Section 2

Transportation, Land-Use and Land Development Connection

Transportation, Land-Use and Land Development Connection

The Town of Davie is located in central Broward County and occupies approximately 35 square miles. The Town is generally bounded by I-595 to the north, SR 7 to the east, Griffin Road to the south and I-75 to the west. Its population of approximately 85,500 (Reference 1) lives mainly in a semi-rural portion of the Town, which is located in the central and western areas. Several areas around the Town have gated residential communities, especially along Nob Hill Road and Hiatus Road. The eastern portion of the Town has higher population density. The South Florida Education Center (SFEC), which includes several institutions like Nova Southeastern University, Broward Community College, Florida Atlantic University, Florida International University, University of Florida, etc., is located on the eastern portion of the Town. It is generally bounded by Davie Road to the east, SW 39th Street to the south, University Drive to the west and Nova Drive to the north. In addition, the Davie Community Redevelopment Agency (CRA) is generally bounded by SW 62nd Avenue to the east, Orange Drive to the south, SW 67th Avenue to the west and SW 42nd Street to the north. A large portion of the commercial and retail developments are located on the south side of SR 84 at major intersections, along University Drive and Davie Road, while a majority of the industrial developments are located between the Florida Turnpike and SR 7, and south of SR 84 to Griffin Road.

As development pressure focuses on Davie, the Town has come to recognize the challenges and limitations of expanding the transportation system to accommodate increasing travel demand. In the past, the primary approach to accommodate this demand has been to widen existing roadways or intersections to reduce delays for vehicular traffic. However, this approach of addressing the traffic congestion issue is generally thought to be unsustainable as it is understood that the region cannot build its way out of congestion. Instead, a more balanced and thought through process is needed to address the issue. This approach includes implementing various transportation system management and planning strategies, which are discussed in the following sections.

The roadway network is considered the backbone of a community. They are the infrastructure upon which a livable community is built upon. While the primary function of the roadway is to provide access to various parcels as well as provide mobility to road users, first and foremost, they are public spaces for the public to enjoy and utilize. They should be viewed as public spaces for the community to come together. As the Town moves forward with implementing the Local Road Master Plan, it is recommended that the Town implement following general principal to ensure that the local roadways are enjoyed by all residents:

- Incorporate appropriate transportation system management strategies
- Providing appropriate level of roadway connectivity based on the surrounding zoning district, while reducing potential for cut-through traffic
- Assigning appropriate functional classification and design of the roadway

Figure 1 shows a map of Town of Davie and highlights the major transportation facilities.

Figure 1 Study Area Map

TRANSPORTATION SYSTEM MANAGEMENT STRATEGIES

Acquiring public rights-of-way to widen roadways and intersections in order to address traffic congestion are limited due to adjacent land uses, urban form, and other physical features constraining the engineering, financial, and social feasibility. The Town may address future congestion on major roadways in the Town by increasing roadway connectivity, while ensuring that cut-through traffic is minimized. In addition, the Town could implement policies to manage the demand for travel, i.e. encouraging neighborhood retail and commercial developments, providing incentives for carpool and providing option of staggered office hours by major employers, etc. These policy decisions are essential to ensure that the Town has the tools to manage the transportation impact of growth, as well as accommodating regional growth, which may not be under Town's control.

Transportation System Management (TSM) is an alternate strategy that offers alternative approaches to address the issue of congestion. The concept behind TSM is described by several key factors that are inherent to the urban environment and contribute to congestion.

- Congestion is more than the sum of the vehicles on a street. There are direct ties to personal behavior, institutional attitudes, and land use development patterns.
- There is a direct and fundamental land use/transportation relationship that generates changes in travel demand. This relationship can result in congested, unsafe, and environmentally damaging conditions, if not properly planned.
- Solutions to congestion can come from changes to the transportation system (increasing connectivity/capacity), modifications to travel behavior and providing mode choices (managing travel demand). From a land use perspective solutions to congestion can be developed based on where we locate uses with respect to one another and how we provide access to the transportation system.

Transportation system management strategies are broad ranging and must be evaluated for their effectiveness, applicability, and appropriateness before being implemented. Table 1 provides a brief summary of some of the TSM strategies that are available to the Town of Davie.

These and other strategies should be evaluated each time the Town is considering action to address the need to improve the transportation system, particularly in response to traffic congestion. In addition, some of the strategies, like the land use/policy strategy outlined below, may be implemented as part of the land-development review process.

CONNECTIVITY AND ACCESS ANALYSIS

In addition to the regional transportation facilities surrounding the Town, like I-595, I-75, Florida Turnpike, etc., there are several major roadways that divide the community and provide links to the regional facilities. The majority of the roadways provide links in the north-south direction, whereas east-west connections are limited. The 2005 Evaluation and Appraisal Report (EAR) of the Comprehensive Plan have outlined lack of east-west connectivity as one of the main transportation issue in Davie.

Table 1 Transportation System Management Strategies

Strategy: Tool	Effect	Cost
Roadway Infrastructure Improvement Strategies:		
Traffic Signal Improvements	8 to 25 % travel time reduction	Low
Intersection Improvements	Highly variable capacity increase	Variable; low to medium cost
Restriping for Additional Lanes	35 to 50 % capacity increase	Variable; low to medium cost
Turn Prohibitions	35 to 50 % crash rate reduction	Low
One-way Streets	Improved flow, safety, & capacity	Variable; low to moderate cost
Reversible Traffic Lanes where feasible	30 to 50 % directional capacity increase	Variable; higher operating costs
Traffic Control Device Improvements	Improved flow & safety	Low
Access Management	Improved flow, safety, & capacity	Highly variable; low to high
Parking Management	Increased HOV rates, reduced demand	Low; increased user costs
Goods Movement Management	Improved flow, safety, & capacity	Variable; typically low
Maintenance & Reconstruction	5 to 30 % capacity restoration	Low, when kept up
Transit/ Pedestrian/Bicycle/Communications Strategies:		
Dedicated Transit Corridors	Highest person-capacity system	Highest cost to construct
Surface Bus Service	10 to 25% person-capacity increase	Usually requires public subsidy
Paratransit Service	Mobility for the disadvantaged	High per trip cost; public subsidy required
HOV Lanes	Significant person-capacity increase	Moderate cost; enforcement needed
Pedestrian Facilities	More efficient use of facilities	Low
Bicycle Facilities	More efficient use of facilities	Low
Telecommunication Facilities	Significant demand reduction potential	Low public sector cost
Land Use/Policy Strategies:		
Mixed Use Development/High Density Policies	Reduced auto demand/dependency	Low; public acceptance required
Transit-oriented Policies	Increased transit effectiveness	Low; agency cooperation required
Parking Policies	Balanced access, more multi-modal	Low; economic impact
Growth Management	Sustainable, balanced, efficient growth	Low
Trip Reduction Ordinances	Reduced reliance on auto	Low
Site Design Criteria	Increased efficiency, balanced access	Low

Sources: Oregon City, Transportation System Plan

Roadway connectivity is important for following reasons:

- *Emergency Evacuation:* In times of emergency, relying on one access roadway to an area puts many lives in danger. If the roadway is blocked due to fallen trees or broken down vehicles or other obstacles, the area becomes isolated and would require airlifting of all impacted residents at enormous cost to the community. Hence, a secondary, functional and efficient roadway is vital during times of emergency.
- *Reduce Traffic Congestion:* Relying on one access roadway requires all traffic to be funneled through a few bottle-neck areas in the roadway network, e.g. congested roadways and intersections. Providing a secondary access roadway distributes the traffic demand throughout the roadway network and reduces the need to widen roadways.
- *Enhances Community Living:* Better roadway connectivity leads to less pressure to widen roads, potentially reduces vehicle speed and increases pedestrian activity. These features enhance community living and encourage a physically active lifestyle.

Existing Access and Mobility Review

All the principal and minor arterials in the Town are either under state or county jurisdiction. The arterials are the main thoroughfares in the Town and carry majority of the traffic. However, the Town has limited control over the functionality and accessibility of the arterials. The arterial's primary function is to provide regional mobility with limited access to surrounding land-uses. In addition, due to the low-density land uses surrounding the arterials, the arterials acts as a physical barrier in the community and limits the integration of various neighborhoods.

A majority of the arterials provide regional mobility in the north-south direction, for example, Flamingo Road, Hiatus Road, Nob Hill Road, S Pine Island Road, University Drive, Davie Road and SR 7. Only Griffin Road and Stirling Road provide regional mobility in the east-west direction. Hence, there is a definite lack of east-west mobility, especially through the mid-section of the Town. However, due to existing residential developments and the anticipated impact, a new and direct (straight) east-west roadway may not be a feasible to construct. Instead, improved localized east-west connectivity will provide the needed accessibility while reducing cut-through traffic and reliance on the major arterials for local access.

The type of connectivity and access needs vary in different areas based on the traffic demand generated by the land-uses and intensity of the uses. For a rural residential neighborhood, adequate connectivity may be defined as having a primary and secondary access to major transportation facilities in the area. For commercial land-uses, the need for connectivity and access is greater. Several access alternatives are desired for greater economic vitality of the land-use.

Proposed Roadway Connectivity Requirement

The Town's Engineering Design Standard Manual (Reference 2) provides limited guidance to improve roadway connectivity. In Section 1.2.3, it states that *Cul-de-sacs shall not exceed 600 feet in length when measured from centerline of the branching intersection*. However, there are several existing developments where this standard is violated. Furthermore, Chapter 12 of the Town's Code of

Ordinance, Land Development Code, provides design criteria for local streets by development type (Reference 3).

In order to ensure that adequate roadway connectivity is provided as the Town develops in the future, the Town may establish a minimum street spacing standard based on the functional classification of the intersecting roadways. These spacing standards may be incorporated into the Town's Land Development Code to ensure compliance from private land-developers. Table 2 shows the proposed minimum roadway intersection spacing standards.

Table 2 Minimum Roadway Intersection Spacing Standards

Functional Classification	Arterial	Major Collector	Minor Collector	Local Street
Arterial	2 miles	1 mile	¼ mile	1,000 feet
Major Collector	1 mile	½ mile	1,500 feet	800 feet
Minor Collector	¼ mile	1,500 feet	1,000 feet	600 feet
Local Street	1,000 feet	800 feet	600 feet	400 feet

In different areas in the Town, the need for connectivity may be different. The Town may show flexibility in implementing the above street standard based on the zoning of the area. For example, in high density commercial and residential areas, the Town may consider providing Local Street to Local Street connections (at 400 feet spacing) so that there is high accessibility in the area. This encourages pedestrian activities, reduces vehicular speed, and provides ample access to small commercial/retail businesses. Similarly, in low density residential neighborhoods and industrial areas, the Town may consider providing major collector to major collector connectivity (at ½ mile street spacing). Hence, as different areas of the Town develop, the Town may require developers to build roadways to meet the minimum roadway intersection spacing standards shown in Table 2.

Cut-Through Traffic

One of the main concerns that residents have with increased connectivity is the potential of increased cut-through traffic. This concern is valid as the major roadways in the Town become more congested. However, it is important to define what constitutes cut-through traffic. Technically, a cut-through traffic occurs when traffic on a regional facility uses local roadways to access another regional facility. However, when traffic on a regional facility uses one local roadway to access another local roadway, it is not considered cut-through traffic. It simply provides additional access to neighborhood and the vehicle-miles-travelled. Hence, not all roadway connections directly promote cut-through traffic. Where there is a potential of creating genuine cut-through traffic, the Local Road Master Plan recommends implementation of strict traffic calming measures to discourage regional traffic from using local streets.

In summary, to address the cut-through concern, a two pronged approach was considered when identifying roadway connections and improvements:

- Identify an existing roadway that has the potential to increase capacity and form a natural thoroughfare that provides regional mobility. This reduces the tendency for cut-through neighborhoods; e.g. SW 14th Street
- Instead of providing one major east-west thoroughfare, look for opportunities to make intermittent connections such that local residents do not have to travel through a bottleneck area to access their property. Cut-through traffic can be discouraged by the use of traffic calming measures.

PROPOSED FUNCTIONAL CLASSIFICATION

A roadway's *functional classification* describes its role in the transportation system. The function and role of the roadway can be described in terms of the character of service the roadway is intended to provide. In general, the functional classification of a roadway is based on the varying degree of its two primary functions: 1) providing regional mobility; and 2) promoting local accessibility. The tools that are commonly used to govern the classification are roadway width, posted/design speed, right-of-way dedications, access spacing requirements, types of pedestrian and bicycle facilities provided, among other standards.

Florida Department of Transportation (FDOT) classifies its highways based on the Florida Intrastate Highway System (FIHS) as indicated in the FDOT Systems Planning Office (Reference 4). FDOT also provides functional classification for major roadways within a city. The roadways are primarily classified as arterials, collectors, and local roadways. Local jurisdictions typically establish the functional classification of roadways using this hierarchy.

An appropriate functional classification of a roadway, its amenities, with supporting surrounding land-use and its design determine the livability of the roadway. It has the ability to enhance the public space and the economic vitality of the area. Hence, appropriate functional classification of a roadway is essential element of the Local Road Master Plan.

The current functional classification of the Town's roadway and the corresponding engineering design standard are inconsistent in several ways. Technical Memorandum 3 outlines the inconsistencies in detail. The proposed functional classification map is anticipated to provide a consistent functional classification map, cross-section and roadway design standards.

In addition, the proposed functional classification map is anticipated to fulfill the following goals of the Comprehensive Plan for the Town of Davie.

Goal 1 of the Transportation Element: *To develop and maintain an overall transportation system which will provide for the transportation needs of all sectors of the community in a safe, efficient, cost effective and aesthetically pleasing manner.*

Goal 3 of the Transportation Element: *The Town will actively promote the provision of a safe, convenient and efficient transportation system for motorized and non-motorized modes of travel.*

Goal 5 of the Transportation Element: *Encourage a transportation system which minimizes environmental impacts, conserves energy, and conserves the Town's lifestyle in addition to moving traffic safely and efficiently.*

Figure 2 shows the proposed functional classification map. The classification is based on providing adequate mobility and accessibility for the surrounding land-uses and the anticipated function of the roadway. The proposed functional classification is described below. Table 3 provides the roadway design standard for the roadways. *Any future development with site frontage on Town roadways is recommended to be required to build at least the site frontage to meet the functional classification standard outlined in this report.*

Local Rural Roadway

This roadway provides access to adjacent properties in the low density residential neighborhoods. It provides the lowest mobility and highest accessibility to the area. The average daily traffic on the roadway is generally less than 600 vehicles. At this low volume, bicycles are accommodated on the roadway. The posted speed on the roadway is not more than 30 mph. It is a two-lane roadway cross-section with a parallel off-road parking. These roads typically are controlled by stop-signs when they intersect with collectors and arterial streets. Figure 3shows the cross-section of the roadway.

Local Urban Roadway

Local urban roadways are similar to local rural roadway except that they accommodate slightly higher daily traffic volumes –around 1,000 vehicles per day, a 25 mph posted speed and have 50-foot rights-of-way. They also provide access to adjacent properties and operate at low speeds. Figure 3 shows the cross-section of the roadway.

Minor Collector

These roadways serve as collector streets within residential neighborhoods with a posted speed of 35 mph. They collect traffic from and distribute traffic to local streets within the neighborhoods. Their primary function is to provide access and local circulation. They are usually longer than local streets. Traffic calming measures may be implemented on these roadways to control vehicular speed and volume and to ensure livability and safety. These roadways may provide direct access to the properties. Sidewalks are generally required on the roadway and bike lanes are provided. Figure 4 shows the cross-section of the roadway.

Major Collector (3, 4 and 5-Lane)

These roadways connect principal traffic generators. They carry local traffic between neighborhoods and community and regional facilities within the Town and the posted speed is usually 40 mph. They serve as parallel routes to arterials and distribute traffic from arterials to minor collectors and local streets. Sidewalks and bike lanes are required on these roadways. Figures 4 and 5 show the cross-sections of the roadway.

Arterial (6-Lane)

These roadways carry both local and regional traffic to destinations outside the Town with a posted speed of 45 mph or higher. They connect the collectors and local streets to freeways. They provide access to other Cities in the area as well as between communities within the Town. They provide limited access to adjacent land uses but their primary function is mobility for major traffic movements. Access control through median and/or driveway channelization may be present. Traffic volumes and vehicular speeds are typically moderate to high. These roadways typically provide transit service. Sidewalks and bike lanes are required. Figure 6 shows the cross-section of the roadway.

Figure 2 Proposed Functional Classification Map

Figure 3 Typical Roadway Cross-section – 1/4

Figure 4 Typical Roadway Cross-section – 2/4

Figure 5 Typical Roadway Cross-section – 3/4

Figure 6 Typical Roadway Cross-section – 4/4

Table 3 Proposed Roadway Design standard

	Arterials	Major Collector – 5 Lane	Major Collector – 4 Lane	Major Collector – 3 Lane	Minor Collector	Local Urban	Local Rural
Typical ADT (Average Daily Traffic)	>7,500	5,500-7,500	4,000-6,000	2,500-4,500	1,200-2,500	500-1,000	150-600
Design Speed -Minimum ① -Recommended	40 55	35 45	30 45	30 40	30 35	25 30	25 30
Lane Width -Minimum ① -Recommended	- 11-12 ft.	10 ft. 12 ft.	- 10-12 ft.	10 ft. 12 ft.	10 ft. 12 ft.	10 ft. 12 ft.	10 ft. 12 ft.
Bicycle Lane Width -	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.	②	②
Pavement Width	94 ft. ③	72 ft. ③	73 ft. ③	48 ft. ③	34 ft. ③	24 ft.③	24 ft.③
Recommended Minimum Access Spacing ④	500 ft.	300 ft.	300 ft.	150 ft.	125 ft.	100 ft.	100 ft.
Surface Type	2" A.C.	2" A.C.	2" A.C.	2" A.C.	2" A.C.	1.5"A.C.	2"A.C.
Base Depth (Limerock)	8"	8"	8"	8"	8"	8"	8"
Sub Grade	12"	12"	12"	12"	12"	12"	12"
Minimum ROW Width	110 ft.	100 ft.	85 ft.	80 ft.	60 ft.	50 ft.	40 ft.
Applicable Design Standards and Specifications	⑤	⑤	⑤	⑤	⑤	⑤	⑤

① Design for Recommended Standard unless approved by the Town Engineer
② Bikes are recommended on shared roadway with ADT less than 3,000 vehicles
③ Pavement with depends on design lane
④ Lowering spacing may be allowed when supported by a traffic study and approved by the Town Engineer, or when no other public road access is possible
⑤ For all design, 2007 Town's Engineering Design Standards Manual, Broward County Highway Construction and Engineering Division Minimum Standards Manual, State of Florida Department of Transportation Design Standards Manual 2007, latest AASHTO and latest MUTCD should be followed.

RIGHT-OF-WAY DEDICATION/VACATION

In the Town of Davie, right-of-way dedication and/or vacation for any future roadway should be based on the roadway network presented in the approved Local Road Master Plan (Figure 18). Where specific projects are not listed, any future roadway alignment may be developed based on roadway spacing presented in Table 2. The right-of-way needed for the roadway may be based on the typical cross-sections presented in this study. The goal of any future roadway alignment should be:

- Improve accessibility of the area and reduce reliance on a single roadway for access;
- Provide east-west and pedestrian connectivity to activity centers; and
- Reduce emergency response time to the area from major roadway facilities.

TRAFFIC CALMING AND SAFETY MITIGATIONS

Several roadways in the Town have experienced unsafe vehicular speeds. This includes several roadways in the Oakhill neighborhood, such as SW 148th Avenue and SW 154th Avenue. Similarly, there may be several other roadways that need to be evaluated to identify the need to install traffic calming measures. The three main goals of implementing a traffic calming measure are:

- Change the behavior of the users,
- Reduce traffic speeds and volumes, and
- Increase safety for pedestrians and non-motorized transportation.

The Town of Davie has established a speed table policy and procedure (Reference 5). One of the main concerns with the existing traffic calming policy is that the Town seems to limit itself to installing speed tables only, while there are other, traffic calming measures that may be more effective for a given situation. In addition, two of the three criteria to justify installing a speed table were found not to address the need to reduce high speeds and cut-through traffic.

In order to assist the Town in properly justifying the need to install traffic calming measures, the following three steps are recommended. These take into consideration both the speed and volume information to qualify a roadway to install a traffic calming measure.

Step 1: Establish speed thresholds:

Table 4 Proposed Speed Threshold

Difference between 85th-prentile measured speed and posted speed limit	Points
Less than 4.6 mph	0.5
4.6 to 7.5 mph	1.0
7.6 to 10.5 mph	1.5
10.6 to 13.5 mph	2.0
13.6 to 16.5 mph	2.5
More than 16.5 mph	3.0

Step 2: Establish volume thresholds:

Table 5 Proposed Volume Threshold

24-Hour Tube Count	Points
500 - 1,100 vehicles	0.5
1,101 - 1,700 vehicles	1.0
1,701 - 2,300 vehicles	1.5
More than 2,300 vehicles	2.0

Step 3: If a roadway has a point total greater than 2.5, it will qualify for a traffic calming measure.

The Town may need to make some procedural changes to make the policy more efficient during implementation. For example, define the "affected properties" as those within half-a-mile radius of the location of the proposed traffic calming measure; or reduce the percent of households that need to agree from 70% to a lower number. Similarly, the Town may seek to broaden the types of traffic calming measures from only installing speed tables to installing other viable measure that may be a better engineering solution for the location.

Traffic Calming Measures

There are many traffic calming measures that can be installed to address various issues. All of the measures should be evaluated to ensure that an appropriate measure is installed and that potential negative impacts of the measure are minimized. *It is recommended that the Town first consider less intrusive measures like road striping before more intrusive measures like speed tables/humps are considered.* Traffic calming measures should be evaluated using following criteria:

- Volume reduction
- Speed reduction
- Noise impact
- Emergency and Service access, and
- Cost effectiveness

Some of the common traffic calming measures are:

- Road striping
- Speed humps/cushions
- Traffic circles
- Chokers/Bump-outs
- Intersection channelization
- Short medians
- Chicanes
- Modern roundabouts

Modern Roundabouts

This section provides basic information on the design and operation of modern roundabouts. As the Local Road Master Plan recommends installation of modern roundabouts, the information is provided to ensure that appropriate standards and dimensions are used when constructing them.

Modern roundabouts are a form of intersection design that provides safe and efficient flow of traffic within a certain range of traffic volumes. Numerous research studies in the U.S. and abroad have shown that the operation of roundabouts is highly dependent on its geometric design and the characteristics of the traffic volumes that are served. Detailed information on the safety, operations, and design of roundabout is provided in *Roundabouts: An Informational Guide,* published by the Federal Highway Administration (FHWA) (Reference 6). This document stipulates that before the details of the geometry are defined, three fundamental elements must be determined in the preliminary design stage:

1. The optimal roundabout size;
2. The optimal position; and
3. The optimal alignment and arrangement of approach legs.

The document also highlights following critical design principals for roundabouts:

- Speed Profiles
- Design Speed
- Vehicle Paths
- Speed-Curve Relationship
- Speed Consistency

Other design considerations like design vehicle and non-motorized design users, among others, are also discussed in detail in the document. A volume-to-capacity (v/c) ratio of 0.85 is recommended as the operational standard of a roundabout. Exception to the v/c ratio standard is recommended when long-term analysis is conducted. Figure 7 shows key features and dimensions of modern roundabout.

Proposed Roundabout Standard

In an effort to ensure that proper engineering standards are used when constructing roundabouts in and around the Town, following design guidelines are recommended to be followed:

1. *Roundabouts: An Informational Guide* published by FHWA
2. *A Policy on Geometric Design of Highways and Streets* (Green Book), published by AASHTO (Reference 7)
3. *Manual of Uniform Traffic Control Devices (MUTCD)*, published by FHWA (Reference 8)

Table 6 shows the recommended inscribed circle diameter ranges that is provided in Exhibit 6-19 of the *Roundabouts: An Informational Guide.*

Table 6 Recommended Inscribed Circle Diameter Ranges from Exhibit 6-19 of the *Roundabouts: An Informational Guide*

Site Category	Typical Design Vehicle	Inscribed Circle Diameter Range *
Mini-Roundabout	Single-Unit Truck	45 – 80 feet
Urban Compact	Single-Unit Truck/Bus	80 – 100 feet
Urban Single Lane	WB-50	100 – 130 feet
Urban Double Lane	WB-50	150 – 180 feet
Rural Single Lane	WB-67	115 – 130 feet
Rural Double Lane	WB-67	180 – 200 feet

* Assumes 90 degree angles between entries and no more than four legs.

Intersections of roadway facility types should consider all forms on intersection to ensure safe operating environment. It is recommended that a safety and operational analysis be conducted at all proposed/planned roundabouts before a final design is approved.

Figure 7 Key Modern Roundabout Features and Dimensions