### 2011-04 Mossy Oaks Road & Springwoods Village Parkway

**APPLICANT:** Walter P. Moore and Associates

**KEY MAP:** 291 H, M, R, 292 E, F, J **JURISDICTION:** Harris County **LAMBERT:** 5171, 5271 **DISTRICT/PRECINCT:** Pcnt. 4

#### PROPOSAL:

1. Realign Mossy Oaks Road between proposed Holzwarth Road and IH 45.

2. Add Springwoods Village Parkway as a major thoroughfare between IH 45 and Spring Stuebner Road

#### **APPLICANTS JUSTIFICATION & HISTORY:**

The subject area was first included on the Major Thoroughfare and Freeway Plan (MTFP) in 1966. Spring Stuebner and proposed FM 2920/Rayford Road are the east-west thoroughfares. Proposed Holzwarth/Sawmill and Gosling Road are the north-south thoroughfares west of IH 45. In 1972, the proposed extension of FM 2920 was deleted west of Gosling and proposed Shaw Road was terminated into Rayford Road extension to the north. In 1980, the proposed extension of FM 2920 was extended west of Gosling along Mossy Oaks Road south of Spring Creek to IH 45. In 1998, the Mossy Oaks Road alignment between Gosling and IH 45 was realigned and labeled as Rayford Road on the MTFP map. In 2007, the Planning Commission denied a request to delete Mossy Oaks between Gosling and Holzwarth Road. However, Mossy Oaks was reclassified as a major collector (70' ROW) and realigned to be moved outside of the flood plain.

The applicant on behalf of Springwoods Reality Company and its developer CDC Houston, Inc. are requesting to realign major thoroughfare Mossy Oaks and add Springwoods Village Parkway through their subject property. The proposed Springwoods Village development will be a new master planned community in northern Harris County south of Spring Creek and west of IH 45. The proposed development plan includes the construction of a one mile long segment of east-west Mossy Oaks Road by 2012. A portion of Springwoods Village Parkway would be constructed in 2011 and the remainder in 2013.

The proposed amendments would maintain the east-west mobility provided by Mossy Oaks Road and enhance connectivity between Spring Stuebner, IH 45 and Hardy Toll Road with the proposed Springwoods Village Parkway. The proposed Mossy Oaks Road alignment provides access to the new communities Town Center and healthcare district. The development also allows for the proposed extension of north—south major thoroughfare Holzwarth Road to Sawmill Road across Spring Creek. Access to the Grand Parkway from the proposed development will enhance mobility in the overall area.

The applicant has conducted a traffic study with 2025 as the horizon year for the complete development of the proposed Springwoods Village community. The model results indicate that intersections within the community will function with a Level of Service C. The applicant indicates that they have coordinated with Harris County and the state to ensure benefits to regional mobility with the proposed improvements. The community is also being designed to promote and encourage local pedestrian travel with trails and interconnected walkways. Accommodations for bicycles on and off street are also to be provided. The development plans for a future major multimodal transit center to allow for potential access to transit in the region.



#### STAFF RECOMMENDATION:

- 1. Realign Mossy Oaks Road between proposed Mossy Oaks Subdivision and IH 45.
- 2. Add Springwoods Village Parkway as a major thoroughfare between IH 45 and Spring Stuebner Road

#### **STAFF JUSTIFICATION:**

The proposed Springwoods Village Development is master planned community with residential and commercial/office uses. Recently announced in the Houston Chronicle, Exxon Mobil will be moving its corporate campus to this location by 2014. The area would thus generate significant regional and local trips.

With Spring Creek and its flood plain to the north, and the existing Union Pacific railroad and proposed Grand Parkway to the south, access to the subject areas between Gosling and IH 45 is currently limited. Major collector Mossy Oaks is approximately 4.6 miles long and will provide east-west mobility between Gosling and IH 45. Once completed the proposed realignment of Mossy Oaks will traverse the subject site preserving the only east-west travel route between the Grand Parkway and Woodlands Parkway.

Proposed Springwoods Village Parkway is a short 2.3 mile long major thoroughfare. It would connect the existing Spring Crossing interchange to the proposed Grand Parkway interchange and extend across the Union Pacific railroad to Spring Stuebner. Spring Stuebner currently terminates at the south bound frontage road along IH 45, thus limiting direct access to northbound IH 45. The existing Spring Crossing interchange at IH 45 also connects to the Hardy Toll Road providing access to three highways within the region.

#### **PLANNING COMMISSION ACTION:**

- 1. Realign Mossy Oaks Road between proposed Mossy Oaks Subdivision and IH 45.
- 2. Add Springwoods Village Parkway as a major thoroughfare between IH 45 and Spring Stuebner Road

#### 1. Population & Employment Projections

According to 2010 Census, Texas grew by 20% in ten years, to over 25 million people, recording about a quarter of the nation's overall growth. The rate of growth in Texas was twice the national average. Harris County is the most populous county (4 million) in Texas. Today, 2.1 million people live within the City of Houston and another 2 million live in the City's extraterritorial jurisdiction (ETJ). Since 2000, the City of Houston added 146,000 people (8 percent) to its population. Houston's ETJ however grew 35 percent during the same time period.

Houston and its ETJ's rich employment sector are home to more than 1.8 million jobs, making it the state's most populous and robust economic center. More than one million jobs are located within the City limits and are saturated within the City's eight major activity centers.

One of the greatest challenges to Houston's mobility is that by 2035 significant numbers of residents are projected to live outside the City limits in the ETJ; while the major thrust of employment growth will be within the City limits. This increase in distance between the population and employment centers will result in more travel, greater travel time, and longer travel delays.

While the ETJ is growing, the City will also be taking in an additional 550,000 new residents. The most notable population growth occurs inside Loop 610. It reflects efforts to create a dense urban core through mixed-use development strategies.

To compare the result between 2000 and 2010 Census, the subject area's population grew by 47.6 % from 8,200 to 12,104 and was more than Houston ETJ's growth.

Year	Population (Persons/ Acre)	% Chg	Households (Households/ Acre)	% Chg	Jobs (Jobs/ Acre)	% Chg
2015	2.88		1.09		0.40	
2020	3.29	12.2%	1.25	14.6%	0.47	17.6%
2025	3.73	11.8%	1.40	12.0%	0.53	13.7%
2030	4.05	8.1%	1.54	10.0%	0.60	12.3%
2035	4.95	18.1%	1.88	22.0%	0.74	23.3%
Change (2015 to 2035)		71.7%		72.2%		85.0%
City of Houston Change (2015 to 2035)		14.4%		16.4%		23.8%
City of Houston ETJ Change						
(2015 to 2035)		53.3%		62.4%		50.9%

Source: H-GAC's 2035 Regional Growth Forecast

The Houston-Galveston Area Council (H-GAC) projects that over the next 20 years (2015 – 2035), the population within the study area\* will increase from 16,995 to 29,210 (12,215 persons), or 71.7%. The number of persons per acre is projected to increase from approximately 2.88 to approximately 4.95. During the same period, H-GAC estimates that the total jobs in the subject area will increase from 2,360 to 4,367 (2,107 jobs), or 85.0%. The number of jobs per acre is projected to increase from approximately 0.40 to 0.74.

Expressed in percentages, the subject area's population growth is expected to be more than the City of Houston ETJ's (71.7% vs. 53.3%), and the area's job growth is expected to be more than the ETJ's (85.0% vs. 50.9%).

#### 2. Land use & Platting Activity

The study area extends south of Spring Creek between IH 45 and Gosling Road. To the south it extends partially to FM 2920 and Spring Stuebner Road. 59% of the total acreage within the study area is undeveloped. Single family residential is the dominant use in the study area representing approximately 27%. All other uses represent 4% or less each of the overall area.

With the exception of the 1500+ acre Springwoods Village development, over the last five years, platting activity in the general area where the Mossy Oaks/Springwoods Village MTFP amendment is being requested has seen single family residential development. The only

<sup>\*</sup> Data represents population, jobs, and households in 4 Traffic Analysis Zones (TAZ) encompassing approximately 5,901 acres around the proposed amendment. Population projections do not include projections for group housing.

commercial plat, Spring Stuebner Office Warehouse Subdivision contained six acres and is located on the south side of Spring Stuebner Road west of proposed Holzwarth Road.

Subdivision Plat Name	Action Date	Key Map	Land Use	Property Size (acres)	No. of Lots
Forest Ridge Sec 1	27-Jan-05	291M	SF Residential (public street)	32	124
Patterson Estates	24-Mar-05	291G	SF Residential (public street)	1	1
Parkside at Meadowhill GP	5-May-05	291P	SF Residential (public street)	93	626
Forest Ridge Sec 2	11-Aug-05	291M	SF Residential (public street)	16	98
Forest Ridge Sec 3	11-Aug-05	291M	SF Residential (public street)	17	103
Park at Meadowhill Run Sec 1	2-Feb-06	291P	SF Residential (public street)	13	97
Spring Stuebner Office Warehouse Subdivision	26-Oct-06	291L	Commercial	6	
Hannover Village Sec 3 partial replat no 1	1-Feb-07	291R	SF Residential (public street)	1	4
Springwoods Village GP	6-Nov-08	292E	General Plan	1572	
Park at Klein GP	6-Nov-08	291K	General Plan	124	
Park at Meadowhill Run Sec 2 partial replat no 1	15-Oct-09	291Q	SF Residential (Type 2 PAE)	5	55
Springwoods Village Delta Sec 1	13-May-10	292E	Unrestricted	243	
Springwoods Village from IH 45 to Holzwarth STD	14-May-10	292E	Street Dedication	56	
Springwoods Village Energy Drive and Reserve Subdivision	31-Mar-11	292E	Unrestricted	21	
Park at Meadowhill Run Sec 3	28-Apr-11	291Q	SF Residential (shared driveway)	5	22
Frassati Way north of Spring Steubner Road STD	29-Apr-11	291K	Street Dedication	3	

#### 3. Right-Of-Way Status

Mossy Oaks, from proposed Holzwarth to IH 45, is identified as a proposed major collector with four lanes and a 70' right-of-way. Most of thoroughfares or major collectors like Mossy Oaks, Holzwarth, and Sawmill have not been dedicated.

Street	Segment	Classification	Status
Mossy Oaks	Gosling to Mossy Oaks Rd.	C-4-70	To be acquired
Mossy Oaks	Mossy Oaks Rd. to end of Mossy Oaks Sec. 1	C-4-70	To be widened
Mossy Oaks	Mossy Oaks Sec. 1 to Sawmill	C-4-70	To be acquired
Mossy Oaks	Sawmill to IH 45	C-4-70	To be acquired
Holzwarth	Spring Stuebner to proposed Mossy oaks	T-4-100	To be acquired
Sawmill	Proposed Mossy oaks to WdInds Vil Grogans subdivision	T-4-100	To be acquired
Sawmill	Wdlnds Vil Grogans subdivison to Grogans mill	T-4-100	Sufficient width

Spring Stuebner	Gosling to Falvel	T-4-100	To be widened
Spring Stuebner	Falvel to Meadowhill	T-4-100	Sufficient width
Spring Stuebner	Meadowhill to Holzwarth	T-4-100	To be widened
Spring Stuebner	Holzwarth to IH 45	T-4-100	To be widened
Gosling	Rayford to proposed Mossy Oaks	T-4-100	To be widened
Gosling	Proposed Mossy oaks to Spring Stuebner	T-4-100	To be widened
Grogans Mill	Sawmill to Sawdust	T-4-100	Sufficient width
Sawdust	Sawmill to IH 45	T-4-100	Sufficient width

#### 4. Major Thoroughfare Spacing

The spacing between the thoroughfares varies due to existing configuration of Spring Creek, the proposed Grand Parkway Segment F2 (Record of Decision) alignment and UP railroad. Holzwarth/Sawmill is the primary north-south thoroughfare between IH 45 and Gosling and is spaced approximately 0.81 and 3.5 miles along Mossy Oaks. The east-west thoroughfares, Spring Stuebner and proposed Mossy Oaks, Grogans Mill are spaced 0.95 and 2.9 miles along proposed Holzwarth.

Street	From	То	Street Type	Direction	Spacing (mile)
Mossy Oaks	Gosling	Holzwarth	Major Collector	west-east	3.40
Mossy Oaks	Holzwarth	IH 45	Major Collector	west-east	1.20
Spring Stuebner	Gosling	Falvel	Major Thoroughfare	west-east	1.82
Spring Stuebner	Falvel	Holzwarth	Major Thoroughfare	west-east	1.57
Spring Stuebner	Holzwarth	IH 45	Major Thoroughfare	west-east	0.80
Sawmill	Grogans Mill	Mossy Oaks	Major Thoroughfare	north-south	2.90
Holzwarth	Mossy Oaks	Grand Pkwy ROD alignment	Major Thoroughfare	north-south	0.32
Holzwarth	Grand Pkwy ROD alignment	Spring Stuebner	Major Thoroughfare	north-south	0.63
Spring West	Spring Stuebner	FM 2920	Major Thoroughfare	north-south	0.91
Gosling	Rayford	Mossy Oaks	Major Thoroughfare	north-south	1.71
Gosling	Mossy Oaks	Proposed Grand Pkwy	Major Thoroughfare	north-south	0.57
Gosling	Proposed Grand Pkwy	Spring Stuebner	Major Thoroughfare	north-south	0.76
Gosling	Spring Stuebner	FM 2920	Major Thoroughfare	north-south	0.71

#### 5. Mobility

South of Spring Creek Spring Stuebner and FM 2920 is the primary east west thoroughfare in the area. Proposed Mossy Oaks extending between Gosling & IH 45 will provide east-west circulation between Spring Creek and proposed Grand Parkway/UPRR. Due to the Spring Creek Holzwarth/Sawmill and Gosling are the north-south thoroughfares west of IH 45. Proposed Springwoods Village Parkway between IH 45 and Spring Stuebner Road would increase connectivity between IH 45, Hardy Toll Road and Spring Stuebner as the interchange along IH 45 are located along Spring Crossing and Spring Cypress. Local street circulation in the study area north of Spring Stuebner is limited since only a handful of subdivisions have

developed. Additionally only two north-south local streets extend across the UPRR. Local circulation within the area will be limited to the thoroughfares given the location of the UPRR, Spring Creek and proposed Grand Parkway.

In November 2009, Water P. Moore released a Traffic Impact Analysis (TIA) study of Springwoods Development. The study states:

In this location, the existing lane configurations far exceed the demands for existing traffic. The west leg of the existing Spring Crossing Drive/IH 45/Hardy Toll Road interchange does not yet exist and the development to the east is fairly light, resulting in very good operations with the existing stop sign control at intersections. Because intersections with this number of lanes and stop control are unusual, no conventional analysis tools cover the situation. It is safe to say that the ramp, frontage road, and cross street intersections operate very well under existing traffic demand.

The construction of 1500 acre multi-use development to the west of IH 45 is scheduled to be completed by year 2025. The development will generate about 9,400 vehicles/peak hour by 2015 and 16,500 vehicles/peak hour by 2025. To support such a high traffic demand, several new connections between public roadways and the site need to be built by the year 2015.

Springwoods Village Parkway will be constructed to the west of IH 45, which will intersect Spring Stuebner Road and provide access to the site. Holzwarth should be extended from FM 2920 to Springwoods Village Parkway and further to Sawmill Road. Improvements needed to IH 45 include provision of a southbound left turn bay and eastbound and southbound right turn roadways. An additional eastbound receiving lane and northbound right turn bay also need to be constructed at the intersection of Spring Crossing Drive and IH 45 northbound frontage road.

Finally, the interchange between IH-45 and Grand Parkway needs to allow for all traffic movements. The proposed conditions traffic analyses performed with above assumptions vielded acceptable LOS for intersections in the study area.







