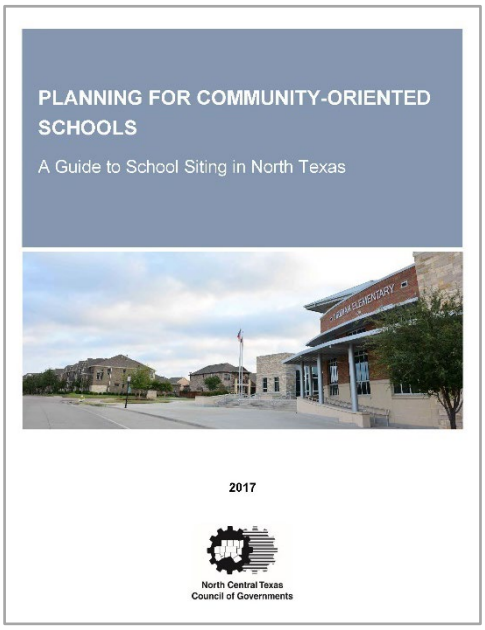
IV. NEW SCHOOL SITING

Issues and Trends



As cities and towns of all sizes continue to grow across the region as new roads and homes are built, new schools will be needed to support the student population. These schools must be built with the future in mind to be a community asset for years to come. The focus of this section is SRTS considerations, but for a more comprehensive approach on school siting in the region, please see NCTCOG's 2017 publication titled*: Planning for Community-Oriented Schools: A Guide to School Siting in North Texas*.[12] Regular communication and collaboration between schools, independent school districts, local governments, and other relevant stakeholders is especially important as new developments are being built and ISDs will need to meet the needs of the new student populations in their districts. Future planning helps to ensure that the best possible location for students and the ISD is chosen, and not a lot picked strictly out of necessity and a lack of time to prepare.

Regional Growth Trends and Planning Considerations

NCTCOG releases annual population estimate reports and identifies the fastest growing cities by percentage as well as the cities with the most overall growth per year. The 2022 Population Estimates Publication was released on May 25, 2022[19] and reported the statistics shown in Figure 22 and Figure 23.

[19] This report contained the most up to date data at the time the analysis was conducted, but to access the most recent data and reports, please visit https://popestimates.nctcog.org/.

Figure 22: Cities in NCTCOG Region with Most Growth (2021-2022)

City Name	County Name	Population Added (2021-2022)
Fort Worth	Tarrant	22,170
Lewisville	Denton	19,000
Dallas	Dallas	16,870
McKinney	Collin	6,820
Frisco	Collin	6,530
Celina	Collin/Denton	6,090
Denton	Denton	4,870
Plano	Collin	3,450
Little Elm	Denton	3,440
Princeton	Collin	3,350

Figure 23: Fastest Growing Cities in NCTCOG Region by Percent (2021-2022)

City Name	County Name	Percent Change (2021-2022)
Caddo Mills	Hunt	64.7%
Aubrey	Denton	34.6%
Haslet	Tarrant	34.5%
Celina	Collin/Denton	31.8%
New Fairview	Wise	31.2%
Northlake	Denton	25.2%
Godley	Johnson	23%
Lavon	Collin	22.5%
Royse City	Rockwall	19.7%
Princeton	Collin	18.2%

A map of these cities is available in Appendix 3. For the most recent report, as well as charts of growth estimates for all cities with a population of 1,000 or more, county population estimates, and detailed city estimates for multi-county cities, and population estimates by planning area, see the NCTCOG Population Estimates Website.[20]

Smaller, growing areas in the region may have funding limitations due to funds tied to geographic locations such as the Census-designated Urbanized Area and/or the MPA. Thoroughfare plans in growing cities and counties should consider school travel as well as approvals granted through the platting process for new subdivisions that will affect travel conditions. Municipalities should conduct frequent review of city and county Thoroughfare

[20] https://popestimates.nctcog.org/

Plans and Capital Improvement Plans/Bond Programs for roadway expansion and funding opportunities.

School Siting Constraints

Independent school districts and schools have many priorities and competing interests to balance and only a limited amount of funding to do so. Schools and ISDs must balance their spending on new school construction and land acquisition along with other district priorities. Planning well in advance of new school construction will help ISDs to properly vet locations and find the most suitable ones for new schools. Many of the concepts and ideas explained here are discussed in greater detail in Planning for Community-Oriented Schools: A Guide to School Siting in North Texas.[12]

Land availability and cost are two of the most important factors for schools and ISDs to consider when buying for expansion. ISDs should also consider the available infrastructure of a potential school site, including existing transportation infrastructure, with consideration given to roadway connectivity, bicycle and pedestrian safety, and roadway capacity. Appropriate transportation infrastructure at a potential site will avoid costly retrofitting and safety countermeasures in the future. Another important factor for schools to consider is the available water and sewer infrastructure, as improper or non-existent infrastructure would be extremely costly to remedy during the construction of the school.

School Planning Challenges and Opportunities

Planning processes for new schools present unique challenges for ISDs and municipalities alike. These different entities operate almost entirely independent of one another and often with different boundaries, yet the decisions of one often impact the other. Examples of these planning decisions include school placement decisions for ISDs, and housing developments and zoning changes for municipalities. Government and ISD planning processes differ, as they exist to serve different purposes.

To ensure that a potential new school site can be properly served by the transportation infrastructure around it and create a safe environment for students to walk and bike to and from school, early collaboration with local planning stakeholders is essential. A successful new school site will depend on regular communication between ISDs and local planning stakeholders. An ongoing institutionalized process for communication could include information sharing about new

development projects, population projections, and data sharing for potential school sites. The *Planning for Community-Oriented Schools: A Guide to School Siting in North Texas*[12] guidebook includes a detailed roadmap for collaboration between ISDs and local planning stakeholders at the city and county level. The City of Frisco has a long history of collaborating with ISDs to site schools using a small campus model that emphasizes smaller, neighborhood-oriented schools. Information about Frisco's program can be found in Appendix 4.

Independent school districts and planning stakeholders should learn from previous school siting errors that have created challenges for existing schools to foster safe walking and biking environments for their students. As outlined in the New School Siting section (page IV-1), poor school siting decisions may lead to costly countermeasures to create safer, more community-oriented schools in the future.

School Travel Considerations for New Construction

Due to the high cost of land, and limited availability of suitable sized lots, it is tempting and more common over recent years for ISDs to place new schools in "fringe locations" along the edges of communities or along established major roadways. Schools in these locations are difficult and dangerous for students to walk and bike to. This is due to the potential of far travel distances combined with the possibility of students needing to navigate across higher-volume roadways than a centrally located neighborhood school. There are many examples of growing cities that have found success in prioritizing a central school location in new neighborhood developments, such as Walsh Elementary in Tarrant County's Walsh Ranch neighborhood, which is discussed along with other examples of strategic school planning in *Planning for Community-Oriented Schools: A Guide to School Siting in North Texas*[12] in the Strategies for Siting Community-Oriented Schools section.

Setting Up for Success

When designing school sites, it is important to work with the city and transportation stakeholders at the city and county, and within TxDOT, to create the safest environment possible for students and their families to walk and bike to the school. Planners should proactively plan their safety countermeasures and identify potential issues that may arise before an incident occurs. Instead of reactively fixing problems as they arise, school zones

should be planned for maximum safety for pedestrians and bicyclists. ISDs and planners may find it useful to find the anticipated student routes from nearby neighborhoods and residential areas to the school building, as well as student routes from the edge of the school property to the front door of the school building.

Schools should be built with arrival and dismissal traffic in mind, planning the driveway orientation, plans to handle expected traffic volumes, and siting driveways on lower-stress streets whenever possible. Lower-stress streets are generally neighborhood streets with lower speed limits and are more friendly for pedestrian and bicyclist traffic. They also have lower traffic volumes to reduce overall delays in the vehicle network caused by an increase in traffic during arrival and dismissal periods. Vehicular traffic can further be managed and potentially diluted if a school plans multiple points of access. Additional entry points for students traveling by foot or on a bicycle can potentially decrease the overall travel distance for students. Further information on creating safer school sites for walking and biking can be found in *Planning for Community-Oriented Schools: A Guide to School Siting in North Texas.*[12]

Neighborhood Connectivity to School

Maximizing connectivity to schools from residential neighborhoods is a key factor to encouraging more students to walk and bike to school, minimizing car congestion at school sites, and increasing roadway safety around school sites (Figure 24). Roadway connectivity is defined as the density of links in a roadway system, which creates more direct routes and options between an origin point and a destination.

Figure 24: Connected Street Grids vs. Disconnected Street Grids

Connectivity makes routes shorter, and destinations become more available to pedestrians and cyclists. In many cases, students live within a short distance to school "as the crow flies," but the actual distance to walk is longer and not feasible, forcing the child to be driven to school.

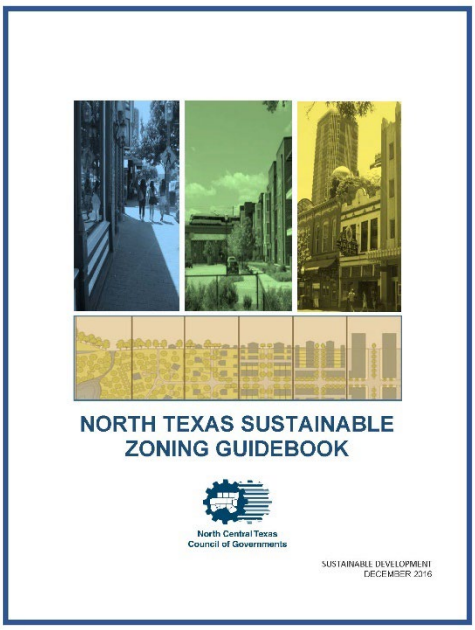
If a family does elect to have their children attempt to walk or bike to school, a circuitous route may require travel along or across a higher-volume roadway to reach the school entrance. This transition to a higher-stress roadway environment may create traffic safety issues related to vehicle speed and safe crossing opportunities. If a new school is sited near existing residential areas but there is not a direct roadway route available to the school, ISDs should consider engaging with local municipalities or county governments to create pedestrian paths and routes to circumvent the long roadway routes.

If students and their families have a safe, direct route option, parents are more likely to allow their children to walk to school. If more families and students walk to school, the roadway environment near the school is often safer and less congested because there are fewer drivers in the same space.

Subdivision Planning for Safe Routes to School

Many modern subdivisions are designed with long, winding roads, low intersection density, and many dead-end roads or cul-de-sacs. New subdivision street networks should be built with considerations for active transportation included. There are many tools and policies that local governments can adopt to further regulate and encourage roadway and neighborhood construction that is conducive to greater connectivity. Such tools may include connectivity indexes, which measure how well connected internally a proposed road network is using a ratio of roadway "segments" and "nodes" (intersections). In the region, the City of Fort Worth has established subdivision design standards

that require new networks to have a connectivity index of 1.4 or higher.[21] Local governments may also consider eliminating or reducing circumstances where cul-de-sacs are allowable and create bicycle and pedestrian connectivity at existing cul-de-sacs to reduce circuitous routes for active transportation modes. More information and strategies are available on the NCTCOG Sustainable Zoning and Development Code[22] web page under "Sustainable Street Design."



Relevant Statistics to Consider

When evaluating a potential site to construct a new school, ISDs should consider many relevant statistics to mitigate traffic congestion and make walking and biking as easy as possible for the school's future students. ISDs should take great care and make the greatest effort possible to site schools centrally inside neighborhoods and anticipated attendance zones. The more centrally a school is located, the greater potential there is for students to live close enough to use active transportation. A centrally located school has a better chance of maintaining accessibility of walking and bicycling to school, even if an attendance boundary were to shift.

Data points that ISDs should consider while evaluating a potential school site include:

- **Percentage of projected students located within:**
  - Quarter mile,
  - Half mile,
  - Three quarter mile, and
  - A mile from the school.
- **Main walking routes from nearby residential areas.**
  - Estimate the travel time of students by walking the nearby roads themselves.
- **The presence of any nearby highways and/or major arterials that may be safety hazards to students and their families walking or biking to school.**
  - Long crossing distances can be hazardous to all pedestrians but especially to small children and senior citizens who may need additional time to cross.

[21] City of Fort Worth Subdivision Ordinance, Page 26: https://www.fortworthtexas.gov/files/assets/public/development-services/documents/subdivision-ordinance.pdf
[22] NCTCOG Sustainable Zoning and Development Code Web page: https://www.nctcog.org/trans/plan/land-use/sustainable-zoning-and-development-code

- **Crash records on the streets surrounding the potential school site to identify any existing issues.**
    - If the school site were to be chosen, roadway safety issues identified by the crash analysis should be remedied before the school is open for students.

The *Global Designing Cities Initiative's Designing Streets for Kids Guide*[23] is an excellent resource for municipalities and ISDs to reference when identifying potential school sites and for the planning and construction of active transportation infrastructure for school students and their caretakers.

Land Use-Specific School Siting and Challenges

School sites located within different land use contexts have unique circumstances and may have different challenges and opportunities for maximizing the available land and connecting the school with the greater community. There are many different factors at play when ISDs consider where to place a new school site, including but not limited to: available lots and their potential costs up front and during construction, existing roadway and environmental infrastructure, where school students live currently, and where new homes may be built in the future.

There are many great tools that ISDs and local municipalities can take advantage of to evaluate potential school lots, including *Planning for Community-Oriented Schools: A Guide to School Siting in North Texas*,[12] which includes a review of Texas State laws, best practices from across the country, and interviews with ISDs, cities, and consultants in North Texas. The Guidebook provides steps for improving city — school district coordination, and strategies for building community-oriented schools. The EPA *Smart School Siting Tool*[24] is another valuable resource, which includes the Assessment and Planning Workbook to help communities understand how well the school siting process is coordinated with land use and other community planning processes, as well as the Site Comparison Workbook, which helps a community evaluate and compare between candidate sites for a proposed school (new or renovated).

[23] https://globaldesigningcities.org/publication/designing-streets-for-kids/
[24] https://www.epa.gov/smartgrowth/smart-school-siting-tool

Urban School-Specific Siting Challenges and Strategies

Urban areas are often characterized by a lack of open space for ISDs to consider when siting a new school. Many times, lot sizes that are available may not be as large as a more suburban or rural area which may change the way that ISDs must consider construction and building planning. If existing, ISDs may want to consider eliminating school acreage minimums to respond to a potential lack of available sites within the acreage minimum that would best serve the new school's future community.

There are many strategies to consider when siting a new school on a smaller lot. One such strategy is to build multi-level schools to shrink the overall building footprint and maximize lot space for other school needs. Well-sited urban schools within the community they serve can additionally benefit from a stronger connectivity to dense neighborhoods. Better connections could allow schools to reduce parent pick up queueing spaces if more students are able to walk to and from school independently or be picked up and dropped off by a parent or guardian on foot. Another strategy ISDs could consider is shared-use facilities through joint-use agreements. This reduces the number of amenities required to fit within a potential lot by sharing parking lots, gymnasiums, libraries, recreational fields, or other school needs with the local municipality or similar group. Though this strategy may not be feasible for all potential schools, shared-use facilities and joint-use agreements can strengthen community relationships and maximize limited resources for the ISD and local municipality. For more information about joint-use agreements, including examples of agreements in the region and information on creating a new agreements, visit the Joint Use Web page[25] on the NCTCOG website.

Rural and Growing Area-Specific School Siting Challenges and Strategies

ISDs in rural or growing areas have the unique challenge of having to anticipate growth and respond appropriately to fit the needs of their populations. The Dallas-Fort Worth metroplex has experienced rapid growth, and projections have shown that this trend will continue as more people move to North Texas. Similar to urban school siting, rural ISDs should consider placing schools where they will be the most connected to the communities they serve. However, these communities may be in the planning stages when ISDs are looking to add a new school. ISDs should communicate with local municipalities

[25] https://www.nctcog.org/trans/plan/bikeped/saferoutestoschool/joint-use-agreements

as early as possible in the planning process to collaborate on the best possible placement for a new school. One possible strategy would be to site a new school within a new developing neighborhood. ISDs, local municipalities, and developers should work together to place the school in a location that will be safe and accessible for students to walk and bike. Local municipalities and ISDs can also consider working together to create a master plan of school facilities to anchor new walkable neighborhoods. Making the school the centerpiece of a new community ensures that new residents will be well-connected to the school community and minimizes the need for families to drive students to school.

Image courtesy of Google Streetview

Conclusions

North Texas has many rapidly developing cities that will need to plan strategically and for the future as new residents move to the region and their cities. ISDs will need to be able to support the new students with appropriate school construction to best meet the needs of students while juggling other priorities. New school expansions should be planned well in advance of their need and done in collaboration with the local municipalities who will understand the current interest and planned development of the area. NCTCOG's *Planning for Community-Oriented Schools: A Guide to School Siting in North Texas*[12] guidebook is a great first step for future planning well-sited schools that will anchor and support new communities.

Though there may be fiscal benefits to choosing a less expensive parcel of land for a new school in a less ideal location for walking and bicycling, ISDs must strongly weigh the ability for students to safely travel to the school as well as the ability to minimize traffic congestion for vehicle drop offs and pick-ups, or the ability to eliminate vehicle trips with walking or cycling to school. Well-connected neighborhoods result in more direct routes for walking and biking.

Planners and developers must also consider the specific land use contexts surrounding a school's new site and design accordingly.

Next Steps

1. Developers and planners: review the *Planning for Community-Oriented Schools: A Guide to School Siting in North Texas*[12] guidebook for additional information on best school siting practices and use the EPA *Smart School Siting Tool*[23] when comparing candidate school sites.
2. NCTCOG will continue to offer technical assistance and foster collaboration among member cities, counties, ISDs, and other applicable stakeholders for school siting and transportation safety.