our way out of traffic.

We must leverage this framework to guide growth to where we need it to be. We also need to help the built environment become smarter by further integrating technology, analyzing data, engaging the public, and basing future investments on data-driven determinations rather than institutionalized preferences.

**BOARD VOICES**

“Proactive and thoughtful planning are paramount to manage future growth. This framework demonstrates how Denver South is working collaboratively with the region’s public and private partners to ensure the character and quality of new development compliments and enhances our existing communities.”

Jackie Millet, Mayor, City of Lone Tree
AN UNCHECKED PLAN PLACES DEVELOPMENT AND TRAFFIC PRESSURE ON SURROUNDING SUBURBAN AREAS

THE FRAMEWORK ENCOURAGES SMART GROWTH WITHIN THE CORRIDOR, MINIMIZING IMPACT ON SUBURBAN AND RURAL AREAS

SPRAWL

SMART GROWTH

BOARD VOICES

“To be able to live, work, and fully play in a five-mile radius is what people seem to really want, and it’s a lot to ponder. To give them that, we must create diverse options, attract many types of industry, fund exceptional schools, and provide ready access to green space and recreation.”

Stephanie Piko, Mayor, City of Centennial
The TMA/EDP recommends that once again, we look a little further ahead and see our intended tomorrow, today.

We propose moving toward a hybrid suburban/urban development model to preserve the lifestyle qualities residents expect, while simultaneously creating more close-in, multi-use environments that don’t depend on automobiles.

Like the Piazzas of Rome, Metro Villages would be characterized by vibrant epicenters that hold an attraction of their own, yet feel quintessentially connected to a greater whole, understood as place.

We envision Metro Villages: a series of connected, vibrant, pedestrian-friendly districts, unified by classically Colorado nuances and open, animated gathering places.

The Metro Village would be a dynamic live, work, play walking district activated by social, cultural, and recreational amenities surrounded by diverse housing typologies, densities, and affordability.

Attracting new investment increases opportunities to strategically insert schools, museums, libraries, places of worship and care. The ability to predict the need for these institutions based on data increases opportunities to leverage public-private partnerships to mutual advantage.

The principles of this framework should be encouraged where feasible and practical. Further, where possible, incentives and allowances may encourage adoption of these principles on future developments.

By applying this framework, we can assure that far more future residents will live in walking distance to a light rail station.

Increasing populations near light rail stations will add value to adjacent parcels. Concentrating residential densities close-in, new residential tapers down as development approaches surrounding single-family neighborhoods.

Station areas will become the live, work, play destination environments that the incredible investment already made in the light rail not only merits, but require to become a fully leveraged resource.

This framework is simple, implementable, achievable, predictable, and not much different from the office-centric mixed-use development Denver South is accustomed to.
CREATING PLACE

Realizing a shared vision requires thoughtful, deliberate action; planned, before taken. We see an inexhaustible range of possible Metro Village participants in housing, office, culture, civic, recreational, retail, hospitality, healthcare, and beyond; each village an experience of its own.

Collectively encouraging the types of assets desired for specific areas is well-reasoned urban planning. Establishing a framework for what is desired and how to encourage it is thoughtful. Incorporating these shared values into our daily responsibilities is deliberate.

While this framework strives to unify objectives, there are far too many variables to precisely predict and control what will happen, nor is that the intent.

While respecting the rights of private property, the authority of government, and the importance of private investment, we recommend setting course and sticking to it.

PLACE-BASED INTERVENTIONS

• Capitalize on investments in transit, commercial arterials
• Close the pedestrian gap; ensure safe crossings at major arterials
• Prioritize First/Last Mile solutions
• Complete bike/ped links, create new links where beneficially feasible
• Target desired station areas and arterials in multi-modal efforts
• Create walkable districts within some key commercial corridors
• Improve office park integration into communities
• Signage, wayfinding, and branding link nodes to establish place

Transforming the built environment requires invested partnerships. By establishing clear objectives for development, this framework establishes a filter for future planning decisions, outreach, and inspiration.

NEW DEVELOPMENT SHOULD EMBRACE SMART GROWTH PRINCIPLES WITH THE FOLLOWING OBJECTIVES THROUGHOUT DENVER SOUTH.

• Break down automobile superblocks and provide multiple paths through station areas*
• Bridge the I-25 barrier by using Intelligent Transportation Systems (ITS) systems like signal synchronization and signage, and potentially adding pedestrian and roadway bridges
• Leverage infill developments to create new public places, pedestrian pathways, and more diversity of use and purpose
• Build on use of landscaping to create pleasing places
• Radiate future density from transit stations
• Continue transit station reinvestments
• Increase uses for more residential, retail, entertainment – cultural and civic
• Create pedestrian districts, where appropriate
• Implement ITS interventions, including bus rapid transit with signal prioritization, and increase bicycle, pedestrian and micro-mobility connectivity

INSERTION STRATEGIES

Continuing to connect areas on the east and west sides of I-25 is important. Encouraging diverse infill beyond office buildings and connecting the fringes through open, pedestrian-centric spaces will positively contribute to the Metro Village experience.

Libraries, cultural amenities, community centers, health clinics, and workforce development programs can all be inserted where most needed and tied together along an already interconnected spine.

DENVER SOUTH ECONOMIC DEVELOPMENT

“As a City, we are always looking for new ways of doing things and appreciate the opportunity to learn from counterparts in the region. Policy initiatives require a lot of finesse. Language that clarifies intent, establishes a sense of place, and can be cost-effectively implemented without feeling forced is a balance of many perspectives.”

Stephanie Piko, Mayor, City of Centennial

PUBLIC-PRIVATE PARTNERSHIPS

Public-private partnerships should be encouraged and facilitated by the TMA/EDP. The introduction of new core community services to villages will benefit from collaborative, multi-interest, public-private investment strategies that can expedite the delivery of these services.

Denver South has already benefited significantly from civic land donations and collaborative investing. Applying these principles to vertical assets is a logical extension of past successes in infrastructure.

Access to pleasing outdoor amenities should be a vital part of future developments. Colorado’s 300+ days of sunshine are a powerful draw and a cherished part of local lifestyles and values. Other regions have incentivized using existing and new open spaces as new corridors of intra-community connectivity to great effect.

Establishing spaces for people to congregate, relax, and linger is central to making memories that are intertwined with the place where they happen. Using linked open spaces as a conduit for pedestrian and personal mobility enhances local access and decreases roadway congestion.

POLICY RECOMMENDATIONS

If we accept that population growth is inevitable, planning for change is imperative. By developing policy initiatives that steer future growth through this framework, this partnership can harness the power of change to Denver South’s benefit rather than detriment.

Starting with a set of shared objectives, this framework provides a content for consensus across-jurisdictional policies that embrace smart growth principles. More of a guideline than a code, this framework encourages each jurisdiction to select which smart growth strategies to implement in their communities.

BOARD VOICES

*“A planning term related to large “blocks” running the length from arterial to arterial, based upon the distance and speed scales for the automobile while discounting other modes of transportation. Superblocks were popular during the early and mid-20th century auto-centric suburban development, arising from modernist ideas in architecture and urban planning. Planning in this era was based upon the distance and speed scales for the automobile and discounted the pedestrian and cyclist modes, as obsolete transportation vehicles.”
DENVER SOUTH ECONOMIC DEVELOPMENT

Policy goals include:

• Create an approach to collaborative, cross-jurisdictional policymaking
• Develop open-ended general intergovernmental agreements (IGAs) to enhance collaboration on regional projects and challenges
• Align procurement, purchasing, and legal policies across jurisdictions where possible to codify the competitive advantage of regional collaboration
• Create flexible policy frameworks that enable jurisdictions to nimbly respond to change
• Ensure TMA/EDP and SPMD policies and processes encourage and support these regional collaborations

Policy levers may include:

• Floor area ratio bonuses
• Unit or density bonuses
• Expedited permitting
• Tax credits
• Utilization or development of public land to meet redevelopment goals
• Fee waivers
• Loans, and access to preferential financing

These tools have all been deployed effectively in many communities across the country. Creating common incentives among all participants will eliminate intra-jurisdictional policy advantages.

Activate the Public Realm

While development sees leasable square footage, everyday people see the spaces in-between. Activating village plazas and parks with programming cultivates engagement and animates new experiences.

Streamlining event permitting for community and organizational access to these spaces enhances a sense of place and presence. Many in Denver South have expressed an interest in community fairs, markets, and holiday celebrations of all sorts. Building lasting memories begins with special places.

Prioritize choice of mobility

Denver South has developed in the age of the ubiquitous automobile. Single-occupant vehicles dominate mobility. To achieve broader choice in mobility this framework prioritizes other modes of travel. Adopting approaches that facilitate non-automobile travel serves to better interconnect our communities. That, in turn, would help Denver South to remain one of the most attractive regions for business investment in the country.

Today’s mobility landscape is changing rapidly, and the movement of both people and goods remains a dynamic industry. Trends like mobility as a service and shared, autonomous, connected, and electric vehicles are all presently changing the ways we move. Safe communities must support safe streets. Accommodating multi-modal choices that enable pedestrians and cyclists of all ages to feel comfortable will increase the use of commercial spaces in the public realm.

We recommend that Denver South partners embrace guidelines that support Vision Zero goals of eliminating traffic fatalities and severe injuries while increasing safe, healthy, equitable mobility for all.

Mobility policy recommendations include:

• Measuring policy impacts with metrics that prove quality of experience. Examples include: pedestrian and cycling counts, appropriate modal options available and utilized, safety, etc.
• Rethinking parking requirements: consider maximums instead of minimums.
• Prioritizing the pedestrian. Roads around the public realm should provide safe and inspiring environments for people, not just cars.
• Addressing the primary issue we are trying to “fix” with pedestrian bridges and grade-separated bike lanes: creating safe streets for all users. Make that the filter for mobility decisions.
• Continuing exploring public-private partnerships.
• Right-sized vehicles for shared transit trips.
• Connecting existing and new residential to local businesses, retail, restaurants, and breweries via bike and pedestrian trails.
• Improving efficiency of ride-sharing services by utilizing code enforcement to require central drop-off and pick-up at high-usage locations.

Prioritize first/last mile solutions

Modes that prioritize the beginning and end of commuter travel are essential to solving the traffic congestion challenge. New technologies are creating opportunities to remove barriers to non-vehicular travel, and Denver South has already begun to establish itself as an adopter of new mobility options.

Denver South has introduced shared-bike systems and piloted various shuttles and ride-sharing services to promote new mobility options.

Building a consistent, coherent regional service supports the vision of cross-jurisdictional connectivity and identity throughout Denver South.

Incentivize less congestion

Though challenging, shifting demand is a way current roadway capacity can be better used. Policy tools and incentive programs can be implemented to encourage off-peak commuting. Increasing affordable housing opportunities within walking distance to light rail stations increases workforce populations without necessarily adding to peak burdens.

The Lone Tree Link on Demand is one First/Last Mile solution that has shown great promise in Denver South. Logically, we need to harness the knowledge gained from successful projects, continue to build on successes, and scale advantages throughout the corridor to common benefit.
New and emerging technologies allow us to monitor the built environment and derive valuable insights into how and when infrastructure is being used. This allows us to better manage and predict operations while protecting and enhancing the quality of life. Creating a more seamless and enjoyable experience for residents, workers, and visitors throughout Denver South begins with understanding infrastructure usage and making data-driven determinations going forward.

Denver South is a leader in Colorado and aspires to be a national center of excellence for applied technology. Our rich ecosystem of technology partners and capacity for developing public-private partnerships can be leveraged corridor-wide to maximize benefits to residents and businesses. Technology-based interventions will include data privacy and cybersecurity assurances from the outset. Communications should be integrated to clearly define benefits to Denver South’s quality of life.

**Applied Technology**

**Data-Driven Planning and Modeling**

Integrate data visualizations with 3-D parametric models to facilitate citizen participation in planning. Project impacts on the environment, transportation, and revenue to better evaluate alternatives prior to construction.

**MACHINE LEARNING PLANNING MODELS**

Machines receiving data use algorithms to find outliers and analyze user behavior to draw conclusions, which trigger a response. Either by alert or automatically adjusting system settings, machine learning improves the performance of connected systems.

**Electronic Citizen Participation**

Digital citizen government interaction means 24/7 access to voting, online community meetings, and other engagements.

**Connectivity**

**“Piggybacked” Fiber Optic Networks**

Internet service providers use fiber optic lines, or right-of-way provided by governments or utility companies, to install both public and private access simultaneously, limiting disruptions. This allows smaller players into the market; establishes baseline services for all connected; eliminates the need for multiple line installations; and presents cost savings for all.

**Small Cells and Distributed Antenna Systems**

Cells and distributed antenna systems are installed in large gathering areas like rail stations, public plazas, and office campuses to increase wireless access. Placed strategically, these will improve coverage in both densely populated- and underserved- areas while presenting revenue opportunities.

**Spectrum Sharing Technologies**

Policy changes can permit technical innovation for sharing bands of spectrum for everyday use that are otherwise prohibited. Autonomous vehicle collision avoidance technology should also reside in the shared spectrum. Automatic data collection for all connected systems allows irregularities to be quickly identified.
MOBILITY AS A SERVICE
Existing mobility includes shared cars, bikes, electric scooters, taxis, rental cars, buses, and rail systems. If enhanced by unified data collection, mobility services could be tracked and promoted across Denver South to decrease the need for car ownership, create independent fleets, and make better use of existing capabilities.

DYNAMIC MASS TRANSIT
Mass transit systems can incorporate smartphone applications to measure commuter demand and calculate the most efficient route in real-time. This will reduce operations expenses and move more people faster.

OPEN PAYMENT SYSTEM
Incorporating a single, unified payment system in Denver South for both public and private mobility services bundles all transit options as one, and can integrate trip planning and data tracking.

CROWD-SOURCED INFORMATION
Smartphones can provide real-time reporting on traffic, road conditions, Wi-Fi and cellular coverage, and other shared resources to a database in the cloud. Extending beyond machine-recognized inputs, this allows more widespread data collection without the need for additional sensors.

CIVIC DATA WAREHOUSES
Through a central hub of data displays from multiple sources, understood data provides a quantifiable, easy to digest resource for policymakers to use in reports and presentations. Support and space to analyze data objectively in real-time and historical comparison accompanied by cross-dataset querying.

DATA-DRIVEN DECISION MAKING
Leveraging technology like ITS and origin and destination data to understand and improve resource efficiency and program outcomes.

GOVERNMENT EFFICIENCY AND RESILIENCE

E-GOVERNMENT SERVICE DELIVERY
Automating government services and making them compatible with smartphone and web access to provide digitized processes like permitting, inspections, and voter registration will increase public convenience and government efficiency.

DATA-DRIVEN VENDOR MANAGEMENT
Small governments can partner with private vendors providing public services and use data gathering and analytics to measure performance.

DEMAND MANAGEMENT
If usage exceeds availability, incentives such as reduced pricing for waiting or alternative options can be delivered digitally to reduce immediate demand.

DISTRIBUTED POWER
Governments can navigate the effects of natural and manmade disasters by leveraging distributed solar, wind, and geothermal power. In combination with advanced energy storage and microgrid distribution, distributed power can increase continuity and satisfaction.

FLEET MANAGEMENT
Municipal fleet management efficiencies can be created by employing Internet of Things fleet management solutions and applications to communicate fleet locations to city staff and residents. This improves resource allocation and resident satisfaction.

E-FLEETS AND EV INFRASTRUCTURE
Transitioning city and county government fleets to electric vehicles will create a shared electric vehicles charging infrastructure for government, and potentially paid public use. This is environmentally and economically advantageous in the long term. Increasing EV infrastructure also considers new public revenue generation opportunities.
REALIZING THE VISION

For decades, Denver South has enjoyed the benefits of steady economic vitality and growth. This framework presents our shared values and vision for Denver South’s evolution on a 20-year horizon.

To be effective, the framework and the public facing campaign and collateral promoting it should be useful in attracting new business investments. Campaign elements should also inform the public of our collective intent to meet change head-on as a region, with well-reasoned ambitions and a clear vision. The framework will help us to continue to build the high-quality, safe, beautiful, independent communities we all value so much.

Activating the public realm, adding choice in mobility, and prioritizing transit-area housing are not revolutionary ideas. Most citizens are unlikely to object once they experience them.

This document provides Denver South stakeholders with options, resources, and collective council on how to address the challenges we face while positively influencing future development.

Some of the recommendations can be taken individually, some require collective action; all are intended to serve the greater good.

NEXT STEPS

PROMOTE THE FRAMEWORK

This document and collateral should be proudly shared with policymakers, investors, partner organizations and the public. Members of this partnership should incorporate these values into daily responsibilities.

BRANDING DENVER SOUTH

Denver South should embark on a brand development effort to establish the region as a cohesive destination.

PROMOTION PLAN

Once a unified brand is established, a communications and promotions plan should be activated to strengthen national, regional, and local recognition. Local events, activating public spaces, and projecting the shared values and vision for Denver South will let residents know we are making good on our promises.

POLICY CHANGES

As deemed appropriate by each of our local government partners, implementation of appropriate policy initiatives will help make the objectives and intentions of this framework a reality. Using these principles to inform procurement, purchasing, and legal policies and the activities of underlying intergovernmental agreements will facilitate rapid deployment of regional projects when opportunities arise.

ENCOURAGE DEVELOPMENT

Throughout Denver South, future development should be encouraged and, when appropriate, incentivized to embrace the principles of this plan early on in the design process.

CLARIFY RESOURCE ALLOCATION

Establish and communicate new TMA/EDP investment objectives, criteria and evaluation processes for innovation and technology-based projects.

OPEN DATA

Develop and support development of an open data portal/platform for tracking and sharing information. Inspire a culture of shared, open communication in Denver South by promoting policy advancements and development successes that derive from this framework.

LEVERAGE OPPORTUNITY

Continue to tap private-sector networks and academic partners for support and interest in testing new technologies across the region.

BOARD VOICES

“The connections we have with government, transit providers, other investors, and organizations through this partnership are all essential. Complete communities require balanced lifestyles; a thoughtful framework for smart growth is a great start.”

Keith Simon, Executive Vice President, Coventry Development Corporation

BUILDINGS AND INFRASTRUCTURE

BUILDING MANAGEMENT SYSTEMS

Sensors track energy consumption and building performance data in a cloud-based database. Real-time dashboard displays help building managers and occupants make data-informed decisions for cost savings, while becoming the foundation for predictive-analytics and control of buildings.

SMART THERMOSTATS

Web-connected thermostats are adjustable from any location. They can learn behaviors and set schedules automatically for comfort and energy savings.

WATER CONSERVATION

Water consumption and infrastructure performance data is tracked in the cloud and presented in real-time for utility managers and building operators. Ranging from industrial Internet of Things applications to smart irrigation systems, smart metering, and rainwater collection technologies, water is precious and increasing efficiency equates to cost savings.

INFRASTRUCUTURE ANALYTICS

By connecting the equipment powering infrastructure to the internet, substantial efficiencies can be added to existing systems that automatically adjust operations to optimize performance. Improves resource monitoring, calculates alternatives, and bridges the gap between vendors and customers to reach optimal performance levels.

COMPUTER VISION ANALYTICS

Cameras capture data and transmit it to computers using algorithms to sense traffic, pedestrian counts, speed, etc., and display it on a web-based dashboard. Useful for tracking pedestrians, especially in high-traffic areas, analytics assess foot traffic for program use and marketing decisions that lead to automated congestion pricing, parking enforcement, tolling, etc.

WEB CONNECTED THERMOSTATS

Web-connected thermostats are adjustable from any location. They can learn behaviors and set schedules automatically for comfort and energy savings.

INSTRUMENTED PUBLIC WAY INFRASTRUCTURE

On-street infrastructure like trash cans, lighting, and parking spaces collect real-time data via sensors to efficiently manage demand and environmental conditions.

REALIZATION BOARD VOICES

“...complete communities require balanced lifestyles; a thoughtful framework for smart growth is a great start.”

Keith Simon, Executive Vice President, Coventry Development Corporation
APPENDICES & RESOURCES
To access the following materials related to the future of the Denver South corridor, visit us online at www.denver-south.com/framework
- South I-25 Urban Corridor Study
- Framework Outreach, Process, Participants
- Last Half Mile Study, Regional Trail Connections Study and North-South Regional Bicycle Corridors Study
- QREM Survey
- Health Topography plus an introductory explanation of how to read it
- Place-based interventions graphics
- From Stage Trail to Light Rail - The Dynamic Denver South Corridor